Australian Energy Market Commission

REVIEW

SUPPLEMENTARY PAPER - REGULATORY FRAMEWORK

Framework for open access and common communication standards

24 February 2014

Submissions due 7 March 2014. Reference: EMO0028
Supplementary paper - regulatory framework

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About the AEMC

The Council of Australian Governments (COAG), through its then Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. In June 2011, COAG established the Standing Council on Energy and Resources (SCER) to replace the MCE. The AEMC has two main functions. We make and amend the national electricity, gas and energy retail rules, and we conduct independent reviews of the energy markets for the SCER.

Summary

The Standing Council of Energy and Resources (SCER) asked the Australian Energy Market Commission (AEMC) to provide advice on a framework for open access and common communication standards for smart meters. Broadly, this review considers two separate components which are:

- whether to adopt common communication standard(s) for smart meters and, if so, what would be appropriate standard(s); and
- whether access to smart meter functionality and access charges should be regulated and, if so, what would be appropriate forms of regulation.

This paper provides our draft findings on whether the access to the use of smart meter functionality and access charges should be regulated.

We consider that there is insufficient evidence to support regulation of access to smart meter functionality and access charges at this time. However, we would recommend that a competition review be undertaken at an appropriate time following the introduction of metering contestability for residential and small business consumers. We also recommend that persons with responsibilities associated with access to smart meter functionality, such as managing access, security and congestion, should require accreditation by the Australian Energy Market Operator.

Our draft findings have considered the arrangements under a framework where there is contestability in metering services for residential and small business consumers. However, we note that the arrangements for introducing metering contestability is the subject of a separate rule change request.

The draft report we published for this review in December 2013 included recommendations for a 'common market protocol' to be adopted. Feedback was sought on whether the protocol should be based on an international standard or a NEM specific services-based standard (such as building on from the existing B2B arrangements). We have received a number of submissions on these issues and will consider them in preparing our final advice. Our final advice will include consideration of how the adoption of common protocols, if any, would be enforced.

Submissions on this paper are welcomed and to be received by 7 March 2014. In addition to this consultation process we are also holding a public forum in Sydney on 27 February 2014, which will consider both the communication standard and regulatory arrangements. Information on the public forum is on our website.

Our final advice will be submitted to SCER by the end of March 2014 and published within two weeks after that date.

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1 Introduction

This supplementary paper sets out our draft findings and considerations in relation to whether or not access to smart meter functionality and associated charges should be regulated.

Our draft findings have considered the necessary arrangements under a framework where there is contestability in metering services for residential and small business consumers. However, we note that the arrangements for introducing metering contestability is the subject of a separate rule change request which SCER has submitted to the AEMC: "introduction of a new framework in the National Electricity Rules that provides for increased competition in metering and related services" (the metering contestability rule change request). In addition, other related projects, such as work by the Standing Council on Energy and Resources (SCER) on the regulation of third party service providers, are ongoing. We note that these reforms are interrelated. Our work under this review considers possible scenarios under a contestable metering arrangement and acknowledges other related projects where relevant.

1.1 Scope of the review and this paper

The scope of this review on a framework for open access and common communication standards broadly include two separate components which are:

- whether to adopt common communication standard(s) for smart meters and, if so, what would be appropriate standard(s); and
- whether access to smart meter functionality and access charges should be regulated and, if so, what would be appropriate forms of regulation.

The draft report on this review published in December 2013 included analysis and draft recommendations on the common communication standards, where we proposed introducing a 'common market protocol'. Comments were sought on whether this protocol should be based on the international standard 'DLMS/COSEM' or whether a specific standard should be developed for the National Electricity Market (NEM) such as one based on the existing 'B2B' arrangements. This supplementary paper does not include any consideration of the communication standard requirements. Our next steps in respect to the communication standards work stream are to take into consideration issues raised in submission on the draft report and prepare our final advice to SCER which will include considerations of how common protocols, if any, could be implemented and enforced under the regulatory framework. There will however be an opportunity to discuss this work stream at the public forum on 27 February 2014.

The scope of this supplementary paper is to consider our draft findings on the requirements for regulating access to smart meter functionality and access charges. We welcome submissions on specific issues raised in this paper.

Our draft findings are in the context that a number of different parties may wish to provide smart meter enabled services to consumers and the need to put in place arrangements for these parties to access smart meter functionality to provide these services. The scope of the review does not extend to considering the way in which these parties otherwise participate in the National Electricity Market (NEM) and engage with consumers to offer services.

Additional background to this review can be found in the draft report.[1]

1.2 Lodging submissions

Written submissions from stakeholders and interested parties in response to this supplementary paper must be lodged with the AEMC by no later than 5pm, 7 March 2014.

Submissions should refer to the project number "EMO0028" and be sent electronically through our online lodgement facility at www.aemc.gov.au.

All submissions received during the course of this review will be published on our website.

While we will have full regard to all submissions lodged within the specified time period, late submissions may not be afforded the same level of consideration. To allow sufficient time for consideration of all submissions, we request that stakeholders lodge their submissions by no later than the due date.

1 The draft report for this review is published on our website: http://www.aemc.gov.au/Market-Reviews/Open/framework-for-open-access-and-communication-standards.html

2 Regulation of access and accreditation

Box 2.1: Summary of chapter

A central aspect of establishing a framework that supports competition in the services enabled by smart meters is incentives around access to the functionality of smart meters to provide these services.

This chapter considers whether regulation is required for access to smart meter functionality, including whether access charges should be regulated. It also considers whether, if new roles and functions are introduced for managing access to smart meter functionality, persons wishing to perform those roles should be accredited by the Australian Energy Market Operator (AEMO) under the National Electricity Rules (NER).

On whether regulation is required for access to smart meter functionality, our draft finding is that:

- the service that provides access to smart meter functionality ,[2] whether provided by independent third-parties, retailers or network businesses should be given the opportunity to develop free of access regulation; and
- it is prudent for a competition review to be undertaken at an appropriate point in time to reconsider these issues once a metering and data contestability framework is in place and the market has matured.

On whether network businesses should have access to a defined level of 'basic' smart meter functions free of charge, our draft finding is that:

- network businesses should negotiate and pay for access to smart meter functionality on a commercial basis, in the same way as other market participants. This approach places commercial incentives on network businesses to negotiate a level of access to the number of smart meters and types of services available that is economically efficient.

On whether new persons with responsibilities associated with managing access to smart meter functionality, such as managing access, security and congestion will require accreditation by AEMO under the NER, our draft finding is that:[3]

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2 For the purpose of analysis, a service that provides access to smart meter functionality is the combination of services associated with managing access to a smart meter's functionality including managing any associated security and congestion requirements. As explained in this chapter, it is assumed that these services will be provided by the 'Metering Coordinator' (MC) either directly or by parties engaged by the MC. The role of the MC was proposed in the Power of Choice review and includes responsibility for all metering services. The scope of this role and extent of accreditation that may be required will be considered in the metering contestability rule change.

3 Under the current NER, the 'Responsible Person' for a metering installation is to manage access, security and congestion to the meter. It is considered that the requirements for managing access,

- persons with responsibilities associated with the introduction of smart meters will be of sufficient importance to the operation of the NEM and confidence of consumers in smart meter technology that accreditation should be required.

In order to implement the recommendations in this review, transitional arrangements will need to be considered for Victoria, given the advanced roll out of advanced metering infrastructure that has occurred in that state. Transitional arrangements for other jurisdictions may also be required to manage legacy arrangements.

2.1 Introduction

The AEMC's Power of Choice review recommended that a competitive approach be implemented for investment in metering and data services for the residential and small business consumer sector.[4] Currently, most residential and small business consumers outside of Victoria have type 5 and 6 accumulation meters. It is the responsibility of a distribution network business to manage and provide services on behalf of the consumer for type 5 and 6 meters.[5]

The framework proposed under Power of Choice aims to facilitate greater innovation in energy services at a lower cost through the competitive provision of meters. This approach means that no entity has the exclusive right to be the person responsible for coordinating and providing metering and data services under the NER. Expected benefits include:

- innovation in services enabled by smart meters;
- a decrease in the regulatory and administrative costs associated with the current regulated approach; and
- the ability for consumers to have greater choice in energy services that may be leveraged from the provision of modern technology.

For the purpose of this review, we are assuming that a competitive framework for the provision of metering services is in place. A central aspect of establishing a framework that supports competition in the services enabled by smart meters is incentives around access to the functionality of smart meters. Realising all potential benefits of deploying smart meters will require multiple parties having the ability to access a smart meter's functionality on commercial terms.

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security and congestion for smart meters will include duties that are additional to the current requirements.

4 AEMC 2012, Power of choice review - giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p. 82.

5 Meter types are defined under the NER. In Victoria, smart meters are designated as type 5 or type 6 metering installations under a derogation in the NER.

Under competitive arrangements, market forces should be allowed to operate without any regulatory intervention. However, regulation may be desirable if there is a monopoly service provider or if the market exhibited substantive inefficiencies. For instance, if access to smart meters is denied or priced inefficiently, then the demand for smart meter enabled services will be reduced and the benefits provided by the infrastructure less widespread.

This chapter considers whether regulation is required for access to smart meter functionality, including whether access charges should be regulated.[6] We have also considered whether the persons performing the new roles and functions associated with smart meters should be accredited by AEMO under the NER.

Box 2.2: Victorian arrangements

Victoria initiated a roll out of smart meters in 2009. Since this time more than 2.5 million meters have been installed in homes and small businesses across the state.[7]

Under the framework implemented by Victoria, local network service providers are exclusively responsible for metering services for small customers.[8] This has required a derogation under the NER as the retailer is usually the responsible person for remotely read interval meters under the rules.[9] In the absence of the derogation, this would include the smart meters installed in Victoria.

The Victorian Government supports in principle the introduction of a national framework for competition in metering services. However, in the absence of such a framework the Victorian Government considers that allowing retailers to become responsible for small customer metering services in Victoria would be inefficient and could result in a loss of benefits from the already installed smart meter infrastructure.[10]

It is expected that the recommendations made in this review will require a set of transitional arrangements with respect to Victoria. For instance, network

6 We are using the term 'access charges' to refer to charges for accessing the functionality of a smart meter.

7 Victorian Government 2013, Smart meter rollout arrangements, 29 November 2013, see: http://www.smartmeters.vic.gov.au/News.

8 In this case metering services mean providing, installing and maintaining the metering installation and providing data management services.

9 A jurisdictional derogation varies the application of the NER in a participating jurisdiction. The AEMC can make a jurisdictional derogation at the request of the jurisdiction's Minister but must have regard to certain other matters as well as the normal rule making test. See section 89 of the National Electricity Law (NEL). Under clause 7.2.2 of the NER, a "Market Participant" is the responsible person for types 1 to 4 metering installations unless it elects to request that distributor to be the responsible person. For small customers, the Market Participant would most likely be the retailer.

10 Minister for Energy and Resources (Victoria), AMI Rule Change Request (Jurisdictional Derogation - Victoria), 18 June 2013, pp. 2-3.

businesses are currently the Responsible Person or MC equivalent in Victoria and this segment of the market is not contestable. This means that network businesses receive access to the functions and data provided by smart meters for free, with the costs of the meter recovered from customers through network charges.

If a national competitive metering framework is implemented, the following issues will need to be addressed:

- **Competition for the MC role:** under a competitive framework, the MC role could be provided by a retailer, independent third party or network business.

  As discussed above, in Victoria the local network businesses have been responsible for the roll out of smart meters, including the MC equivalent role. The network businesses ' costs associated with installing smart meters and associated equipment is already being recovered from consumers. If the network business is no longer the MC, there will need to be arrangements in place for the network businesses to be compensated if the costs associated with the metering infrastructure have not been fully recovered.

  In Victoria, the network business could continue to be the MC. Given that consumers are currently paying for smart meters, this has implications for the level of charges it would be appropriate for a Victorian network business to charge other parties if it were the MC.

  Further, the introduction of contestability for the MC role in Victoria will need to consider the implications of customer switching and the ownership of existing meters.

- **Network access to smart meter functionality:** As Victorian network businesses are currently the equivalent to an MC, they have direct access to the functions and data provided by smart meters. Under the framework recommended in this review, network businesses would be required to negotiate and pay for access to smart meter services on a commercial basis, in the same way as other market participants.

  Efficient costs associated with accessing smart meter functions and data would be recovered by the network business in accordance with a regulatory determination made by the Australian Energy Regulator (AER).

Transitional arrangements

A range of detailed transitional measures will need to be developed and consulted on prior to the introduction in Victoria of the recommendations made in this review. This could occur through the metering contestability rule change or may need to be the subject of a separate rule change process.

2.2 Nature of services to be provided

Before assessing whether smart meter access and access charges may require regulation, it is necessary to outline the nature of the services the provision of which will, or is likely to, be enabled by the functionality of smart meters. This is because the nature of the services will determine the type of access that is needed and by which parties. We will then be in a position to consider the respective incentives on market participants.

As noted in the Draft Report, services provided by smart meters could be separated into 'metrology services' and 'other services'.[11] Identifying between metrology and other services facilitates the assessment of whether regulation may be warranted by distinguishing between metering services essential to the operation of the NEM and those that might contribute to greater efficiency across the electricity supply chain (e.g. network planning and fault identification, cost reflective pricing, direct load control).

2.2.1 Metrology functions

Metrology includes the energy measurement services that are predominately provided by accumulation or 'basic meters' to allow AEMO to settle the wholesale market and retailers to bill customers. Under the current framework, local network service providers are responsible for metrology services for manually read type 5 and 6 meters, which are most prevalent among households and small businesses outside of Victoria. Networks recover the costs of providing these services, which are subject to economic regulation, in accordance with a regulatory determination made by the AER.

In Victoria, a mandatory roll out of smart meters commenced in 2009. Under this framework, local network service providers are currently exclusively responsible for metering services for small customers.[12] The Victorian smart meters are based on a purpose built specification produced by the Victorian Government, which include advanced functions, such as remotely read interval measurement capability, load control and supply disconnect and reconnect, among other features.[13]

2.2.2 Other functions

Type 5 and 6 meters have limited capabilities, with the only function generally being to measure electricity consumption.[14] Local network service providers with a majority of these types of meters installed therefore currently receive limited information at the household level to assist them in managing the network. Similarly, where

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11 AEMC 2013, Framework for Open Access and Common Communication Standards Review, Draft Report, 19 December 2013, Sydney, p. 35.

12 Minister for Energy and Resources (Victoria), AMI Rule Change Request (Jurisdictional Derogation - Victoria), 18 June 2013, pp. 1-2.

13 AEMC 2012, Power of choice - giving consumers options in the way they use electricity, draft report, 6 September 2012, Sydney, p. 52.

14 Type 5 meters provide interval metering data.

accumulation meters are in place, retailers and consumers do not benefit from more granular information relating to consumption or energy services enabled by advanced metering.

Other end-use- services include all existing and potential services that could be enabled by a smart meter. These may include:

- Remote acquisition of interval metrology data, which may be used to enable cost reflective pricing (type 5 meters also provide interval metering data);
- Real-time loss of supply detection;
- Real-time quality of supply monitoring;
- Direct load control; and
- Remote connection/disconnection.

The investment of smart meters as enabling technology for demand-side participation is also likely to promote the development of a range of new energy services that are not yet envisaged.

2.3 Whether to regulate rights of access and access charges for smart meters

Owners of infrastructure generally have the right to decide to whom they provide access and on what terms. In cases where a market is not workably competitive and the service provided by the infrastructure is an essential service that can effect competition in upstream or downstream markets, there may be a reason to examine whether access should be enforced by regulation.

In recommending whether access to the functionality provided by smart meter infrastructure should be enforced, we need to further assess the likely market structure and resultant competitive outcomes, as well as the impacts if access was denied. This would include potential impacts in the electricity retail market as well as in the market for the provision of demand-side participation (DSP) and DSP-related services. There may also be impacts on the ability of distribution network service providers (DNSPs) to carry out their role as the network operator.

Consideration will also be given as to whether there could be alternative means of providing the services enabled by smart meters, as this will impact the extent (and type) of access regulation that may be required.

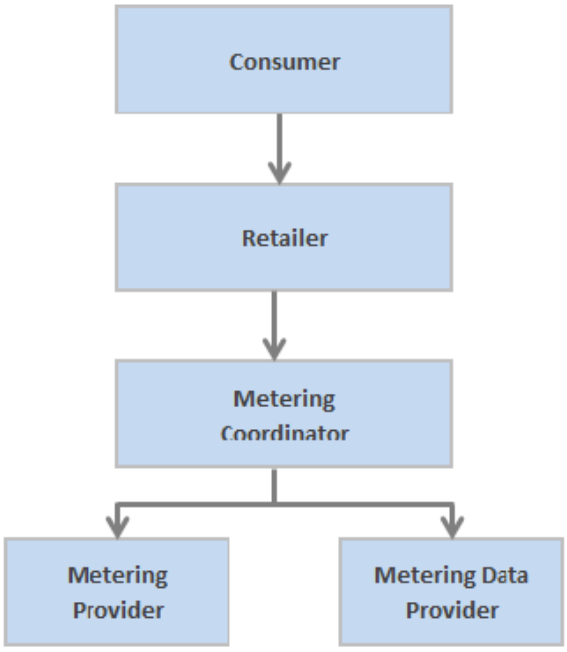
2.3.1 Market structure and competition

Under the arrangements proposed in the AEMC's Power of Choice Review, a retailer would be primarily responsible for managing and contracting with an MC to engage a

metering provider (MP)[15] and metering data provider (MDP)[16] on the consumer's behalf. If the model set out in Power of Choice is implemented, the MC would replace the existing Responsible Person role in the NER and incorporate new functions specific to smart meters, such as managing access and congestion at and security of the smart meter.

The Power of Choice review proposed that the MC would be responsible for the day-to-day coordination of an MP and MDP. This would include coordination of those new functions related to smart meters, such as managing access to and security and congestion of the smart meter. An MC may perform the MP and/or MDP responsibilities, or may choose to contract these out. These relationships are illustrated conceptually in Figure 2.1.

Figure 2.1 Proposed contestability arrangements – Retailer as MC



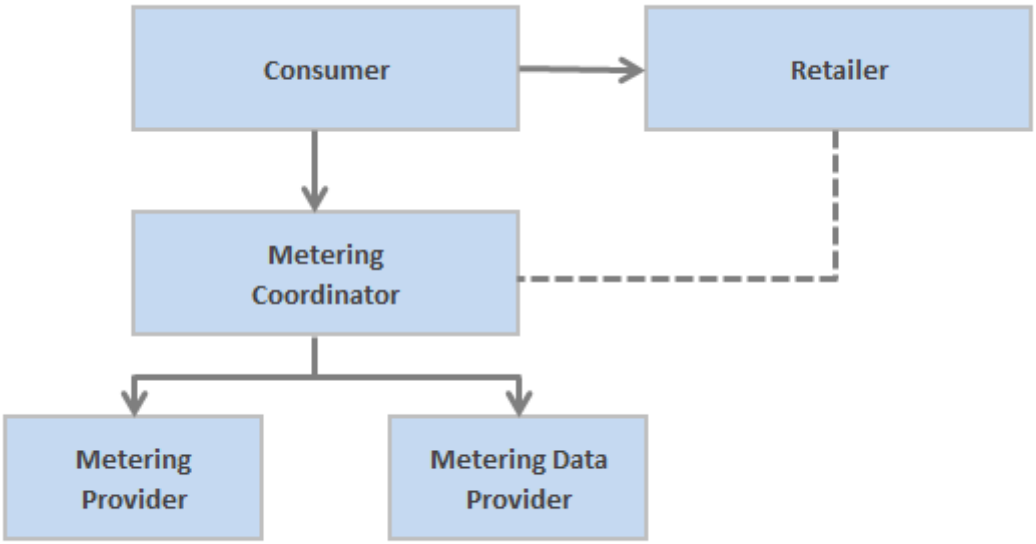
The Power of Choice review also proposed that consumers would have an option to bypass their retailer and contract directly with any accredited MC for metering services, if they chose to do so.[17] This scenario is illustrated in Figure 2.2. It is noted that, under this scenario, we have not assessed the potential relationship between the retailer and the MC.

15 An MP is responsible for providing, installing and maintaining the meter.

16 An MDP is responsible for providing metering data services between the metering installation and the metering database and to parties entitled to that data.

17 AEMC 2012, Power of choice review - giving consumers options in the way they use electricity, Final Report, 30 November 2012, Sydney, p. 92.

Figure 2.2 Proposed contestability arrangements – customer appoints MC



The role of an MC and who can appoint an MC will be considered under the metering contestability rule change request. For the purpose of this analysis, we will consider possible scenarios where a consumer would have the option of appointing an MC or the retailer appoints an MC for a connection point.

Under the model proposed in Power of Choice, the MC would be responsible for appointing the MP and MDP. Therefore, for this analysis we are assuming that the MC would also be responsible for managing access to the use of the smart meter. That is, the MC would essentially be a 'gatekeeper' and would play a central role in whether the market for smart meter enabled services would be workably competitive.[18]

If access terms and conditions for parties wishing to provide these services were commercially attractive and prices largely reflected efficient costs, consumers would benefit from competition, choice and innovation in energy services that smart meters enable. Conversely, if an MC, who may be also be offering DSP services, has a commercial incentive to frustrate its competitor's access to the meter, the ability for firms to engage in competition by offering innovative and competitively priced services would be limited.

Given the metering contestability rule change request is to be considered separately under the rule change process, an analysis of likely market structure and competitive outcomes is necessarily based on a range of hypothetical scenarios. Accordingly, we acknowledge that it is difficult to draw definitive conclusions about the level of competition in a market that is in the early stages of development and where behaviour cannot be observed.

18 It is noted that this proposed arrangement also provides that the retailer would be responsible for providing a working meter at a premises.

For this analysis we have focussed on three scenarios where we have considered that, if the competitive metering framework in Power of Choice is introduced, it is most likely an established retailer, network business or existing independent third-party (MP/MDP) would take on the role of MC during the early stages of market development. The scenarios are:

- Independent third-party MC contracted by the customer;
- Retailer as MC or contracts the MC's functions for a connection point ; and
- Network business as MC contracted by the customer.[19]

As the market matures, it is probable that energy service providers may also look to vertically integrate into the MC segment. As energy service providers would likely be competing across the same product segments as other market participants seeking access to smart meters, some of the issues raised below will also be applicable. Given energy service providers are currently a relatively immature part of the market, we have not focussed on this type of participant for this analysis.

Likely incentives facing market participants in each scenario are discussed below.

We are aware that as the metering contestability rule change is yet to be considered, it is only possible to hypothetically discuss incentives and the likely impacts on competition. However, we consider that close attention as to the development of the market will be required to ensure the long term interests of consumers are promoted.

Independent third-party MC

Under this scenario, an individual consumer contracts directly with an independent third-party MC for the services associated with managing access, security and congestion to a smart meter.

A third-party MC does not have a relationship (by contract or ownership) with any market participant that would reduce its incentive to offer services for access to smart meter functionality to any other market participant. Given this, a third-party MC will seek to maximise profit by selling as much access to functionality as possible to the smart meter, subject to its arrangements with the customer.

If a third-party MC faces competition from other providers of these access services, which are likely to include retailers, network businesses and other third-party MCs, it would aim to offer smart meter access at a reasonable price or risk losing market share to a competitor. This would occur when a competitor offers a lower price and/or more favourable terms and conditions.

19 It is noted that should metering contestability be introduced, in Victoria the DNSPs will initially be the MC.

In this respect, competition can be expected to impose a discipline on the pricing power of third-party MCs and provide positive incentives to engage pro-actively with retailers and consumers on service offerings.

Retailer as MC/retailer contracts MC functions on behalf of consumer

In this section we have considered the incentives on a consumer's retailer, who also acts as the MC, to provide access to smart meter functionality to third-parties that may be in competition with the retailer. As a retailer may choose to contract out these functions, we have also looked at how these incentives might change with a contract in place.

Retailer as MC

Under this scenario, a consumer's retailer would also be the MC who provides services to manage access to a smart meter's functionality for the consumer's smart meter. That is, the retailer would set the terms and conditions, including price, for access to the smart meter functionality by third-party energy service providers and network businesses.

As the retailer and 'gatekeeper' to the smart meter, the incentives facing the retailer would not be as straightforward as the example above. This is because a retailer may offer DSP services that would be in competition with a network business or third-party energy service provider, such as direct load control. With effective control over access to smart meter functionality, the retailer may have an incentive to frustrate access to the smart meter in order to make its products appear more competitive to the consumer.

A retailer could also frustrate access to functionality of smart meters by setting the price for access to the functionality above the marginal cost and at a level that reduces the competitiveness of the rival service. It may also offer overly restrictive terms such that a third-party would be unable to access the smart meter during certain times of the day, such as peak demand periods where DSP services are attractive to consumers. Alternatively, the retailer may delay negotiations, increasing costs for the proponent.

From a commercial perspective, engaging in this type of strategic behaviour may be profit maximising for a retailer as they are primarily in the business of selling electricity and energy-related services, not services to manage access to smart meter functionality. Retailers therefore have a stronger incentive to maximise profits in their core business of energy retailing rather than as a provider of services to manage access to smart meter functionality to the market more generally. This is because selling these services to a competitor is likely to erode the profitability of a retailer's core business.

If an engaged consumer was made aware of this behaviour, they may choose to switch MC or retailer and MC. The option for consumers to directly engage an MC, if made available through the metering contestability rule change, would be likely to provide some competitive discipline on the retailer's behaviour. However, we have identified the following situations where this choice may be limited:

- A consumer can be locked into a market contract with its retailer that stipulates who the MC will be for the duration of that contract, making switching MC not possible;[20]

- Prices offered for energy services by a retailer are discounted subject to the retailer being the MC and controlling access to the smart meter, reducing a consumer's incentive to switch MCs. We note that while such discounts may reflect economies of scope,[21] they may have the effect of hindering the development of a competitive market for services to manage access to smart meter functionality;[22] and

- Consumers choose not to engage in the meter segment of the supply chain, effectively meaning that in most cases the retailer is the MC.

Importantly, we note that retailers would continue to face competitive tension from other retailers. Competition in the retail market would result in retailers continuing to compete against each other to supply energy and energy-related services to consumers, driving innovation and efficient pricing. However, enhanced competition, with retailers competing with network businesses and third-party energy-service providers, may not be as strong.

In summary, there appear to be incentives for retailers to take on the role of the MC, as this would enable them to frustrate their competitor's access to the functions of smart meters to offer rival services. Nonetheless, it is not possible to definitively determine the prevalence of this type of behaviour nor the impact on the development of the market for smart meter enabled energy services.

Retailer contracts MC functions

Under this scenario, a consumer's retailer is the MC but contracts out the services for managing access to smart meter functionality for the consumer's smart meter. In this sense, the retailer does not control access to the smart meter functionality directly, but is likely to influence the terms and conditions and price of access to third-parties through its contract with the MC.

As discussed above, a retailer may have an incentive to frustrate access to third-party energy service providers on the basis that these companies would compete against aspects of a retailer's business. Conversely, third-party MCs have an incentive to encourage the utilisation of smart meters to maximise their profits. This tension is likely to surface in negotiations between the retailer and MC.

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20 We note that the competition in metering rule change may consider whether "lock-out" clauses are permitted.

21 Reflecting the ability of a retailer to offer electricity supply, DSP services and services to manage access to smart meter functionality at a lower cost than for specialised firms to provide each separately.

22 This type of behaviour may be prevented by specifying the unbundling of costs and may be considered as part of the competition in metering rule change.

When a retailer enters these negotiations, it has an incentive to argue for a type of exclusivity agreement with the MC whereby the retailer receives more favourable access than its competitors. In return, the retailer may compensate the MC for its expected loss in revenue from wider use of the meter. Alternatively, the retailer may provide the MC with exclusive rights to the retailer's customers in a defined area.

In each of these cases, the retailer would aim to make the MC provider no worse off than if an exclusivity agreement was not in place. However, in doing so, the retailer may succeed in hindering the development of competition in energy services by frustrating access to a smart meter.

Where the retailer grants an MC provider with exclusive rights over its customers, this might be a valuable foundation contract for a business that is seeking to establish itself and reach a critical mass to minimise costs. Such a contract may also make the business a less risky proposition due to more certain cash flows, lowering its costs of finance and providing added incentive.

We are aware that as the framework for meter contestability is not yet in place, it is only possible to hypothetically discuss incentives and the likely impacts on competition. However, we consider that close attention as to the development of the market will be required to ensure the long term interests of consumers are promoted.

Network business as MC

Under this scenario, a network business is the MC who provides services for managing access to smart meter functionality for the consumer's smart meter, including setting the terms and conditions of access to functionality and price.

It is expected that a network business would primarily be interested in the services provided by the smart meter that allow it to more efficiently manage its network and which may be of little value to other parties. These are likely to include power quality data and associated event logs, remote meter service checking, loss of supply detection and disconnection/re-connection. In this respect, networks can be expected to face a strong incentive to maximise profit by selling as much access to the smart meter functionality as possible to other parties, subject to customer consent.

Similarly to retailers, complications with this analysis arise when networks seek to offer energy services in direct competition with retailers or third-parties, such as direct load control. In such a case, the distribution network may act to frustrate access to the smart meter in order to increase the relative attractiveness of its services to the consumer. It can do this in the same manner as described above, through price or restrictive terms. Alternatively, the network may delay access negotiations, increasing costs for the proponent.

Unlike a retailer, a network's core business is not selling electricity or energy services to consumers, but transporting electricity to consumers on behalf of retailers. A network's primary function is to maintain a reliable and safe supply by managing the network as effectively as possible. Further, the majority of a network's revenue is regulated and

not contestable. On this basis, those network businesses who are also MCs would be unlikely to compete across a substantial range of service offerings with retailers or third-party providers seeking access to the smart meter.

Direct load control can be an important tool for a DNSP to manage its network and in achieving its regulated functions, particularly in using services such as cycling of air-conditioners to manage peak demand. Similarly, for retailers direct load control can be a valuable tool to decrease exposure to the spot market during times of high prices. However, we note that times of peak distribution network demand and high wholesale market prices do not always correlate and there is an opportunity for the direct load control functions of a smart meter to be shared between retailers and DNSPs.

Network businesses in the MC role would be in competition with other potential MCs, such as retailers and independent third-parties, to offer these services. If a consumer has bypassed their retailer to contract the local network business as the MC, they are likely to be actively engaged in the metering segment of the supply chain and more likely to switch, placing added pressure on network business to retain the consumer by offering an efficiently priced service, including competitive access for third-parties.

Moreover, there may be further incentives for networks to become MCs and compete to avoid another MC being appointed. This is due to the value the network derives from gaining access to the functions of the smart meter that allow it to operate its network more effectively. If another MC were appointed, the network business would likely to incur costs to commercially negotiate for access to these smart meter services. Depending on the number of MCs operating across the network, this may be time consuming and resource intensive. Alternatively, a network business with widespread MC operations will have direct access to the smart meter functions it requires, subject to customer consent.

2.3.2 Submissions

This section summarises the submissions received on the Draft Report that comment on the need to regulate access to smart meter functionality and access charges.

Submissions that support regulating access and charges

Most of the submissions from network businesses support regulating access to smart meter functionality and access charges to smart meters for a defined set of 'basic services'. This issue is discussed in section 2.4.

Submissions that oppose regulating access and charges

AGL considers there is no evidence to suggest a need to regulate access pricing to smart meters and that evidence suggests that open and competitive markets will naturally develop that promote innovation and customer choice.[23] ERM Power has

23 AGL, Draft Report submission, 30 January 2014, p. 6.

similar views, noting that strong competition in metering services will ensure efficient pricing, and "we have no reason to believe that the requirement to negotiate terms would impede market entry of new participants".[24]

Origin Energy is of the view that the right commercial incentives will be in place for MCs to provide access to smart meter functionality to all necessary parties and that the Commission and policy makers can be confident that efficient pricing outcomes for access to smart metering infrastructure will emerge. Further, most if not all participants will be able to bypass the smart meter for a range of services if access is not granted or not granted on reasonable terms.[25] The ERAA note that regulation should only be considered where there is notable (rather than theoretical) market failure and should only be limited to core metering services.[26]

Momentum Energy considers that some oversight of the market for smart metering services will be required to ensure there is an appropriate level of competition to protect consumers. As such, Momentum proposes that the AEMC undertake a review of the market for contestable meter services within three years of contestability being introduced.[27] EnergyAustralia does not support regulation of access rights or regulated charges until such time as a market failure has been identified and there is a clear cost benefit to support regulation.[28]

General Electric's submission puts forward that no regulation of access or prices for access is required as markets can achieve this more efficiently without regulation. An analysis of the commercial relationships in General Electric's submission concludes that MC providers do not have an incentive to restrict access. As a result, there should be no regulation of rights of access or charges unless, at a future date, an actual market failure is observed.[29]

Metropolis is confident that the market will keep prices for access to smart meter services reasonable and that it would be unwise also to start regulating prices before the market has matured.[30] Vector considers that incentives already exist for parties who control metering data to provide the data at a reasonable cost and that it is in metering providers' commercial interests to provide data at an efficient level.[31]

24 ERM Power, Draft Report submission, 30 January 2014, p. 11.

25 Origin Energy, Draft Report submission, 30 January 2014, p. 3-12.

26 ERAA, Draft Report submission, 30 January 2014, p. 7.

27 Momentum, Draft Report submission, 30 January 2014, p. 4.

28 EnergyAustralia, Draft Report submission, 30 January 2014, p. 3.

29 GE, Draft Report submission, 30 January 2014, p. 18.

30 Metropolis, Draft Report submission, 30 January 2014, p. 10.

31 Vector, Draft Report submission, 30 January 2014, p. 8.

2.3.3 Recommendation

The party[32] responsible for managing access to the smart meter functionality will play a key role in determining whether the market for smart meter services will be workably competitive. If access terms and conditions for third-parties were commercially attractive and prices largely reflect efficient costs, consumers would benefit from competition, choice and innovation in energy services that smart meters enable.

Alternatively, if the party responsible for access was also offering energy services it may have a commercial incentive to frustrate its competitor's access to the meter, the ability for firms to engage in competition by offering innovative and competitively priced services will be limited. Alternatively, these firms may incur costs by bypassing the smart meter to provide these services. In this respect, we would be concerned that a reduction in competitive access to smart meters may restrict the ability of firms to offer innovative and competitively priced energy services.

Most submissions on this issue reflect a general view that the market should be allowed to develop free of regulatory intervention and that regulation should only be adopted in the case of an evident market failure.

However, we note that inefficiencies in this market have the potential to arise when the 'gatekeeper' to a smart meter's functionality is competing to supply energy services with a proponent who wishes to access the smart meter's functionality to also provide these services. In this instance, the MC may have an incentive to frustrate access to the smart meter, which could impact on the competitive choice available to consumers in the energy services market.

One option that may address these concerns is a requirement in the NER that providers of services to manage the access to smart meter functionality must negotiate with any accredited party that requests its services, in accordance with a set of negotiation principles.[33] The objective of such a requirement would be to ensure that a competitor to such a service provider in the retail market is provided with an assurance that it will receive an offer to access a smart meter's functions, subject to negotiation of price and terms and conditions.

If this option were to be included in the NER, consideration would need to be given to how such a provision could be effectively enforced. For instance, if an MC was found to have not made an offer or negotiated in accordance with the relevant principles in the NER, an action by the AER for breach of the rules may not be considered to be an effective tool to deliver access arrangements. Instead, it may be considered that the

32 As discussed through this chapter, we have considered scenarios where the party responsible for managing access is the "MC".

33 This would be on the condition that the party has a relationship with the customer or the customer's consent.

terms and conditions of access should be arbitrated through an established dispute resolution process in the event that agreement is not obtained.[34]

Given the metering contestability rule change is still to be considered, we acknowledge that is difficult to draw definitive conclusions about the level of competition in a market that is in the early stages of development and where behaviour cannot be observed. Our view is that the market for services for managing access to smart meter functionality, whether these are provided by independent third-parties, retailer or network businesses should be given the opportunity to develop free of regulation in the first instance.

On this basis, we do not consider that the case for regulation of access to smart meters and access charges has been made at this point.

Noting the concerns outlined above, we consider that it is prudent for a competition review to be undertaken at an appropriate point in time. This review would reconsider these issues once the metering contestability rule change has been considered and any changes introduced. If such a review finds that competition is ineffective, then potential options to address the issues can be identified. These might include light-handed regulation or a reference service model as discussed in section 2.5, or the introduction of a requirement to for a provider of services to manage access to smart meter functionality to offer access to any accredited party, as discussed above.

Our draft finding is that:

- regulating access to smart meter functionality and access charges at this early stage of market development is not supported as there is no clear case of market failure; and

- SCER direct the AEMC to undertake a review of competition for end-use services enabled by smart meters, including competition within the MC segment, either as a stand-alone review or part of a larger review of the competition in metering contestability arrangements (if introduced), at an appropriate point in time.

2.4 DNSP access to smart meter functionality

In submissions to the Draft Report and through the advisory stakeholder working group, DNSPs have put forward a view that network businesses should have access to a defined level of 'basic' smart meter services free of charge. Costs associated with supplying these services incurred by the MC would be recovered through the MC's contract with the consumer or retailer.

This section considers whether the NER should allow provision for DNSPs to access a defined 'basic' set of services free of charge or whether networks should negotiate and pay for access in the same way as other market participants.

34 Productivity Commission 2013, National Access Regime, Inquiry Report no. 66, Canberra, p. 186.

We note that under existing arrangements parties, including DNSPs, are entitled to receive energy and/or metering data including data required for billing and settlements.[35] These entitlements are clearly set out under Chapter 7 of the NER and would continue to apply.

2.4.1 Access to 'basic' smart meter functionality

DNSPs consider that networks should have access to 'basic' smart meter services free of charge, with the costs of providing the service recovered by the MC through their contract with the consumer or retailer. The ENA has defined these basic services as:[36]

- measurement and recording data;[37]
- remote acquisition of interval/accumulation data on a daily basis, including event logs;
- load management;
- supply contactor operation to enable remote turn on/turn off;
- quality of supply and other event recording;
- meter loss of supply detection;
- remote meter service checking; and
- restoration of supply notification.

Network businesses consider that the introduction of contestable service access charges for data provided to distribution networks is seen as a new and unwanted cost and administrative burden.[38] Further, DNSPs put forward that the marginal cost of providing basic functions will be minimal such that the administrative costs of commercially negotiating these services are likely to be greater than the value of these services.[39]

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35 See clause 7.7 of the NER.

36 ENA, Draft Report submission, 30 January 2014, p. 13.

37 We note under Chapter 7 of the NER, DNSPs and other parties are entitled to receive energy and/or metering data and in practice these data requirements can be met through extracting data from AEMO's systems at no additional cost to the parties entitled to the data. These provisions are to be retained. A distinction may be drawn with smart meters, where a party may wish to access a smart meter's functionality to obtain real-time data. This would be considered accessing the smart meter's functionality.

38 Energex, Draft Report submission, 30 January 2014, p. 8. We note, as set out above, that DNSPs would continue to have access to energy and metering data through existing arrangements under the NER. However, this may not be in real-time.

39 SA Power Networks, Draft Report submission, 30 January 2014, p. 11-12.

NSW DNSPs note that there is a weak incentive for MCs to provide these functions at a reasonable price and that MCs effectively have a monopoly over network services.[40] Accordingly, the ENA considers that the proposed framework may effectively encourage exploitative pricing and the cross-subsidy of contestable metering.[41]

2.4.2 Current arrangements

In Victoria where there has been a mandatory network-led roll out of smart meters, DNSPs own the smart meters and control access by third-parties to the smart meters functions. As the DNSPs are effectively the MC and therefore control access to the meter, they have automatic access to the smart meter functions that allow them to operate the network more effectively.

In other jurisdictions where there has been a limited roll out of smart meters, DNSPs currently receive limited information at the household level to assist them in managing their networks. Where there has been an uptake of type 4 meters, these typically have only limited functions that would be attractive to DNSPs for network management, other than being remotely read interval meters.

2.4.3 Submissions

This section summarises the views in stakeholder submissions that relate to whether a defined set of 'basic' smart meter services should be subject to access and price regulation.

Submissions that support regulating access and charges for a defined set of 'basic' services

SA Power Networks (SAPN) acknowledge that networks should pay for access to smart meter functions on the basis of the benefits that accrue to the broader customer base, not individual customers. Hence the cost to provide them should be recovered through metering charges. However, SAPN considers that basic functions should be provided at no charge due to:[42]

- the marginal cost of providing basic functions will be minimal such that the administrative costs of commercially negotiating these services are likely to be greater than the value of these services;
- the value of some network functions at an individual meter may vary according to the capacity of the network during peak demand, whether the network is rural, metropolitan or remote, overhead or underground lines or the level of penetration of smart meters. As such, some of the meter functions may only be implemented when MCs have the certainty and immediacy of recovering the

40 NSW DNSPs, Draft Report submission, 30 January 2014, p. 12.

41 ENA, Draft Report submission, 30 January 2014, p. 17.

42 SA Power Networks, Draft Report submission, 30 January 2014, p. 11-12.

costs to implement through their metering charge, rather than relying on uncertain future revenue from charges to networks; and

- for some network functions the value of smart meter services is split across multiple parties and, as it is not possible to recover fees from all parties in proportion to the value, the consumer will have to pay more under a commercial arrangement than if the small cost had been recovered through a metering charge.

The ENA put forward that the following services should be designated as basic, advanced and new services.[43]

- Basic:
    - An MC operating a smart meter must provide all basic services for that meter, with costs recovered by the MC through their contract with the customer or retailer.
    - Another party that is accredited and authorised to access a Basic service through the common gateway does so free of charge.
    - Basic services include metrology and a defined set of 'basic' network services (as outlined in section 2.4.1).
- Advanced:
    - Advanced services are optional, but to the extent they are provided they must be provided in a standard way to all accredited and authorised market participants through the common gateway.
    - An MC may not offer a metering service that is substantially similar to an advanced service to any party without also offering the corresponding advanced service through the common gateway.
    - While advanced services are optional, every smart meter installation must be capable of supporting all advanced services.
    - When a meter is replaced or the retailer or customer changes MC, the new MC must continue to provide all advanced services that were previously provided for that metering installation.
    - Accredited and authorised parties wishing to access advanced services do so under a commercial arrangement with the MC, which may include a reasonable fee for access. Setting these fees may require some regulatory oversight.
- New:

43 SA Power Networks, Draft Report submission, 30 January 2014, p. 9-10.

- Services that are not defined as basic or advanced.

Energex considers that the introduction of contestable services access charges for data provided to distribution networks is seen as a new and unwanted cost and administrative burden. An alternative approach suggested by Energex is to provide a framework where networks define basic data services to be delivered as part of the MC licence and accreditation.[44] Ergon Energy's basic principle in considering information enabled by smart meters is that all data on the meters should be available to each market participant, with a relationship with that particular customer, in the most cost effective manner.[45]

NSW DNSPs put forward that it is crucial that DNSPs are able to access certain essential services provided free of charge to accredited parties and recovered through annual metering charges from the MC to the customer or retailer. These essential services are meter reads (remote access for interval data), existing direct load control, events and power quality, remote meter service checking, loss of supply detection and disconnection/re-connection.

NSW DNSPs note that there is a weak incentive for MCs to provide these functions at a reasonable price and that MCs effectively have a monopoly over smart meter services sought by DNSPs. This creates a risk that without appropriate regulation of charges, DNSPs may face inflated prices for access to advanced network services. NSW DNSPs note the need for further consideration of this issue.[46]

Submissions that oppose regulating access and charges for a defined set of 'basic services'

EnergyAustralia considers that too much emphasis is placed on the "supposed need to manage and control access in order for networks to adequately manage their assets". Moreover, there is no reason why networks cannot be part of the commercial arrangements that will exist for retailers and other parties.[47]

Metropolis notes that one of the impediments to smart meter roll-outs has been the desire of distributors to control the smart meter networks to enhance their own network management processes. Metropolis considers that in Victoria this "led to a distributor mandated rollout, with the associated cost blowouts, delays, and difficult customer engagement". Further, Metropolis is of the view that there is no reason that a distributor cannot contract with a competitive metering services provider to meet its needs.[48]

44 Energex, Draft Report submission, 30 January 2014, p. 8.

45 Ergon Energy, Draft Report submission, 4 February 2014, p. 4.

46 NSW DNSPs, Draft Report submission, 30 January 2014, p. 12.

47 EnergyAustralia, Draft Report submission, 30 January 2014, p. 3.

48 Metropolis, Draft Report submission, 30 January 2014, p. 5-6.

2.4.4 Recommendation

In a contestable market for metering services, DNSPs can be seen as another market participant seeking to access smart meter functionality to provide a service to consumers or add value to their business.

Networks have an incentive to gain access to the functionality of an efficient number of smart meters to assist them in managing their network more effectively. For instance, DNSPs currently receive an operational expenditure allowance from the AER to allow them to recover the efficient costs associated with performing functions such as meter reads, fault identification and restoration of supply. If, during a regulatory period, a DNSP gains access to services enabled by smart meters to perform these functions more efficiently, the network business is able to retain the efficiency gain that will eventually be passed through to consumers.

As identified by SAPN, the value of a network acquiring access to services enabled by smart meters will depend on the characteristics of the network, such as capacity during peak demand, whether the network is rural, metropolitan or remote and the provision of overhead or underground lines.[49] In part of a network that is constrained regularly during peak periods, a network business may see greater commercial value in negotiating access to a larger number of smart meters than may otherwise be the case. In this regard, DNSPs face appropriate incentives and would be best placed to manage these decisions and associated risks.

We note the concern of the NSW DNSPs that there is a weak incentive for MCs to provide these functions at a reasonable price and that MCs are likely to have a monopoly over the network functions of smart meters.[50] We consider this view overlooks two key points:

1. An MC looking to sell access to the network services functions of a smart meter would effectively have one buyer - the local DNSP.[51] If MCs were looking to profit maximise, DNSPs would likely be part of their foundational customer base, given the range of services a network may seek to access and the certainty provided to the MC that access would be on a regular basis.

   MCs that set access prices too high risk losing a revenue stream that may assist to underpin and de-risk their business model. Further, DNSPs seeking to more effectively manage their networks would have options that involve bypassing smart meters or simply operating their networks on the basis of the limited information currently available through type 5 and 6 meters. Once a smart meter has been bypassed by installing alternative technology, the MC would likely have lost the DNSP's business permanently. This option can be expected to act as a form of counter-veiling market power.

49 SA Power Networks, Draft Report submission, 30 January 2014, p. 9-10.

50 NSW DNSPs, Draft Report submission, 30 January 2014, p. 12.

51 A single buyer in a market is called a monopsony.

2. Smart meter functions that relate to network management are of limited use to other market participants. Therefore it is unlikely that retailers, third-party energy service providers or other MCs that participate in the market would have a strong incentive to frustrate the access of DNSPs for strategic reasons.

Taking into account the above analysis and submissions, we recommend that network businesses negotiate and pay for access to services enabled by smart meter on a commercial basis, in the same way as other market participants.[52] This approach will place commercial incentives on DNSPs to negotiate an efficient level of access to the number of smart meters and functions of those smart meters.

Costs incurred by DNSPs for accessing smart meter services will be recovered from all customers through distribution use of system charges. Although not all customers will have smart meters in the medium term, the use of information from smart meters will assist DNSPs with managing their networks and therefore benefit all consumers.

2.5 Regulatory options

It is noted that the metering contestability rule change will further consider the requirements for the ring fencing and competitive procurement requirements in relation to DNSPs in the role of the MC.

A number of other regulatory options would be available for SCER's consideration if, upon reviewing the future arrangements in the market for smart meter services, it was determined that the market was not workably competitive and access to smart meters was being restricted to the detriment of consumers.

Two broad regulatory approaches are summarised below:

1. Negotiate/arbitrate (light-handed regulation); and

2. Reference services.

The type of regulation that may be appropriate would depend on the findings of a review into the level of competition and impacts on adjoining markets.

2.5.1 Negotiate/arbitrate (light-handed regulation)

Negotiate/arbitrate, or light-hand regulation, "involves regulatory methods that emphasise commercial negotiation and information transparency, with regulatory intervention through the right to have disputes arbitrated by the regulator".[53]

52 Noting that entitlement to energy and metering data under the existing arrangements would still apply. Negotiations would relate to services enabled by smart meters.

53 National Competition Council 2013, A guide to the functions and powers of the National Competition Council under the National Gas Law, Melbourne, p. 67.

Light-handed regulation may be a proportionate approach where some form of competition is present and there is potential for contestability to emerge. Further, it may also be appropriate when the number of access seekers is relatively small and these parties can exercise some leverage in the course of commercial negotiations.[54]

A regulatory approach for MCs based on light-handed regulation might involve:

- MCs publishing terms and conditions of access to different types of smart meters, including offer prices on their website;
- reporting annually to the AER on access negotiations;
- prohibition on engaging in price discrimination; and
- approach to dispute resolution set out in the NER, such as that currently contained in Chapter 6 of the NER.

Light-handed regulatory approaches increase transparency around the terms and conditions and prices for accessing predetermined smart meter services, reducing the ability of an MC to set inefficient prices or withhold access. A negotiate/arbitrate process would provide a defined process for parties to engage in negotiation if agreement around terms and conditions and price of access was unable to be reached.

By avoiding the material costs associated with full regulation, light-handed regulation can provide more timely and lower cost outcomes, particularly when negotiations are completed relatively quickly.

2.5.2 Reference service

Reference service regulation would require an MC to periodically submit an access arrangement to the AER and obtain its approval for the proposed terms and conditions of access. While this form of regulation imposes significant administrative and regulatory costs, it is likely to be appropriate if a market is not workably competitive and services cannot be provided efficiently by another means.

Noting the difficulty and costs involved in prescribing access terms and charges for all potential smart meter services, an arrangement that is approved by the AER could contain the terms and conditions of access and reference tariffs for services likely to be sought by a significant part of the market. These might include:

- Basic accumulation metrology services for settlement;
- Remote interval readings for time-of-use pricing;
- Direct-load control services; and

54 National Competition Council 2013, A guide to the functions and powers of the National Competition Council under the National Gas Law, Melbourne, p. 67.

- Remote connection/disconnection.

Reference service is costly to administer, firms incur compliance costs that are passed onto consumers and there may be indirect costs through inefficient regulatory decisions and market distortions that hamper innovation. Implementing this type of approach would be in response to a substantial market failure in the metering market and associated retail market.

2.6 Accreditation

Under the current regulatory framework, the NER requires AEMO to accredit MPs and MDPs.[55] AEMO's accreditation process is to check that parties are appropriately qualified in order to provide some assurance to AEMO and other registered participants that the MPs and MDPs are able to fulfil their obligations under the Rules.[56]

Under the model proposed in the Power of Choice review, the MC will control access to smart meters and will have incentives to ensure persons assessing services are technically compliant with the new requirements.

This section considers whether the persons providing new MC functions associated with the deployment of smart meters, such as managing access, security and congestion, will require accreditation by AEMO under the NER.

We note that SCER is considering the requirements for regulating third party service providers under the broader regulatory framework. Whether third party service providers should be registered market participants will depend on the outcomes of SCER's decisions for the broader regulatory framework. In terms of the ability to access smart meter functionality, it would be the MC that controls who will have access and on what terms and conditions. The MC should have incentives to protect the integrity of the smart meter infrastructure.

2.6.1 Accreditation of new MC functions

Accreditation is the qualification process through which AEMO and Registered Participants gain assurance that MPs and MDPs have the ability through adequate systems and procedures to comply with their obligations.

Given the role of MPs and MDPs in providing data to allow market settlement to occur, an inability for them to meet their obligations could have detrimental impacts on the other market participants, consumers and the NEM in general. AEMO's accreditation process provides assurance that the required information will be provided on an accurate, reliable and timely basis.

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55 Rule 7.4.2 and 7.4.2A. See also schedule 7.4 and 7.6 for detailed accreditation requirements.

56 AEMO's accreditation process for MPs and MDPs can be found here: http://www.aemo.com.au/Electricity/Retail-and-Metering/Metering-Services

MC functions, whether they are to be carried out by MPs/MDPs or a new category of market participant, will include managing access, security and congestion at a consumer's smart meter. One approach to considering whether accreditation is required is to examine the implications of a failure in the provision of services for managing access to smart meter functionality:

- Access - an inability to access a smart meter by an authorised entity could undermine the services enabled by smart meters and reduce the confidence of consumers in the technology.

- Security - unauthorised access to a smart meter is likely to result in a breach of the consumer's privacy through access to detailed consumption data. It may also result in damage to a household's appliances, the unauthorised remote activation of appliances and disruption to supply. Breaches of security are likely to undermine the confidence of consumers in the technology and, if access occurred on a wide-spread basis, may disrupt the network and pose a safety risk.

- Congestion - congestion arises when multiple parties are seeking access to a smart meter at the same time. If the the service provider managing access is unable to manage congestion in accordance with a pre-determined hierarchy, signals critical to the safe and efficient operation of the network may not be received. This could lead to an avoidable supply disruption or the inability to use a service such as direct load control during times of peak demand. Both of these examples are likely to reduce consumers' confidence in smart meter technology and increase the difficulty of DNSPs to manage their networks.

Given this analysis, we consider that the new 'gatekeeper' functions associated with the introduction of smart meters will be of sufficient importance to the operation of the NEM that accreditation will be required whether this role is undertaken by the MC or another party. It may be that the MC does not require technical accreditation but they would need to ensure that persons providing these services are appropriately accredited.

2.6.2 Submissions

Most submissions that discussed accreditation focussed on the accreditation of third-party energy service providers. As noted above, SCER is considering the requirements for regulating third party service providers under the broader regulatory framework and this issue is not being considered as part of this review.

With respect to the accreditation of new MC functions related to smart meters, General Electric considers that accreditation should involve the minimal possible additional regulatory burden over and above the current arrangements for MPs and MDPs.[57]

57 GE, Draft Report submission, 30 January 2014, p. 20.

2.6.3 Recommendation

Under the current regulatory framework, the NER requires AEMO to accredit MPs and MDPs. The metering contestability rule change request will consider the definition of roles and responsibilities with respect to the role of the proposed MC and whether accreditation or other arrangements, such as AER authorisation, would be required. This section has considered whether the new MC functions associated with the deployment of smart meters, such as managing access, security and congestion, would require accreditation by AEMO under the NER. Specific requirements for accreditation will be considered under the metering contestability rule change following roles and responsibilities being specified.

If a service provider failed in its responsibilities to effectively manage access, security and congestion of a smart mater, there is a possibility of market disruption in the settlement process, a breach of consumer privacy, unauthorised access and control of electric household appliances and avoidable disruption to distribution networks. Additionally, consumer confidence in smart meters is likely to be undermined, reducing the uptake of this infrastructure and the benefits that smart meters can provide.

Taking into account the relevant submission on this issue, and the above analysis setting out the implications if the providers of services to manage access fail to fulfil their obligations, we recommend that persons providing services to manage access to smart meter functionality be subject to accreditation under the NER by AEMO. We will explore whether this recommendation could be incorporated for further consideration under the metering contestability rule change request or whether a separate rule change request would be required.