10 August 2015

Ms Elisabeth Ross
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Further advice on metering

Dear Lis

Thank you for your recent correspondence regarding an issue raised by some ENA members in their submissions to the Competition in Metering rule change process, namely the provisions in the rules for the Local Network Service Provider (LNSP) to enable telecommunications on a type 5 or type 6 meter for network operational purposes. I'm writing to provide further clarification on this issue and our position. In addition, we wish to follow up on a specific matter relating to Victorian meters and also on advice sought by the AEMC on ENA's views on when customer consent should not be required relating especially to network services.

LNSP meters outside Victoria

Outside Victoria, LNSPs operate manually-read type 6 and type 5 meters as a regulated service. Many of these meters are electronic meters that have the capability to measure and record a range of quantities other than energy use, such a voltage and frequency, and to perform other functions intended to facilitate the safe and efficient operation of the distribution network. These additional capabilities can be enabled by adding a telecommunications modem to the meter.

The majority of meters of this type are in Queensland, where jurisdictional rules require that all new and replacement meters have this interval data capability and the ability to be retro-fitted with telecommunications. Between them, Ergon and Energex have approximately 250,000 such meters in Queensland today. Various pilots and trials have been conducted utilising these assets with telecommunications added providing valuable network data and customer benefits. However, letters of no-action from AER have been required with respect to potential non-compliance with clause 7.11.1 (b) of the NER (now numbered 7.10.6 (a) in the draft rule). Similar electronic meters are also installed in other jurisdictions, but represent a relatively small percentage of the overall meter population.

Having the option to enable telecommunications on an existing meter, either on a temporary or long-term basis, can enable a range of operational benefits:

- It can enable a type 5 or 6 meter to be read remotely in the case where the meter is or has become difficult to access for manual meter reading, e.g. because it is located within a secure facility or in a remote area. This is the most common case today, and the one explicitly allowed for in the rules, although the current definition of 'operational difficulties' leaves room for interpretation.

- Using the existing monitoring and logging capabilities of an electronic type 5 or 6 meter can be an effective and low-cost means to capture valuable data for network planning and quality of supply management purposes. For example, having communications at a number of 'bellwether' meters in an area of high solar penetration can enable an LNSP to monitor and manage the localised swings in network voltage that result from the intermittent nature of solar generation, to ensure regulated power quality standards are met.

At issue is the ambiguity in the current rules regarding the treatment of such meters that arises from the NER clauses now numbered as 7.8.9 (b), (c) and (d) and 7.10.6 (a) in the draft rule[1].

The issue with the drafting of these clauses is that it suggests that when a network enables remote communications on a type 5 or 6 meter for any purpose other than the specific 'operational difficulties' cited in 7.8.9 (b) and (c), this could potentially cause the meter to be re-classified as a type 4 meter even though there is no intent to operate the meter as a type 4. This is inappropriate and undesirable for a number of reasons:

- The LNSP may not be accredited with AEMO as a type 4 MPB / MDP, and hence may not be able to operate the meter as a type 4 in the market

- Even if the LNSP were to be a type 4 MPB / MDP, operating the meter as a type 4 would be an unregulated service, and could result in additional costs associated with the conversion of the regulated asset to an unregulated one, ring-fencing, and so on, that are unwarranted

- There may be no saving in meter reading costs if only an individual meter or a limited number of local meters match restrictive 'operational' criteria and are no longer read manually, where other meters in the neighbourhood must continue to be read manually on a quarterly basis, despite it being more economic to read all remotely.

- The retailer (and their end customer) may not want a type 4 metering service, as the annual cost will be significantly higher than a type 6 or type 5 service.

- The LNSP may not want to communicate with the meter at the frequency required for a type 4; they may only require occasional communication, e.g. to download voltage data logged over a period of several weeks or control network devices at times of localised system constraints.

- The LNSP may only wish to enable telecommunications for a fixed time, e.g. to allow for local network monitoring to manage a network constraint until other remediation works are undertaken – potentially causing the meter to revert back to a type 5, with the associated administrative cost and complexity.

As converting the meter to a type 4 is undesirable, the ambiguity in the drafting has led to the unintended negative outcome that LNSPs that have existing type 5 and type 6 meters that can support remote access for network operational and monitoring purposes have been prevented from enabling these functions.

The AEMC has previously indicated that this particular issue would be resolved through the rule change, thus enabling existing assets to be fully utilised, but the draft rule makes only one change to the clauses in question, which is to replace "type 4 metering installation" with "type 4 or 4A metering installation" in clause 7.8.9 (c). This particular change appears to be unwarranted, as we understand that a type 4A metering installation is, by definition, incapable of *remote acquisition* and hence an alteration of the kind contemplated in 7.8.9 (b) could not be expected to alter the classification of the metering installation to a type 4A.

[1] These correspond to clauses 7.3.4 (f), (g) and (h) and 7.11.1 (b) in the current NER. For the purpose of this discussion we will reference these and other clauses using the proposed new numbering.

ENA recommends the following amendments to the draft rules:

1. Draft NER clause 7.8.9 (b) should be replaced with the following: "

   A *Metering Coordinator* may alter a type 5 or 6 *metering installation* in accordance with paragraph (a):

   (1) to make it capable of *remote acquisition* where the *Metering Coordinator* decides that operational difficulties reasonably require the *metering installation* to be capable of *remote acquisition*, or

   (2) where the Metering Coordinator is the Local Network Service Provider, to enable functions reasonably required in connection with the operation or monitoring of its network."

2. Draft NER clause 7.8.9 (c) should be amended to delete the words "or 4A"

3. Draft NER clause 7.8.9 (d) should be amended to read:

   (d) For the purposes of paragraph (b), operational difficulties may include any circumstances where manually reading the meter is difficult, potentially unsafe, or inefficient, such as where the metering installation is:

   (1) at a site where access is difficult;

   (2) on a remote rural property; or

   (3) at a site that requires many irregular or unscheduled reads.

4. Draft NER clause 7.10.6 (a) should be amended to read:

   7.10.6 Metering data performance standards

   (a) The *Metering Coordinator* must ensure that *metering data* is provided to *AEMO* for all *trading intervals* where the *metering installation* has the capability for *remote acquisition* of *metering data*, except when allowed under clause 7.8.9 (b) and (d), and that the data:

   (1) is derived from a *metering installation* compliant with clause 7.8.8(a);

   (2) provided within the timeframe required for *settlements* and *prudential requirements* specified in the *metrology procedure*, and the relevant *service level procedures*;

   (3) is actual or substituted in accordance with the *metrology procedure*; and **…..**

In the long term, the Competition in Metering rule change will, over time, see all meters replaced with smart meters that have remote communications. It is ENA's hope that, in future, LNSPs will have access to a wide range of smart meter functions and data provided by competitive MCs. In the meantime, where LNSPs can derive additional value today from existing assets to meet their operational needs, they should be encouraged to do so, rather than prevented. Customers have already paid for these meters, and will ultimately pay for the cost of any alternative equipment LNSPs need to operate the network, and it's not in anyone's interest for LNSPs to be forced to deploy less efficient solutions when existing meter assets could be re-used at lower cost.

Finally, it should be apparent that allowing LNSPs the option to enable telecommunications on legacy meters for network operational purposes does not in any way impede competition in metering. At such time as the retailer wishes to convert the premises to a type 4 smart meter, they can arrange for one to be installed (noting that most electronic meters installed today cannot meet the new national minimum specification even if they have a communications modem, as they do not have a remote disconnect / reconnect relay built in). Similarly, where it is most efficient for an LNSP to arrange to access network functions and data from 3rd party MCs' meters, they will do so.

2. Meter type for Victorian meters

The Victorian DNSPs support the AEMC's proposal that the DNSP remain the MC for all their meters until a new MC is appointed. In Victoria the DNSP for the advanced meter roll out meters will therefore remain the MC. These meters are currently identified as type 5 in the NEM. This approach was determined for the Victorian rollout to identify these meters as different to the contestable type 4 meters provided by retailers, and to avoid the cost and resource hit to Victorian DNSPs to reaccredit their metering groups to meet type 4 requirements

However, the proposed rules appear to oblige that the DNSP's metering installations which are smart metered not remain as type 5 meters in the NEM.

The Victorian DNSPs have proposed the following arrangements to give effect to the policy intent, for economic efficiency, and administrative simplicity.

Victorian AMI meters which are currently subject of regulated metering arrangements under the derogation should remain as type 5, and that a similar rule to 9.9C.6 is implemented in Chapter 7 or 11. The advantages of this is that it extends the approach in the Victorian rollout of avoiding the need for Victorian businesses to incur unnecessary costs and resource hit of accreditation and IT changes to process their existing AMI meters into the market as type 4 meters.

The further advantage is that it will ensure a largely unique NMI discovery outcome (type 5 and *read type* is "daily remotely read") for FRMPs and MCs to recognise those type 5 Victorian meters that have transitional status, and where exit fees will apply.

If a Victorian DNSP chooses[1] to operate in the new and replacement market *post* the commencement of the new rule, then the new meters would be un-regulated, described as type 1 to 4 in accordance with the Rules, with appropriate IT and MDP accreditation upgrades undertaken to operate them. These new and replaced meters would be NMI discoverable through being type 4 as being non regulated.

To enable Victorian AMI meters to remain as type 5 meters although remotely read, this will require a new clause (suggest 11.78.9) that achieves the following outcome:

> **Victorian AMI meters installed before the competitive metering start date continue to be deemed type 5 meters, until they are replaced.**

ENA supports this proposal and seeks advice from AEMC on its view.

[1] As distinct from where the NSP is to be the deemed MC at Day 1 for the regulated smart meters it has installed under the Victorian mandated rollout.

3. Customer consent and network services

In the ENA submission on the AEMC draft determination, ENA identified an issue where AEMC had stated that customer consent would be required for access to services.

Extract from ENA submission (p.16) below:

> Finally, ENA is concerned at the statement within the AEMC draft determination that "*Access to services provided by [small customer] metering installations that are in addition to services set out in the minimum services specification can* ***only*** [emphasis added] *be provided to a person or for a purpose to which the customer has given its prior consent*"[2]
> ENA believes that this statement is intended to ensure that customers provide consent for provision of enhanced services, for example relating to demand management, which may be enabled by the new technology. However, ENA is concerned by the implication which may arise from this statement that no advanced services or network services may be introduced without individual customer consent. This would constitute a significant barrier to introduction of services which have been previously identified, including within the draft determination itself[3], as providing significant customer benefit from the availability of advanced metering. Requiring individual customer consent for voltage or power quality adds administrative cost complexity.
>
> ENA would welcome clarification from AEMC within the final determination on their consideration of customer protections required relating to access to services.

AEMC has since sought advice from ENA on what services networks consider should NOT require individual customer consent. The following information is in response to that request.

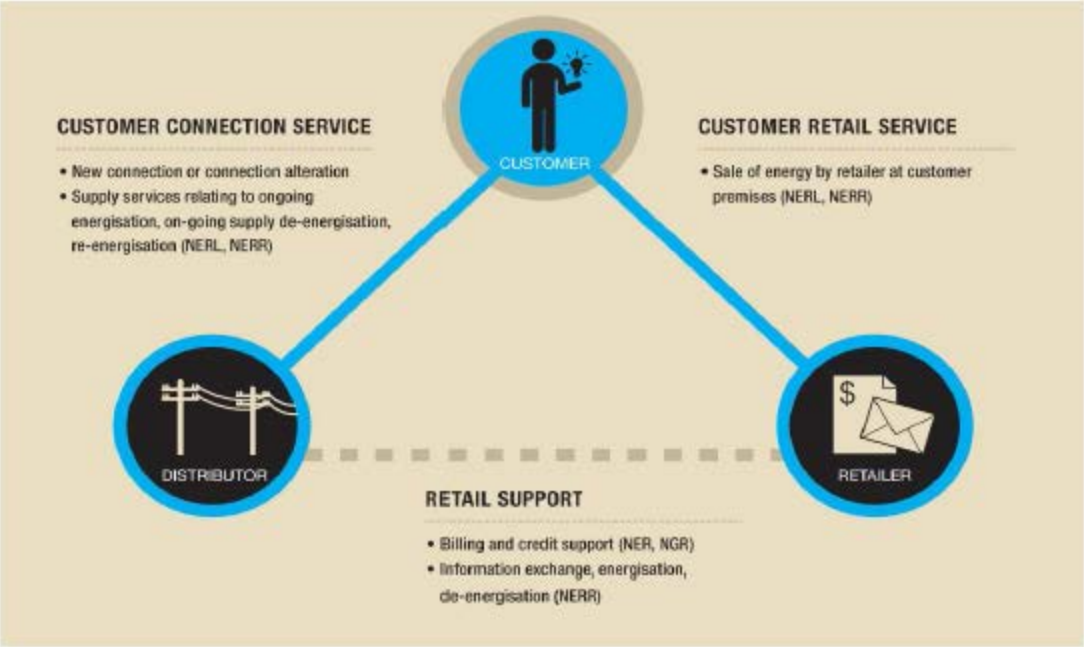
When considering the question of customer consent for network services it is important to bear in mind that the distributor is the only party that has an enduring relationship with the customer. The relationship between the customer and the network is retained even when other service providers, e.g., retailers and metering co-coordinators, churn through competition.

Importantly, the distribution network is a shared customer service where the distributor is responsible for managing the whole network to ensure a safe and reliable supply for the benefit of all customers in its network area including an individual customer's connection point.

In addition, the National Energy Customer Framework **(**NECF) requires that DNSPs have a mandated 'Connection and Supply Agreement ' with all NEM customers that require DNSPs to do certain things with respect to "network monitoring, management and / or security of supply purposes." The NECF triangular relationship between customers, retailers and distributors was illustrated in the AEMC Power of Choice report[4], as reproduced below.

[2] AEMC Draft Determination, p. 38.
[3] Ibid, pp. 20-21
[4] AEMC, *Power of Choice giving consumers options in the way they use energy. Final Report*, 2012, p.47

Figure 2.3 NECF arrangements – retailer, distribution and consumer relationship



ENA has taken the shared nature of the network into account when examining the question of when customer prior consent for network services should be required. In principle we consider that:

- Customer consent should not be required where the service is used by the distributor to monitor, manage or protect the shared network for the benefit of all customers.
- Customer consent should not be required where the service is used by the distributor to monitor, manage or protect the connection point for the benefit of the individual customer and/or surrounding customers (e.g. neutral integrity detection to detect possible electric shocks at a customer's premise etc).
- Customer consent should be required where the network is providing a service that is requested for a specific customer, and does not affect any other customer, and is not necessary for the purpose of monitoring, managing or protecting of the shared network.
- Customer consent will be required when the network is providing access to the customer's energy consumption data to an authorised (and verified) customer representative.

Based on this principle, ENA proposes that draft rule 7.15.4 be amended as follows:

> ***7.15.4 Additional security controls for small customer metering installations***
> *In respect of a small customer metering installation:*
>
> *(a) the Metering Coordinator must ensure that access to energy data held in the metering installation is only given to a person and for a purpose that is permitted under the Rules;*

(b) the Metering Coordinator must ensure that access to services provided by the metering installation and metering data from the metering installation is only given to:

(1) in respect of a service listed in the minimum services specification in column 1 of table S7.5.1.1 and of metering data in connection with that service, an access party listed in column 3 of table S7.5.1.1;

(2) except as otherwise specified in subparagraph (1), a person and for a purpose to which the small customer has given prior consent;

(3) except as otherwise specified in subparagraph (1), to the Local Network Service Provider for network monitoring, management and / or security of supply purposes; or

(4) otherwise, a person and for a purpose that is permitted under the Rules.

The intention of this proposed change is to make it clear that it is not necessary to seek individual consent from every customer when a LNSP seeks access to data and services at the metering installation for the specific purpose of network monitoring, management or security of supply. Otherwise, the implied requirement for customer consent could inadvertently render the use of meter data and services by the LNSP impractical.

ENA has included as Attachment 1 a summary table of examples of when customer consent for network services should and shouldn't be required. This list is indicative only, identifying categories of activities.

ENA has also provided for information only an Excel spreadsheet providing more detailed analysis describing circumstances and examples to illustrate where customer consent would/would not be required. This analysis includes examples of new broad services of long term value to customers which have developed following installation of advanced meters.

The analysis reinforces the strong view held by network businesses that a prescriptive list of services to be exempt from customer consent is inappropriate, due to the constraint on service innovation in the long term interests of customers.

Thank you for the opportunity to provide further advice on ENA's views on these matters. If you require further information, please contact me at sstreeter@ena.asn.au or phone 0439 177 032.

Yours sincerely

Susan Streeter
Director, Future Networks

Attachment 1

ENA table of indicative examples where customer consent should/should not be required

Network Service Category	Customer Consent required?	Approach to Customer Consent
Manage Network / Connection point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Monitor Network / Connection Point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Protect Network / Connection point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Control Customer Load (direct load control)	YES[5]	LNSP Access is obtained with customer consent through use of controlled load Network Tariff
Control other Customer load - wireless (& ripple)	YES	LNSP Access is obtained with customer consent through use of controlled load Network Tariff or other DSM incentive
Provide customer local access or interface /control	YES	LNSP Access is obtained with customer consent through request of HAN service
Provide "Data" to third parties	YES	Should be as per 7.15.5 (C) other than anonymous aggregated data (ie as issued to regulators etc.)
Provide Aggregated "Data" to third parties	NO	7.15.5 (C) should not apply to anonymous aggregated data (ie as issued to regulators, etc.)
Provide Network "Data" to customers	YES	As per 7.15.5 (C)

[5] Once load control is established at a premise (eg hot water or slab heating etc), the NMI is allocated a load control network tariff. When a new customer moves in and accepts a retailer load control tariff there is implied or deemed acceptance by the customer. If a customer did not wish to have the load control network tariff, they, or their retailer, could request an alternative tariff. No customer consent is required to alter controlled load switching times to maintain switching times in accordance with the network tariff.

Network Device Service Category	Customer Consent required?	Approach to Customer Consent
Control Network / Connection point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Monitor Network / Connection Point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Protect Network / Connection point	NO	LNSP Access without consent specifically given under S7.5.1.1 or 7.15.5(a)-(5)
Control Customer Load (direct load control)	YES	LNSP Access is obtained with customer consent through use of controlled load Network Tariff
Control other Customer load - wireless (& ripple)	YES	LNSP Access is obtained with customer consent through use of controlled load Network Tariff or other DSM incentive
Provide customer local access or interface /control	YES	LNSP Access is obtained with customer consent through request of HAN service
Provide "Data" to third parties	YES	should be as per 7.15.5 (C) other than anonomous agreggated data (ie as issued to regulators etc)
Provide Aggregated "Data" to third parties	NO	7.15.5 (C) should not apply to anonomous agreggated data (ie as issued to regulators etc)
Provide Network Device "Data" to customers	YES	should be as per 7.15.5 (C)