



public interest
ADVOCACY CENTRE

**Submission to AEMC Directions Paper
review of the regulatory framework for
metering services**

11 November 2021

1. About the Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is leading social justice law and policy centre. Established in 1982, we are an independent, non-profit organisation that works with people and communities who are marginalised and facing disadvantage.

PIAC builds a fairer, stronger society by helping to change laws, policies and practices that cause injustice and inequality. Our work combines:

- legal advice and representation, specialising in test cases and strategic casework;
- research, analysis and policy development; and
- advocacy for systems change and public interest outcomes.

2. Energy and Water Consumers' Advocacy Program

The Energy and Water Consumers' Advocacy Program (EWCAP) represents the interests of low-income and other residential consumers of electricity, gas and water in New South Wales. The program develops policy and advocates in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives input from a community-based reference group whose members include:

- NSW Council of Social Service;
- Combined Pensioners and Superannuants Association of NSW;
- Ethnic Communities Council NSW;
- Salvation Army;
- Physical Disability Council NSW;
- Anglicare;
- Good Shepherd Microfinance;
- Financial Rights Legal Centre;
- Affiliated Residential Park Residents Association NSW;
- Tenants Union;
- The Sydney Alliance; and
- Mission Australia.

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Introduction

The Public Interest Advocacy Centre (PIAC) welcomes the opportunity to respond to the Australian Energy Market Commissions' (AEMC) Directions Paper (the Paper), Review of the regulatory framework for metering services.

PIAC strongly supports changes to the regulatory framework for metering services. Metering is a fundamental component of the infrastructure providing essential energy services and comprehensive change is required. Appropriately specified metering will be crucial to the efficient and reliable delivery of energy services in the long-term interests of all consumers. It is also a key requirement in the transition to a cleaner, more distributed and flexible energy system.

The case for change

The Paper establishes a strong case for change. PIAC agrees with the scope of issues identified and the conclusion that significant change is required. However, the framing of the case for change and the focus on 'benefits' may not be the best way to identify what change is required.

Failure to deliver appropriately capable metering impedes the delivery of an essential service that operates in the interests of consumers. It is not a 'benefit' for metering to contribute to an efficient, safe, affordable and reliable energy system, it is a minimum requirement in meeting the National Electricity Objective (NEO). Assessment of the case for change and the framing of required responses should reflect this.

Is the current metering framework operating to promote the long-term interests of consumers? Is it contributing to investment in and operation of an energy system that is as efficient, safe, reliable, secure and affordable as it should be? On this measure the case for change is clear. It becomes more urgent as the energy transition continues and accelerates. The spread of renewable technologies and the introduction of market reforms that depend on granular data and demand side participation are not adequately supported by the current metering framework.

PIAC recommends the AEMC examines the role of meters and their contribution to the operation of the system, with a focus on which functions are fundamental contributors to the long-term interest of consumers, and which functions are better regarded as enablers of benefits to consumers, retailers, networks and other service providers.

The role of meters

What a meter must do and what a meter can do are two related but distinct considerations.

A meter's primary role – what it must do – is providing safe and reliable access to the electricity system. This is fundamental to the safe delivery of an essential service to energy consumers. Historically, necessity and technology dictated the scope of that role. Meters had to safely connect to the network, deliver and manage a safe and reliable flow of energy, and be able to measure total consumption at a point in time. As the system has evolved, technology improved

and the scope of other possibilities widened, this is still essential. But what is required to do it has expanded.

The evolution of the energy system and technological improvements mean more is required of meters, both by consumers and by entities delivering energy services. This is recognised in the existing framework, with all newly installed meters required to be advanced type 4 or 4a meters. The existing framework defines the specifications new meters must have. But it does not specify which functions, related to these specifications, are essential.

The existing framework depends on consumers choosing to install meters, facilitated by retailers who are largely uninterested in metering. This is not acceptable. The role and essential functions of meters should be examined. The framework can then be reformed to deliver these functions, essential to the long-term interest of consumers, in a way that does not depend on the specific choices of consumers.

The objective of metering reform

PIAC strongly supports the objective for metering reform outlined in the Paper. The objective is a foundation linking the 'case for change' with the steps required to enact that change. It provides framing for questions around the role of metering in supporting the long-term interests of consumers. The AEMC should use the objective to guide its consideration of issues outlined in the Paper and to inform potential reform measures.

To enable the roll out of appropriately capable smart metering to consumers in a timely, cost effective, safe and equitable way, and to ensure metering contributes to an efficient energy system capable of maximising the benefits for all consumers.

The key elements of the objective could be used to frame reform priorities by addressing each key aspect of the objective. This would assist in identifying further questions and the issues to explore. Specifically:

- **Appropriately Capable**
What are the capabilities that meters must have? What other capabilities are beneficial? What is required to utilise those capabilities in the interests of consumers? That is, what functions must they perform for consumers, retailers, networks, operators and other energy service providers? What other functions may be beneficial? These questions must consider the role of metering outlined above and identify what functions of metering are required for the operation of the system in the long-term interests of consumers.
- **Timely**
What is the timeframe for when appropriately capable metering will be required? That is, when will the required standard of metering be mandatory and available to all consumers? When must all meters have the capability to perform required functions for consumers and for a system operating in the long-term interest of consumers?
- **Cost effective**
What is the most cost-effective way to roll out metering? Who is best placed to manage the costs of the rollout in a way that is effective, efficient, equitable and transparent? What is

required to facilitate that rollout? How can the framework ensure that once rolled out, meters fulfil their functions to best support an efficient and affordable energy system?

- **Equitable**

What is the most equitable way to roll out metering? That is, who is best placed to deliver capable metering to all consumers within the specified timeframe? What is the best way to ensure that the costs of metering rollout are not incurred, up front, by consumers or in a way that undermines the process or leaves any consumers worse off? How can we ensure that, once all consumers have appropriately capable metering, the framework delivers outcomes in the long-term interests of all consumers? What opportunities are there to ensure that metering helps contribute to reducing consumer vulnerability, or in any case ensures no consumers are made more vulnerable as a result of metering reforms?

- **Enabling efficiency**

What are the key functions that metering must undertake to enable an efficient energy system? That is, what are the key roles and functions of metering in contributing to a system that operates in the long-term interests of consumers? Who are those functions required by? What is needed to ensure these requirements are met for each party?

- **Maximised benefits to all consumers**

What is needed from metering to ensure all consumers benefit from a system operating optimally? What are the additional benefits that could be enabled by advanced metering and an efficient energy system? Who do those benefits apply to? What is required to ensure those benefits are available? How can metering deliver further benefits to more vulnerable consumers and leave them better off?

In simple terms the objective of metering reform and how the AEMC should assess responses, can be divided into two broad elements:

1. The requirements to ensure appropriately capable metering is rolled out to all consumers in a defined time period.
2. The requirements to ensure appropriately capable metering contributes to the operation of the energy system in the long-term interests of consumers, once it is rolled out.

Considering consumer vulnerability

The focus on the interests of all consumers is welcome. The Paper asserts the interests of all consumers must be taken into account, including ‘vulnerable consumers’¹.

Considering vulnerable consumers as a cohort or subset of consumers does not reflect the best practice understanding of consumer vulnerability. It may not be useful to the AEMC in considering reform in metering.

Electricity is an essential service that all consumers use, regardless of their circumstances. They use it regardless of their ability to afford what they need, or whether they understand how to use it or access it in a way that is in their best interest. Because of this, all consumers can be made more or less vulnerable as a result of their interaction with electricity and their energy service. For instance, a large household with a low income may not have particularly high usage, but require

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that usage mostly at peak time. They use what they need, which can reduce the affordability of their energy and leave them more 'vulnerable'.

The AEMC must consider how the metering framework contributes to consumer vulnerability, and how metering reform can promote the interest of all consumers and help reduce consumer vulnerability. The current framework contributes to the vulnerability of all consumers because it requires them to:

- Pay attention to a particular piece of technical equipment (the meter) involved in the delivery of a service they mostly use unconsciously in the course of daily life, and
- Understand the deficiencies in their existing metering, and
- Know that more capable meters are available, and
- Understand the systemic benefit and personal benefits which may be possible with more capable metering, and
- Request more capable metering, even though most of the material 'benefits' of that metering do not flow directly to them, and
- Have a retailer that can deliver on the request, or switch to one who can, and
- Choose services and products to 'make the most' of their metering, and
- Make changes to their behaviour in order to realise the personal benefits of the services and products they have chosen, and
- Have the financial means to make the purchases and changes required to undertake all these steps, and the resources in time, money and effort to make them work.

There are many points at which the consumer can fail and be left more vulnerable. This means a system that operates in the 'long term interest of all consumers' is less likely. It contributes to the vulnerability of all consumers by making the efficiency, reliability and affordability of the system contingent upon the collective actions of individual consumers. It contributes to the vulnerability of many consumers, by making their access to appropriately capable metering contingent on their own understanding of a piece of equipment that they do not own. For consumers the meter is simply part of their connection to the energy system. They are not required to understand or make individual decisions about other aspects of the energy system in order to have it operate in their interests. In this respect, the NEO is not promoted by a metering framework that regards metering as different from other aspects of energy system infrastructure.

In the remainder of this submission PIAC provides more detail in response to the Paper's questions.

Responses to Directions Paper questions

Question 1: Benefits which can be enabled by smart meters

a) Are there other benefits which can be enabled by smart meters that are important to include in developing policy under the review?

As outlined in relation to the role of metering above, this review should consider what appropriately capable meters must be able to do as well as what they can enable. What they must be able to do should be determined by what is in the long-term interests of consumers.

The greatest benefit to the consumer is not in the meter itself but indirectly in things the meter does to help operate the system. Once installed the consumer also has a choice to use other services their meter allows, but this choice is and should be secondary to the installed meter being capable of performing its required functions.

Table 2.1 of the Paper sets out 'benefits' which smart meters can enable. PIAC agrees with the scope of functions and outcomes listed. But framing them all as benefits does not recognise that many of these functions are simply outcomes of appropriately capable metering. They are functions metering must be able to provide for the energy system (and the benefit of all consumers), independent of individual consumer decisions or requirements.

The remaining items raised in table 2.1 can be reasonably characterised as benefits which capable metering can enable if their potential is fully realised. Many of these benefits are contingent. That is, they may realise tangible positive outcomes, but they will depend on other factors. Whether they result in better consumer outcomes will depend on opportunities being taken up and, often, consumers acting in the way intended and predicted. For example, greater choice of products and services, improved energy literacy, and improved control over costs. These are not direct functions of metering. They do not occur immediately after one (or all) meters are installed. They are made possible by appropriately capable metering, but they require the market and consumers to make certain choices for them to occur. And they require consumers to make the 'right' choices for them to result in a benefit to consumers. Experience in the energy market demonstrates it is misguided to assume because something is possible, it will deliver the outcomes intended. For instance, a competitive retail market has notionally delivered more choice of retail brand over many years, but still most consumers do not compare and switch as often, or in a way, that optimises their outcome.

PIAC has broken down the elements of table 2.1 and indicated where positive aspects should be expectations of appropriately capable metering and where they should be regarded as potential benefits.

Providing consumers with visibility and control of electricity consumption and costs

Expectations of appropriately capable metering

- Accurate bills based on actual meter reads
- More accurate flexible billing options
- Faster switching and greater realisation of contract benefits

Potential benefit

- Greater choice of products and services, which may be more tailored to individual customers
- Improved energy literacy and understanding of energy usage patterns
- Apps that can improve access to information
- Improved control over energy costs
- Development of new services and participation in new markets such as energy storage and virtual power plants

Improving network operation, investment, security and reliability

Expectations of appropriately capable metering

- Supports efficient operation of the network
- Improved data for network planning
- Improved outage management through faster detection of outages and restoration of supply
- Improved visibility and management of network assets such as transformers and fuses
- Improved visibility of the low voltage network toward dynamic voltage management
- Improved management of controlled load

Potential benefit

- Innovative tariffs to manage peak demand and drive behavioural change

Improving safety outcomes

Expectations of appropriately capable metering

- Neutral fault detection
- Identification of other safety issues such as 'hot joints'
- Improved pinpointing of outage locations

Improving DER integration

Expectations of appropriately capable metering

- Supports dynamic operation of the network to better manage a more distributed energy system
- Better understanding of LV DER hosting capacity, dynamic export limits to help manage network peaks
- Improved management of DER
- Allows more customers to connect DER to the grid

Other positive outcomes

Expectations of appropriately capable metering

- Safer reconnection and disconnection for those carrying out reconnection and disconnection
- Better data visibility for policy makers
- Better data visibility for researchers
- Better street light management for councils

Potential benefits

- Introduction of new market participants via new technologies
- Aggregators require smart meters to provide their services

- Data use for police operations – This should not be a consideration. This is not a benefit for consumers and is potentially a violation of consumer privacy expectations.

b) What are stakeholders' views on alternative devices enabling benefits? What are the pros and cons of these alternative devices?

It is important provisions are made to support behind-the-meter devices providing metering-grade data.

Other devices able to undertake some of the functions currently required of or enabled by metering may emerge. New services and platforms are likely to require other devices to operate alongside meters to manage and monitor usage, generation and storage. This does not lessen the requirement for capable metering to be available to all consumers. Future choice should be available to consumers with the technology and means to choose to employ it. All consumers should have access to metering capable of delivering energy services with suitable accuracy, safety and flexibility.

Question 2: Penetration of smart meters required to realise benefits

a) Do stakeholders agree that a higher penetration of smart meters is likely required to more fully realise the benefits of smart meters? If so, why? If no, why not?

PIAC agrees.

All consumers require appropriately capable metering. Equity of access to capable metering must be considered the priority. Some of the systemic improvements enabled by the rollout of capable metering are only realised at a certain scale of rollout in the system. Understanding these scales is important in developing the strategy for an accelerated rollout and interim targets to measure progress. Prioritising equity of access to appropriately capable metering should be the primary motivation for faster rollout. This will ensure scale is reached and help ensure that no consumers are excluded or unfairly disadvantaged in the rollout process.

b) Do stakeholders have any feedback on the level of smart meter penetration required for specific benefits? Or to optimise benefits?

Realisation of specific benefits should be given limited weight in determining the required scope of smart meter rollout. Metering has a crucial role in providing functions required to operate the system in the interests of all consumers. The AEMC has also recognised that there must be equity in access to appropriately capable metering. Anything less than universal access to appropriately capable metering is not acceptable. The penetration at which specific benefits are realised is not an appropriate consideration for this process.

It is helpful to consider metering as a matter of standards and specification. The current framework has set advanced meters with set specifications as the standard that contributes to the long-term interests of consumers. However, it has, in effect, made meeting that standard voluntary. Retailers need only meet the standard when they fill a consumer's request, when a meter exchange is required, or when they otherwise choose to do so. There is also scope for a

retailer to refuse. It may be helpful to think of an accelerated rollout and changes to the metering framework as implementing a mandatory metering standard. Considering the role of meters as essential equipment in the energy system, this is an appropriate response. Levels of penetration may be helpful milestones for progress, but they should not be targets of what is 'sufficient'.

Question 3: To reach a critical mass in a timely manner, options to accelerate the rollout should be considered.

a) Do you consider that the roll out of smart meters should be accelerated provide details of why or why not?

Reforms to the energy market post 2025 will require advanced metering.

The Paper's estimate of smart meter deployment completion as late as 2040 is unacceptable. Individual consumers without appropriately capable metering are directly disadvantaged, for instance through less timely and accurate and billing. Collectively, consumers without appropriately capable metering reduce the ability of the system to operate efficiently, reliably and affordably in their interests. Reforms and rapid technology changes already underway make capable metering even more important to the consumer interest.

The rollout of appropriately capable advanced meters must be accelerated. It must aim to ensure that all consumers have capable metering in place by 2025. The energy system as a whole and the new market structures and services that operate it, will require advanced metering to operate efficiently and in the interests of energy consumers. All consumers must be served by metering technology capable of delivering them equal access to the information, services and products that help to improve the affordability of energy for them, and the efficiency of the system as a whole.

b) What are the merits, costs and benefits of each option? Is there a particular option which would be most appropriate in providing a timely, cost effective, safe and equitable roll out of smart meters?

It is likely a combination of measures, including a number of those presented, will need to be employed to complete an efficient, accelerated rollout. PIAC recommends considering analysis done for the National Smart Meter Program which, though dated, included thorough assessment of the relative benefits and costs of different options.

Accelerating the rollout of advanced meters must be approached with a strategy that sets clear objectives and targets. It should identify responsibilities in achieving that objective, and what information is required to undertake those responsibilities. PIAC outlines what this approach would likely require in answer to question d).

c) How would each of these options for rolling out smart meters impact the costs profiles of smart meters?

Please see the answer to question b) above.

d) Are there other options that you consider would better provide a timely, cost effective, safe and equitable roll out of smart meters?

Accelerating rollout will require a strategy that incorporates a range of measures. A number of the options proposed in the Paper will be required and are addressed in response to other questions in this submission. In addition to measures such as a deadline date and a geographic approach to installation, a rollout strategy will need to include measures to improve information availability, streamlined responsibilities, deal with costs, and implement other mechanisms to ensure transparency and equity.

This comprehensive strategy should include a range of measures such as:

- A date by which the rollout should be complete, or materially complete.
- A set of specified circumstances where exceptions to the deadline may be appropriate. This could include circumstances where the costs or other issues involved are so material as to make it unreasonable or otherwise not in the interests of consumers to meet that deadline.
- DNSPs to be given responsibility for rollout planning and contracting to enable:
 - Contracting with metering entities to operate on their network. Metering entities could tender to provide services in a DNSP area. It is likely that, given the timeframes and scale of rollout, multiple entities would be required.
 - Setting rollout targets for each year leading up to the deadline. These should be set at the outset and monitored for progress.
 - Initiating rollout by geographical area to achieve scale and scheduling benefits.
 - Identifying potential areas of rollout priority to respond to network instability, high solar penetration, network congestion or other significant issues.
 - Rollout to replace the oldest meters or those with the highest priority for replacement. This could be an additional criterion used to identify priority geographic areas. Considerations could include:
 - Where there are high numbers of known/likely shared fuse issues
 - Where there are high numbers of known/likely meter board issues
 - Where there are high numbers of known/likely safety or service inadequacy issues

While this roll should be undertaken through returning responsibility for metering to DNSPs, it is also possible for information provision and planning to be undertaken in co-operation with other entities that may be wholly or jointly responsible for metering.

- Retailers to continue to process metering requests from consumers where those requests are driven by solar installation or meter failure. This would ideally be actioned by DNSPs where they are made responsible for metering, but alternative approaches are possible.
- Agreed schedule of metering costs and how they should be recovered and transparently monitored. Consumers should not face any up-front costs for meter installation. Any costs recovered from consumers should only relate to their own meter or the necessary rehabilitation required to install their meter.

- An agreed procedure to deal with necessary remediation works to facilitate meter installation, including:
 - Set criteria to determine if remediation is required to enable installation
 - Set levels of remediation to be performed if remediation is needed, including limitation of works that can be completed without prior agreement from the consumer.
 - A schedule of what costs of remediation can be recovered, including a procedure for those costs only to be recovered from the NMI/NMIs associated with those remediation costs
- Agreed procedures to deal with the range of metering circumstances to ensure impacted consumers are not left materially worse off as a result of the new connection. This should include:
 - How to deal with connections where hot water services are on a separate circuit
 - How to deal with other circumstances where the residence has multiple metering connections.

Consideration should be given to either requiring 'like for like' replacement or agreeing that multiple circuit meters be used to replace multiple meters. Consideration should also be given to creating replacement tariff options that can be offered to consumers where legacy arrangements may no longer be suitable. For instance, peak demand tariffs with low off-peak/high solar prices for consumers who previously had separately metered off-peak hot water.

- Ensuring that tariff defaults do not operate to restrict consumer choice, or otherwise leave consumers worse off as a result of the installation.
- New arrangements to ensure retailers, networks and other service providers have access to the data they require to deliver safe, efficient, affordable and effective services to consumers and the system. This information should be set out in a schedule of 'required metering and related data services'. All other data or services metering enables can be provided at costs according to negotiations with the responsible entity.

Question 4: Options to assist in aligning incentives

a) What are the costs and benefits of each option? Is there a particular option which would best align incentives for stakeholders?

None of the options presented are likely to address the fundamental misalignment between responsibilities and incentives. If given the opportunity, DNSPs have the greatest incentive to facilitate advanced metering at scale and the fewest disincentives to do so. As previously outlined, the majority of cited benefits flowing from advanced metering relate to functions DNSPs could or should perform to promote the long-term interests of consumers. DNSPs are regulated, transparently, to ensure they fulfil those functions in the long-term interests of consumers, as efficiently, safely, reliably and affordably as possible. Neither retailers nor metering entities have a similar relationship to the functions of metering, or regulated requirements to act in the interests of consumers.

PIAC's preference is for DNSPs to be responsible for metering, with metering installation and data provision costs incorporated into DNSP regulation. If this is not the preferred option of the Commission, DNSPs should be included as an additional responsible entity. The Commission should consider making DNSPs responsible for aspects of an accelerated rollout, where their scope for efficiencies in scale and geography, could improve the effectiveness of the rollout. This would still need to be supported by a range of measures to improve data access and utilisation, cost transparency and arrangements to deal with remediation.

b) Are there other options that you would consider would better align incentives?

The AEMC should consider returning primary responsibility for metering to the DNSPs. At the very least this should be assessed against other options. Having established the objectives of this review and the need to accelerate rollout in the most efficient way, this option should be considered as a viable and logical response to the objective. It would not be consistent with the NEO to exclude the option from consideration.

PIAC understands returning DNSP responsibility for metering would be a significant change. In PIAC's view, contestable metering was a mistake. Allowing DNSP's to install meters is needed to correct that mistake, and is a much less significant change than the creation of the current framework. When the current framework was created, it completely overturned the established framework for metering provision, even though networks had responsibility for 100% of metering, and the scale, experience, resources and capability to deliver and maintain metering services. It was decided to proceed with changes that split responsibility for the current majority of meters from newly installed meters, between networks and a completely new set of metering entities. This change introduced unforeseen and inefficient complexity, to which this Review must respond.

It is appropriate to consider fully returning metering responsibility to networks, where doing so may be the simplest means of addressing the issues identified in the course of this review. It is also reasonable as, on the Commissions own figures, DNSPs retain responsibility for up to 80% of installed meters.

Question 5: The current minimum service specifications enable the required services to be provided

a) Do you agree with the Commissions preliminary position that the minimum service specification and physical requirements of the meter are sufficient? If not, what are the specific changes required?

PIAC recommends the minimum specifications match those developed for the National Smart Meter Program. This scope of functions would enable meters to more appropriately fulfil their optimum role in supporting an efficient energy system.

Regardless of whether the minimum specifications are increased, changes are required to ensure that the services and data enabled by these specifications can be accessed by those who require them. PIAC has provided more detail in response to the questions on access to data.

b) Are there changes to the minimum service specifications, or elsewhere in Chapter 7 of the NER, required to enable new services and innovation?

N/A.

c) What is the most cost-effective way to support electrical safety outcomes, like neutral integrity? Would enabling data access for DNSPs or requiring smart meters to physically provide the service, such as via an alarm within the meter, achieve this?

PIAC supports prioritising safety. Cost-effectiveness should be a secondary consideration. Enabling data access for DNSPs is a reasonable proposal and, subject to the perspectives of DNSPs, we would support this approach. PIAC would be happy to discuss safety options further.

d) Do you agree smart meters provide the most efficient means for DNSPs to improve the visibility of their low voltage networks? Why, or why not? What would alternatives for network monitoring be? And would any of these alternatives be more efficient?

PIAC agrees appropriately capable advanced metering is currently the most efficient means for DNSPs to improve the visibility of low voltage networks. This is a key function of metering and a priority aspect of efficient network operation in the long-term interests of consumers. Alternates such as portable power quality analysers or SCADA based monitoring lack the resolution, efficiency and value-add of smart meters.

e) Can smart meters be used to provide an effective solution to emerging system issues?

Yes. PIAC understands the universal availability of appropriately capable metering will be key to addressing a range of evolving issues with the energy system. Ensuring adequate, timely access to meter data by DNSPs should be a priority consideration of this process.

Question 6: Enabling appropriate access to data from meters is key to unlocking benefits for consumers and end users

a) Do you agree there is a need to develop a framework for power quality data access and exchange? Why or why not?

PIAC supports the development of a framework for power quality data access and exchange. We note this may not be required if DNSPs were the entity responsible for metering.

b) Besides DNSPs, which other market participants or third parties may reasonably require access to power quality data under an exchange framework? What are the use cases and benefits that access to this data can offer?

Providers of Ancillary Services could use this data for market and network support, to bring about market and system efficiencies that benefit consumers.

c) Do you have any views on whether the provision of power quality data should be standardised? If so, what should the Commission take into consideration?

PIAC supports standardising data provision formats, processes and procedures to simplify and streamline the effective use of data to improve system reliability, security and efficiency.

Question 7: Feedback on the initial options for data access that the commission has presented

a) What are the costs and benefits of a centralised organisation providing all metering data? Is there value in exploring this option further? (eg high prescription of data management).

PIAC does not support the option of a centralised organisation for handling all data.

b) What are the costs and benefits of minimum content requirements for contracts and agreements for data access to provide standardisation? Would such an approach address issues of negotiation, consistency, and price of data?

PIAC has provided a combined answer to question b) and c) below.

c) What are the costs and benefits of developing an exchange architecture to minimise one-to-many interfaces and negotiations? Could B2B be utilised to serve this function? Is there value in exploring a new architecture such as an API-based hub and spoke model?

The entity responsible for metering should be required to provide specified data to other nominated parties according to a regulated schedule. This should include specifying where data must be provided to a party free of charge, or for a regulated, reasonable fee, as part of the responsibility of metering. This framework should specify the minimum frequency of data provision and the scale and granularity of data provision. And it should specify the mechanism and format of that data provision, such as through existing B2B. Any data not specified may be provided by permission, on contract or by agreement in a format and at a price agreed by the provider and recipient.

PIAC recommends restoring metering responsibility to DNSPs as the most effective and simplest means of aligning data requirements with data access, in the long-term interests of consumers.

d) What are the costs and benefits of a negotiate-arbitrate structure to enable data access for metering? Is there value in exploring this option further? (eg. Coverage tests or non-prescriptive pricing principles).

PIAC do not support a negotiate-arbitrate structure to enable data access. It may be an appropriate structure for other less common or more bespoke services.

e) Are there any other specific options or components the Commission should consider?

DNISP responsibility for metering would provide a simpler platform for addressing issues of data access. Most of the benefits of metering data accrue to networks, so it is of most value to DNISPs. Evidence from Victorian DNISPs provided during the course of this review has clearly demonstrated this. DNISP responsibility for metering could be supported by a framework for data access – such as proposed – that specified what data should be made available to retailers and other service providers. It could specify how that data should be made available, and what can be charged for that data. Data related to the required functions of appropriately capable metering should be provided free or at defined costs, with all other data provided by permission or negotiation.

Question 8: A higher penetration of smart meters will enable more services to be provided more efficiently

a) Are there other potential use cases that third parties can offer at different penetrations of smart meters? What else is required to enable these use cases?

PIAC understands there are a range of other potential services and products that are possible with better penetration of appropriately capable smart metering.

b) Noting recommendations in incentives and the roll out, are there other considerations for economies of scale in current and emerging service models?

PIAC refers to our previous answers in relation to facilitating the rollout.

Question 9: Improving customers' experience

a) Do you have any feedback on the proposal to require retailers to provide information to their customers when a smart meter is being installed? Is the proposed information adequate, or should any changes be made?

Ideally, retailers would not be responsible for providing information on metering to consumers. Any meter installation should be preceded by independently provided information (as below), including clear assurance that no contract changes accompany the new meter.

The retailer can provide accompanying information such as what new features, products and services that are now enabled by the meter. These should be clearly presented as options for the consumer to assess, not requirements or defaults as a result of the new meter.

b) Should an independent party provide information on smart meters for customers? If so, how should this be implemented?

Retailers should not be solely responsible for providing information on metering to consumers. PIAC prefers information on metering to be presented as the upgrade of metering standards and

specifications. This information should be developed and provided by an independent party, such as a regulator or ombudsman in that jurisdiction. This information should:

- Be clear, simple and consistent.
- Focus on the improved safety, reliability and utility of advanced metering.
- Include a simple explanation of the contribution more advanced metering makes to the affordability and reliability of energy generally – for instance its role in helping to manage demand extremes.
- Explain the arrangements for the costs of metering and any remediation required to install and make it clear what is not the responsibility of the consumer.
- Provide simple examples of the most direct services that are possible with advanced meters, including more regular bills, accurate actual billing, more timely usage information.
- Provide clear information that the upgrade of their meter should not result in any change in tariff or other service unless they choose to do so.

c) Should retailers be required to install a smart meter when requested by a customer, for any reason, are there any unintended consequences which may arise from such an approach?

Any consumer request for an advanced meter should be fulfilled, as a requirement, within the specified timeframes unless circumstances are deemed unsafe.

Question 10: Reducing delays in meter replacement

a) Do you have any feedback on the proposed changes to the meter malfunction process?

PIAC supports clearer requirements to replace malfunctioning meters within specified timeframes. It is unacceptable for the consumer to be without properly functioning metering equipment.

Further improving arrangements for replacement of faulty metering could be achieved through DNSP responsibility for metering and an accelerated strategy to rollout appropriately capable advanced metering.

b) Are there any practicable mechanisms to address remediation issues that can prevent a smart meter from being installed?

Mechanisms to address remediation must be part of any reforms of the metering framework. Even without an acceleration of the metering rollout or changes to responsibilities, there are a range of circumstances that can leave consumers without appropriately capable advanced metering, or with unexpected and material remediation costs they may not be able to manage.

This must be addressed and is an urgent priority if the rollout is accelerated and ‘involuntary’ installations become more numerous.

PIAC understands the complexities involved in addressing remediation issues, and the costs that may result from remediation. Any assessment of mechanisms to deal with remediation and its costs should be shaped by clear principles, PIAC proposes the following:

- All consumers are entitled to appropriately capable advanced metering specified in the rules.
- Consumers should not bear any upfront costs for the installation of a meter, or any necessary remediation required to enable it.
- The scope of what constitutes necessary remediation, when it is required, and what is required, should be established according to a consistent guideline.
- Any costs charged for installation and necessary remediation should be transparent and regulated according to a schedule or guideline.
- Consumers should only pay costs related to the installation of their own meter (identified by NMI), including any costs related to the remediation required to install it.
- Any remediation outside the scope of what is necessary can only be undertaken at the consumers expense subject to adequate prior notice and information as to the cost implications.

It is important to establish that in principle the costs of necessary remediation remain the responsibility of the consumer whose property it is. This should be defined according to the NMI(s) of the connection point(s) the remediation was necessary for. The issue at question is how to deal with these costs up front, and how should they be recovered over time? The meter remains the responsibility of the installing/maintaining entity. It may be practicable to recover the costs of necessary remediation – as distinct from remediation which is not deemed necessary – from charges associated with the meter, amortised over the life of that meter. Any mechanism to do this must have:

- An agreed procedure to deal with rectification works to facilitate meter installation, including:
 - Set criteria to determine if remediation is necessary to enable installation.
 - Set levels of remediation to be performed if necessary, including limitation of works that can be completed without prior agreement from the consumer.
 - A schedule of what costs of necessary remediation can be recovered, including a procedure for those costs only to be recovered from the NMI/NMIs associated with the meter(s) those remediation costs are related to.
- A government, industry or collective scheme to cover the necessary remediation costs of consumers in vulnerable circumstances. This could include social and community housing residents, residents with low incomes, residents covered by rebates and concessions schemes, and residents in Aboriginal housing.

Question 11: Measures that could support more efficient deployment of smart metering

a) Do you have any feedback on the proposal to reduce the number of notices for retailer-led rollouts to one?

PIAC supports the proposed reduction in the number of notices. However, any meter rollout not initiated by the consumer should be preceded by clear information regarding the reason for the meter upgrade and protections to ensure installation does not create any risks to the consumer. For instance, consumers with life-support or medical needs should be clearly identified, provided with adequate notice and protected from being without power. Further conditions are addressed in our response to question b) below.

b) What are your views on the opt-out provision for retailer-led roll outs? Should the opt-out provision be removed or retained, and why?

In principle, the opt-out provision for metering rollout should be removed. All consumers should have equal access to the utility of capable metering. Consumers should not be able to opt out of having any type of meter or the commensurate system benefits of a meter. They do not own the meter and or have responsibility for determining what constitutes an appropriately capable meter

Changes to opt-out provisions must be part of comprehensive measures addressing issues with the metering framework as a whole as part of a strategy to accelerate the rollout. Any removal of opt-out provisions requires complementary measures ensuring consumers are not impacted by unreasonable costs or left worse off as a result. Particular attention should be paid to ensuring:

- That there is a clear policy of 'no disadvantage' in installation practices. The benefits of existing multiple meter connections, particularly those with off-peak arrangements, should be retained. This can be achieved through a policy of replacing 'like for like', either with multiple new meters or a new meter with multiple circuit capability. It may also be achieved through decisions to make certain tariffs available to consumers with these legacy metering arrangements. For instance, peak demand or time-variant tariffs with low off-peak rates should be available to consumers who previously had multiple meters to accommodate an off-peak hot water arrangement.
- That default retail tariffs and other arrangements are amended so that consumers are not required to change tariffs with the change of meter. Any changes to retail tariff arrangements should be opt-in, and subject to the provision of clear and comprehensive information to the consumer regarding the implications of a new tariff or service and how to benefit from them.
- That there is no upfront charge to the consumer associated with the installation and no new contract implications for the consumer as a result of the new meter. For instance, an additional exit fee for cancellation of contract or switching to a new retailer should not be applied.
- That any other charges for the installation – including any remediation of the site required to install the meter - and ongoing operation of metering are transparent and regulated according to guidelines.

c) Are there solutions which you consider will help to simplify and improve meter replacement in multi-occupancy premises? Should a one-in-all-in approach be considered further?

PIAC highlights issues with replacement of meters in multi-occupancy premises as an area where restoring DNSP responsibility for metering would enable more practical and simplified solutions.

DNSPs already have the ability to interrupt supply of multi-occupancy premises and have in place safety processes and procedures to protect consumers. No new relationships or responsibilities would need to be created to enable this change, with the work either being undertaken directly by the DNSP or by a metering service provider contracted to act on their behalf.

DNSP responsibility for metering, at least in multi-occupancy premises, would allow a one-in-all-in approach to be taken. This would not be appropriate where retailer metering entities are directly responsible for metering as their actions would effect supply to customers they had no relationship with, no visibility of, and no responsibilities to. This would require a range of new regulatory processes and protections to be developed.

Regardless of responsibility multi-occupancy replacement issues will need to be addressed with clear policies around remediation works, including:

- Set criteria to determine if remediation is required to enable all installations.
- Set levels of remediation to be performed if remediation is needed, including limitation of works that can be completed without prior agreement from impacted consumers.
- A schedule of what remediation costs can be recovered, including a procedure for those costs only to be recovered from the NMIs associated with those remediation costs.
- Ensuring that no upfront costs are incurred by the impacted consumers, and that costs are recovered over time in a way that does not materially impact the affordability of energy. Consideration should be given to the creation of an industry fund, supported by government, to facilitate the upfront payment of costs associated with remediation.
- Measures to defray the costs of remediation for defined consumers or groups of consumers such as:
 - Residents receiving rebates.
 - Social and community housing residents.
 - Aboriginal housing residents.
 - Residents that meet low income or other defined eligibility criteria.

Question 12: Feedback on other installation issues

a) Do you have any feedback on any of the other installation issues raise by stakeholders? Are there any other installation issues the Commission should also consider?

PIAC considers it more appropriate to address this question after decisions regarding acceleration of rollout and the assignment of roles and responsibilities are made. The range and

nature of installation issues presented, and the best remedy for them, will depend in part on the roles and responsibilities assigned as a result of this review. The scope of any strategy to accelerate metering rollout will also influence this. For instance, the availability of industry keys would not be an issue were DNSPs to regain primary responsibility for metering. As part of developing the strategy to meet an accelerated rollout deadline, the Commission should identify the range of other issues that may impact effective installation, and develop appropriate guidelines.

Question 13: Improvements to roles and responsibilities

a) Are there any changes to roles and responsibilities that the Commission should consider under this review? If so, what are those changes, and what would be the benefit of those changes?

The Commission should consider returning metering responsibilities to DNSPs. Regardless, a comprehensive assessment of potential reforms to roles and responsibilities must openly consider all viable options to meet the objectives. The relative strengths and weaknesses of these options must be considered. The case for change, the objective and the key areas of focus established in the review indicate that DNSP responsibility for metering could be the most efficient, simple and logical response. PIAC highlights that DNSPs:

- Have a legacy fleet of meters which represent the majority of installed meters, the costs of which are still being recovered from consumers.
- Have the most comprehensive information regarding these meters, which will be required regardless of who is responsible for rollout.
- Have the suite of roles and responsibilities in the law and rules which enable them to undertake service interruptions on a single, multiple and geographic basis. This includes transparent consumer protections and safety frameworks.
- Have a structure of cost recovery that is regulated and transparent, and is capable of defraying recovery of the range of metering installation costs over time.
- Have the greatest need for the range of functions, services and data that metering provides.
- Have a geographic presence that is amenable to a staged, geographic and strategic rollout at scale.
- Could contract services from existing metering entities in addition to utilising their own resources, in order to undertake an accelerated rollout.

Such a change would involve a significant initial shift in responsibilities, resources and processes. Conversely it would simplify many of the existing complications in the current framework and render many of the issues identified in the Directions Paper redundant or materially simplified.

It is worth considering the hypothetical of who would be made responsible for metering were we to commence from a 'clean' start-point. As the entities responsible for the network up to the meter, with transparent regulated resources to maintain and operate the network efficiently, it would be logical to assign responsibility for the metering rollout to networks, as was previously the case.

This reform must be considered, and its relative benefits and drawbacks assessed against the status-quo and other reform alternatives. The process of undertaking this assessment would also help identify alternative strategies, or areas where the strengths and resources of DNSPs can be utilised as part of rollout by other parties.

Continued engagement

PIAC welcomes any opportunity to continue to meet with the AEMC and other stakeholders to discuss these issues in more depth.