energy networks association

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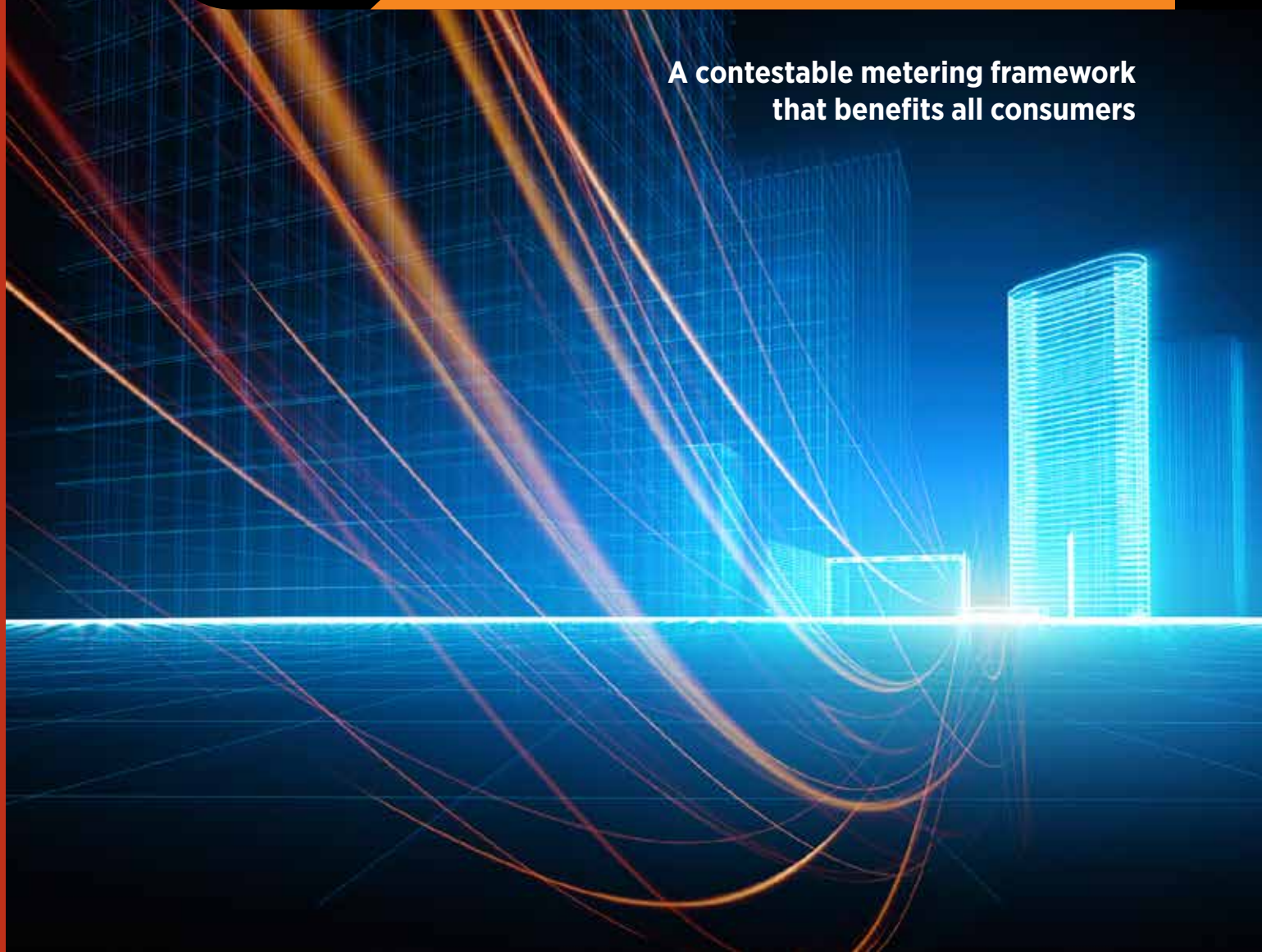
SMART CHOICES IN **METERING**

A contestable metering framework that benefits all consumers



WHY METERS MATTER TO CONSUMERS

WHAT DO METERS DO?

Electricity meters are installed in almost every Australian home and business and have three uses:

1. ***Metrology*** - measuring electricity consumption for market and billing purposes.
2. ***Customer products and services*** -like the control of a customer's load; customer information on energy use; disconnection & reconnection and potential new services such as remote control of appliances in smart applications.
3. ***Network control & management services -*** supporting reliability, outage recovery, load management to defer network augmentation, and (with smart meters) enabling intelligent networks.

Electricity meters provide services needed by individual customers, retailers, networks and other service providers. They are already an essential part of our electricity system integrated with network operations.

Australian Governments are currently considering a new policy framework to introduce competition in Electricity Metering for residential and small business customers, which at present have meters usually provided by their local network provider.

Smart meters are already contestable for large commercial and industrial customers. These meters have successfully supported business initiatives to monitor and manage their energy use, which can be a significant operating cost. This framework provides a strong basis to introduce competition and extend the benefits of smart meters to small consumers too.

It's vital that metering technology provides a cost effective tool to support customers in their energy supply and demand choices but also assist safe, reliable and efficient network services to consumers.

As technology and energy markets develop rapidly, smart meters and other devices will benefit **individual customers**. Customers should receive practical information and more rewarding tariff structures that match their needs; be able to control their energy use to get better deals and participate in new markets, such as exporting energy to the Grid through solar panels.

Importantly, smart meters also provide a simple way to achieve benefits to **all customers** by assisting network control and management. These whole of system outcomes include improved safety, greater access to power quality and outage information to reduce customer time off-supply, and improved outcomes for reliability performance. It has been estimated that the benefits for all customers at the network level from the use of smart meters, can be up to double those achieved for retailers and individual customers.

TABLE 1 TYPES OF ELECTRICITY METERS

Accumulation meters	Interval meters	Smart meters
» Currently in place in approximately 70% of Australia homes and businesses. » Only record the total electricity consumption since the last meter reading (typically three months). » Do not permit tariffs which reward customers for using less energy at peak times (ie. time varying tariffs). » Data is read manually from the meter at a consumer's premises. » May be used by Networks in conjunction with simple load control devices , such as ripple control, to provide benefits to all users	» Relatively low level of use, except for large commercial and industrial customers. » Can record both total electricity consumption and when it occurs (eg. half hourly intervals). » Permit tariffs which reward customers for using less energy at peak times (ie. time varying tariffs). » Data may be retrieved manually at the premises or may be read remotely via communication technology (that is, without having to visit the consumer premises). » May be used by Networks in conjunction with simple load control devices , such as ripple control, to provide benefits to all users.	» In use in Victoria and some NSW locations. » Have all the capabilities of Interval Meters and communication technology enabling data to be retrieved remotely. » Enables additional functions such as remote energisation and de-energisation and appliance control » Improve network performance, including reliability and quality of supply, and permit fault identification and network load management. » Can link to household devices such as through a Home Area Network (HAN) and In Home Display (IHD) to enable instant access for the consumer to their electricity use profile.

WHY DON'T WE HAVE MORE SMART METERS?

In 2012, around 88 per cent of small customers' consumption in Australia was measured on an accumulation basis[1] which records the volume but not the time of use. This percentage has been reduced by the rollout of smart meters in Victoria, but other jurisdictions in Australia still operate with the vast majority of small customers on accumulation meters.

Smart meters cost more than basic accumulation meters, although the meter cost is falling. The major additional cost is in the communications, data processing and additional service delivery.

The additional cost of the smart meters has to be offset by its benefits. As Figure1 indicates, one of the barriers to installation of smart meters is the fact that the financial benefits are divided across a number of parties.

Individual customers may benefit from better tariff structures or the benefits of a solar panel enabled by a smart meter; retailers will achieve savings on their cost to serve customers; and Network businesses can achieve savings for all network users through load management and network operations.

If metering contestability is introduced, it's essential the new framework does not limit the ability for all the diverse benefits of smart meters to be achieved economically. Both the retail-level and network-level benefits of smart meters must be realised to provide the strongest commercial business case for new investment, and therefore the earliest takeup of this important technology.

Enhanced customer services require an improved market framework which is genuinely competitive; where all metering customers have choice; and where access to smart meter services is supported and encouraged.

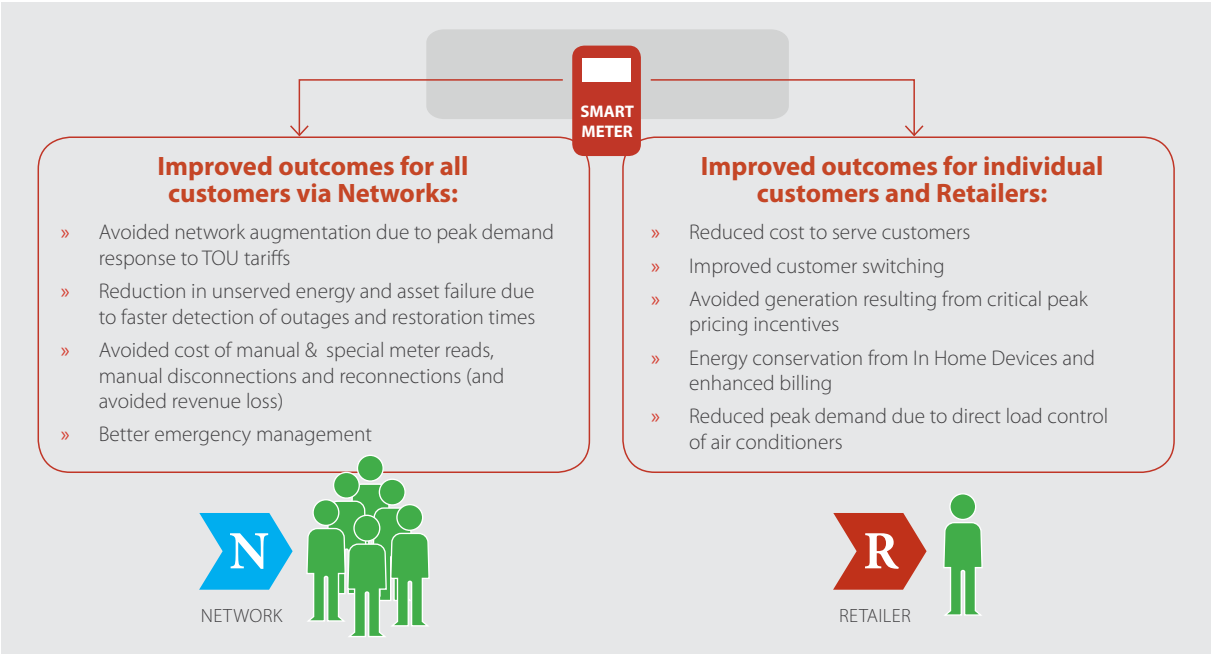
ADVANCED METERING IN VICTORIA

Advanced meters are now the standard metering infrastructure that all electricity distributors in Victoria will install. The rollout of smart meters across Victoria is more than 95% complete with more than 2.5 million meters now installed in homes and businesses across the state.[2]

Smart meters are already providing clear benefits in Victoria. The January 2014 heatwave event highlighted their role in informing network operators about pressure points, enabling faster response times.

They are also permitting smarter price structures which rewarded customers who reduced demand during the peak event.

FIGURE 1 THE "SPLIT" BENEFITS OF SMART METERS



1 AEMC, Power of Choice Directions paper, 23 March 2013. P. 74

2 http://www.smartmeters.vic.gov.au/installation

COMPETITION DOESN'T HAVE TO BE COMPLICATED

ENA supports a contestable metering framework which delivers real benefits consumers – by providing individual customers with new choices to take control of their energy use and providing benefits to all customers by enabling a smarter range of more efficient network management services.

The ENA supports a Metering Framework which:

1. enables a competitive, open and fair market for demand side services
2. benefits customers through economic achievement of future network operational benefits
3. facilitates broader adoption of smart meters while minimising cross-subsidies and any associated price impact on customers
4. enables a transition to cost reflective network tariffs as quickly as practicable
5. maintains current network services and efficiently leverages existing investments

Competition doesn't have to be complicated. The key objectives of metering contestability can be achieved without compromising outcomes for all electricity consumers who rely on safe, reliable and efficient network operations.

The current metering contestability framework for large consumers has worked well and can be extended to small or 'mass market' customers. It will require clear information about the new market from government and service providers to support consumers.

It doesn't need complex new institutional roles, as long as consumers are free to change their meter and metering provider; and networks are able to efficiently operate the network using either a network device or accessing a smart meter service.

Put simply, all customers of metering services must have choice.

- The end-use customer (or their retailer) should be free to choose their smart metering provider of Metrology Services and Customer Products and Services.
- Similarly, Network businesses, as the customers of Metering services for network operations must be free to choose between engaging a smart meter provider or continuing to provide those services internally through their own devices.

A competitive market should protect small consumers from overcharging for meter services because they will be able to switch their meter provider if they are not happy with their service. However, because this choice will be made by the consumer in the future, not the network business, it will be important to have light handed regulation of smart metering services to networks. This will stop a meter provider overcharging for network services from the meter and avoid those extra costs being passed on to all consumers.

In making these changes, it will be important to ensure consumer protection measures are maintained or enhanced.

CONSUMER OUTCOMES

- Competition means ***individual*** consumers can access new services or lower their energy costs.
- ***All consumers*** benefit from lower cost outcomes and improved network operations if networks have choice.
- Network businesses compare the offer from the consumer's metering provider with an in-house service using a network device.
- Light-handed Access Regulation for smart metering services stops overcharging by metering providers being passed on to all consumers
- Faster smart meter take up will be driven by competition for individual consumers and networks able to rollout smart meters to benefit all customers.
- Extend the current Contestable Metering Framework which has provided benefits to large consumers and minimises change to business processes and costs.

THE AEMC FRAMEWORK

To support competition in metering, the AEMC proposes a single Metering Coordinator at each customer location, which would be appointed by the Customer, or with their consent, their Retailer. However, the Metering Coordinator would have new powers over metering assets owned by network businesses, and the ability to position itself to provide monopoly services to network businesses.

The AEMC framework proposes that a Metering Coordinator be established and exercise market power by:

- removing and appropriating the network meter asset with unclear compensation;
- displacing the network business asset in the meter box; and
- providing (or not providing) Network Control and Management Services without regulatory oversight.

Of most concern is the assumption that an existing network meter asset can be removed, with unclear arrangements to ensure appropriate compensation or preserve existing network management capability provided by the current meter:

- **Compensation:** The AEMC proposes compensation will be paid to the Network Business in the form of an 'exit fee' based on lost metrology revenues. While early suggestions were the exit fee would be arbitrarily capped to lower costs for new metering providers, this would just mean all consumers were subsidising the cost of one consumer's new smart meter. Compensation should reflect the real economic loss.
- **Load management:** While the AEMC proposes a new Metering Coordinator will be required to preserve existing load management functionality, this may be difficult to regulate. It is vital that Network businesses can, if necessary, retain the current asset if they are not satisfied by the new metering offer.

Regulatory changes are needed to allow network businesses to initiate smart meter rollouts based on a business case. In some locations, the meters are already in place but rules prevent networks from remotely reading them. Some network businesses could lower the costs to consumers of meter reading quickly if those regulations were changed.

The current reform proposal puts at risk the delivery of network-level outcomes, including safety, greater access to power quality and outage information; and improved reliability of supply, which are important to all customers.

AEMC ON MARKET POWER

There are risks in establishing a new Metering Coordinator with powers over existing metering assets but without regulatory oversight. In its 'Supplementary Paper' on Contestable Metering Open Access and Communication Standards, the AEMC highlighted the real potential for the Metering Coordinator to exert market power resulting in inefficient charges or distortion of downstream markets.

The Supplementary Paper identifies the following issues

- "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 offered to rival services."
- Where the Retailer contracts the MC, *"…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" and "… the retailer may succeed in hindering the development of competition in energy services by frustrating access to a smart meter."*
- Firms faced with an MC seeking to frustrate access *"…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."*
- *"… [T]he retailer may have an incentive to frustrate access to the smart meter in order to make its [DSP] products appear more competitive to the consumer."*

Source: AEMC (2014), *Supplementary paper: Regulatory Framework for open access and common communication standards review*

AVOIDING A NEW UNREGULATED MONOPOLY

As illustrated below, most small consumers currently receive metering services from their network provider, a regulated monopoly. The current AEMC Reform Proposal would introduce competition in metering for an individual consumer. This is welcome. However the changes also remove the right for network businesses, as metering customers, to choose their service. This would expose all consumers, who benefit from an efficient network, to the risk of higher cost outcomes from the new unregulated monopoly.

FIGURE 2 **CURRENT REGULATION OF METERING SERVICES FOR SMALL CONSUMERS**

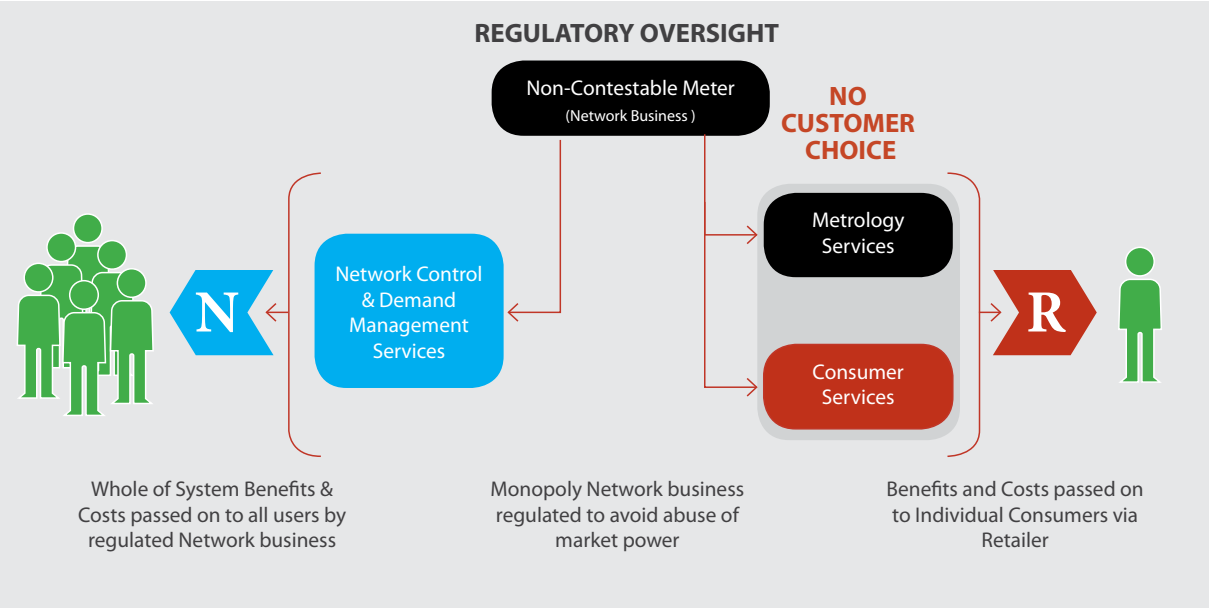
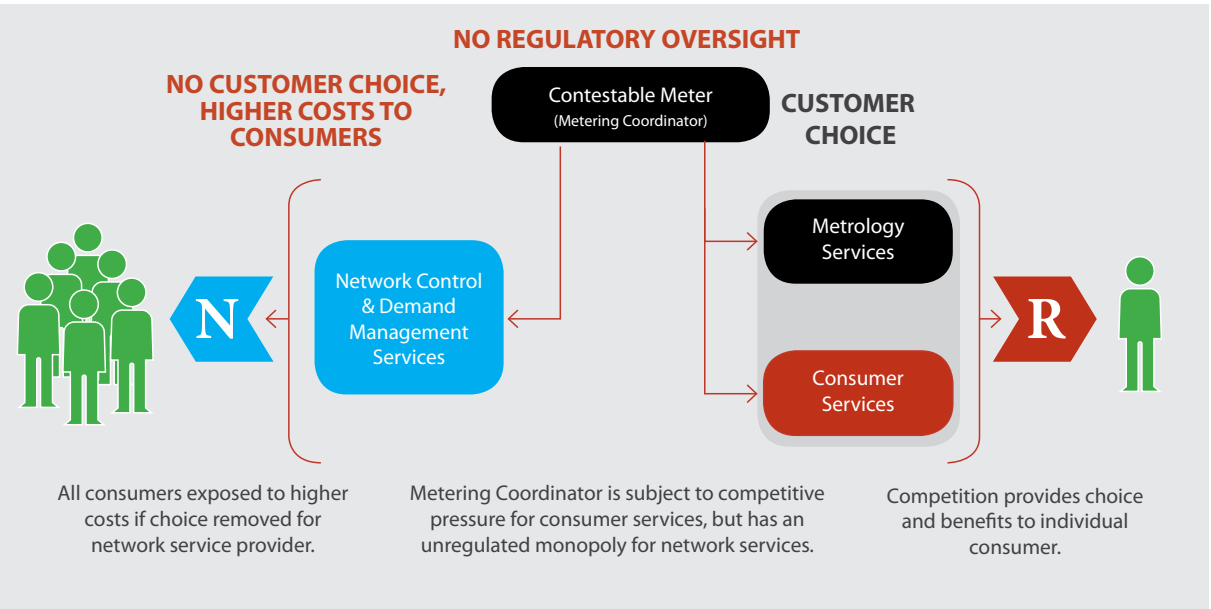


FIGURE 3 **AEMC PROPOSED APPROACH TO METERING REGULATION FOR SMALL CONSUMERS**



A BETTER WAY TO ACHIEVE REAL COMPETITION IN METERING

The ENA supports a balanced framework for contestable metering which maximises the potential for the full benefits of smart meter technology to be utilised and for business cases for smart meter rollouts to be underwritten by not only the benefits to *individual* consumers, but the benefits to *all* consumers provided by network uses.

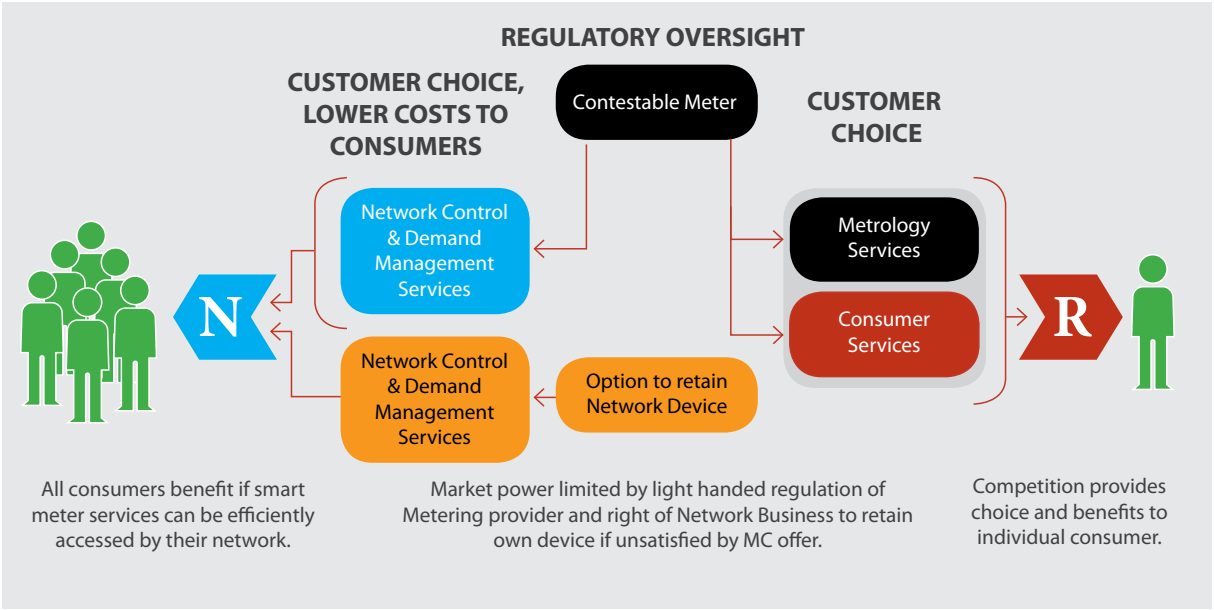
Australia's energy system will benefit from the fastest takeup of smart meters if this can occur whenever the benefits outweigh the costs, including:

- The customer accepts an offer to install a smart meter to enable an energy product offering (eg. a time-varying tariff); a new technology (eg. a solar PV) or participation in markets (eg. Demand Side Participation);
- The local network service provider installs a smart meter to support network control and management which provide whole of system benefits such as lower costs, improved reliability, quality or safety of supply;
- A combination of both incentives.

The ENA supports a market-driven rollout of smart meters as proposed by the AEMC, with additional measures to ensure all consumers are protected:

1. Consumers should be free to choose a new metrology provider and to install a new meter at the premises;
2. An existing meter and any load control devices may still be required by the network business for network purposes (ie. other than metrology) and should not be replaced without consent;
3. Market participants (including networks) should have the right, at their discretion, to choose to accept delivery of services from another party's contestable meter at acceptable service levels, reliability and cost. If acceptable services and conditions cannot be agreed, the market participant should have the right to maintain its functions via its own device(s);
4. Where the owner agrees to the removal of their asset, frameworks can be negotiated which should see 80-90% of removals occurring without specific discussion; and
5. Light handed access regulation should ensure access to smart metering services is available, and provided at an efficient cost, to the benefit of all consumers.

FIGURE 4 **ENA'S PREFERRED MODEL**



CONSUMER BENEFITS OF AN ALTERNATIVE MODEL

BETTER OUTCOMES AND LOWER COSTS FOR CONSUMERS.

The model gives consumers choice in their metering services and enables retail innovation, while preserving the capacity of network businesses to efficiently operate the network. By contrast, the AEMC model risks creating a Metering Coordinator with market power which will have incentives to frustrate access and downstream competition. The AEMC model constrains network businesses in their ability to retain a network device, even where it is more efficient. These outcomes are a cost to energy consumers and may lead to a value transfer from all end-use consumers, to retailers and some consumers who take up new metering services.

MORE EFFICIENT NETWORKS.

It is critical the metering framework does not limit network businesses in achieving efficiency in network operations, which extend beyond load control to reliability, outage recovery and enabling intelligent networks. Given the significance of network costs in the supply chain, the value of network efficiency realised by smart devices can be twice as great as that realised in retailer/energy service delivery. These efficiencies reduce pressure on network charges to end consumers. For instance, some network businesses could lower their costs significantly if they were permitted by current rules to remotely read advanced meters which are already in place.

MORE COMPETITION IN METERING SERVICES.

It ensures all customers of metering services are free to choose the most efficient option for them, including a network business supplying network control and management internally with its own device. It avoids the scenario where a Metering Coordinator would have the power to compulsorily remove an network business's option for such insourcing by: a) appropriating a incumbent network meter asset; b) displacing the asset in the meter box; and c) providing (or not providing) Network Control and Management Services without regulatory oversight.

A BASIS FOR WILLING PARTIES TO NEGOTIATE.

New metering providers should compete by providing valued services to metering customers (including consumers, retailers and networks). Network businesses may contract for load control or other network services from a new metering provider; or may agree to the removal of its asset for fair compensation. However, each metering customer (including network businesses) should be free to choose. If contestable market outcomes are genuinely beneficial, then NSPs and other metering customers should not need to be compelled. An NSP shouldn't be able to stop a consumer or retailer shopping around for a new metering provider for metrology or energy services, but it also must be free to choose how it delivers network control services.