



**Public forum on draft determination:
Competition in metering and related services**

**Agenda
Thursday 30 April 2015
Pullman Sydney Hyde Park Hotel, 36 College Street, Sydney**

| Time | Item | Speaker |
|-------------|---|--|
| From 9:30am | Registration | |
| | Session 1 – Will the draft rule deliver the objectives of the rule change? | |
| 10:00am | Welcome and objectives of the draft rule | John Pierce, Chairman, AEMC |
| 10:15am | Overview of the draft rule | Kate Reid, Senior Adviser, AEMC |
| 10:30am | Retailer perspective | Kate England, Group Head of Strategy and Risk Energy, AGL |
| 10:45am | DNCP perspective | John Bradley, CEO, Energy Networks Association |
| 10:50am | Metering business perspective | Marco Boggiers, CEO, Metropolis Metering Services |
| 11:00am | Consumer group perspective | Craig Memory, Energy Consumer Advocate, Alternative Technology Association |
| 11:10am | General discussion | Chaired by Richard Owens, Senior Director, AEMC |
| 12:00pm | Lunch | |
| | Session 2 – Minimum services specification and opt out arrangements | |
| 12:45pm | Overview: The minimum services specification and its application under the draft rule, including opt out arrangements | Elisabeth Ross, Director, AEMC |
| 1:00pm | Retailer perspective | Stefanie Macri, Regulatory Manager, Lumo Energy |
| 1:10pm | DNCP perspective | Byn Williams, Smart Grid Strategy Manager, SA Power Networks |
| 1:20pm | Metering business perspective | Adrian Clark, CEO Australia and New Zealand, Landis+Gyr |
| 1:30pm | General discussion | Chaired by Richard Owens, Senior Director, AEMC |
| 2:10pm | Afternoon tea | |
| | Session 3 – Network regulatory arrangements and access to Metering Coordinator services | |
| 2:25pm | Overview: Network regulatory arrangements and access to Metering Coordinator services | Claire Richards, Adviser, AEMC |
| 2:35pm | EHA perspective | John Bradley, CEO, Energy Networks Association |
| 2:45pm | Energy Service Company perspective | Paul Troughton, Senior Director Regulatory Affairs, Eversource |
| 2:55pm | General discussion | Chaired by Richard Owens, Senior Director, AEMC |
| 3:25pm | Closing remarks and next steps | John Pierce, Chairman, AEMC |
| 3:30pm | End of forum | |



Session 1

Overview of the draft rule



Delivering the objectives of the rule change

- Efficient investment in metering services that supports increased consumer choice in electricity products and services and consumer participation.
- Delivered through a competitive framework that supports a market-led and consumer driven approach to the deployment of advanced meters.
- Consistent with the NEO.
 - Efficient investment in metering services that deliver services consumers value at a price they are willing to pay.
 - Supports the deployment of advanced meters which can provide the information and means for consumers to understand, monitor and adjust their electricity usage to reflect their needs and preferences.
 - Efficiency of the national electricity system as a whole.

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rules will promote
as to improve consumer

7

Some jurisdictions may
not fall under the current rules
and some new responsibilities
have been added relating to
technical training services.

Agencies could perform the
Monitoring, Coordination, Training
Provision and Reporting Data
Provision related to
accessibility and reporting
requirements.

Efficient investment in metering services

- No exclusivity arrangements for MC role will support competition – any registered party can be an MC;
- Arrangements to support a level playing field:
 - a retailer that wishes to establish a MC business must do so through a separate legal entity; and
 - AER required to develop distribution ring-fencing guidelines.
- Introduction of a minimum services specification.
- Maximise likelihood of investment by minimising regulatory risks by not imposing access regulation at market start.

Consumer participation and choice

- Services consumers want are more likely to be offered when retailers appoint the MC.
- Simple and practical for small customers.
- Large customers can choose and appoint their own MC.
- Additional protections introduced for small customers around third party access to data and services.
 - Rules set out who is able to obtain data and services, and imposes obligations on the MC to prevent unauthorised access.
- Consumers are able to opt out of having their existing working meter replaced under a "new meter deployment".

Efficiency of the NEM

- Subject to any applicable jurisdictional safety regulations, retailers may arrange remote disconnections and reconnections directly with the MC.
 - Safety risks of multiple parties performing disconnection/reconnection services managed with information sharing requirements. This is also a potential role for jurisdictional safety regulators.
- Networks are able to deploy advanced meters as part of a demand management program (but will need to work with retailers and MCs).
- Networks are able to retain existing network devices.
- Ability for networks, retailers and third parties to negotiate with the MC for services provided via the metering installation.
- Provides a platform for a range of benefits to potentially flow to consumers through better information, cost reflective pricing, new products and services, better retail services and better network services.

Implementation issues

- The majority of customers in Victoria already have advanced meters under the AMI program.
 - The draft rule contains arrangements to support a smooth transition to the NEM-wide competitive framework.
- The proposed commencement date for the new framework is 1 July 2017.
 - The draft rule contains transitional requirements to ready the market for the commencement date.

AEMC Metering
competition Public Forum

Retailer Perspective

Marc England

April 2015

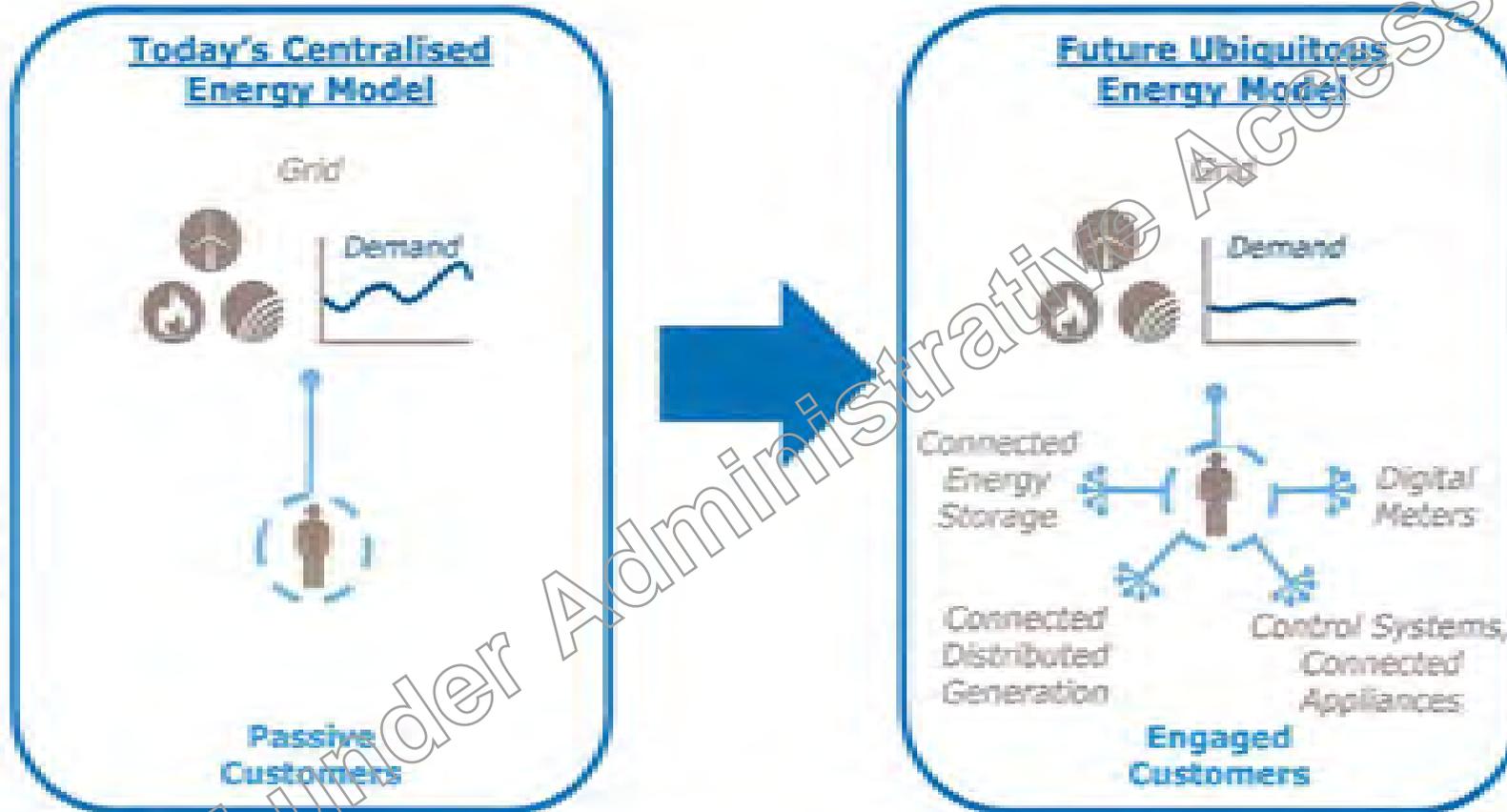
Energy in
action.



NEW ENERGY

A 'Customer driven' energy future

Energy will become ubiquitous



What does success look like?

A dynamic, flexible and light handed regulatory approach which promotes 'a customer driven' market and customer choice

1. Competitive neutrality
2. National Consistency
3. Network Cost Reflective Pricing
4. Ring Fencing of Regulated Businesses
5. Retail Price deregulation
6. Consumer protections (right to supply)

> AGL Energy

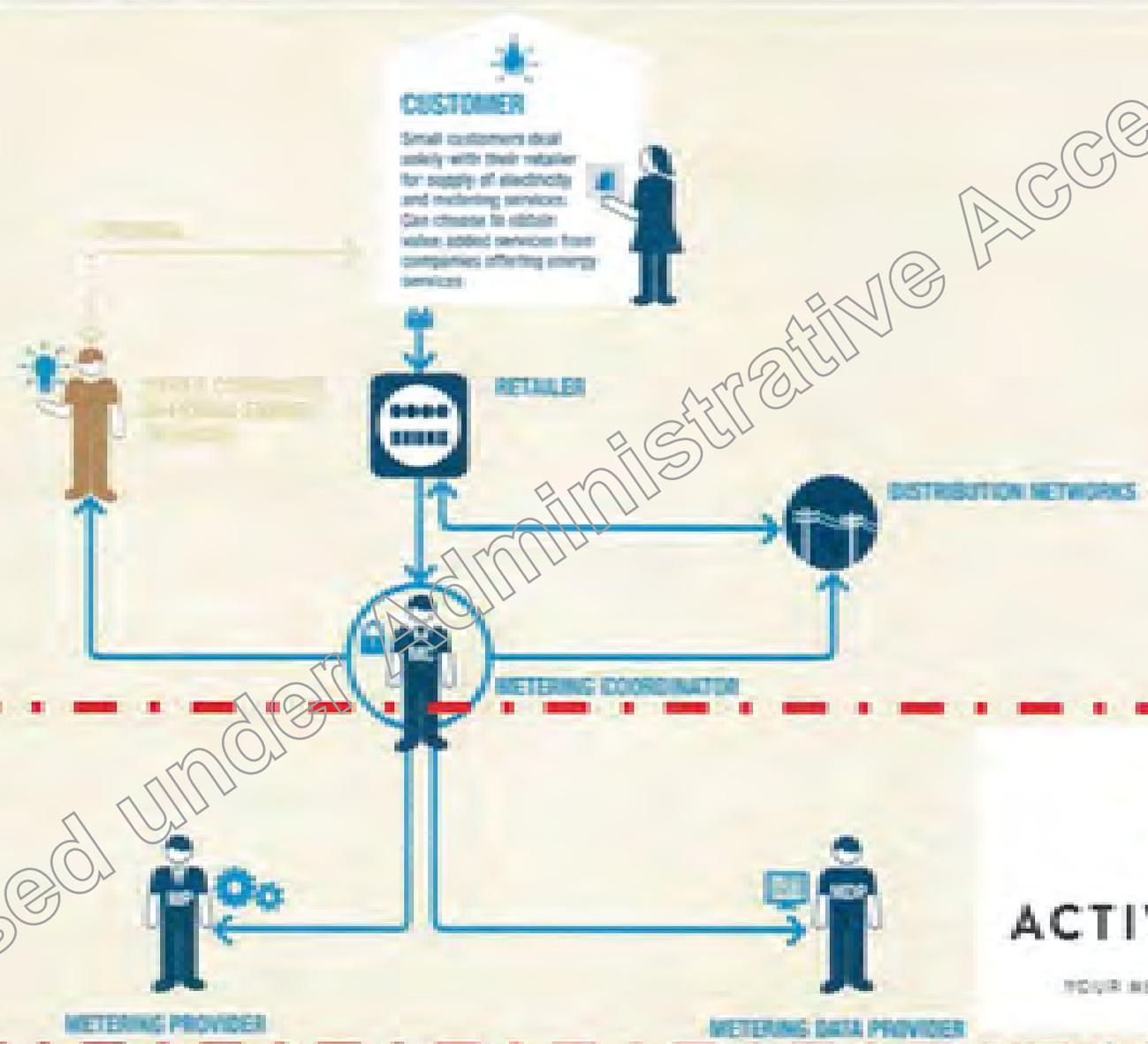
> April 2015

> NCC Pricing Conditions- Public Forum

Energy in
action



And AGL embraces the transformation to a customer driven energy market





AEMC Public forum, competition in metering
Will the draft rule deliver the objectives
of the rule change? – DNSP perspective

JOHN BRADLEY, CEO ENA

30 APRIL 2015

ENA's view on assessment of Metering Reform

> **The ENA supports reforms in metering and related services that contribute to achievement of the NEO:**

"To promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and*
- (b) the reliability, safety and security of the national electricity system."*

> **From the whole-of-system perspective of networks, particular focus should be on whether the framework:**

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

ENA supports objectives:

- > Intended Consumer Benefits
- > Increased scope for market-led meter deployments
- > Unlocking individual customer choice; participation in demand side markets;
- > New and Replacement policy supporting advanced metering
- > AEMC policy intentions:
 - Basis for commercial negotiation between NSPs and MCs
 - NSPs should be able to deploy smart meters to benefit customers.
 - Ongoing right of an NSP to a device at the premises

CONSUMER BENEFITS

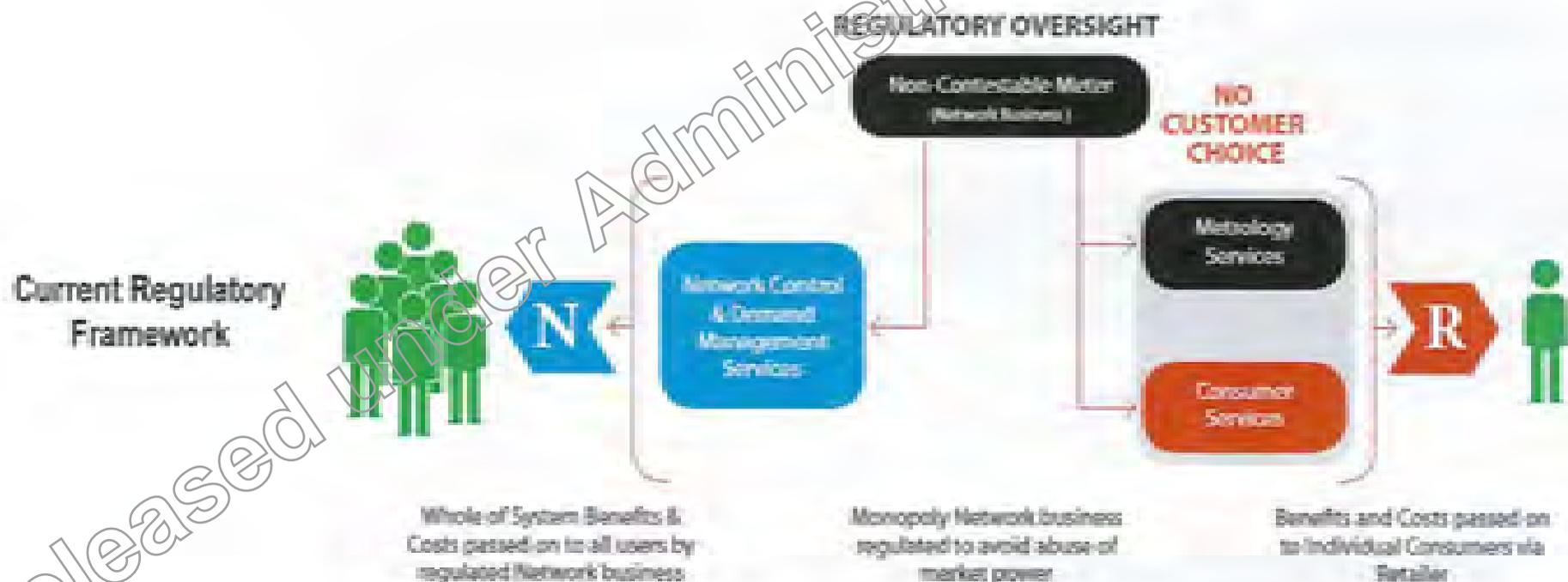
The diagram illustrates the competitive environment of advanced metering and the role of the regulator in ensuring that the benefits of smart meters are realized for consumers.



AEMC Infographic

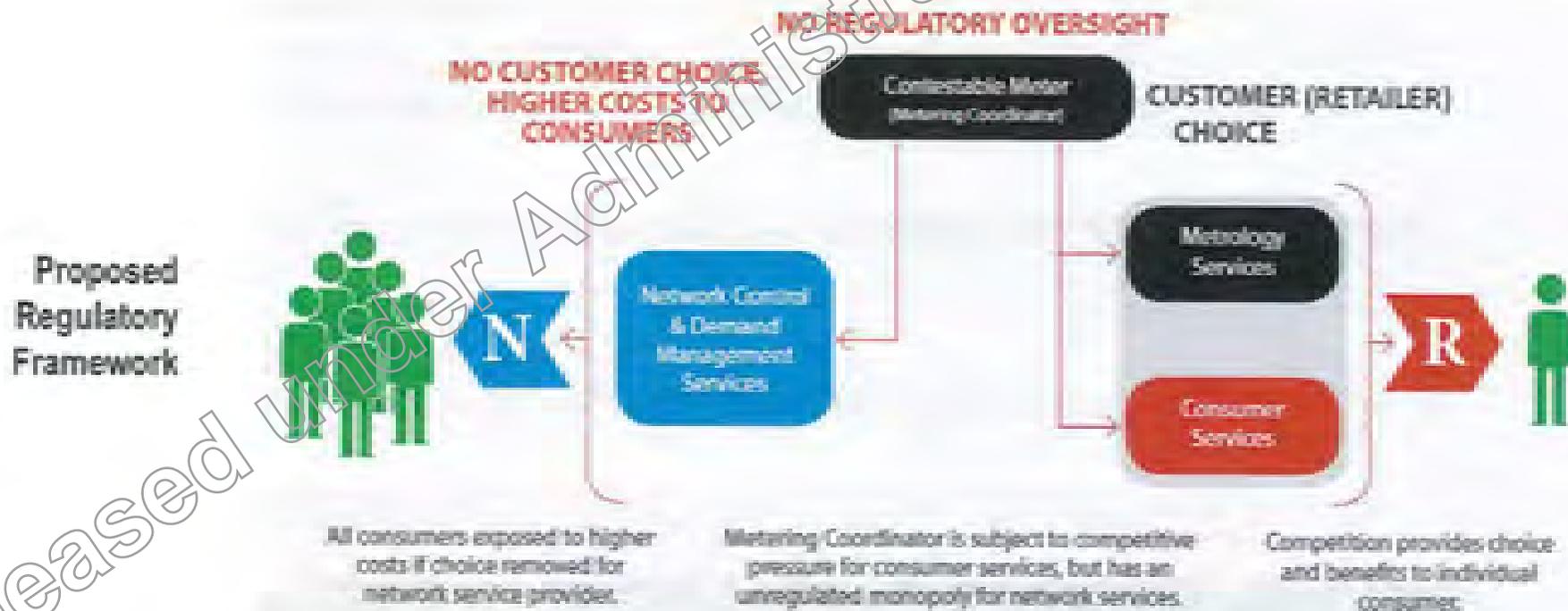
Fundamental Changes to Rules and the Market

- > **Draft Decision replaces the current regulated framework...**
 - Regulatory oversight of efficient metering cost
 - Clearly defined roles and responsibilities
 - Operational procedures for managing network and customer safety
 - Metering assets integrated in networks with system wide benefits (eg. Load control, grid intelligence in Victoria)



Fundamental Changes to Rules and the Market

.... with a proposed framework which is still under construction in subsequent processes.



AEMC satisfied Rule will achieve NEO via:

- > **Efficient investment in metering services** "driven by consumers choosing products and services they value..."
- > **Consumer participation and choice in electricity products and services**
- > **Promotion of innovation in metering** "... A market with many service providers is expected to provide incentives for these parties to innovate and improve service offerings to consumers while driving prices down."
- > **Efficiency of the national electricity system as a whole**
 - Consumers better understand their electricity consumption, choose to change behaviour and take up new products.
 - DNSPs to implement network prices that better reflect the costs associated with each consumer's use of the electricity network improving network utilisation"
 - Consumers to switch electricity retailers more quickly; and
"DNSPs to respond more quickly, and at lower cost, to power outages or poor supply quality where the advanced meters are used to support grid management technologies, which may lead to improved reliability and quality of electricity supply."

#1: Commercial Agreements for Efficient Investment

- > **Timely economic takeup of smart meters will occur where 'split benefits' can be realised through commercial agreements.**
- > AEMC assumes Networks will contract with MCs for smart meter services to support their investment in network control and management (eg. Grid intelligence systems, load control, etc)
- > To invest (or avoid investment as a Non Network Solution), a Network counterparty must be able to manage risks to continuity of service, commercial terms.
- > **The proposed Regime does not appear to provide sufficient certainty to support commercial agreements.**
- > Network counterparties to the MC appear exposed to "hold out" risk – including after Meter or MC churn.
- > Potential Result:
 - Energy consumers pay more for network services;
Economic take-up of smart meters is unnecessarily delayed, delaying cost-reflective tariffs and markets for demand-side services.
 - Meters rolled out with limited (retail orientated) services only as MC not support/offer network services

#2: Outstanding Design Issues

> Efficient Access to Smart Meter Services

- Minimum Service Specification; Service Performance Levels; Narrow Definition of Primary Services and Scheduled Meter Read;
- Exacerbated by rejection of a Non-Reversion policy
- Obligation to provide data and services requires clarification
- Apparent risks that some current services would need to be paid for.

> Efficient Participation of NSP

- Missed opportunity in Network Solutions
- Potential for unnecessary costs on consumers due to increased Ring-Fencing
- NSP right to remotely-read capable devices still appears precluded (Rule 7.8.9)

> Exit Fees – managing cross-subsidies & cost recovery

- Exit Fees deferred to AER process yet fundamental to market dynamics, cross subsidies;
- Not clear what happens to any residual un-recovered capital in the next regulatory period, if AER no longer classifies these services as direct control?

> Issues in an Intermediated model

- Careful review required of Roles and Responsibility (eg. Remote Re-En & De-En; MC Prudential requirements)
- Cyber security: managing end to end risks of successful penetration
- Replacement of faulty meters to enable efficient outcome for customers
- Maintain customer and employee safety (engage with jurisdictional safety rules)

#3: Implementation and Transition Issues

- > Objective is a **seamless transition for customers and effective and efficient implementation for stakeholders**
- > **Concerns:**
 - Rule Timeframes (July 2015) appear inadequate to sufficiently define the new framework and address stakeholder issues.
 - AEMO implementation timetable for procedures by 1 April 2016 appears difficult to achieve – a compressed timetable risks inadequate engagement or unforeseen consequences for customers.
 - Transition issues are likely to require specific attention in Victoria
- > **ENA Supports:**
 - Adequate timeframes and work packages which are realistic and agreed.
 - Scope matters resolved before process development and procedure drafting (including Rules, SMP protocol and platform)
 - The industry “go live” date should be resolved based on endorsed work plan before Final Rule sets the date.

Risks to Rule achieving the Objectives

> **Benefits Sought:**

- Competition in metering markets to lead to retail product innovation
- Timely market-led take up of smart meters.

> **Risks & Challenges:**

Costs to Customers

- Market formation and "Hold Out" risk between unregulated MCs and access seekers
- New or Unnecessary costs to network efficiency (eg. Ring-fencing & interface costs)
- Ensuring efficient exit fees which do not increase cross-subsidies between customers

Operational and Safety Issues

- Clear transfer of Chapter 7 roles and responsibilities
- Metering services supporting quality and safety should be in MSS, SMP and not at risk of a "hold out" negotiation with a monopoly MC provider.

Implementation and Transition Issues

- Adequate time for development of AEMO procedures and company process changes
- Clear practical arrangements in the transition from default Metering Coordinator
- Recognition of Victoria's different context

- 3 **Outstanding issues are fundamental to the market design and customer outcomes and should be closed out in the Final Decision.**



Session 2

Minimum services specification and
opt out arrangements





Minimum services specification



Governance arrangements

Draft rule

- Requires all new and replacement metering installations installed at small customer connection points to be type 4 metering installations that meet the minimum services specification (MSS)
- Sets out a description of the services that all new and replacement small customer metering installations must be capable of providing
 - Requires AEMO to develop detailed procedures

Rationale

- MSS requires assessment of costs and benefits across the supply chain
 - best set out in the NER
- Allows any person to propose a rule change to the MSS following a clearly understood, consultative approach

List of services

Draft rule

- The list of services in the MSS are:
 - Remote disconnection service
 - Remote reconnection service
 - Remote on-demand meter read service
 - Remote scheduled meter read service
 - Meter installation inquiry service
 - Advanced meter reconfiguration service

List of services

Rationale

- The MSS reduces the transaction costs of negotiating access to commonly used services that have broader market benefits
- There is a risk of over-specifying the list of services, with customers paying for services that are not taken up or could be offered more cheaply through alternative technologies
- A relatively low MSS allows the market to drive service and technology outcomes
 - Investment, innovation and technological development to respond to consumer preferences

Meeting the minimum services specification

Draft rule

- The MC must ensure new and replacement meters meet the MSS
 - This means a metering installation must be capable of providing the services set out in the MSS, and be connected to a telecommunications network that enables remote access
- MCs may apply for an exemption where there is no existing telecommunications network to facilitate remote acquisition but...
 - ...metering installations must still be capable of providing the minimum services where an exemption is granted by AEMO

Rationale

- This approach maximises opportunities to achieve efficiency gains from advanced meters balanced against the costs



Opt out arrangements



Overview of the draft rule

Draft rule

- Small customers are able to opt out of having their meter replaced under a "new meter deployment"
- Small customers cannot opt out of having a meter installed that meets the MSS in the following circumstances:
 - Where a consumer chooses to take up a product or service that requires a new meter to be installed
 - Maintenance replacement, where meter testing indicates it is necessary or appropriate to replace the meter
 - Replacement due to fault
 - For a new connection (e.g. new house or development)

Overview of the draft rule cont...

Rationale

- It is important that faulty meters are replaced quickly to avoid billing on the basis of estimated consumption for prolonged periods
- The incremental costs of installing an advanced meter that meets the MSS are relatively low compared in a new accumulation meter
- Allowing consumers to opt out risks locking in old technologies that are not in the best long term interests of consumers
- Consumers will still have the option to choose from a range of products and services

Obligations on retailers to notify their customers

Draft rule

- The draft rule requires retailers to give their small customers sufficient notification to allow them to opt out of having their metering installation replaced under a new meter deployment.
- Retailers must provide two written notices that include:
 - That the customer may opt out of having its meter replaced and the way in which the customer may exercise such a right
 - The last day on which the customer may opt out
 - Any upfront charges the customer will incur
 - The expected date and time on which the meter is proposed to be replaced
 - The retailer's contact details

Rationale

- This notification process provides a consistent and enforceable mechanism for retailers to allow consumers to opt out



Customer Choice and Minimum Services

30 April 2015

Lumo Energy

- We're an Australian-based home and business energy retailer owned by Snowy Hydro Ltd.
- We sell electricity and gas to homes and businesses in Victoria and New South Wales, and electricity in South Australia and Queensland.
- Through our range of home and business energy offers we service Australians with the energy they need to power their homes and workplaces.
- The combined Snowy Group serves approximately 1 million retail customers.



Minimum Services



Minimum Services Specification

- Meters that are capable of providing services and are connected to a communications network are considered to meet the minimum services specification.
- We believe that the meters that will be deployed can and will do much more for consumers than the delivery of interval data and the services outlined in the minimum services specification.



Remote Disconnection and Reconnection

- Customers will benefit from remote disconnection and remote reconnection as they will have a faster service at a lower cost than a physical disconnection and reconnection. Retailers will enjoy a better customer service standard and customer satisfaction.
- Currently in the market a disconnection can be raised by a distributor or a retailer of the customer. This is consistent in the new rules.
- For a reconnection, it can be raised by a distributor, the current retailer or the new retailer of the customer. This is not consistent.
 - The ability for the new retailer to organise this service is usually employed in the following scenario:
 - Customer moves in and realises the power is off. They ring their retailer of choice to be connected.
 - Retailer raises the service and organises a retail contract to be provided to the customer. Additionally they raise a transfer request in the market systems.
 - The customer does not have to wait for the reconnection while the lengthy market transfer process takes place.



Remote On-Demand Meter Read

- Customers will benefit from this service as retailers can provide better customer service outcomes – for example being able to conduct a real-time check of their meter whilst querying a bill, or organising a final read upon move out. Again, this is beneficial for retailers who can provide better levels of customer service and customer satisfaction.
- Access to this service is available to:
 - MC
 - MP
 - MDP
 - LNRP
 - FRMP
 - Registered Participant with a financial interest in the meter or the energy measured by the meter
 - Customer
 - Customer's authorised rep.
 - AEMO
 - Ombudsman
 - AER



Remote Scheduled Meter Read

- The customer benefit of a remote scheduled read is the efficiency gained of no longer requiring a manual read. For some customers where meter access has been an issue—as well as receiving a more accurate bill their gardens, locked gates and dogs will also be winners!

• Access to this service is available to:

- MC
- MP
- MDP
- LNRP
- FRMP
- Registered Participant with a financial interest in the meter or the energy measured by the meter
- Customer
- Customer's authorised rep
- AEMO
- Ombudsman
- AER



Other Remote Services

Meter Installation Inquiry

- Being able to retrieve information from the meter on its energisation status and other information will benefit retailers and their customers. Power at a premise will be available when the customer moves in and there will be an ability to provide reassurances that electricity supply is provided in safety at the premise.

Remote reconfiguration

- This allows the retailer and the distributor to remotely access the meter and reconfigure it. This will be a benefit to customers as any network tariff changes, introduction of PV or the activation (or deactivation) of a data stream can be done remotely. This will improve the customer experience rather than waiting for these benefits whilst a manual reconfiguration is completed on site.



Customer Choice



Customer Choice

- We support the proposal that customers who have a faulty or end-of-life meter will not have the ability to opt out.
- We support customers having to opt in to benefit from a new product and/or service level that requires an advanced meter.
- We support the ability for customer's to opt out of a retailer led deployment where they have not selected a product that requires an advanced meter.





ENA

AEMC Public forum, competition in metering
Minimum services specification – DNSP perspective

BRYN WILLIAMS

30 APRIL 2015

Why a minimum specification?

The NEO: "...to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system."



Available smart meter benefits (not inc. DSP)

Source: Deloitte 2011

Advanced meter functions used by DNSPs



Controlled load

- Around 3 million customers in the NEM
- More than 8 GW of load under control



Power quality data

- Enabling ongoing integration of renewable energy into the grid
- Compliance, optimisation, fault detection



Remote service check / Loss of supply / supply restoration

- Better customer experience
- Reduced cost to maintain reliable supply through more efficient use of field crews and other resources

AEMC proposed minimum services

| Minimum services | Secondary services | Value added services |
|----------------------------|---|--|
| Remote disconnection | Re-energisation with safety provisions | Home Area Network |
| Remote reconnection | Load limiting | Supply failure and restoration notifications |
| On-demand meter read | Load management | Meter installation asset management |
| Scheduled meter read | Local access to connect device to meter | Customer safety monitoring |
| Meter installation enquiry | | |
| Meter reconfiguration | | |

Victorian AMI, NSMP National Spec., UK SMETS, etc

AEMC proposed minimum services

| Minimum services |
|----------------------|
| Remote disconnection |
| Remote reconnection |
| |
| |
| |
| |

- Service should include provisions for the **safe** reconnection of supply
 - Victorian AMI spec (load sense, arm)
 - NSMP (load sense, arm)
 - UK SMETS 2 (arm)
- Rationale for excluding from minimum spec:
 - “provides no additional benefits”
 - “could be mandated under a regulated rollout, but not a competitive rollout”
- ENA considers that customer **safety benefits** are real, and independent of rollout model

AEMC proposed minimum services

| Minimum services |
|----------------------|
| |
| |
| On-demand meter read |
| Scheduled meter read |
| |
| |

- > Service definitions should include performance requirements
- > Scheduled read service should be based on 'remote acquisition' as defined in NSMP / Vic AMI
- > Include scheduled read of meter event logs, e.g.
 - > Voltage threshold alarms
 - > Remote disconnect / reconnect events
 - > Supply loss / restoration events
 - > Tamper alerts, ...

"AEMO recognises that one of the most important features of an advanced metering system is the rich source of data that can be made available to authorised parties on a frequent basis. The currently available standard file formats, known as Meter Data File Format Specification (NEM 12 and NEM 13), have been founded on traditional metering data sets ... There is a potential for the number of service request transactions to be reduced significantly if the standard formats are updated to consider advanced metering information."

AEMC proposed minimum services

| Minimum services |
|----------------------------|
| |
| |
| |
| |
| Meter installation enquiry |
| |

- > This is a key service
- > ENA welcomes the additional detail in the AEMC draft rule on the data that this is to include
- > Performance level is fundamental to service definition
- > Service needs to be available both on request and scheduled

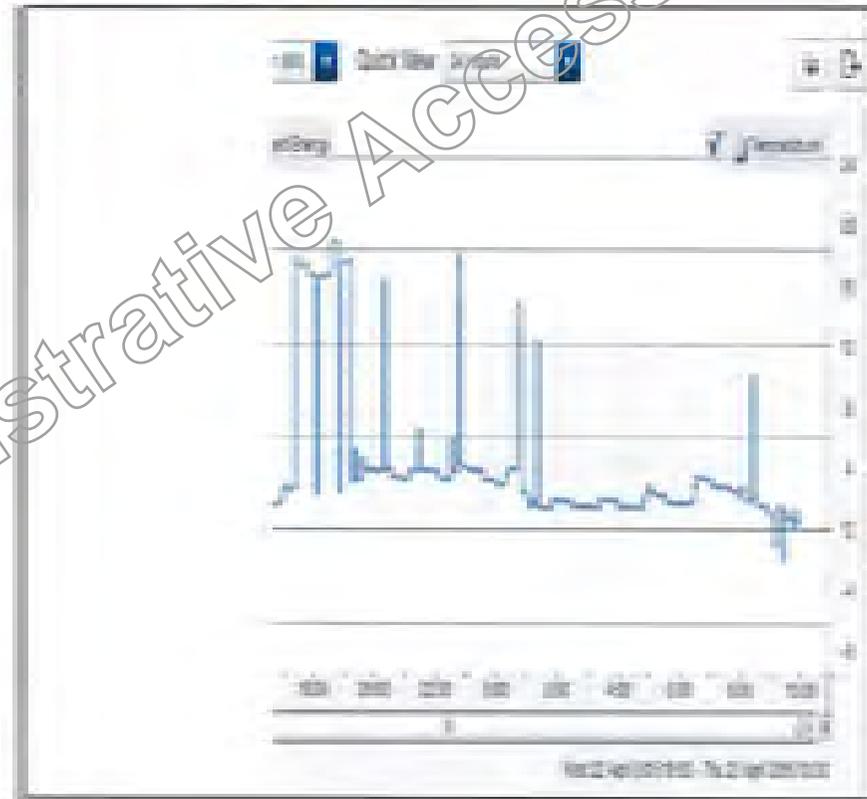
Meter installation enquiry use cases

Lab Meter Detail | A&P | 4.4 (Production)

Meter: [8115827] Get Meter Status

Meter Status

| | |
|-----------------------------|-----------------------------------|
| Meter | 8115827 |
| SN | 5102407510 |
| Address | [REDACTED] |
| City | WANTHORN |
| Postcode | 3102 |
| Operational State | Active |
| RCOC Switch | Connected (Closed) |
| Supply Voltage A/S/C | 243.8 / 243.8 / 244.8 |
| Instantaneous Current A/S/C | 8.19 / 7.57 / 7.84 |
| Supply Frequency | 50.0 |
| Total kWh A/S/C | 11822.885 / 24888.488 / 17769.182 |



The proposed minimum services

| Minimum services |
|-----------------------|
| |
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| |
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| |
| |
| |
| Meter reconfiguration |

- > This is a key service
- > Definition needs to include more than just reconfiguration for tariff changes:
 - > Thresholds for event alarms
 - > Load control configuration, e.g. on/off times, randomisation
 - > Parameters for services such as emergency supply limiting

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Other services

| Minimum services | Secondary services | Value added services |
|------------------|---|--|
| | Re-energisation with safety provisions | Home Area Network |
| | Load limiting | Supply failure and restoration notifications |
| | Load management | Meter installation asset management |
| | Local access to connect device to meter | Customer safety monitoring |
| | | |
| | | |

Victorian AML, NSMP National Spec., UK SMETS, etc

Other services

➤ Supported by 2.5 million meters in Victoria today (1/4 of the NEM)

➤ Some services require critical mass to enable benefits

| Secondary services | Value added services |
|---|--|
| Re-energisation with safety provisions | Home Area Network |
| Load limiting | Supply failure and restoration notifications |
| Load management | Meter installation asset management |
| Local access to connect device to meter | Customer safety monitoring |

➤ Technical pre-requisites for achieving benefits from non-minimum services are:

- Meters installed from day 1 must be capable of supporting them
- Service definitions must be standardised

Cost implications of advanced services

- AEMC draft rule requires meters to be capable of minimum services, but does not require services to be enabled
- This largely mitigates risk of over-specification: customer exposure is limited to incremental meter CAPEX
- Risk of under-specification is premature meter replacement or lost benefit



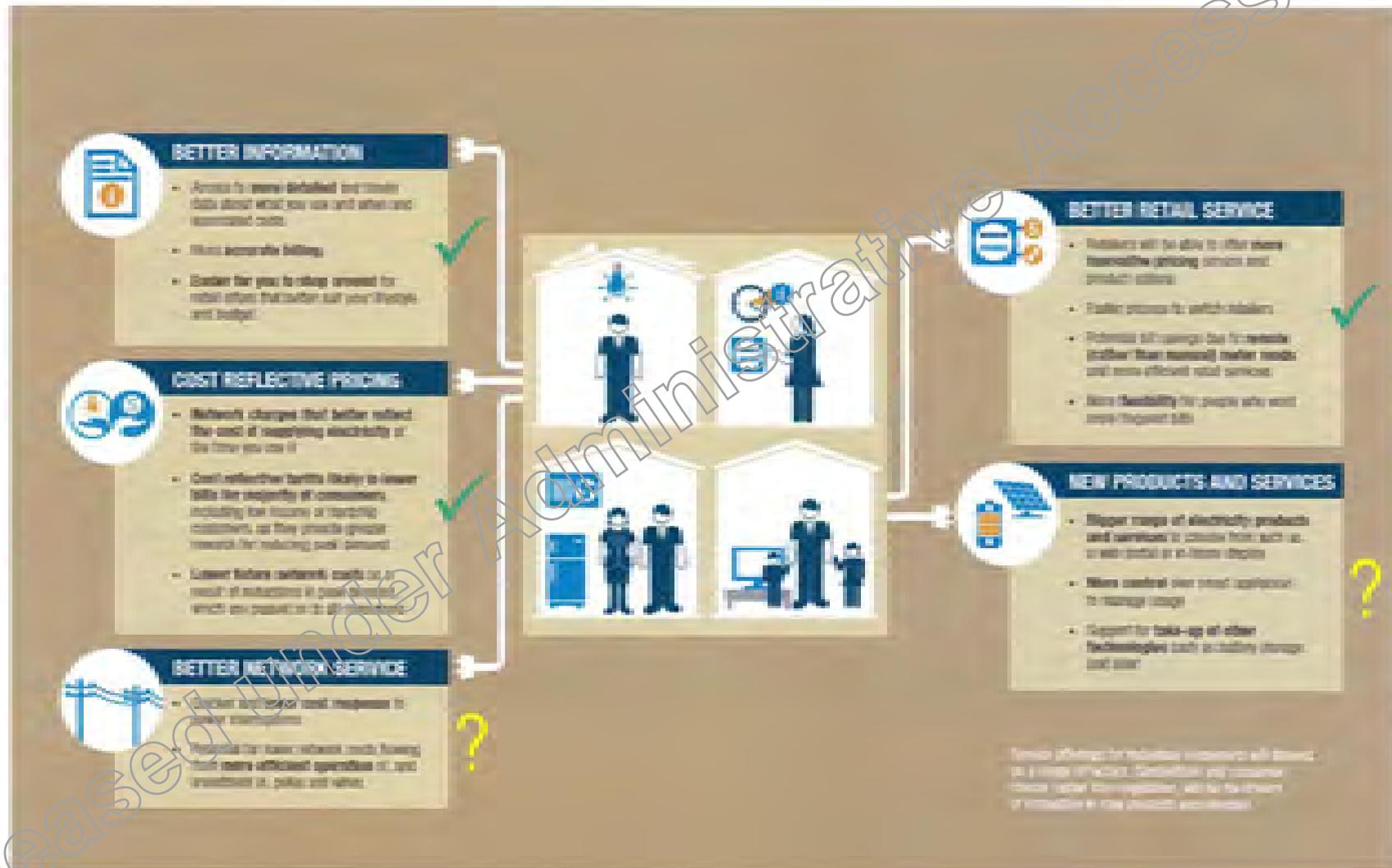
Available smart meter benefits
(not inc. DSP)

Smart meter cost stack
(meter + installation CAPEX)

Source: Deloitte 2011

CONSUMER BENEFITS

The draft rules enable the competitive deployment of advanced metering – allowing people to find new ways to monitor, manage and adjust their use of electricity to suit their budgets.



AEMC infographic

Summary

- The importance of an adequate minimum specification in achieving the full range of smart meter benefits is well understood

"Recommendation: The COAG Energy Council should ensure that the minimum guidelines for smart meter functionality currently being developed by AEMO is sufficiently comprehensive to enable network operators, retailers and third-party providers of smart metering services to most effectively access relevant data in order to derive the full benefits of smart meters." (Smart Grid, Smart City, final report)

- AEMC's proposed minimum services can potentially enable a range of benefits, if sufficiently well defined
- Exclusion of network services from the minimum makes network efficiency outcomes uncertain, but unlikely to materially reduce meter cost

Questions ?



Supplementary material

The following slides are supplementary to the main presentation.

Opt out – practical considerations

- The draft rules provide for customers to be able to opt out up to 3 days before the scheduled date for work.
- If a retailer or LNSP is funding a roll-out of advanced meters, the benefits are likely to rely on critical mass and certainty of coverage.
- Consequently, if a significant number of customers opt out at the last minute it may no longer be worthwhile proceeding with the new meter deployment.
- May be more appropriate for the opt out date to be something like 14 business days before commencement of the proposed deployment program, not individual meter installation dates.

Landis
| Gyr
| manage energy better

AEMC Forum – Metering Business Perspective

Adrian Clark, CEO Australia and New Zealand

© Landis+Gyr 2015 |

Smart meters: Global Perspectives



"It is in the interests of all parties that equipment from multiple manufacturers interoperates seamlessly within customers' premises so that equipment does not have to be replaced, adding cost and creating disturbance for customers." [UK Government response to DCC report]

- UK– Changed its specification to improve interoperability of the meter
- Victoria – What are the lessons from the rollout?
- New Zealand – What can we learn?



Adrian Clark | G. Landis+Gyr | 30 April 2015 |

Split value and uncertainty



- Pilots and trials have highlighted the benefits of smart meter services across the value chain.
- The economic problem is uncertainty at time of investment. The value of a smart meter is split across many parties.
- There may be limited incentive to build 'above and beyond' the minimum specification:
 - There is uncertainty about whether the additional upfront investment will be recovered.
 - Dependent on other parties accessing the services in the future.

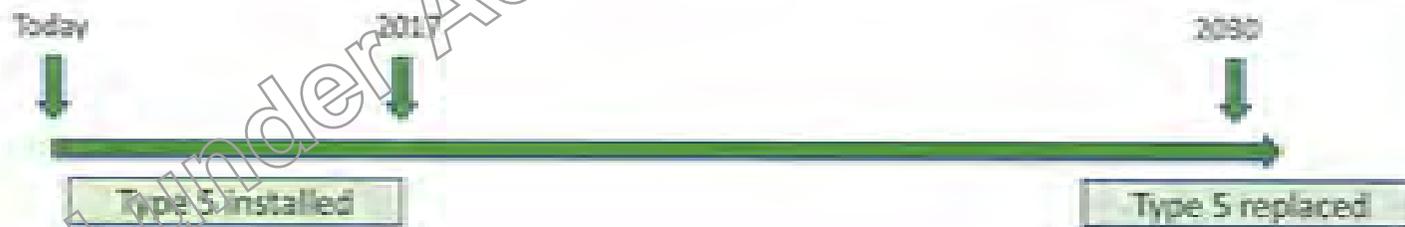


"Even if general acceptance exists that these benefits will be provided, there is a question over the timing of the benefits with a large upfront investment that needs to be recovered over the life of the meter" (KEMA's review of other jurisdictions, 2012)

Acceleration of smart meters



- There are benefits today from installing a Type 4 meter for new and replacement meters. But new Rule comes into effect on 1 July 2017.
- Large stock of replacement – back of envelope estimate could be between 10-15 per cent of customers.
- Communication - How could we provide incentives for distributors and retailers to install smart meters?



Adrian Durr | G. Landis+Gyr | 30 April 2015 |

Thank you for your attention

Landis
|Gyr+

Adrian Clark
Chief Executive Officer ANZ

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Landis-Gyr
www.landisgyr.com



Questions ?

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Session 3

Network regulatory arrangements and access to
Metering Coordinator services





Network regulatory arrangements



Unbundling of metering charges

Draft rule

- The draft rule does not require the AER to unbundle metering charges from distribution use of system charges.

Rationale

- Charges for type 5 and 6 metering services have been, or soon will be, unbundled from distribution use of system charges.
- It is appropriate that the AER continues to determine the classification of services and control mechanism within the existing regulatory framework.

Cost recovery for regulated metering services

Draft rule

- The draft rule maintains existing arrangements, whereby the AER determines an appropriate means for DNSPs to recover residual costs of regulated metering services.

Rationale

- The existing regulatory framework is appropriate for the AER to determine arrangements for DNSPs to recover residual costs.
- Prescribing the service classification and control mechanism for metering services would restrict the AER's flexibility and would be a significant departure from current arrangements.

Distribution ring-fencing arrangements

Draft rule

- The draft rule amends an existing provision to require the AER to develop a national distribution ring-fencing guideline by 1 July 2016.
- In developing this guideline the AER will determine whether DNSPs should be required to ring-fence the provision of regulated services from the provision of metering services on a competitive basis.

Rationale

- The existing NER provisions are sufficiently flexible for the AER to determine appropriate ring-fencing measures.
- The guideline may apply to a range of distribution services. There is no reason to mandate a particular approach for metering services.



Access to Metering Coordinator services



Access to Metering Coordinator services (1)

Draft rule

- The draft rule does not regulate terms and conditions of access to the services provided by a Metering Coordinator.
- The terms, conditions and prices of access to services will be subject to commercial negotiation between the Metering Coordinator and those seeking access.
- The AEMC recommends that the need for access regulation be reviewed three years after the rules commence.

Access to Metering Coordinator services (2)

Rationale

- We anticipate several factors will mitigate risks to competition for the provision of Metering Coordinator services to small customers:
 - The number of potential market entrants.
 - The risk that assets will become stranded if access is restricted.
 - The bargaining power of DNSPs.
 - The ability of consumers to switch retailers.
- Access regulation is likely to introduce more costs than benefits, which may diminish incentives for parties to enter the market.

DNSPs' access to network-related services (1)

Draft rule

- DNSPs may negotiate for services enabled by advanced meters.
- DNSPs may continue to use existing network devices or install new network devices to help monitor or operate their networks.
 - Metering Coordinators must not remove, damage or render inoperable a network device, except with the DNSP's consent.
 - DNSPs may only use network devices for the purpose of monitoring or operating their network.
- Nothing in the draft rule prevents DNSPs from helping to fund the installation of advanced meters through Metering Coordinators.

DNSPs' access to network-related services (2)

Rationale

- Allowing DNSPs to 'bypass' the Metering Coordinator may:
 - constrain the price a Metering Coordinator can charge for access to network-related services; and
 - allow DNSPs to continue to get the benefit of existing network devices, or obtain that benefit by installing new network devices.
- The ability of DNSPs to help fund the installation of advanced meters may:
 - bring forward the expected benefits of advanced meters; and
 - overcome uncertainty regarding ongoing access to services.



AEMC Public forum, competition in metering
**Network regulatory arrangements and access to
Metering Coordinator services**

JOHN BRADLEY, CEO ENA

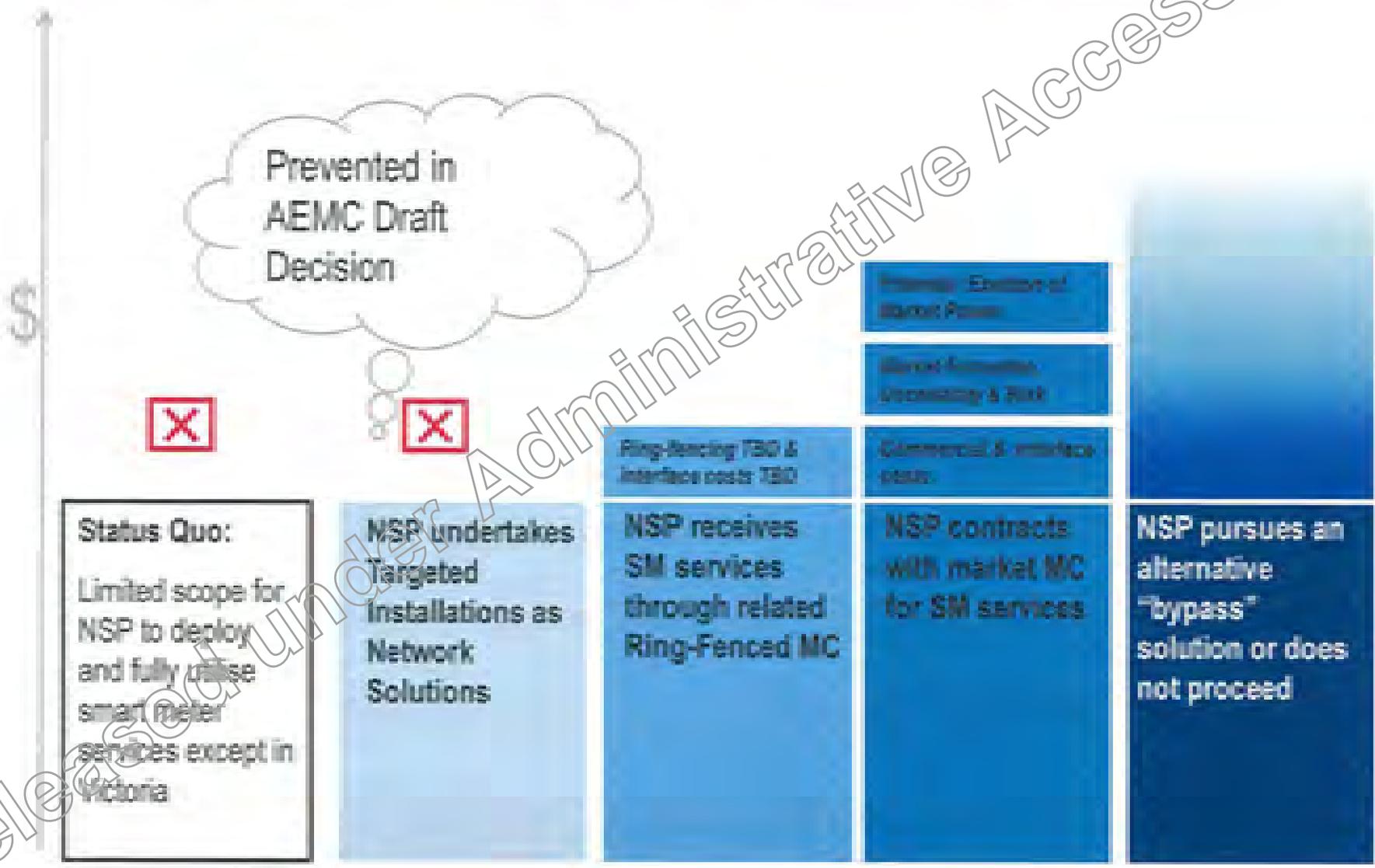
30 APRIL 2015

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Overview

1. Missed opportunity in Network Solutions
2. Potential for increased costs in Ring-Fencing
3. Risks to Efficient Access to MC Services
4. Need for Light Handed Regulatory Oversight
5. Cost Recovery/ Exit Fees

Changing models of SM services to NSPs



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Missed Opportunity in Network Solutions:

- > ENA supports **NSPs being able to install metering as part of regulated business solutions** where prudent and efficient to do so.
 - Mitigates investment risk through continuity of service and cost;
 - Efficient outcomes overseen by Regulator;
 - RIT-D test would require LNSPs to use market where more efficient.
- > Also supported by non-network stakeholders (FIAC and ATA)
- > **Important in transition until market develops** to provide confidence in continuity of services and cost of access.
- > **Draft Determination rejects this option:**
 - Whatever benefits to new entrants in the metering market **this removes an alternative least cost outcome for network customers.**
 - **Pre-emptive approach** restricts network deployment now, rather than permitting and reviewing access outcomes in the market over 3 years.
- > **Draft Rule also does not appear to correct current Rule impediments to NSP right to remotely-read capable devices**
 - (Rule 7.8.9) except in operational difficulty,

Increased Costs in NSP Ring-Fencing:

- > Unnecessary ring-fencing obligations on NSPs would introduce **interface and administrative costs** borne by customers.
- > **DNSPs subject to existing ring-fencing constraints**
 - Jurisdictional ring-fencing guidelines
 - AER approved Cost Allocation Method
 - Annual Regulatory Information Notices
- > Draft Decision defers to **future National Ring-fencing Guidelines by AER (2016)**
 - AER has stated an explicit view proposing legal separation of Network MCs
 - Better approach would be to assess sufficiency of current framework
- > Draft Determination asks AER to consider **reduced requirement where NSP is initial MC for Type 5/6 - not Type 4 locations without competition.**
- > **Final Determination should address these risks to least-cost outcomes for network customers**

Risks to Access to MC Services:

- > Draft Determination recognises **Potential to exploit Market Power**:
 - “In the absence of competition, the Metering Coordinator will seek to charge as much as it can for its services sought by a DNSP. This will be at a level just below what it considers the next best alternative is for the DNSP.”
- > Networks are exposed to **“Hold Out” risk** in long-term contracts for Meter Services
 - Arises when Network Investments are sunk and dependent on continuity of MC services
 - Regulated NSPs unable to address Hold Out risk as firms are in competitive markets.
 - Creates barriers to efficient long-term contracting for value-added services by NSPs.
- > The regime also creates **clear incentives for Retailer-related MCs to frustrate access to other market participants** to influence outcomes in retail, wholesale or energy services markets.

Network Counterparty cannot mitigate risk

- > To benefit customers, the New Framework must enable significant, long-lived Network Solutions which rely on continuous metering services.
 - eg. DSP load control program supporting deferred network augmentation
 - eg. Significant investments in network control and management platforms.
- > Potential for MC (or meter) churn is beyond NSP's control.
- > **How would an NSP manage key continuity risks, including that:**

| | |
|--|--|
| The Asset remains capable of providing the service in the same format... | <ul style="list-style-type: none"> • Narrow MSS, Network Services are not Primary • No "Non-Reversion" Clause • Performance Levels? |
| A new MC would not be willing... | <ul style="list-style-type: none"> • Only Scheduled Meter Reads must be provided by the Metering Coordinator |
| The DIL would not increase the cost once NSP investments are sunk... | <ul style="list-style-type: none"> • NSP does not choose MC • No light-handed economic regulation |

Low Confidence in 2 Proposed Solutions

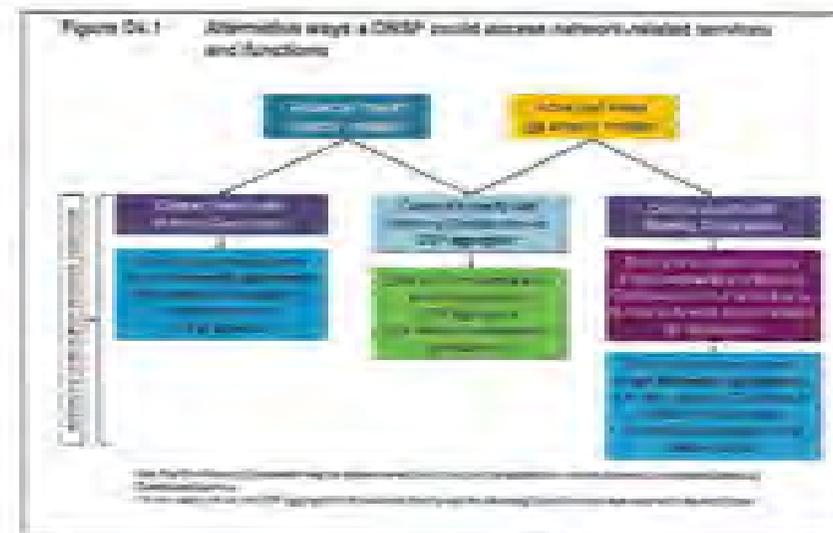
1) AEMC suggests Framework Agreements are common Overseas

- No comparable Framework Agreements identified in UK or New Zealand?
- How long will it take to produce stable, binding Framework Agreements in a developing MC market of diverse, competing new entrants (and owners) for defined services in various penetration scenarios?
- Will framework agreements ever bind an incoming MC to commercial terms provided to an incumbent MC customer?

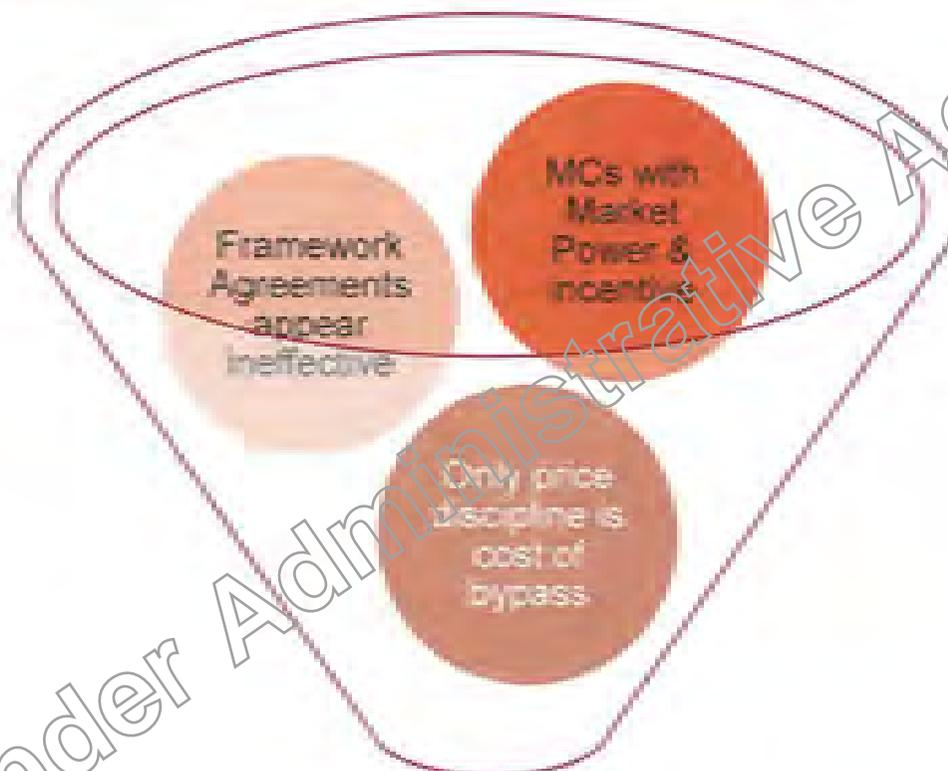
2) DSP Aggregators

- Not clear that DSP aggregators will be better placed to mitigate these long-term risks than NSPs as a counter-party.
- Prominent DSP aggregators hold equivalent concerns about market power of the MC.

Emergence of Standardised Transactions for secondary / value-added services impeded if narrowly defined MSS, SMP.



Need for Light-Handed Regulatory oversight



**Regulatory Oversight
required**

An Asymmetric approach to the new market...

> Negotiate & Arbitrate Model

- Rejected in Draft Decision to avoid investment uncertainty:
- An Arbitrator may have imperfect information and require an MC
 - ...to provide services at a price that is lower than the level of charges that it had based its investment on. This investment risk is particularly concerning given the relatively long life of the meters and associated investments."
- Consistent approach to investment certainty needed by NSPs as MCs.

> Price Monitoring:

- Rejected in Draft Decision concludes "potentially significant administrative and regulatory burden" due to diverse prices across different providers and factors.
- Simply requires publication of Prices, T&Cs on offer.
- Final Decision should not concede market outcomes will be opaque or beyond analysis
- If so, how will the recommended review of state of competition in the metering services market occur after 3 years?

> Fixing the Problem:

1. At minimum, Price Transparency; some Dispute Resolution process and penalty framework for non-performance; **OR**
2. Regulatory protection for MC contracts enduring beyond MC chum.

Cost Recovery and Exit Fees...

- > Cost recovery, via Exit Fees, will be a key determinant of:
 - **Appropriate economic incentives;**
 - **Drivers of the level of market activity and meter churn;**
 - **Drivers of cross-subsidy outcomes between customers.**
- > ENA supports intent of AER's recently revised approach:
 - **Preserving certainty over the recovery of residual costs** reflecting the basis on which past investment occurred.
 - **Minimisation of Cross-Subsidies**
 - **Cost Reflective Price driving decisions** at time of Meter Churn – consistent with NEO.
- > Not clear what happens to any residual un-recovered capital in the next regulatory period, if AER no longer classifies these services as direct control?
- > **Final Decision & Rule should put these issues beyond doubt** because:
 - Trade-offs in policy objectives in market development are a role for the AEMC;
 - Fundamental market design feature should not be left unresolved when determining if the Rule is superior to status quo.
 Clarity should be required from the Rule-maker; noting AER's initial approach in NSW was revised due to rule constraints.



Energy service company perspective

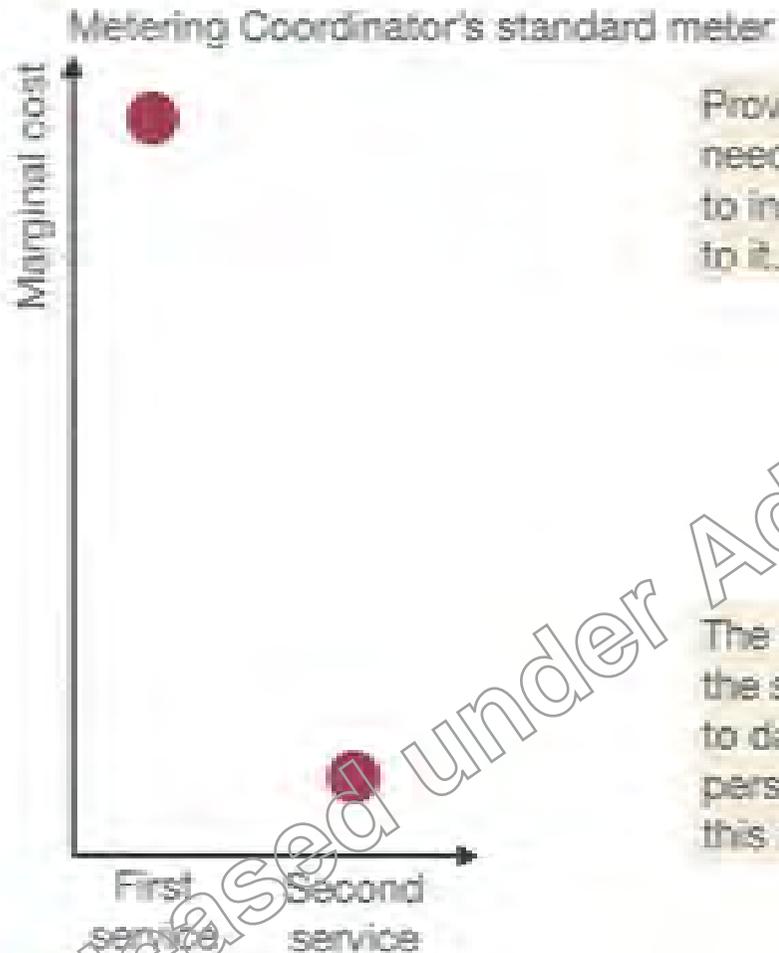
AEMC public forum on competition in metering and related services — Sydney, 30 April 2015

"Under the proposed model, Metering Coordinators (MCs) compete to provide services to the retailers who appoint them, while LNSPs must rely on whatever network services are offered by the retailer-appointed MC. Competition will drive MCs to offer the services that retailers value at an efficient price, but, once appointed, MCs will have no competitive pressure in relation to the provision of services to the LNSP."

SA Power Networks submission, May 2014, p. 2.

This gives you a clue as to the likely dynamics of the market: whereas retailers and customers will be well served by the MCs who compete for their business, networks and third parties have no choice of supplier, so nobody will compete for their business.

What does it cost to provide services from a meter?



Providing the first service from a meter is expensive: you need to pay for the meter, roll a truck (with an electrician) to install it, and maintain both the meter and connectivity to it.

The marginal cost of supplying an additional service from the same meter — e.g. giving an additional party access to data that is already being collected — is very small. A person from a metering firm described it as "near zero" this morning.

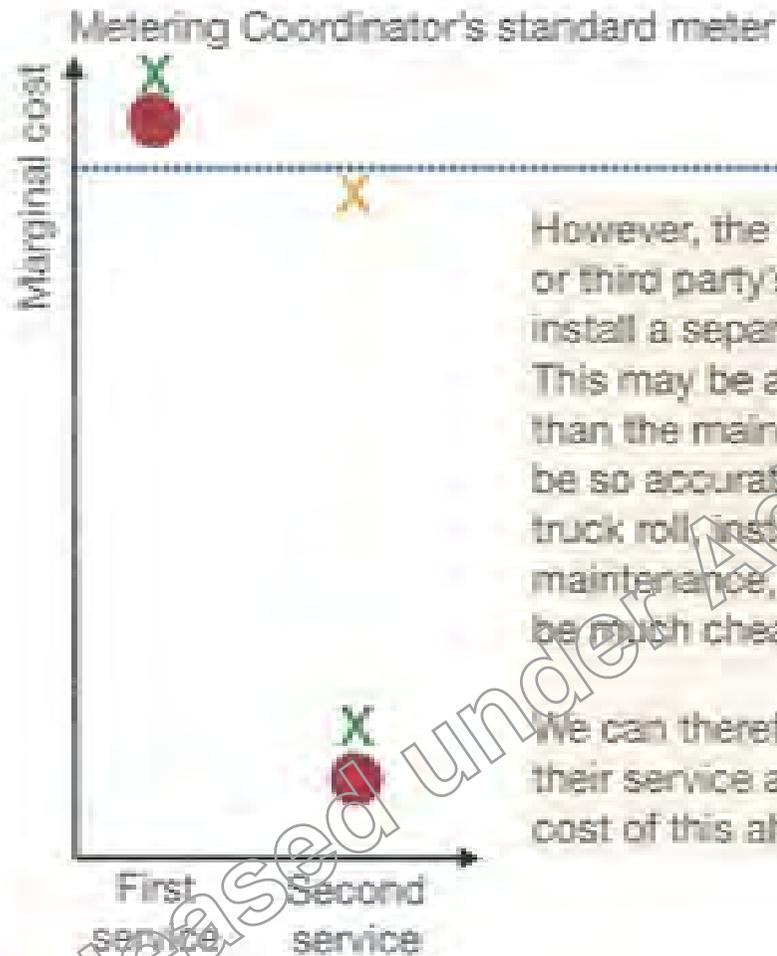
How are metering services likely to be priced?

Metering Coordinator's standard meter



In a competitive market, prices would be competed down to a little above marginal costs — e.g. these green crosses. This is viewed as an “efficient price”. We can do this to work for MCOs charges for their main service to retailers and customers.

How are metering services likely to be priced?



However, the MC knows that the network or third party's only other choice is to install a separate device on the premises. This may be a slightly cheaper device than the main meter — it may not need to be so accurate — but it will still need a truck roll, installation, communications, maintenance, etc., so the total cost won't be much cheaper.

We can therefore expect the MC to price their service a dollar or two less than the cost of this alternative.



What other businesses have these characteristics?

High fixed costs + Low marginal costs

⇒ Very large scale economies

⇒ Natural monopoly

It may seem odd to describe this situation as a monopoly. Normally this terminology is applied in situations where billions of dollars have been spent building some crucial asset. However, the competitive dynamics (or lack thereof) are exactly the same: essentially, there's a lot of small monopolies, with one MC being the monopoly supplier of metering services to networks and third parties for each premise.

This is just like a network business

High fixed costs + Low marginal costs

⇒ Very large scale economies

⇒ Natural monopoly

⇒ Need to protect consumer from exploitation of control of asset

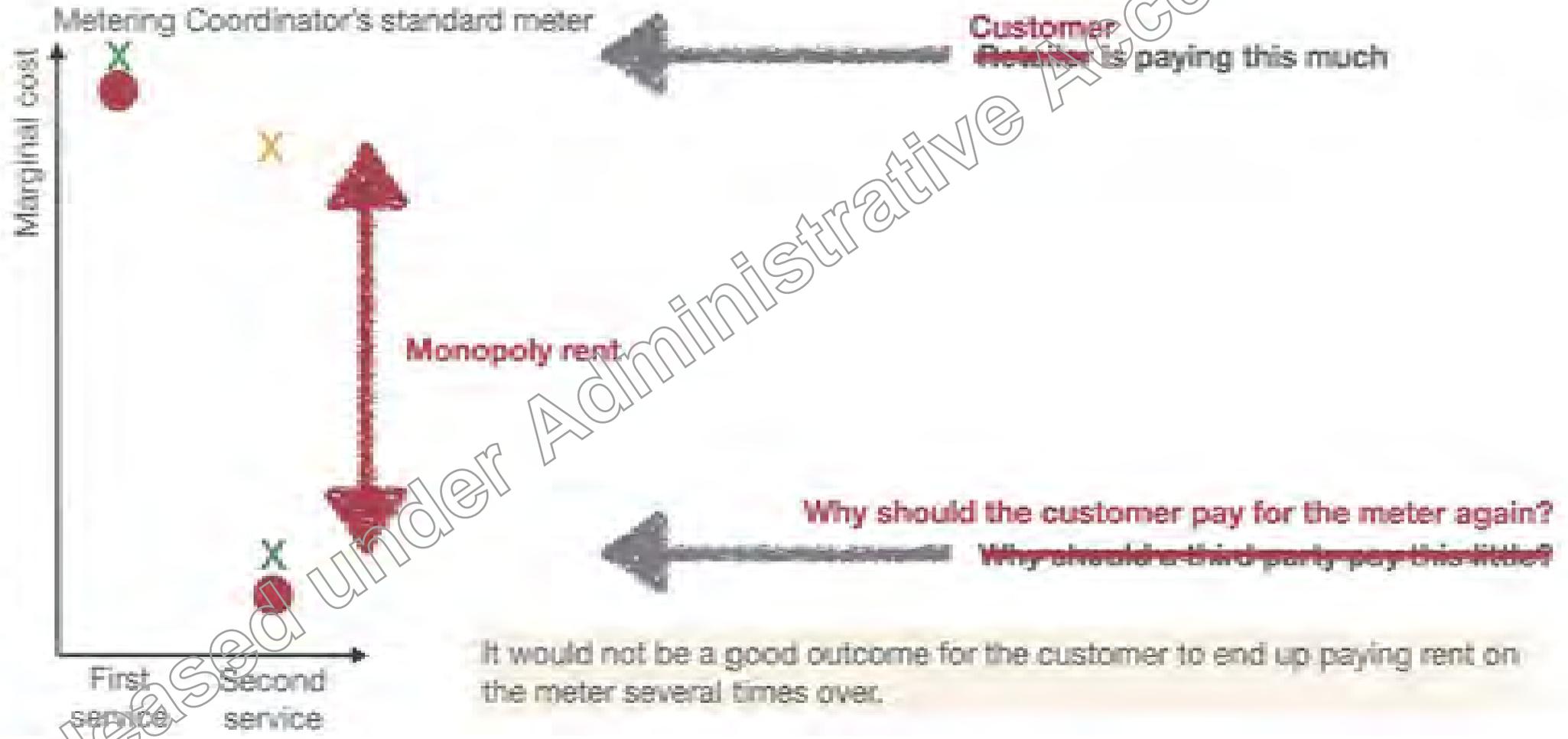
⇒ Regulated access arrangements

You could argue that there's no real need to regulate network businesses, because their exercise of market power would be constrained by the ability of an access seeker to build their own poles and wires to reach the customer. But nobody thinks that's a sensible outcome. The same applies here.

Efficient pricing of metering services



Efficient pricing of metering services



“Regulators know that when left alone, a profit-maximising monopoly produces less of the good or service than is desired by society and at too high of a cost.”

Principles of Microeconomics, Unit 10
Jay Kaplan, University of Colorado

This is textbook economics. In this case, the profit-maximising behaviour of the monopoly suppliers of metering services will lead to consumers having less choice of energy services, and paying over the odds for them.

Everything I've mentioned so far applies equally to networks and to third parties.

■ But it's even worse for third parties

"Where there is a vertical relationship there will be a clear incentive for the Retailer Metering Coordinator to provide access in a way that enhances the competitiveness of its retailer owner or closely affiliated retailer in the retail market."

"The Metering Coordinator may have an incentive to deny or frustrate access for use of its functionality and data."

Draft determination, pp. 266-267.

So a retailer can have both the motive and the opportunity to frustrate access by third parties. In fact, the MC doesn't have to be controlled by the retailer for this problem to arise: even where there's an independent MC, a retailer may be willing to pay more for a service that includes frustration of third-party access than for a service that allows open access. This wouldn't be a good outcome.

The draft determination lists four reasons why the exercise of market power by MCs may not be a serious problem. The only one of those that applies in the case of access by third parties is that the customer could change retailer.

But that's a very big ask. It's like the tail wagging the dog. Customers choose retailers on the basis of their retail deals, not on the basis of how friendly they are to third parties.

Even if a third party could persuade a customer to change retailer, having to wait for each customer's retail deal to expire (or pay their exit fee) before they can start providing a service is likely to hamper market entry to such an extent that third parties might decide it's not worth it.

So the listed reasons not to worry about market power are unfortunately unconvincing.

■ Customers choose retailers for their energy deals

Principle

"If a new entrant has to negotiate with an incumbent, who views them as a competitor, for access to a customer, you won't get new entrants."¹¹

"Self-evident"

This can't be a new observation. I assumed it must be well known — maybe the "zeroth law of competition". So I asked a couple of economists whether there was some eminent economist I could quote who'd said something like this. Their responses were "it's so obvious that no eminent economist has bothered to write it down", and "it's self-evident".

Solution is light-handed, limited-scope access regulation

- Don't need to regulate most relationships.
- Only need to regulate where the buyer has no choice of supplier.

It's not necessary to regulate an MC's core activities — namely competing to provide metering services to retailers and customers. That's where the vast bulk of their revenues, costs, and profits should be. Regulating their interactions with other parties therefore shouldn't increase investment risk for MCs (unless their whole business model is predicated on extracting monopoly rent from multiple parties...)



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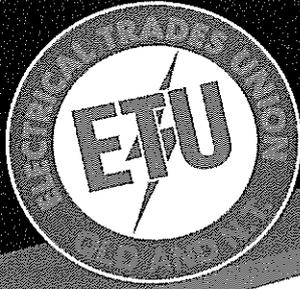
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ABN: 80 450 640 455

Sheik

21st April 2015

Dear Sheik

On behalf of the ETU and the community of Rockhampton and surrounding areas, I would like to invite you to attend a "Thank You BBQ" at Queensland's Parliament House from 11.30am on the 22nd May 2015.

Your selfless contribution to support in the ETU's Operation Energise is invaluable to the success in assisting families and community groups in need when a natural disaster strikes.

I hope will be available to attend this event and enjoy a hearty steak, refreshments and acknowledged for your support.

Please ensure that your employer provides you with paid time off to attend this event.

They too have also been invited to attend to hear your success stories of the Operation.

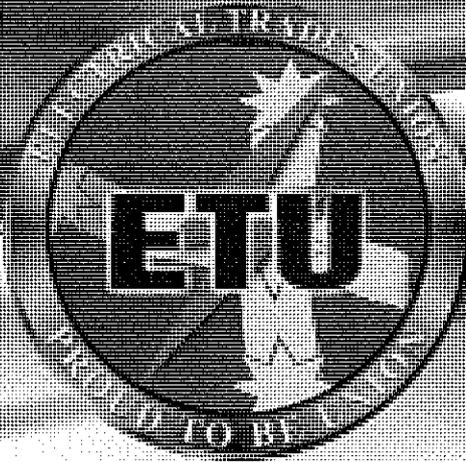
Looking forward in seeing you there.

Regards



Keith McKenzie
State Assistant Secretary

| | | | | | |
|--------------------|--|---|------------------|------------------|---------------------------|
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| Sunshine Coast | D. 6/33 Bulcock St, Caloundra | P. PO Box 262 Caloundra Q 4551 | T. 07. 5341 8927 | F. 07. 5341 8953 | E. escoast@etu.org.au |
| Toowoomba | D. 10A Russell St, Toowoomba | P. PO Box 1593 Toowoomba BC Q 4350 | T. 07. 4638 9313 | F. 07. 4639 2810 | E. toowoomba@etu.org.au |
| Gladstone | D. 1/11 Herbert Street | P. PO Box 040 Gladstone Q 4680 | T. 07. 4972 6676 | F. 07. 4972 5721 | E. gladstone@etu.org.au |
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| Northern Territory | D. 1st Floor 30 Woods Street | P. PO Box 4053 Darwin NT 0801 | T. 08.9941 2300 | F. 08.9901 1770 | E. darwin@etu.org.au |



“Thank You”

To:

Sheik

The Electrical Trades Union proudly invites you to a
“Thank You” BBQ
at Parliament House from 11.30AM to 3.00pm on the
22nd May 2015 .
Parliament House Annexe - 69 Ann Street Brisbane.

Your valued support and assistance in helping the Community of
Rockhampton Region is gratefully appreciated.

Please RSVP to Keith McKenzie – keith@etu.org.au by the 15th May.

Limited parking is available in the Parliament House Visitors carpark via Garden's Point Rd.

*This function is Proudly supported by Mr Shane King – Member for Kallangur and
Mr Mark Bailey – Minister for Main Roads, Road Safety, and Ports and Ports and
Minister for Energy and Water Supply.*