Power of choice

Fifth meeting of Stakeholder Reference Group

Wednesday 10 October 2012

SYDNEY

Session 1: Network regulation and incentives - proposals

Eamonn Corrigan

Scope of the Power of Choice Review

- The regulatory arrangements governing distribution network businesses is changing:
  - Economic regulation of NSPs rule change
  - Distribution network planning and expansion framework rule change
- Also the AEMC is also progressing a rule change on connecting embedded generators:
  - Work on technical standards is required
- Against this changing landscape, the Power of choice review assessed whether DNSPs face the right incentives for the efficient uptake of DSP

Proposed recommendations

Recognise that current arrangements could be not adequately supporting DNSPs role in uptake of efficient DSP. We proposed that:

1. The AER considers reforming the application of the current Demand Management Incentive Scheme to provide appropriate reward for DSP projects which deliver a net cost saving to consumers (including allowance for foregone revenue)

2. Improvements to the pricing principles to guide network tariff structures

3. Minor changes are made to the rules to provide clarity and flexibility for how the AER treats network DSP expenditure

4. No need for separate incentive scheme for embedded generation

Option for a target on peak demand reduction

- Do not recommend placing a peak demand reduction target on DNSPs, because:
  - May not promote efficient investment decisions
  - May not lead to any savings to network investments if the target is not specific to defined locations and constraints
  - Do not address the underlying financial incentives facing DNSPs
  - Peak demand is not wholly within the control of the network

- It is very difficult to apply a target, in an effective, straightforward manner. Risk of increased costs and upward pressures on prices.

Questions for discussion:

- Are the proposed recommendations sufficient?
- Is more prescription on the application of the Demand Management Incentive Scheme needed in the Rules?
- What further work, if any, is required for the framework to facilitate efficient embedded generation?

Network regulation and incentives

- Stakeholder presentation:
  - Craig Memery, Alternative Technologies Association

Session 2:
Cost reflective pricing

Con van Kemenade

Agenda

- **Purpose of this presentation is to:**

  1. Outline our recommendations on cost reflective pricing
  2. Point to some key areas where we are doing some more work and where we would like stakeholder input
  3. Provide opportunity for stakeholders to discuss recommendations and ask questions

Recommendations (in a nutshell)

- **We believe that cost reflective pricing for consumers will deliver benefits that exceed costs; but**
  - The transition will be critical (education and phased approach is necessary); and
  - Vulnerable consumers will need to be protected
- **Our focus is on changing metering arrangements (addressed later today) and distribution pricing arrangements;**
  - Jurisdictions will determine appropriate retail structures for standard offers (who the banding should apply to);
  - A competitive retail market will take care of market offers
- **A number of areas need further work, and participant input:**
  - How to drive more cost reflective network tariffs
  - How to phase in cost reflective network tariffs
  - And what else we need to do to manage impacts for vulnerable consumers

Why focus on network tariffs?

- **Cost reflective network tariffs are a pre-condition to achieving cost reflective retail tariffs:**
  - Frontier modelling suggests that much of the benefits of more cost reflective pricing will be related to lowering network costs;
  - Arguably existing pricing approaches have not worked to reduce costs (existing rules encourage stable structures and maximising of throughput)
  - We anticipate the structure of distribution tariffs will be passed through to retail tariffs
- **Our draft recommendations focus on reforming the *distribution pricing principles*; broadly we think network tariffs should:**
  - Signal the time varying nature of network costs; in particular how consumer demand drives network investment
  - Reflect the possibility that drivers of network costs differ to those of wholesale costs and thus a different structure may be appropriate
  - Allow some scope for locational variation

How does this compare with existing pricing principles?

- **Current distribution pricing principles:**
  - A network price should be no more than stand alone costs and no less and avoidable costs
  - Each charging component must take into account LRMC
  - Each component must be determined having regard to:
    - Transactions costs
    - Whether consumers are likely to respond to price signals
  - If the network provider does not recover the expected revenue where tariffs are set on the above basis, the provider must adjust its tariffs so as to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption (**Ramsey pricing**)

Our current thinking on the distribution principles (1)

- **The principles are consistent with economic theory in a broad sense, but,**
  - LRMC is too imprecise to be useful. There is significant discretion in how LRMC is implemented in practice
  - Prices may reflect LRMC but only so far as they are not overly complex and consumers can respond to them
  - There is little independent review of pricing structures by either participants or the AER
- **Our preferred approach is to bring more content to these provisions while at the same time not making them too prescriptive:**
  - **e.g. transmission**: *prices must be based on demand at time of greatest utilisation of network and for which network investment is most likely to be contemplated (no mention of LRMC)*
  - ***e.g. NZ** : prices should signal the impact of usage on future investment costs and have regard to level of available service capacity*

Our current thinking on the distribution principles (2)

- **We consider the pricing principles should:**
  - require network prices to signal the impacts of peak utilisation (or use) on the network; and
  - changes to prices should have regard to the impact on stakeholders.
  - Probably no further prescription necessary beyond this
- **This approach would give distributors the flexibility to be innovative:**
  - implement time variant options such as CCP (a KWh charge more reflective of SRMC) or;
  - demand or capacity based charges (a kW charge more reflective of LRMC) - provided they signal peak demand impacts on network costs, and consumers are able to respond to them
  - Distributors would have the flexibility to signal constraints within the network if peak demand impacts on network costs vary by location; e.g. a different CPP could be implemented depending on the location of a consumer or group of consumers

The role of stakeholders and the AER in network pricing

- **A process for driving more efficient distribution prices will benefit from stakeholder and AER involvement:**
  - Network prices should be vetted by retailers and consumer groups, and reviewed by the AER
  - We are currently considering how this might best be done – should there be a consultation period during the development of *network pricing proposals* each year?
  - There should also be a requirement in the rules for distributors/AER to "have regard" to views of stakeholders
  - Retailers should also have sufficient time to be able to consider and influence the structure of distribution prices before they incorporate them in their retail tariffs - this currently does not happen

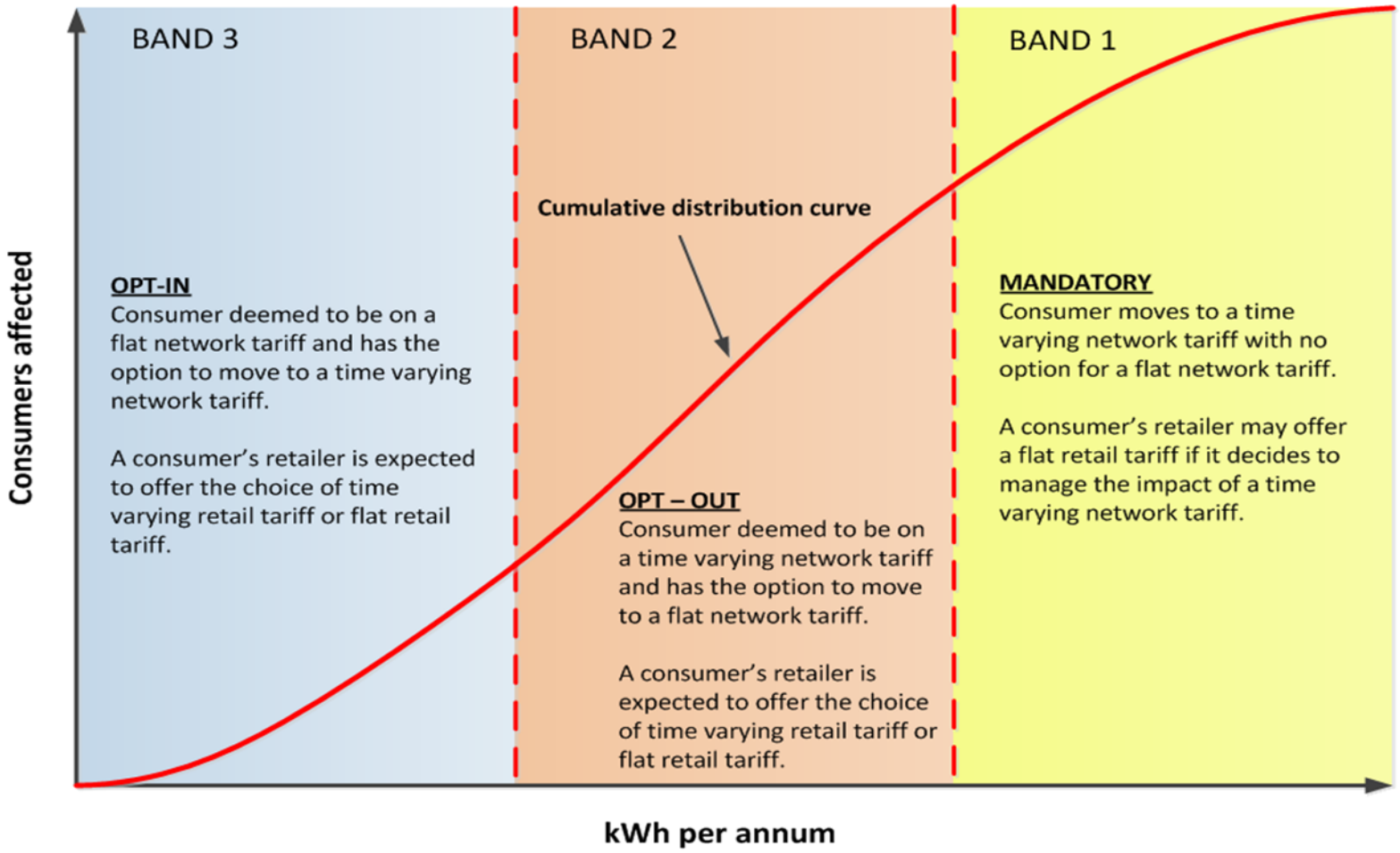
Other distribution pricing issues we are considering

1. **Are existing side constraints sufficient to ensure distributors have flexibility to vary prices between consumers (Clause 6.18.6)?**
   - *The expected weighted average revenue to be raised from a tariff class for a year must not exceed the corresponding expected weighted average revenue for the preceding year by more than the permissible percentage (CPI-X+2%);*
   - *This clause does not, however, limit the extent a tariff for customers with remotely-read interval metering or other similar metering technology may vary according to the time or other circumstances of the customer's usage.*
2. **Ramsey pricing clause could lead distributors to shift costs to consumers on flat network tariffs (Clause 16.18.5 (c)):**
   - *If the network provider does not recover the expected revenue where tariffs are set on the above basis, the provider must adjust its tariffs so as to ensure recovery of expected revenue with minimum distortion to efficient patterns of consumption (Ramsey pricing)*
   - This is why we consider that development of network prices should have regard to consumer impacts

How should we introduce cost reflective pricing?

- **Consumer information and education in the transition will be critical to consumer acceptance:**
  - Time varying tariffs represent a new way of pricing electricity for most residential consumers; there is a risk consumers may equate more volatility with higher costs
  - Any transition to time varying pricing therefore needs to be supported with an intensive education and information campaign
  - Some retailers and distributors (notably, Origin and Jemena) are already providing information on their websites about time varying pricing
  - We believe however, that engendering broad consumer confidence will require governments to play a significant role
- **In addition, to build consumer confidence we believe this will require a phased implementation**

Managing the transition – focus time variant pricing on large consumers first



Vulnerable consumers

- **While we consider that many if not most vulnerable consumers are likely to benefit from more cost reflective pricing - some may be worse off if they do not or cannot respond**.

- **Our proposals for addressing this**:
  - Band 3 consumers (the lowest consumption threshold) will remain on flat network tariff after introduction of time varying pricing, this provides the basis for flat retail tariff under jurisdictional regulatory approaches
  - Government programs should provide advice and assistance to these consumers to help manage their bills (EE programs for instance)
  - Governments should review their concession regimes to ensure they are appropriately targeted (for example, existing eligibility requirements do not capture low to medium income house holds).

Questions for consultation

We are keen to get stakeholder feedback on our proposed reforms including:

1. Do you agree with our approach for phasing in the introduction of flexible retail prices via the network tariffs? How should the consumption thresholds be determined, and for how long should they last?

2. Are further measures required to manage the impacts of flexible pricing on consumers, including vulnerable consumers?

3. What information should be provided to consumers and by whom?

4. What should be the appropriate pricing principles for distribution businesses and the process for stakeholder consultation on distribution network pricing proposals?

Session 3: Demand response mechanism

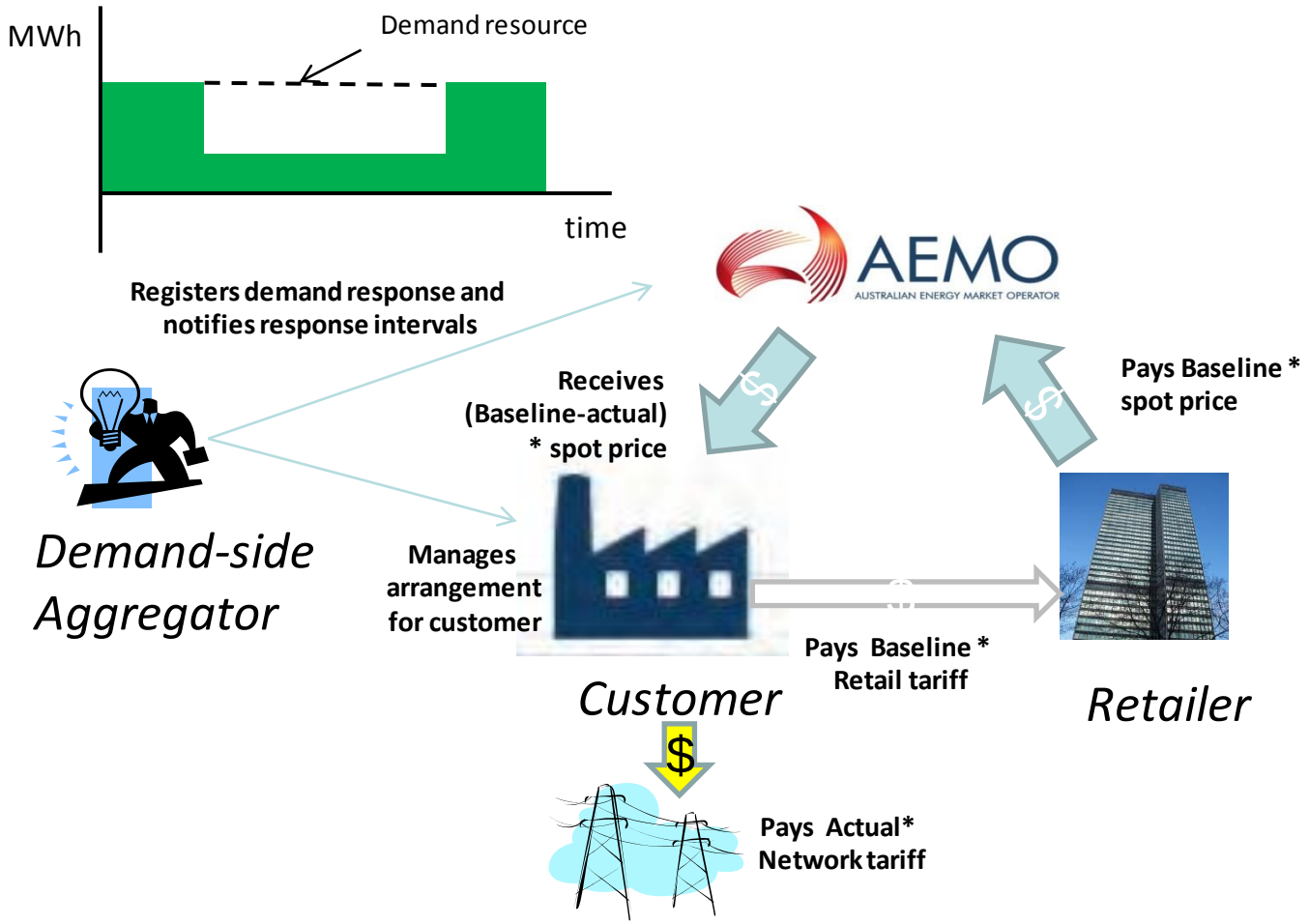
Electra Papas

Recommendations

Three key areas for improving consumer participation in wholesale electricity and ancillary services markets:

1. Demand response mechanism
2. Clarifying AEMO's role in demand forecasting
3. New category of market participant for non-energy services

Demand response mechanism



Rationale

- Enhance participation by consumers in the wholesale market:
  - Enables consumers to respond to market signals and to see the value of reducing their consumption
  - Recognises that consumers have different energy needs and capacity to respond to market signals
  - Promotes efficient consumption, and efficient markets
- Dampens spot price volatility:
  - Sustained DR response less than the cost of a new peaking general. Over the long term, market reaches new dynamic equilibrium
  - Lowers retailers arbitrage costs, which in a competitive market benefits all consumers
- Potential improvements to the level of unserved energy
- Positive spill over effects as contractual arrangements can also be used to manage network flows at little additional cost
- Administration costs less than benefits of mechanism

Stakeholder concerns

HEDGING RISKS

- Generators will only seek to contract to estimated scheduled demand, but retailers will need to contract for amounts above this to take into account estimated baseline consumption.
- Our current view is that:
  - Generators more likely to contract to level of contract demand that exists in the market
  - Retailers typically over-hedged during periods of peak demand
  - Additional hedges could be sought from DR participants and aggregators

Stakeholder concerns

INVESTMENT SIGNALS

- Spikes in the spot price are needed to signal that investment in generation is needed. If prices are dampened by the DR mechanism, then there is a risk that new generation investment doesn't happen when it is needed, which adds to supply side risk.
- We addressed this issue in the draft report:
  - DR provided at lower cost than peaking generation but if sustained over time (i.e. reliable) it will substitute more expensive generation and market dynamics change to reach an efficient outcome
  - We recommended that a reporting and performance program be included in the initial years of operation to monitor reliability of demand response

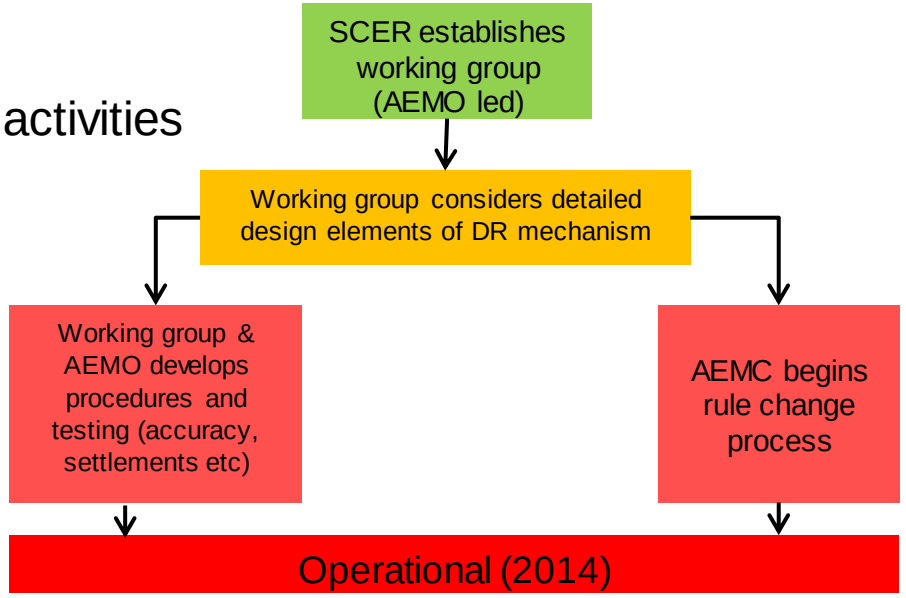
Stakeholder concerns

GAMING OPPORTUNITIES

- Prior to calling demand response DR participant ramps up consumption
- This increases the amount of demand response awarded.
- We expressed principles in the draft report to mitigate gaming opportunities, but will need further work at working group/rule change level:
  - Baseline methodology can go someway in minimising gaming risks: look back windows, caps on additive adjustments
  - However, similar range of issues arise with generation, such as ramp up rates etc
  - We see a role for AEMO in establishing monitoring unit to provide advice to AER on participants potentially gaming DR mechanism
  - AER to have power to undertake random audits, spot checks, acquire production schedules, fine participating parties etc

Implementation

- Drafting specifications in final report
  - Equivalent to terms of reference for developing rules and procedures
- Coordinated action required by SCER, AEMO, AEMC, AER and industry
- We will recommend that AEMO develop and manage baseline consumption methodologies
- Working group undertakes the following activities to feed into rule change proposal:
  a) Design of the mechanism
  b) Identifying appropriate registration categories and governance arrangements for estimating baseline algorithms
  c) Design of settlement structure



Policy issues

- Following policy issues require further consideration:
  - Baseline consumption methodologies
  - Metering arrangements
  - Treatment of distributed generation
  - Hosting requirements
  - Inclusion in dispatch process (scheduled/non-scheduled)
  - Market participant category
- Further detail will be required at the working group or rule change level on these issues

Session 4: Enabling technologies – metering reforms

Lisa Nardi

Enabling technology – draft recommendations

- **Proposal for contestable model/approach for investment in metering technology and services**
- **Proposal for minimum functionality specification in the NER**
  - Ability for parties to fund additional features
- **Recommendations irrespective of contestable or regulated model:**
  - Remove the distinction between the provision of metering services between retailers and networks based upon the type of meter
  - Unbundling metering costs from the distribution use of system charges
  - Clearly defined exit fees when consumer upgrades from a accumulation meter
  - Services arising from smart meters should be open to competition (ie., energy management services
  - Transparent rules to facilitate consumers to access, and share their consumption data (Chapter 2 of draft report)
  - Disaggregation of a consumer's load between multiple retailers (recommendation in electric vehicles review)

Contestable approach for investment in metering technology and services (1)

For the review choice between – either to make the provision of metering:

- Competitive and open to any approved metering service provider (contestable approach) – or
- the local DNSP the exclusive provider (known as monopoly model)

In the draft report we proposed as model:

- Retailer would be responsible for managing metering services, and can contract with any approved metering provider. We have taken this a bit further (next slide).
- Networks would be able to fund interval/smart meters or additional functionality as part of network DSP program (fees may be regulated by AER).
- Consumers would have the option to contract with any accredited provider of metering services (likely via third party)
- Where consumers change retailers, they would not be required to change meters, noting that consumers could choose to upgrade meter if they so wish
- A defined exit fee would exist where a consumer upgrades its accumulation meter to cover network sunk costs

Contestable approach for investment in metering technology and services (2)

We put forward some principles to support commercial investment in metering:

- Approach should be simple and practicable from consumer's perspective
- Metering provision should be contestable where sufficient competition is expected
- Sufficient levels of investment should be facilitated with a view to:
  - Maximise overall market efficiency (reducing investment risks and assigning costs to beneficiaries of the investment)
  - Promoting innovation in the metering services - robust framework
- Avoids unnecessary meter churn
- Any consumer who wants to move to a time varying tariff has choice to do so
- Transaction costs of metering arrangements are appropriate
- Exit fees are appropriate, clearly defined and transparent

Contestable approach for investment in metering technology and services (3)

Current thinking on proposed arrangements

- Retailer (FRMP) would be responsible for ensuring a supply point has a compliant metering installation and that a Metering coordinator is engaged (new role).
- Metering coordinator (MC) is responsible for a NEM compliant metering installation, data processing and data delivery (ie akin to existing RP responsibilities).
- Consumer may contract directly with a MC (ie via a third party (ESCO)). In such circumstances the FRMP would be required to respect that contract arrangement.
- In the absence of consumer taking up option to engage directly with MC, the FRMP must contract with a MC on behalf of the consumer. In all scenarios, the FRMP would be responsible for paying the MC.
- The MC can be the meter provider and meter data provider or it can engage separate entities. MC, Meter Provider (MP), Meter Data Provider (MDP) would be accredited by AEMO and have compliance obligations under the rules.
- The MC is liable for the inaccuracy of the metering installation. The MC is also responsible for paying the MP and MDP.
- When a consumer wishes to upgrade its meter it has the right to do so. The consumer can request the FRMP to upgrade its existing meter on its behalf.

Contestable approach for investment in metering technology and services (4)

Current thinking on proposed arrangements

- When a consumer switches retailers, the new retailer must honour the existing contract with the MC.
- A consumer's new retailer must continue to pay the MC in accordance with the existing standard contract, unless consumer has chosen to upgrade its meter.
- The rules would specific the details of a standard contract for metering coordination to maintain commercial interoperability of FROM-MC relationship.
- The Metering Coordinator would be able to assign its responsibility to another metering coordinator without any changes to the underlying contract.
- All fees associated (including exit) fees under the metering coordinator role would be commercial arrangements.
- Consumers are liable for metering costs through retailer bills.

Proposal for minimum functionality specification in the NER

- Recommended specification provides:
  - For a meter that has ability to record interval consumption and remote communications (AMI).
  - Minimum communication platform – point to point.

- Additional functionality included in meters based on consumer choice.
- Installation in accordance with minimum specification for:
  - all new meters for residential and small business (new connections, replacement of old meters, upgrades)
  - consumers over defined consumption threshold (linked to pricing recommendations)

For discussion – issues to consider

1. Will a contestable approach will drive investment and innovation in metering and related services?

2. Should a more advanced meter be installed without the consumer's consent?

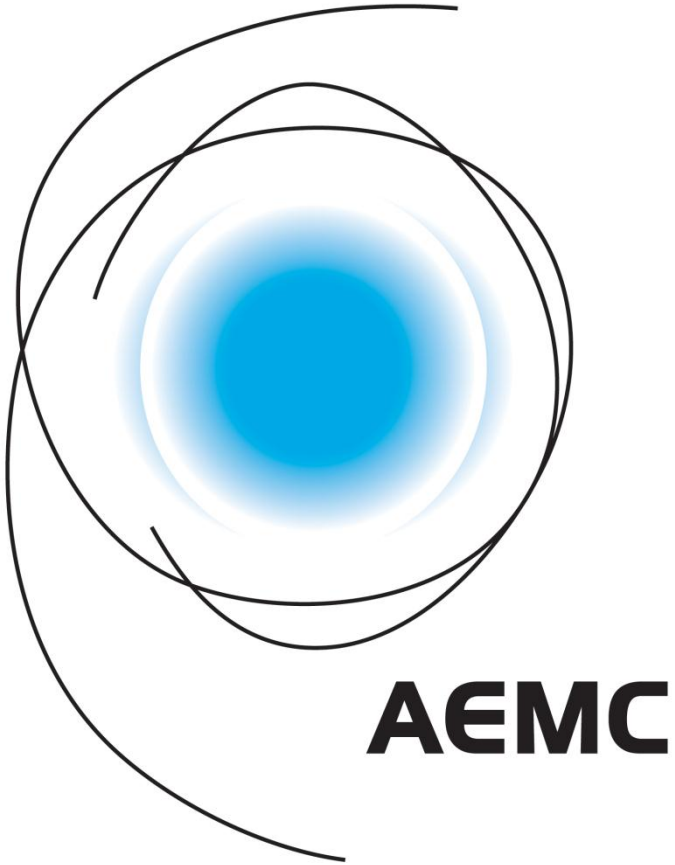
3. Will the proposed approach that seeks to separate metering services from the retail energy contract limit meter churn as consumers change retailers?

4. How should consumers be informed of functionalities of new meters?

5. Should additional smart network and retail services should be included in the minimum specification (for example, voltage detection, outage notification etc). If so, what additional services should be included?

6. Will the proposed communication platform support future smart gird technologies/ inter-operability?

7. What should be the arrangements for engagement between networks and retailers?


AEMC