

Regulated networks & the demand-side

Presentation to the CSIRO Future Grid cluster

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10 July 2014

Key points

- Policy review and driver of peak demand
- Network planning and DSP
- Network regulation and DSP
- Network pricing and metering

Introduction

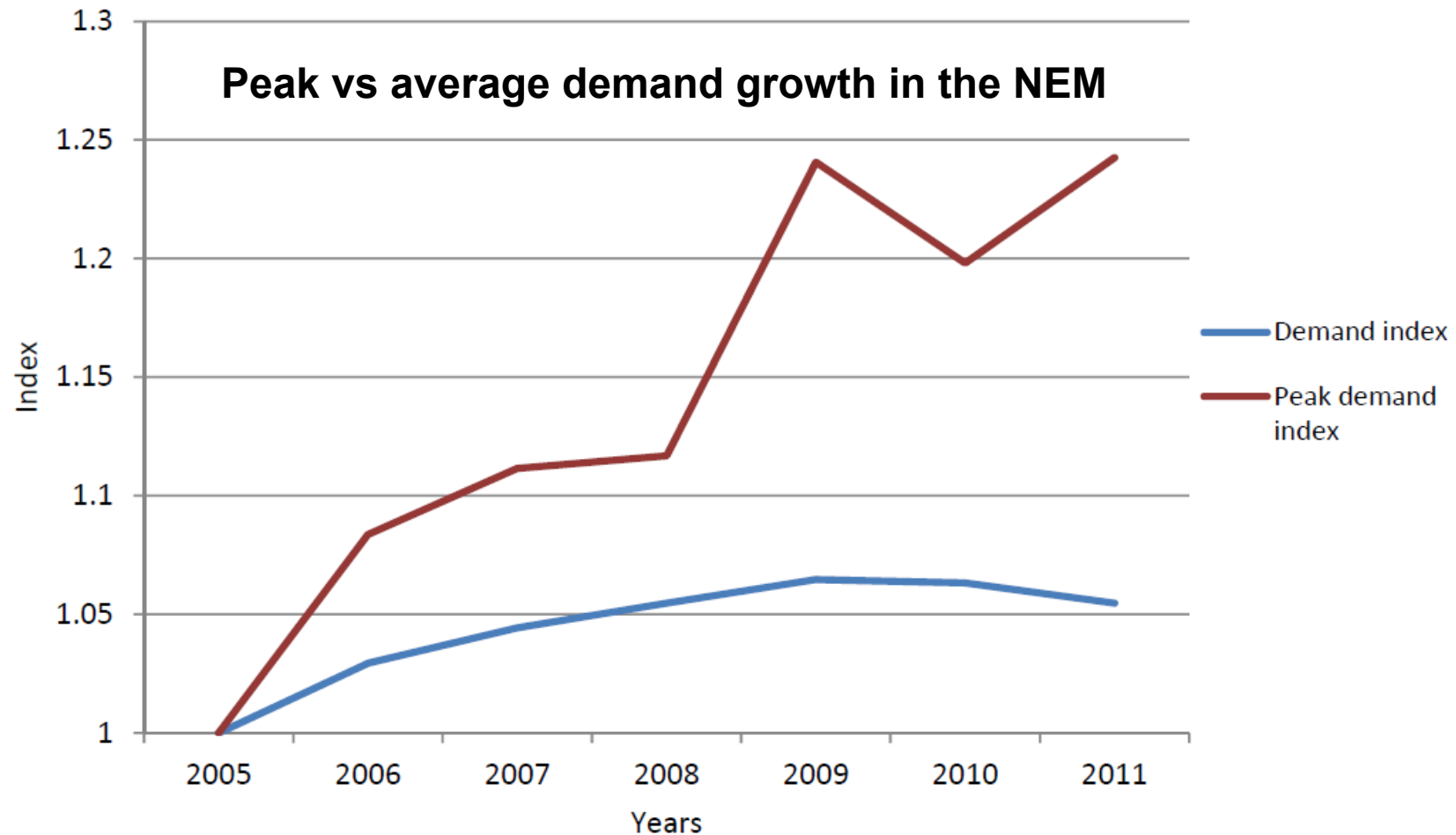
Period of major policy review → how the market can better support efficient demand-side participation (DSP):

- Australian Energy Markets Commission (AEMC) - Power of Choice review of DSP
- Productivity Commission review network regulation frameworks
- The Senate Inquiry into electricity prices
- Commonwealth Government Energy White Paper

Key policy goals:

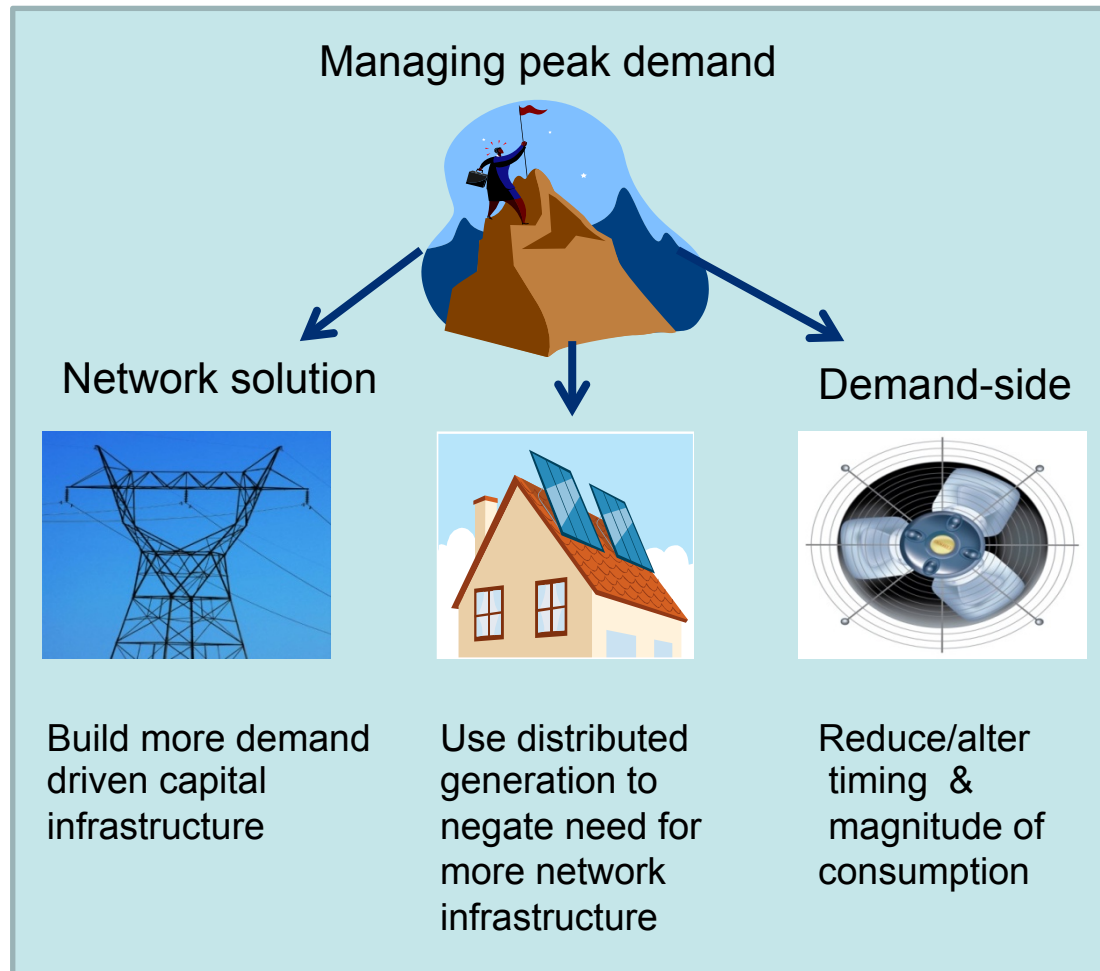
- Improved incentives for distributors to engage in DSP
- Efficient price signals - cost reflective/time varying network tariffs
- Rolling out interval meters

The peak demand context



Source: AEMC, *Power of choice: Draft report*, September 2012

The peak demand context (cont.)



Regulatory role
(oversight, allowances,
incentives for
regulated firms):

- encourage efficient combination of investments (network & demand-side)
- encourage efficient pricing structures

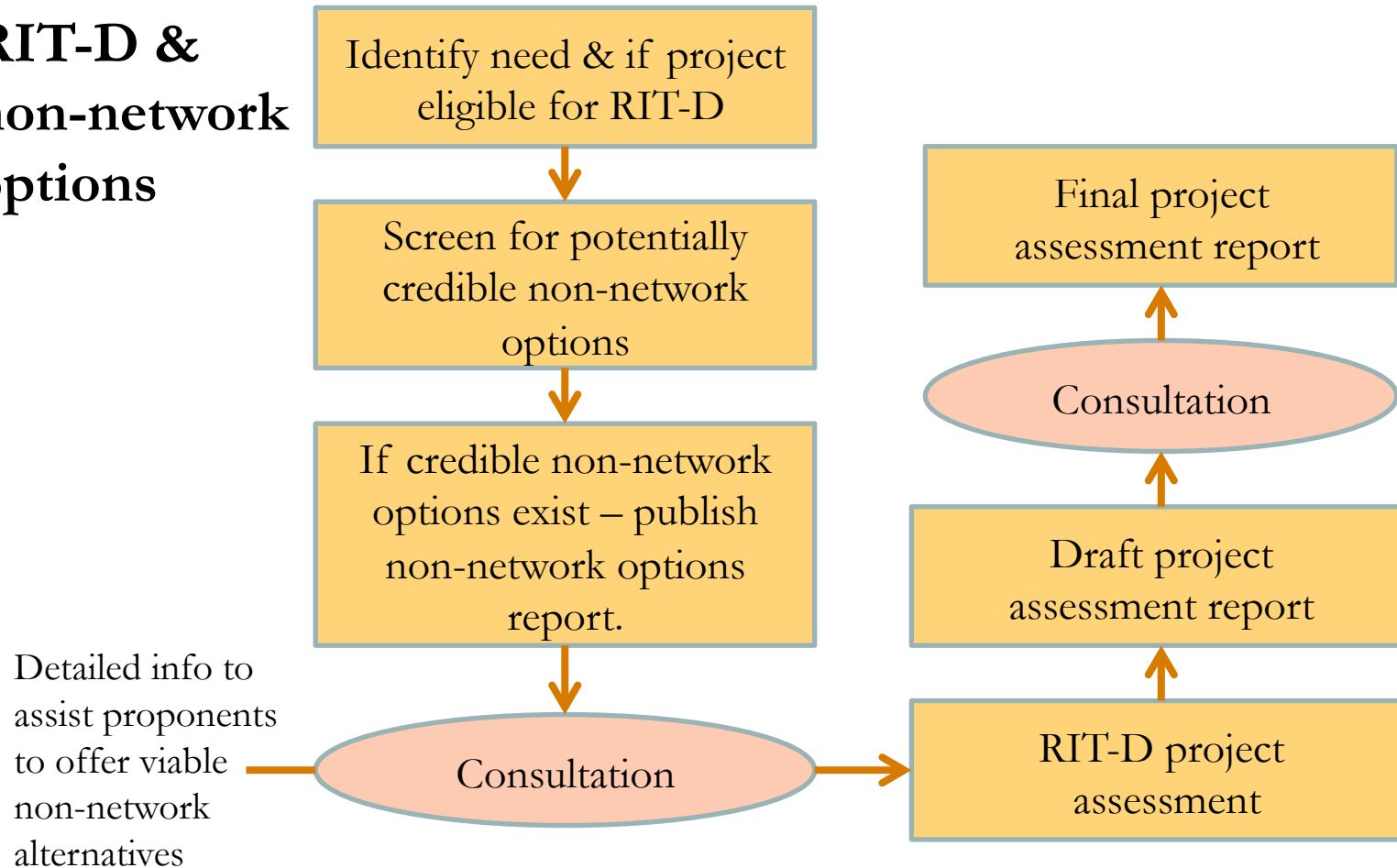
Long term & significant network planning

Nationally consistent regulatory requirements to encourage consistency, transparency and efficiency in network planning outcomes:

- **Regulatory investment test** for distribution (RIT-D)
- **Annual planning review and reports** (including detailed forecasts of demand/capacity)
- **Demand-side engagement strategy** (for considering non-network options and engaging with non-network providers)

Long term & significant network planning (cont.)

RIT-D & non-network options

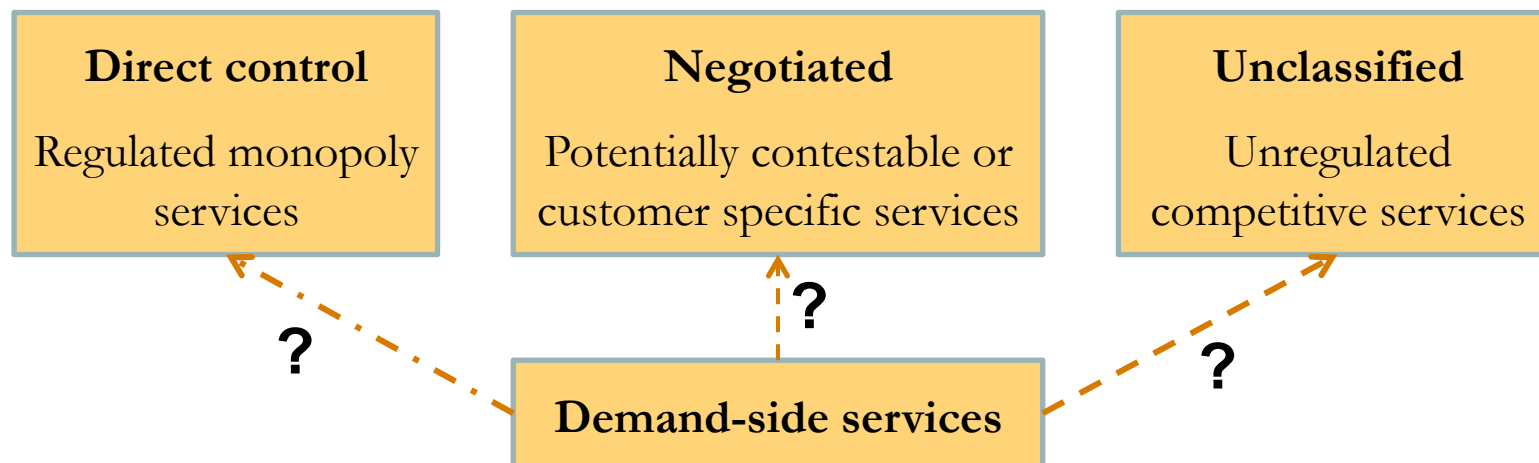


Regulatory determinations

NER requirement for distributors in proposing forecast expenditures:

- Demonstrate consideration and provisioning of efficient non-network alternatives

AER classification of distributor services:



Regulatory determinations (cont.)

Funding demand-side investments by distributors:

1. Regulatory allowances for operating (opex) and capital expenditure (capex)
2. Retention of capex savings from successful demand-side projects:
 - Possible reforms to savings retainment period
3. Demand management incentive scheme:
 - Possible reforms to design and power of scheme, allowing capture of broader market benefits

Regulatory determinations (cont.)

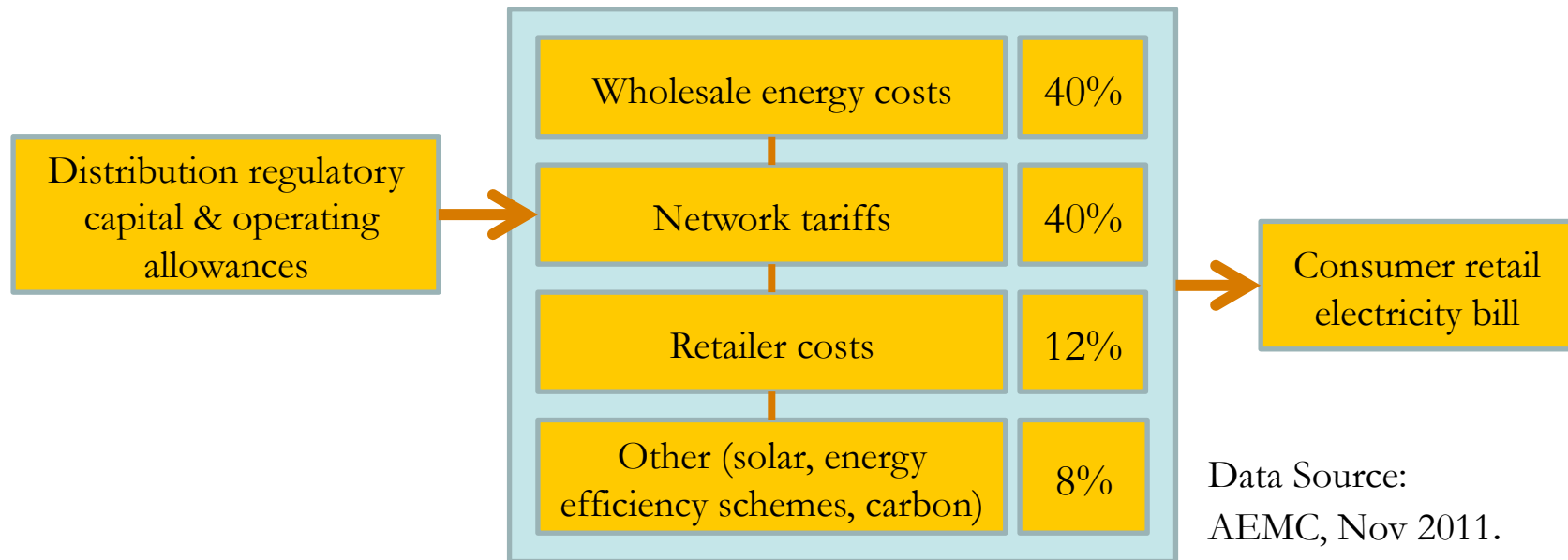
Form of control during regulatory period:

- Cap on maximum recoverable revenues
- Cap on maximum price chargeable

Criteria	Revenue Cap		Price Cap	
Incentive for efficient prices	Theoretical	- Low	Theoretical	- High
	Observed practice	- Low	Observed practice	- Low
Revenue recovery	Guaranteed		Variable	
Incentive for physical DM	Short run	- High	Short run	- Low

Network pricing

Approximate contribution to retail \$P increase to 2013/14



Majority of residential network tariffs are flat and don't vary by time

→ no signal of peak costs

Efficient, cost reflective / time-varying network tariffs = DSP

→ reductions in peak usage are reflected in bills

Network pricing

Key proposed reform → Gradual introduction of cost-reflective, time varying network tariffs

- Segment consumers into size categories:
 - Mandate such tariffs for **large residential/small business**
 - **Medium-large consumers** transitioned to such tariffs but allowed to opt-out
 - **Small consumers** maintain flat tariff but allowed to opt-in

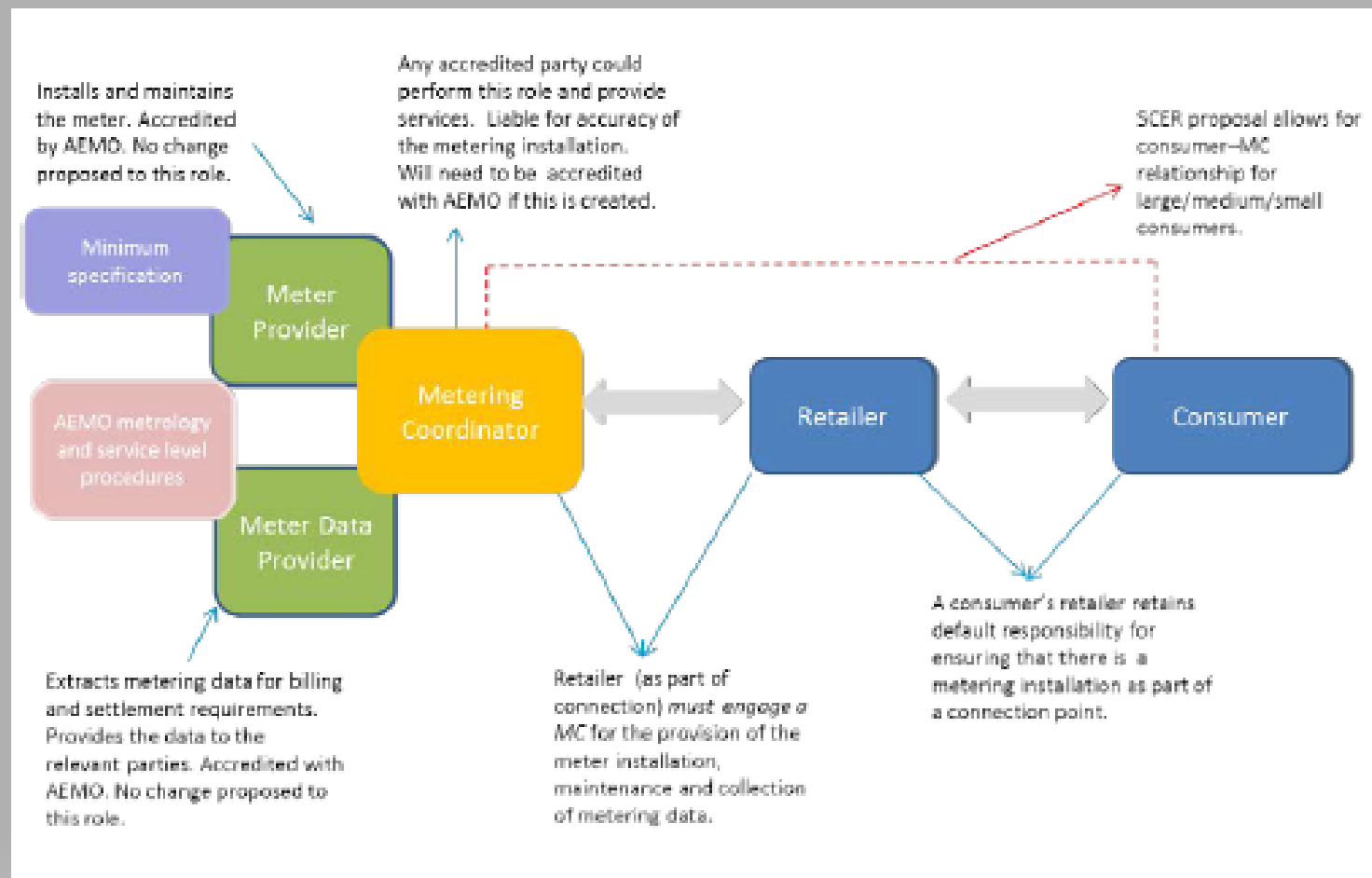
Accompanying reforms:

- Reform/tighten pricing principles in NER
- Improved consultation procedures – distributors with retailers and consumers

Technological enablers - Metering

- Interval meters \Rightarrow enable efficient price signals
- Interval meters with additional communication / smart features \Rightarrow energy management possibilities for consumers
- Key proposed reform \Rightarrow contestable roll out of interval meters with defined standard technology specifications
 - Require for all large consumers
 - Subject to jurisdictional policies for new meter connections, refurbishments/replacements

SCER proposed model



Concluding comments

- Significant phase of regulatory and market evolution re how networks engage in/with DSP:
 - Network planning
 - Incentives for regulated businesses
 - Cost reflective network tariffs
 - Smart technologies and smart energy services