

# AEMC Review: Power of choice

**2<sup>nd</sup> Meeting: Stakeholder Reference Group**



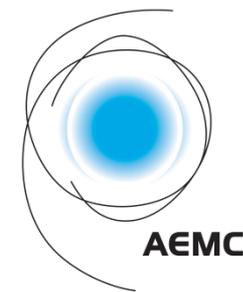
**DSP TEAM**

AUSTRALIAN ENERGY MARKET COMMISSION

## 2<sup>nd</sup> meeting of SRG

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- Background information for SRG members for second meeting.
- Slide pack includes:
  - summary of stakeholder views arising from submissions and consultations
  - key areas and issues emerging for consideration in the review (for SRG discussion at meeting)
  - questions for roundtable (for SRG discussion at meeting)
  - next steps and SRG input



# Stakeholder views and key area/issues emerging for consideration



# Stakeholder submissions and consultations - overview

- 47 submissions received to Issues paper – available on AEMC website
- AEMC staff have also held a series of stakeholder bilateral meetings
- Views have also been incorporated from submissions to the AEMC Strategic Priorities Paper
- Submissions generally positive and provided good supporting evidence
- Comments focused on:
  - Assessment approach and framework
  - DSP options
  - Market conditions and issues for uptake and capturing value of DSP

## Summary stakeholder views: assessment approach and framework

- Submissions generally considered approach and assessment framework for review appropriate.
- Many submissions noted review needs to consider both the competitive and regulated market solutions to maximising efficient DSP. Many supported promoting DSP through encouraging innovation through market mechanisms than increasing regulation.
- Consumer groups considered focus should be on what consumers want and need – some questioned assumption that consumers are economically rational and will respond to price signals.
- A few submissions highlighted interpretation of the NEO - focus should be more on what is the long term interests of consumers and the importance of inclusion of social and environmental objectives.
- General view to differentiate DSP issues between residential and non-residential consumers. Some concern about too much focus on residential, while the most DSP uptake potential is with commercial and industrial sector.

## Summary stakeholder views: DSP options

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- Value of DSP differs significantly depending upon location, time, demographics, asset type, generation mix etc.
- DSP initiatives vary greatly across the NEM. Jurisdictional arrangements, market structure, government involvement, and level of competition are factors.
- Most submissions see the main focus of improvement is in the role of DSP to address the rising peak demand.
- Support for direct load control by some parties. These stakeholders see this as a cheaper, more effective option compared to smart meters.
- Some submission point to electric storage as an emerging opportunity.

# Stakeholder views: market conditions and issues

Number of key areas/issues emerging...can be split into two groups:

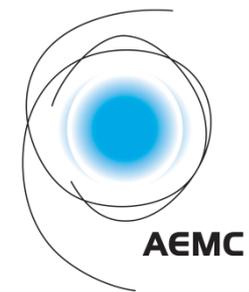
1. *Confirmation of market conditions and issues for consumer uptake of efficient DSP:*

- consumer engagement and information
- pricing structures and signals
- infrastructure and technology

2. *Issues across supply chain to capture value of efficient DSP:*

- Supply chain interactions
- wholesale market
- networks
- retailers

- Next set of slides provide summary of main points raised in submissions/consultations and then identifies the issues for consideration across these key areas. Issues for consideration will be focus of discussion at SRG meeting.



# 1. Market conditions for consumer uptake of efficient DSP



# Consumer engagement and information

## **Submission/consultation views:**

- Many noted that residential and SME's consumer understanding of electricity costs and the impacts of their use is still very low. Most residential consumers are confused or passive.
- Consumers are not a homogenous group, and while price may be a common driver for both low and high income consumers, programs to encourage demand side participation need to be designed with the full range of end consumers in mind. Likely to be differences in behaviour across different income groups/circumstances.
- Lack of reliable information about energy prices and the running costs of different appliances (many submissions noted Cwth/state E3 program).
- Consumer access to own data is important to facilitating consumer response. Current framework is unclear and problems exist today for I&C consumers (delays in getting load profile data from DNSPs).

# Consumer engagement and information - issues for consideration

## Education

- Difference between “education” (prior to decision) v “information ” provisions
- Approach to and establishing social norms
- Need for differences approaches between residential and I&C consumers?
- Understanding about current market rules and frameworks (e.g. access to wholesale markets)

## Information

- Consideration of what information consumers and third parties need and whether current information can provide this?
- Specific issues:
  - energy consumption and costs/payback periods (i.e. appliances/equipment)
  - bills – quarterly v monthly
  - consumption data – arrangements for better access

Transparency of market information on value of DSP decision

- network planning annual reports and AER determinations
- predictability/certainty of payments
- pricing offers (tariffs) available

# Pricing structures and signals

## Submission/consultation views:

- Many noted merit in moving towards better pricing arrangements. Some views for more cost reflective tariffs (both network and retail). General consensus that pricing is necessary, but not sufficient on their own.
- Some considered that there is a need to consider how or if consumers respond to price signals.
- Many noted number of reasons why existing prices may not cost reflective, such as:
  - DNSPs not passing through locational TUOS on the grounds of equity and fairness
  - retail tariffs do not always reflect precisely the costs faced by retailers due to (postage stamp) price regulation and metering technology.
- Some noted why existing price signals do not support DSP:
  - high daily supply charge versus low variable charge – not enough incentive for consumers to reduce energy usage
  - quarterly billing – too long of time gap between consumption and paying for electricity. Dampens the ability of consumers to respond
  - retailers tend to average costs across its consumers to manage its contractual risk. This makes it difficult to reward consumers who load shift with DSP.

# Pricing structures and signals

## Submission/consultation views:

- Differing views on how granular/dynamic prices need to be in order to get the desired consumer response/change in behaviour – divergence of views about whether existing TOU charges are effective.
- Some consider that consumers need to be able to choose different pricing structures to take advantage of load shifting opportunities, reduce wholesale market risk, ability for risk, and to reflect own behaviour. However it was noted by others that introducing more services or choice may in fact lead consumers becoming less engaged.
- The issues for vulnerable consumers under more granular pricing was covered extensively. Most agreed that this needs to be addressed, no party considered the issue as an unsolvable problem.
- Consensus that increase price signals need to be supported by an effective consumer education and information program.
- Any move towards more cost reflective network tariffs must balance the prospective efficiencies with implementation costs.

# Pricing structures and signals - issues for consideration

## Efficient operation of price signals

## Pricing structures/signals

- Are current prices efficient? Effectiveness of current retail and network tariffs at signalling efficient costs
- Consideration of likely consumer response to changes in prices? (evidence from trials)
- Review of the range of possible price structures and signals (or arrangements) that may be needed to across the supply chain to encourage consumer response and uptake/capture efficient DSP:
  - ToU including DP and CP pricing
  - daily fixed supply charge v variable charges.
  - capacity (demand) charging versus volume charging
- Issues that need to be considered when considering these options:
  - protections for “vulnerable” consumers
  - balance between cost reflectivity and admin/transaction costs
  - role of technology and systems to support price signals

## Infrastructure & technology

### **Stakeholder/consultation views:**

- Access to capital is considered a problem. Need to look at affordability and issues relating to rental properties and public housing.
- All consumers (even large consumers) tend to require short payback period for DSP investments (2-5 years), even though life of asset could be much longer.
- General recognition on the role of technology to support DSP. Some submissions noted that number of framework issues have not been properly resolved.
- New services arising from technology – general agreement about the boundary between regulated and competitive aspects of the services arising from smart technology remains unclear.
- A few submissions noted review should not pick a particular range of technologies or delivery mechanisms for DSP. Technology will change in the future. Focus should be on the framework and not on specific technological solutions.

# Infrastructure and technology - issues for consideration

## **Role of infrastructure and technology**

## **Service provision and market framework**

- Level of consumers' understanding of potential opportunities?
- Who should pay for the technology and how to allocate costs across the supply chain?
  - Consumers investing in DSP infrastructure (split incentive problem)
  - Short payback periods being required
- Framework required for existing and future services enabled by smart grid/smart meter and other load control technologies.
  - role of interval v smart meters, billing and IT systems, communications capability
  - competition of services (including technology) – who pays, interface between parties, access provisions

## 2. Issues across supply chain: capturing value of DSP



# Supply chain interactions

## **Stakeholder submission/consultation views:**

- Disaggregated nature of the supply chain - creating split incentives and free-rider problems leading to miss DSP opportunities. Need for a combined approach across the supply chain to take account of all benefits and costs of DSP and be responsible for promoting efficient DSP.
- Some noted that lack of correlation between system peak prices and localised network peak demand increases this problem. This could make it difficult to align incentives.
- A number of stakeholders pointed to need for a single actor for DSP across the supply chain.
- A few considered need for standardised deemed values for the value of DSP to make it easier to get DSPs approved under the regulatory determination process. Other parties noted the complications in accurately valuing the impact of DSP given its localised nature.

# Supply chain interactions - issues for consideration

## Split incentives

- Is it difficult for a consumer/demand response aggregator to negotiate with both a DNSP and retailer at the same time?
- What are the opportunities for both a retailer and DNSP to come together and work jointly to capture value of DSP?
- Would better price signals (which correctly value DSP action) overcome this disaggregated supply chain problem? Or this is a need for a regulatory solution?
- Possible “single actor” model for the regulatory solution:
  - should this be one of the existing participant types or should a new role be created? (Ausgrid submission present reasons why DNSPs are the appropriate party)
  - Framework governing single actor decisions
- Usefulness of having deemed standardised value/s of DSP savings across the supply chain
- Once a demand response action is triggered - what should be the information flows across the supply chain (networks - retailers - AEMO)?

## Wholesale market- incentives and behaviour

### **Stakeholder submission/consultation views:**

- A few consider that the market design as disincentive to DSP:
  - market price cap (VCR is higher for industrial consumers than current \$12,500 price cap)
  - need for consideration of capacity market or day-ahead market.
- Gentailer model – perception that gentailers want peaks to maximise generation profits
- Some considered current wholesale market arrangements take a competitive neutral approach to demand management. Considered that an energy only market with published pre-dispatch estimates will provide the right signals for efficient DSP.
- Some noted currently too difficult for DSP to compete with generation in the energy and FCAS markets. Having to go through a retailer is a key barrier and the current mechanisms to provide reserve capacity are complex.

# Wholesale market - issues for consideration

## Access to wholesale/FCAS market

- Large consumer sector access to wholesale market (pricing risk). Specific issues:
  - costs to participate – are they necessary:
    - registering as a market participant
    - registration costs
  - aggregation of loads – third party issues (aggregator/ESCO's)

## Information

- DSP potential is properly included in demand forecasting information by networks and AEMO

# Note - review will not be undertaking a detailed investigation of the design of the wholesale market.

# Networks – incentives and behaviour

## Stakeholder submission/consultation views:

- Consensus that issues relate to distribution networks. Only one issue raised for transmission.
- Majority pointed to the revenue regulatory framework as a barrier for DSP. DNSPs noted that there are insufficient incentives on them. Specific key issues:
  - bias towards capital expenditure (WACC possibly too high)
  - price cap means DNSPs disincentive to promote reduction in energy consumption
  - demand management schemes – Not sufficient reward, too complicated
  - five year regulatory periods - does not encourage long term planning. Lead time lag between initialising DSP project to understand the benefits and get a predictable handle on the impact on demand, is likely to be at least 2-3 years. This is especially true for residential projects as there is no contractual firmness.
- DNSPs consider need for flexibility regarding their legislative requirements and the regulatory service standards schemes when initiating DSP projects (lack of firmness).

## Networks – incentives and behaviour

### Stakeholder submission/consultation views:

- A few considered that there is a need for a mandatory obligation on network companies to reduce peak demand.
- Aggregators/ESCO's concerned about that the cultural practices within network organisations.
- consumers concern about the lack of practical information provided in the AER's regulatory determinations.
- Many noted need for greater access to information on network congestion and future peak load predictions are needed to facilitate DSP.
- **Distributed Generation** – regulatory and technical issues remain. Need uniform national framework and a streamlined cost effective registration/connection process, need for review of charging arrangements, better information provisions.
- **Transmission** – TNSPs get a free-ride from a DNSP investment in DSP. TNSP benefit from any DSP arising on the distribution network but do not contribute to the costs.

# Networks - issues for consideration

## **DNSP role**

- Current business model and possible role for increase consumer engagement

## **Economic framework**

- Existing economic framework in practice. Effectiveness of profit incentives:
  - capex v opex bias/price cap v revenue cap/five year regulatory period (productive versus dynamic efficiency)
  - incentive schemes - appropriateness, level of funding, standardised deemed values for DSP

## **Planning**

- Network planning: “Firmness” of DSP projects

## **Information**

- Consideration of extent AEMC Distribution Planning and Expansion Rule Change may address information gaps.

## **Distributed Generation**

- Connection process and charges, technical standards, cultural attitudes and progress of current reforms.

## **Transmission**

- Sharing of DSP related costs

## Retailers – incentives and behaviours

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### **Stakeholder submissions/consultations views:**

- Generally retailers and DSP providers consider that there is a need to remove retail price regulation.
- A few noted that it is the pricing structures of both retailers and networks that prevent DSP. No guarantee that removing price regulation would change these structures.
- Some consider that retailers have a lack of appetite to offer DSP services
- Some consider that retailers obligations to pay DNSPs on time and AEMO prudential security requirements can limit the retailers flexibility and ability to be innovative
- Medium I&C consumers and distributed generators consider in some cases contracts are difficult to establish and tend to favour the retailer without adequate compensation for the DG.

# Retailers- issues for consideration

## **Retailer role for DSP**

## **Incentives for retailers to do DSP**

- Current business model
- Specific issues:
  - lack of innovative tariffs/products – competition, standing offers v regulated prices
  - nature and portability of contracts – ability of customer to contract with parties beside existing retailer supplying energy
  - provision of services and information – engagement with consumer
  - Retailers role as “gate-way” for engagement with consumers

# Note – there is a separate AEMC process for undertaking detailed review of competition in retail market. Hence, will not form part of this review.

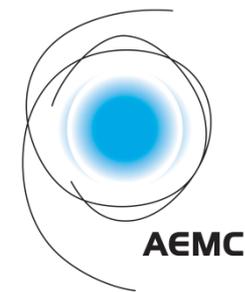
# Energy efficiency policies and measures

## Stakeholder submissions/consultation views:

- Wholesale recognition – need for better-coordination between existing energy efficiency policies, schemes and the framework for demand response.
- Some noted that EE may not necessarily lead to better peak demand outcomes (e.g. electric boosted solar hot water systems)
- Generally considered that consumers do not get the right information on impacts on electricity tariffs when purchasing an appliance - can be a long delay (years) between a purchasing decision and the eventual network cost increase.
- Some consider need for minimum standards for specific energy intensive appliances. Reference to Equipment Energy Efficiency (E3) Committee of Aus Gov, state, territory and NZ – oversees Trans-Tasman labelling and minimum energy performance standards (MEPs) program.
- Some noted concern that the numerous and differing requirements of State based schemes present a barrier to entry to new retailers and providers of demand side solutions.
- Some support for phase out of federal and state based programs phased once carbon price introduced - ease the regulatory burden on organisations and allow market drive activities.
- General support for a National Energy Saving Initiative. Some support for scheme to include peak demand reduction measure.

## Energy efficiency policies and measures – next steps

- Oakley Greenwood have been engaged to provide report on MCE ToR's key area - energy efficiency measures and policies that seek to integrate or impact on the NEM.
- Two stages of work:
  - Stage 1 – stocktake of regulatory arrangements of energy efficiency measures and policies that impose direct obligations or incentives on market participants.
  - Stage 2 – cost/benefit analysis of measures identified for review.
- Directions paper will provide discussion and outcomes of stage 1.



# Questions for roundtables

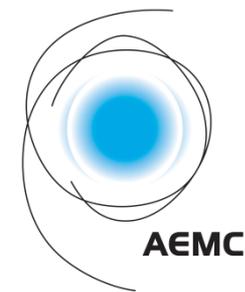


# Roundtable questions

- Key set of questions. One question per table (30 mins each). SRG members will be allocated a colour and tables a question at SRG meeting on the day.
- Summary by rep from each table and open discussion (10 mins each)

## Questions:

- 1. What would be a best practice approach for improving pricing signals and structures to trigger responses by consumers? What factors should be considered in achieving it?**
- 2. What specific actions could be taken to improve existing energy consumption and cost information to consumers or third parties? Is there changes that could be made to the Rules/NECF to support better access for consumer's to their consumption data.**
- 3. Under what commercial arrangements do retailers have and incentive to take up efficient DSP? To what extent do such arrangements currently exist now?**
- 4. How should DNSPs take DSP into account when considering planning/investments, including to meet reliability obligations.**
- 5. Should there be a single actor for DSP in the supply chain? What factors should be taken into account in considering such a model.**

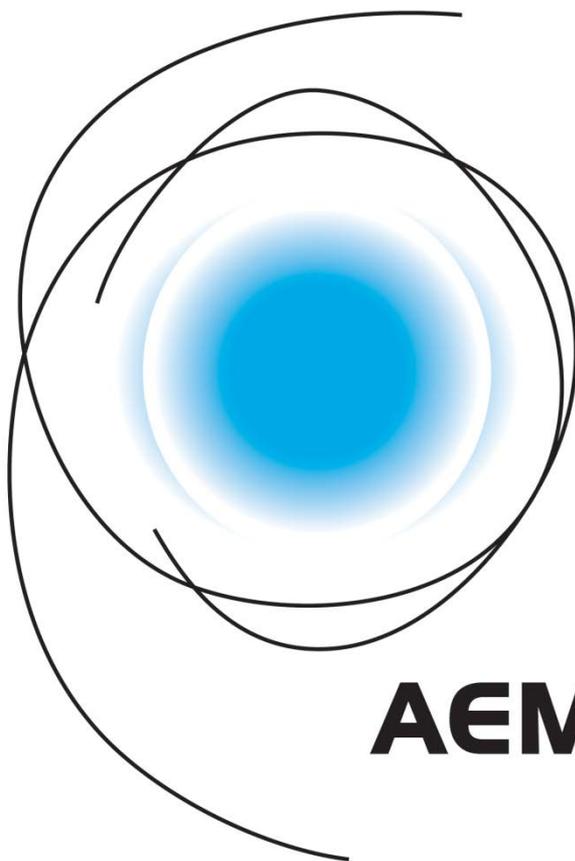


# Next steps



# Actions, SRG input and timelines

Key actions/steps	SRG input	Timelines
Directions paper	Input to assessment approach/methodology Consideration of issues and any directional comments Embargo copy of Directions paper	Publish Dec 2011
Public Forum	Possible presentation from members	Feb 2012
3 <sup>rd</sup> meeting SRG	Input into CBA analysis, methodology and assumptions Update on summary of stakeholder submissions to Directions paper Input into possible solutions for reform	March 2012
4 meeting SRG	Input/confirmation of possible solutions for reform for Draft Report	April 2012
Publish Draft Report	As above Embargo copy of Draft Report	May 2012



**AEMC**