



4 May 2012

Mr Eamonn Corrigan
Director
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Corrigan,

RE: POWER OF CHOICE DIRECTIONS PAPER

Origin Energy Limited (Origin) welcomes the opportunity to respond to the Australian Energy Market Commission's Directions Paper: *Power of choice - giving consumers options in the way they use electricity* (your reference: EPR0022). We fundamentally support demand side participation (DSP) and welcome the Commission's examination of the issues that may impede DSP and how these issues might be managed or overcome.

The key theme in our response is that DSP policy objectives need to be realistic and work with the existing industry structure. If the objective of DSP policy is to have the mass market bed down significant peak demand reduction and have the costs and benefits shared across the entire value chain, it needs to be clear that this will happen organically and will be largely unpredictable. We should not seek to overcome this with central planning models, and certainly not before basic elements for market driven DSP are in place, such as smart meters and improvements to network regulation. Fundamentally, risk should not and cannot be reallocated in the disaggregated industry and across competitive and monopolistic sectors to serve a particular purpose: the costs to all players will be high and consumers will not ultimately be better off.

Origin does not support changes to the wholesale market or to retail market metering and settlement approaches. However, we support modifications to distributor treatment of new significant load and distributed generation, where we propose a consultative and contracting approach. We also support unbundling regulated meter service costs (reading and provision) from other regulated costs. This would incentivise retailers to invest in metering as they could avoid regulated meter service costs where contestable smart metering is installed.

The most significant change we propose is to amend the National Energy Customer Framework's treatment of energy retail services in order to cover all parties offering certain types of DSP services. Origin believes that consumers are entitled to expect the same consumer protections for the same services, regardless of who provides the service. It is also reasonable from a service provider standpoint to have a level playing field.



Please feel free to contact Dr Fiona Simon by phone (03) 8665 7865 or email fiona.simon@originenergy.com.au to discuss any aspect of this submission.

Yours Sincerely

A handwritten signature in black ink, appearing to read "Tim O'Grady". The signature is fluid and cursive, with a long, sweeping tail.

Tim O'Grady
Head of Public Policy
(02) 8345 5250
tim.ogrady@originenergy.com.au



*Australian Energy Market
Commission's Power of Choice
Review: Directions Paper*

Submission of Origin

May 2012

Contents

1.	Introduction and summary of positions.....	2
2.	Responses to specific questions raised	6
2.1	Consumer engagement and participation.....	6
2.2	Efficient operation of price signals	7
2.2.1	<i>Network pricing and incentives.....</i>	<i>7</i>
2.2.2	<i>Retail pricing and incentives.....</i>	<i>8</i>
2.2.3	<i>Potential for price signals to promote DSP</i>	<i>9</i>
2.3	Technology and system capability	10
2.3.1	<i>Supporting efficient investment decisions in DSP technology</i>	<i>10</i>
2.3.2	<i>Commercial driven investment in DSP technology.....</i>	<i>14</i>
2.3.3	<i>Consumer choice in metering capability</i>	<i>15</i>
2.3.4	<i>Optimising the value of technology and system capability</i>	<i>15</i>
2.4	Supply chain interactions	16
2.4.1	<i>Distribution of DSP impacts across the supply chain.....</i>	<i>16</i>
2.4.2	<i>Co-ordination across the supply chain.....</i>	<i>16</i>
2.4.3	<i>Role of cost reflective pricing</i>	<i>17</i>
2.4.4	<i>Co-ordination across the supply chain and the single actor option.</i>	<i>17</i>
2.4.5	<i>Measuring and forecasting DSP benefits to the market</i>	<i>18</i>
2.5	Wholesale and ancillary services markets.....	18
2.5.1	<i>Load forecasting incorporating DSP.....</i>	<i>18</i>
2.5.2	<i>Becoming a registered participant for DSP and the role of aggregators.....</i>	<i>19</i>
2.5.3	<i>Access to short term financial contract markets</i>	<i>19</i>
2.5.4	<i>Remuneration for providing DSP in the wholesale market.....</i>	<i>19</i>
2.6	Networks	19
2.6.1	<i>Profit incentives on network businesses</i>	<i>19</i>
2.6.2	<i>Research into estimating potential demand reduction of non-contracted DSP.....</i>	<i>20</i>
2.6.3	<i>Exemption from Service Standard Incentive Schemes.....</i>	<i>21</i>
2.6.4	<i>Engagement with consumers</i>	<i>21</i>
2.7	Retailers	22
2.7.1	<i>Settlement load profile for residential consumers with accumulation meters.....</i>	<i>22</i>
2.7.2	<i>State based retail price regulations</i>	<i>22</i>
2.7.3	<i>Engagement with consumers</i>	<i>22</i>
2.8	Distributed generation.....	23
2.8.1	<i>DNISP Incentives schemes for DG.....</i>	<i>23</i>
2.8.2	<i>Metering and settlement arrangements for DG.....</i>	<i>24</i>
2.8.3	<i>Maximising the export value of DG to address peak demand.....</i>	<i>24</i>
2.9	Energy efficiency regulatory measures that integrate with or impact on the NEM	24

1. Introduction and summary of positions

Origin Energy Limited (Origin) welcomes the opportunity to respond to the Australian Energy Market Commission's Directions Paper: *Power of choice - giving consumers options in the way they use electricity* (your reference: EPR0022). Origin fundamentally supports demand side participation (DSP): as an energy retailer with over four million customers, a strong presence in the solar market and a partnership with Nissan to be the company's preferred Electro Mobility Operator, we are well established to provide support and suggestions for this review and are pleased to do so.

We are also a key player in the Victorian energy market (which is currently rolling out smart meters to all customers) and so are developing consumer friendly time of use tariffs and other support for customers with smart meters such as interactive information sources. With smart meters and associated technology there is a genuine opportunity for retailers to listen to their customers, observe their lifestyle choices and to create innovative products that educate and inform, and so work toward effecting consumer behaviour change to allow customers to better manage their electricity usage and to reduce pressure on the supply network at peak times.

Having said that, we think it is important that the objectives for the Commission's Power of Choice Review are clearly articulated, and are achievable. The current Directions Paper is comprehensive, but possibly at the expense of clarity around practical outcomes. In Origin's view, there are some basic issues that need to be addressed openly if we are to progress appropriate DSP options, as discussed below. Our primary argument is that risk should not and cannot be reallocated in the disaggregated industry and across competitive and monopolistic sectors across the supply chain.

We also believe that any lack of effective DSP in the mass market right now is primarily due to a lack of enabling technologies, such as smart meter infrastructure to measure and record consumers' consumption by time of day, and the tariffs to support load shifting. Consumers cannot be expected to shift their load without this: there is no incentive for them to do so other than basic energy efficiency reasons. Consumer installation of distributed generation such as solar PV can provide some benefit but this is only economic or feasible for a relatively small proportion of the population, particularly with further reductions in feed in tariffs.

We have chosen to focus on the small consumer mass market for this response, as we believe this is at the heart of the Commission's considerations. DSP for commercial and industrial customers appears to have developed well and probably does not require further specific policy or regulatory assistance, although a number of the recommendations made by Origin in this submission would benefit all sectors of the market.

DSP for the mass market will only happen gradually

If the objective of DSP policy is to have the mass market bed down significant peak demand reduction and have the costs and benefits shared across the entire value chain, it needs to be clear that this will happen organically and so will be largely unpredictable in terms of timeframes and optimal impact.

Consumers first need to be given the capacity to understand their consumption patterns and respond to a tariff that values peak times, which means that interval meters with remote communications capacity are required (smart meters), with tariffs that are pitched at the right level of consumer sophistication and with the right price signals embedded within them. Consumers can then use the price signals and supporting information to change their consumption habits and so use energy at cheaper times, and perhaps use less energy overall.

We note that full cost reflective pricing is unlikely to ever be manageable in the mass market environment. The more important issue is what *degree* of cost reflective pricing can be effectively introduced over time as consumer sophistication and understanding grows.

Given that pricing and home energy management products will be sold in a competitive market and likely require consumer consent, the timing for DSP uptake and response will

depend on how consumer preferences are ordered and how service providers capture and pass on the benefits. It will depend on how consumers are informed about new options and how they engage with information providers and service providers about the choices they can make. There will also need to be time for consumers to collect and understand their own data in order to make the right choices about DSP tariffs and products, where seasonality would infer a year's data is a reasonable minimum. We have confidence that all this can happen once the technology is in place, but it should nevertheless be noted that it will be a gradual process.

Further, there are also views that consumers should have a right to revert to flat tariffs even when on smart meters; this is the outcome for Victoria's smart meter programme and while it has been stated to be a transitional policy it is not clear how long it will be in place (note that Origin would support this only if transitional and only if founded on a network flat tariff choice). What this means is that not only can consumers choose to not shift their load when on a time sensitive tariff (and so choose to pay the higher price for peak times), but they can choose to avoid the price signals altogether.

Related to this, removal of price regulation in all its forms is an obvious prerequisite to effective mass market DSP. Political responses to price rises and price volatility are to reduce or freeze prices (see the recent announcement from the Queensland Government to freeze the domestic tariff), as well as to maintain flat and smoothed prices as a default, which obviously counteracts the price signals that DSP proponents would wish to see expressed for the mass market. Again, it will be some time before all jurisdictions are likely to remove price regulation, and even for 'deregulated' markets like Victoria, some intervention in prices for smart metered customers (at least to set tariff structures) appears unavoidable.

Therefore it would seem unlikely that distributors will be able to offset or defer network augmentation to manage peaks via the tariff mechanism alone, at least in the short to medium term. Consumer choice is an important feature of our energy retail market but it does not lend itself to infrastructure planning based on consumer behaviour unless that behaviour is particularly well established and understood. The necessary price signals to drive consumer choice toward effective DSP are also some way away from being expressed in the market in any significant sense.

Market changes are not required but regulation can be improved

Origin supports the Commission's position that changes to the wholesale market are not necessary. Given there is a high degree of competition and a liquid secondary market, there would seem to be no evidence of market failure warranting change - fundamental or otherwise.

We also do not believe that changes need to be made to technical metering and settlement rules. At this stage the arguments for change are not convincing and seem to be more about changing the market to fit specific business needs, rather than changing the market to increase consumer benefit. The costs of embedding parent-child metering or NEMs shared between market participants will be high and need to be examined clearly against the benefits before market changes are made.

However, Origin does support some rule or process changes: as discussed below, we support certain changes to distributor processes to improve consultation and benefit sharing with stakeholders, and we support an extension of a version of the NECF to all parties retailing energy services. We also believe that uniform changes should be made across NEM jurisdictions to unbundle regulated meter service costs (reading and provision) from other regulated costs. This would incentivise retailers to invest in metering as they could avoid regulated meter service costs where contestable smart metering is installed. This would require changes to the NER Chapter 6 (the rules applying to AER price determinations) to require unbundling in the allocation of meter related costs. In the short term, the changes could be managed through consistent determinations by the AER under the direction of the Commission.

Origin also asks the Commission to reconsider its view that it will not progress an assessment of calculations of avoided TUOS payments in this review. We do not agree with

the Commission's view that the value of existing avoided TUOS payments is unlikely to be a significant component of a typical DG project's financial viability: we believe that avoiding TUOS charges will incentivise the uptake of DG, and that a standardised method for calculating TUOS is a reasonable requirement.

Distributors will need to consult with their stakeholders to manage network augmentation issues

In Origin's view, distributors seeking to manage network peaks need to engage with retailers to develop more cost reflective time of use tariffs that can appeal to consumers. These tariffs may need to be reasonably simple to start with to allow consumers to adjust to new pricing models and their signals, but can become more sophisticated over time. If distributors share the benefits this will also be an additional incentive for retailers and their customers to engage with distributors. If distributors are looking for more wide scale or firm outcomes they can also contract with retailers to provide services like direct load control, where retailers can then manage the customer interface and the issues that arise with product marketing, obtaining customer consent, payments, financial hardship schemes and contractual requirements under NECF and the Australian Consumer Law. We do not believe that distributors are able to take on the full effects of marketing consumer products in the mass market, and nor do we think it is reasonable for these products to be funded through regulated revenue. As discussed below, if this is to be the role of a distributor we believe they should have some form of retailer authorisation under NECF and be appropriately ring-fenced.

Distributors can perhaps have the best DSP effects if they focus on larger customer load such as new developments and upgrades to commercial structures, and if they develop a framework to promote efficient distributed generation. We have suggested in this response that distributors should publish network constraint maps and consult with developers about new load and/or distributed generation, and that connections processes should be streamlined. There could also be a model whereby distributors are required to go to tender for major projects where DSP options should be part of the mix. This is likely to require the treatment of operating expenditure and capital expenditure to be changed for network price determinations, so that contracting out is made at least equally favourable compared with in-house projects.

Roles and responsibilities should be clarified

Origin believes that consumers are entitled to expect the same consumer protections for energy services, regardless of who provides the service. This means any party retailing DSP-type products to customers - whether a retailer, distributor or another third party - needs to meet the requirements provided for under the NECF. It is also reasonable for service providers to compete on a level playing field.

We seek a comprehensive review of service provider roles and appropriate responsibilities under NECF, and support the Commission (or DRET) taking the lead in this area, in consultation with jurisdictions. To not do this is to risk revisiting the same policy issues for every business model that arises across the smart metering, DSP and electric vehicle policy space, and there will be an associated risk of unintended consequences from a fragmented approach.

In Origin's view, 'sale of electricity' (or energy more broadly) is no longer an adequate test of whether retail licensing or authorisation is required. The concept under NECF should instead shift to sale of *energy services*, which includes retailing energy *and* energy management service such as interruptions to energy supply (under direct load control or supply capacity control, for example), ongoing use of a consumer's meter data, as well as direct billing the consumer under contract.

Once this approach has been agreed it will then be important to assess the need for the NECF itself to be modified for special authorisations to be granted rather than the current one-size-fits-all version; we are not suggesting the full NECF should apply but a reasonable and appropriate subset of provisions or principles.

Policy and regulatory uncertainty does not support innovation

A theme has developed in the DSP discussions where some parties argue that a greater level of government or regulatory intervention is required to promote innovation in DSP, such as changes to the wholesale, metering and settlement rules as addressed above, and the proposed information hub currently being considered by the federal government. However, we do not believe that the policy environment to date has been particularly conducive to innovation in this space. Further, our experience to date suggests that increased levels of government and regulatory intervention directed at enhancing innovation may actually have the opposite effect, introducing market distortions and perpetuating investment uncertainty.

The first point worth noting is that smart meters are not currently widely available, as discussed above. The Victorian smart meter rollout has also been uncertain: we have spent much of the past two years contemplating the introduction of mass market smart meter (time of use) tariffs with little data and no clarity on the price structures that will be imposed on retailers.

Further DSP-related policy uncertainty experienced over recent years includes the introduction of the concept (and then scrapping) of the Carbon Pollution Reduction Scheme, followed by the legislated introduction of a carbon price from 1 July 2012. Constant changes to the Renewable Energy Target have also been problematic, where this scheme has changed fundamentally several times, to the point where there have been multiple scheme elements in place at the one time, directly affecting investment signals and changing the economics of different technologies. The many jurisdictional energy efficiency schemes also create issues, with the various schemes potentially being harmonised into a national Energy Savings Initiative at some point in the future. Solar feed-in tariffs create further complexity and uncertainty, with each jurisdictional regime setting different tariff structures and there is no national consistency whether gross or net tariffs are used.

If we overlay the non-DSP policy context of changing governments, the implementation of the NECF and new regulatory regime under the AER, energy business privatisations and acquisitions, and price regulation decisions, it becomes clear how uncertain the investment environment has been for existing retailers and other investors alike.

Policy certainty is likely to be one of the strongest investment incentives for the energy market, and policy must also be applied consistently. Reducing the regulatory risks and policy uncertainty where possible can help support commercially viable investment in DSP and its enabling technologies. We therefore ask that the Commission carefully consider any recommendations that require increased market intervention.

2. Responses to specific questions raised

2.1 Consumer engagement and participation

Question 1: What should be the arrangements for consumers (or third parties acting on their behalf) to access their energy data?

Question 2: Do you consider that there could be a role for an information service provider in the market as a mechanism to provide consumption data to consumers?

Consumers have a right to access their data under the National Energy Customer Framework (NECF). Customers can give their explicit informed consent to their retailer for their information being provided to another party, and this explicit informed consent is required for privacy reasons also. We do not believe that there is a need for an information service provider in the market to provide consumption information. Retailers are equipped to provide this information to customers and have the necessary infrastructure to do so effectively and reliably. Retailers are also best able to obtain explicit informed consent from customers for the use of their information.

We note the Commonwealth is also considering the availability of electricity consumption data through an energy information hub, which could enable consumers, or their nominated representatives, to access raw consumption data from smart and interval meters. We do not support this development: there is no evidence that it is required at this early stage and it will also not meet consumers' needs for data that aligns with their tariffs and bills.

Furthermore, it will diminish incentives for retailers, third parties and ring-fenced distributors from innovating in this field, where these parties may offer more sophisticated, customised and useful portals than an energy information hub. The cost of the energy information hub would be recovered from all customers if AEMO was to implement it, as this would occur via market fees. If customers do not have smart meters, or do not use the portal, they will still pay for the service via these indirect charges to all end-use customers. Finally, there are significant privacy concerns that need to be managed with respect to the authorisation of parties accessing private information through an energy information hub or via retail or distribution businesses.

Question 3: Should amendments be made to the current NER clause 7.7 (a) to facilitate consumer access to consumption information? If so, how?

Origin does not believe clause 7.7 of the NER requires amendment at this time. Clause 7.7(a)(7) in particular is often cited as a barrier to the provision of consumption data (for electricity). In Origin's view, this rule does not prevent an authorised agent of a retailer's (the financially responsible Market Participant's) customer making a request and for the retailer to then provide the data requested themselves or delegate provision to a distribution business (by agreement). Furthermore, retailers in particular have an incentive to provide automated and simple methods for customers to access their consumption data. Until there is demonstrable evidence of market failure, Origin does not consider it necessary to alter the NER.

Question 4: What information provisions could be put in place to improve awareness of the costs of consumption and the use of particular appliances/equipment, so that the benefits of taking up different DSP options can be realised?

Consumer awareness of the costs of consumption and use of appliances has been addressed in several consultations to date, including the Australian Energy Regulator's (AER) consultation on price disclosure. The AER's price comparator website www.energymadeeasy.gov.au will provide information on costs and use of appliances, as will other government websites, such as the Department of Climate Change and Energy Efficiency's site at www.livinggreener.gov.au. Energy retailers also already provide this information, such as the Save Energy section of Origin's website that has sections explaining appliances costs and how to reduce consumption costs, as well as explanations of energy terminology.

Origin supports market-led deployment of information provision to customers to encourage the adoption of DSP. We do not support more regulation in this area; interested customers can already access this information. When time of use tariffs become more widespread we can also expect retailers to more actively promote energy saving suggestions and information to best make use of the opportunities available to shift load. For example, information portals showing customer consumption and cost in a clear and easily understood manner are an example of services that can be provided by energy retailers.

2.2 Efficient operation of price signals

2.2.1 Network pricing and incentives

Question 5: Should network charges vary by time of use?

Origin supports network charges varying by time of use, but not a mandatory tariff reassignment for small customers or a requirement for retailers to pass through network costs with a flat retail overlay (meaning the retail tariff follows the network tariff profile with a consistent retail component on top).

Question 7: What changes are needed to market conditions to facilitate more cost-reflective network pricing?

We believe that changes to regulatory conditions are more relevant than changes to market conditions. Origin agrees that distributors should have the appropriate incentives to minimise avoidable network augmentation where it is cost effective to do so, and that pricing structures which encourage load shifting is part of this equation. Regulation needs to ensure that network tariffs are cost-reflective so that the right price signals are being sent. However, and as noted above, we do not support more onerous rules around distribution price structures if the logical conclusion is that retailers are to pass through network price signals with a flat retail overlay. As the risk managers for the energy value chain - and the ones who ultimately bear the cost of mismanaging this risk - retailers have a right to price as required, whether this is to reflect network peaks or wholesale peaks. It is in fact retailers' responsibility to do this for their stakeholders, and in a competitive market this will also provide the most sustainable outcomes for the energy system as a whole.

One way to encourage more cost-reflective pricing over time is to build a premium in to flat domestic network tariffs (on top of the standard price path) for a term of five years, or a full regulatory term, whichever is the greatest period. After this initial period, flat tariffs would only be subject to CPI increases. The value of this approach is that it provides additional revenue to the distributor over the transition period to fund less firm time of use network tariff risks (and the premium should include the avoidable augmentation cost identified as necessary to support current and future critical peak periods) and will also send the necessary price signal to distributors and retailers to address alternative pricing which is more cost reflective and supportive of DSP.

We acknowledge that this suggestion may be problematic from a customer affordability perspective, and may not be politically acceptable. However, this is the natural conflict of pricing to support DSP and pricing to support customer access, and it is a conflict that needs to be recognised by policy makers and regulators.

On a different matter, we note that the current network price review process does not provide for effective consultation with retailers on proposed tariffs, and it does not provide sufficient time for retailers to develop efficient prices. As we have previously stated to the Commission,¹ it is an unreasonable quirk of the NER that retailers carry the risk associated with delays in the distribution price setting process. Network revenue is a major input to

¹ See Origin (2011) Letter to Richard Khoe, 'RE: NER RULE CHANGE PROPOSALS ERC0134, GRC0011', 8 December.

retail prices, with the network component typically representing in excess of 50 per cent of a retail price.

Retailers must increase prices to reflect changes in network tariffs or risk making significant losses. Retailers must also understand changes to network tariffs and the structure of network tariffs when formulating retail prices. There is no value in elaborate cost-reflective network tariffs if the retailer has just a few days to adapt its retail prices, since due to time pressures retailers may be forced into applying flat increases and any price signals at the tariff level will be lost. This perpetuates considerable inefficiency in the regulatory process.

Question 6: Should NSPs charge on a volume or capacity basis?

Altering network pricing structures to reflect the economic drivers of costs in distribution infrastructure is a sensible objective; however, Origin believes it will take some time before retailers and consumers are able to market, accept and understand capacity-based pricing. While demand-based tariffs are common among large customers, there are numerous educational challenges to overcome to explain the impact and effect of such pricing structures in relation to smaller customers. Furthermore, the interaction of demand-based pricing and energy (wholesale market) price signals requires further consideration if such network pricing were to be applied at scale to mass market electricity customers.

2.2.2 Retail pricing and incentives

Question 8: Do retailers have the right incentives to pass through appropriate wholesale costs and network charges to consumers?

Retailers have a right and a responsibility to manage pricing according to optimal means of managing various risks, and also to present prices according to how consumers value energy services. Retailers have the right incentives to pass through efficient wholesale costs and network charges to consumers; as risk managers in competitive wholesale and retail markets retailers are well placed to provide for efficient outcomes. Whether these efficient outcomes are deemed as 'appropriate' is a matter for policy debate, but we question how any more appropriate decisions could be made in this space without disrupting and potentially damaging existing market mechanisms that currently create consumer benefit.

The only improvement we can recommend is for distributors to be required to consult in a timely way with retailers to develop DSP offers, and to pass through the benefits so that consumers may be offered a better deal.

In the absence of significant numbers of interval meters, passing through wholesale and network pricing impacts is limited to the net system load profile assigned to a particular customer segment. As the number of remotely read interval (or smart) meters increases, the incentive to offer time-varying price structures more closely matching the peak and off peak behaviour of the wholesale energy market and utilisation of the distribution network will increase.

Question 9: Do retailers have an incentive to minimise the costs of their customers' consumption?

It has been argued by some commentators that retailers do not have an incentive to minimise the costs of their customers' consumption, but we believe this is a simplistic and inaccurate view of retailers' businesses and the breadth of their business models. Origin, for example, not only retails energy but is one of the largest providers of solar PV to Australian homes and businesses. Solar PV naturally reduces consumption of retailer-procured electricity, and therefore reduces consumer bill costs.

Origin is also a supporter of smart meters and associated technologies that enable consumers to better understand and manage their use, and has been trialling smart customer solutions since mid 2011 with a view to introducing smart products in the future.

These products are absolutely targeted at helping customers understand their usage and manage their consumption so they can have more control over their energy costs.

Customers are actively seeking out more cost effective arrangements for supply, and this activity is likely to intensify with the introduction of technologies enabled by smart metering infrastructure such as in home displays, energy portals and devices enabled via a customer's home area network (HAN).

Question 10: Would a tariff with a fixed, variable and network LRMC element as described in section 5.8 closely reflect the costs of supplying electricity?

Question 11: What are the restrictions on retailers offering such a tariff?

Time of use products will most closely reflect the costs of supplying electricity, and particularly if tariffs are developed between distributors and retailers to both meet network peak reduction (with benefit sharing) and consumer preferences. It is important that non-cost reflective tariffs, such as flat or inclining block tariffs, are unwound over time to the greatest practical degree possible.

Restrictions on retailers offering time of use products include a lack of enabling infrastructure (smart meters) and policy uncertainty. For example, we have spent much of the past two years contemplating the introduction of mass market smart meter (time of use) tariffs with little data and no clarity on the price structures that will be imposed on retailers.

Overall, we believe that pricing components should not be fixed to a select few or defined categories. Market competition will ultimately direct pricing structures to be both cost reflective and simplified, as consumers establish their preferences. Simplifying or minimising the core pricing components down to a limited few could stifle future energy plans and limit products for householders who are more engaged with the consumption of energy and/or have access to in home displays.

2.2.3 Potential for price signals to promote DSP

Question 12: Can efficient levels of DSP be achieved without cost-reflective prices?

In Origin's view, it is unlikely that efficient levels of DSP can be achieved without some degree of cost-reflectivity in pricing. This is the key issue though: to what degree can prices practically and meaningfully be cost-reflective? Full cost-reflectivity is neither possible nor desirable given the complexities involved, and it is certainly socially desirable for tariffs to not reflect the volatile pricing of the wholesale energy market or the variability across network regions.

Cross-subsidies of some sort are both socially valuable and politically unavoidable. All arguments made by low-income consumer representatives to this point have been about flattening costs so there are no surprises for consumers; this is the opposite of a cost-reflective argument. A number of consumers want certainty and default flat tariffs.

Further issues relate to the required differential between tariff components to see behaviour change, and the price elasticity of consumers. It is hard to argue for highly cost-reflective prices without a clearer understanding of these issues, and this understanding will take some time to develop for the Australian mass market. There will be a need to be particularly careful given the price increases over the past few years and consumer (and political) sensitivity to cost of living increases. Whether prices are fair and affordable will be a key issue, and it is worth noting that the response to customers seeking financial assistance largely revolves around smoothed payment plans, which is the opposite of cost reflective and dynamic tariffs. Flat tariffs and smoothed plans for smaller customers are likely to remain a feature of our retail energy markets whether these are regulated or not.

Also, and as discussed above, retailers - as the parties who bear the risk for the market - have a right and a responsibility to manage pricing according to optimal means of managing various risks, and also to present prices according to how consumers value energy services.

Question 13: What other market conditions need to change to enable cost-reflective prices? Will the benefits from improving the cost reflectivity of price signals outweigh the costs of the actions to improve them?

Question 14: Are changes to the current regulatory arrangements required to provide stronger incentives on NSPs and/or retailers to align price with cost?

We do not believe that market conditions need to change to enable cost-reflective pricing. However, changes to regulatory arrangements are required. As noted above, changes to network pricing regulation should be made to support more cost reflective pricing. Regarding retailer pricing, the first change that must occur is retail price deregulation where there is evidence of an effectively competitive market.

Clarity around the roles and responsibilities of different market participants would also encourage investment in products featuring cost reflective pricing. Retailers are concerned that regulated network businesses have an interest in entering the mass market for consumer services relating to their energy consumption, funded through the regulated revenues of their distribution network and utilising technology deployed through their monopoly infrastructure. Origin believes that this activity may distort the market and reduce incentives for retailers to offer products that include cost reflective pricing. To remedy these concerns, ring-fencing is required and market roles need to be made clear, particularly in relation to smart meters and associated technology. In our view, the primary role of a distributor in this regard is to provide access to those competitive businesses seeking to utilise the services provided and innovate using the technologies made available. Distributors can then contract with authorised retailers (including those on a less onerous form of a retail authorisation as discussed in the next section) to meet local needs to reduce demand, and this is likely to be highly appealing to retailers where the distributors share the benefit, which can also be passed through to customers.

2.3 Technology and system capability

2.3.1 Supporting efficient investment decisions in DSP technology

Question 15: Are there any practical additional mechanisms that could help alleviate the barriers to consumer investing in DSP technology?

Any DSP technology used should have a standard configuration that enables it to be used in different locations; this will allow consumers to move house and take the technology with them. It will also be important to enable a link between information coming from the meter in real time and the DSP activity in the home, to provide for examples such as a smart home switching off certain appliances when a parameter is met for either usage or demand from the meter data.

Question 16: What should be the role of intermediaries such as ESCOs in addressing the barriers to efficient consumer investment and what factors could be impeding the development of these parties?

As discussed in our submission to the recent Energy Market Reform Working Group *Draft Policy Paper 2: National Smart Meter Consumer Protections and Pricing*,² Origin believes that intermediaries have a role to play but there needs to be a clear framework against which we can assess their participation in the market and their coverage by the National Energy Customer Framework (NECF). The response below is largely taken from that submission. It should be noted that NECF coverage is only for energy customers consuming less than 100MWh/yr or 1TJ/yr, although there are some short term state variations.

Smart meters and associated technologies have opened up perceived opportunities to businesses seeking to enter the household energy market, and, as a result, several recent policy consultations and discussions have touched on the role of third parties in the provision of energy services to small customers. Whether this is the Commission's review of electric vehicles and the third parties that provide charging services, this broader Commission Power of Choice review, the national smart meter consumer protections and pricing consultation or more specific Victorian discussions on third party use and disclosure

² Origin (2012) *Origin response to Draft Policy Paper 2: National Smart Meter Consumer Protections and Pricing*, 23 March.

of information (as well as electric vehicles), there has been a common theme of how to assess the needs of third party providers and consumers of their services.

While it is useful to have these discussions, in Origin's view the key problem is yet to be addressed in the required detail. Origin does not oppose the presence of ESCOs and other third parties, but the problem is that these entities are by definition outside the traditional service agreement between retailers and customers, and so there is no way to capture their service offerings consistently. With no conceptual framework applied to third party service provision, these entities remain outside the existing tools we have at our disposal as a policy community and we continue to discuss third party issues only as they apply on a case-by-case basis, by product type, and at some level of detail.

The cost of this approach is already being felt, as we continue to engage in an inefficient and piecemeal fashion on policy issues of significant importance. It has also led to a degree of uncertainty, to the point where even previously understood concepts such as the separation of retailer and distribution businesses are becoming cloudy. This consultation is itself evidence of this phenomenon with its consideration of network businesses "marketing products" to small customers. We are already speaking of distributors being able to turn off consumer appliances and offer tariff rebates, and for distributors and third parties to use personal consumption data to offer home energy services. Further, some electric vehicle charging agencies have suggested they should be able to net off appliances and stay outside the consumer protection regime. The next business model will be different again, but the issue remains the same: how do we conceptualise these new entities entering the competitive home energy market and how do we provide for a competitively neutral environment and a consistent and fair consumer experience?

Rather than viewing energy market issues through the lens of different business models and technologies, Origin would prefer to see the policy debates come together in a comprehensive review to address how we can conceptualise third parties' involvement in a regulated market for an essential service. This is vital if we are to be able to manage the complexity in this area going forward, and to provide certainty to all stakeholders, including consumers. This is explained in detail below.

Third parties as agents

The current approach of recalibrating third parties as agents of the retailer or customer (or customers themselves) is not appropriate, as the definitions are fluid and jeopardise equitable coverage of consumer protections and clarity about market relationships. Some third parties may represent themselves as agents of consumers to access customer data but could then offer energy retail products in direct competition with licensed/authorised energy retailers. Other may consider themselves as the customer in a market sense and then on-sell without being required to adhere to the consumer protections under NECF. We have seen the above already suggested in the market to date and no doubt there are many other possibilities. This jeopardises competitive neutrality between service providers, given that retailers already exist and are obliged to comply with a range of customer service standards in the competitive retail market. The approach also risks undermining the credibility of the consumer protection framework, as consumers will find that they have no recourse against their 'agents' when things go wrong and they will find that their retailers cannot solve third party problems.

While we can engage in technical discussions about various back-to-back contracts and principal-agent relationships, this will be pure sophistry if the consumer experience is no clearer. The fact remains that without changes to the NECF to account for third party activities, third parties will be entering consumer premises to retail energy services with no specific minimum standards of behaviour other than the Australian Consumer Law. We can anticipate significant consumer confusion, particularly as third parties will have different and complex business models and no consistency in how they bill or communicate with the consumer. The methods that these entities use to recover debt, to manage insolvency and to address complaints will similarly be left open. As uptake of third party energy services increases, the costs of managing this environment will be felt by existing market participants who will be referred to when there are problems, and by regulatory, policy and political staff across the jurisdictions who will similarly have to solve consumer problems

with no common understanding of how third parties can or should engage with the market and no clear means of meeting consumer expectations.

The need for a comprehensive third party regulatory framework

Policy debates to date have often characterised the new opportunities that come from smart technologies (and electric vehicles) as potentially requiring market rule changes to allow for competition at every level. Minimum standards, licensing or authorisation are secondary matters, if they are raised at all. In Origin's view, these debates have not been framed correctly: the paradigm shift should not be to provide unauthorised (under the NECF retail provisions) third parties or distributors access to sell energy products to consumers, but for authorised entities in the market to commercialise the new opportunities that emerge, such as home energy services and electric vehicle mobile charging, and compete on a level playing field. The issue is then how to authorise third parties appropriately.

Origin believes there is a need for a comprehensive review of third party responsibilities to consumers and an examination of how third parties can be brought under the NECF efficiently and effectively. This should involve a clearer definition under the NECF of what retailing energy is, as discussed below. It also probably requires the NECF to be amended to provide specific authorisations for certain service provider types. The key questions that should drive how we assess third parties relate to how the end user sees the service relationship and what rights they would expect compared to basic energy use. It may be that the best result is a series of policy criteria and questions that lead to the (consistent) application of specific retail authorisations for third parties of certain types.

This will also require consideration of required ring-fencing between the retail activities and any monopoly service provision with regulated revenue streams. As a matter of competitive neutrality, distributors should not be competing in the retail space using regulated revenue; not only does this reflect competitive advantage compared with retailers but it is considered to be unlawful by the AER.³

We would support the Commission (or DRET) taking the lead in this area, in consultation with jurisdictions. To not do this is to risk revisiting the same policy issues for every business model that arises across the smart metering, DSP and EV policy space, and there will be an associated risk of unintended consequences from a fragmented approach.

The sale of energy

As a starting point there should be a consistent means of considering the services on offer and whether a form of authorisation is warranted at all. A question that arose in the Commission's electric vehicle consultation is the best starting point: "what constitutes the sale of electricity?" The question arose because it was suggested that service providers which sold charging services by kilometre tariffs (rather than kilowatt hour tariffs) were not selling electricity and so would not be subject to the existing market rules that apply to licensed/authorised entities. Origin disagreed that this was a valid distinction, arguing that the objectives of the regulatory frameworks that gave rise to licences/authorisations were not tied to how energy was priced but to the expectations of communities in how they were to be supplied with a vital household amenity. Further, we argued that the intent behind the AER's retail exemption criteria would indicate that the electric vehicle charging is the sale of energy.

While the question of what constitutes the sale of electricity may have arisen in the context of electric vehicles, it is at least as relevant for this consultation, where proponents have argued that they have the right to sell products to consumers that interact directly with the consumer's electricity supply, such as load control, but that they are not retailing energy. Again, the existing jurisdictional regulatory regimes and the NECF seem ill-equipped to cope with innovative energy services that involve ongoing interaction with the consumer about their energy consumption and do not depend on the sale of kilowatt hours. This is because the technology changes and service models currently under

³ See page 85 of Accenture (2011) *IHD Inclusion into ESI scheme: Final Report*, for Department of Primary Industries, Victoria, December.

discussion were not contemplated by the original market developers and regulatory policymakers.

Origin believes that the overriding consumer protection principle should remain, which is that regulatory frameworks should reflect community expectations about how consumers are supplied with an essential service. In our view, “sale of electricity” (or energy more broadly) is no longer an adequate test of whether retail licensing or authorisation is required. The concept should instead shift to sale of *energy services*, which includes retailing energy *and* energy management service such as interruptions to energy supply (under direct load control or supply capacity control, for example), ongoing use of a consumer’s meter data, as well as direct billing the consumer under contract.

More precisely, where sale of kilowatt hours or other energy units is not relevant (noting we believe it *is* relevant for the electric vehicle example above), we believe that third party (and distributor) service offerings should be judged on certain criteria, where it is assumed that the third party/distributor will have access to a customer’s consumption information. The criteria should be based on the core aspects of why retail contracts are currently regulated, such as the following:

1. If the product or service is marketed in competition with other services, and specific information needs to be provided at the point of sale to ensure informed consent.
2. If the consumer receives ongoing service under contract.
3. If supply to the property/appliance can be controlled or disconnected, including by charging technology.
4. If the consumer is billed or compensated directly from the service provider.

If the above activities occur in conjunction we believe that some form of retail licence or NECF authorisation is required. To avoid doubt, this means that distributors also would not be able to undertake these activities without such an authorisation.

A suggested conceptual framework

Origin suggests the decision model in Figure 1 as a useful starting point to conceptualise the issues addressed above, and for completeness we have included criteria to assess sale of energy as discussed in our submission to the Commission’s electric vehicles review. We believe it is important that these different aspects of third party service delivery models are brought together into a cohesive framework given the issues are complementary and flow from the same definitional limitation of the concept of “the sale of energy”. Once this approach has been agreed it will then be important to assess the need for the NECF itself to be modified for special authorisations to be granted rather than the current one-size-fits-all version; we are not suggesting the full NECF should apply but a reasonable and appropriate subset of provisions or principles.

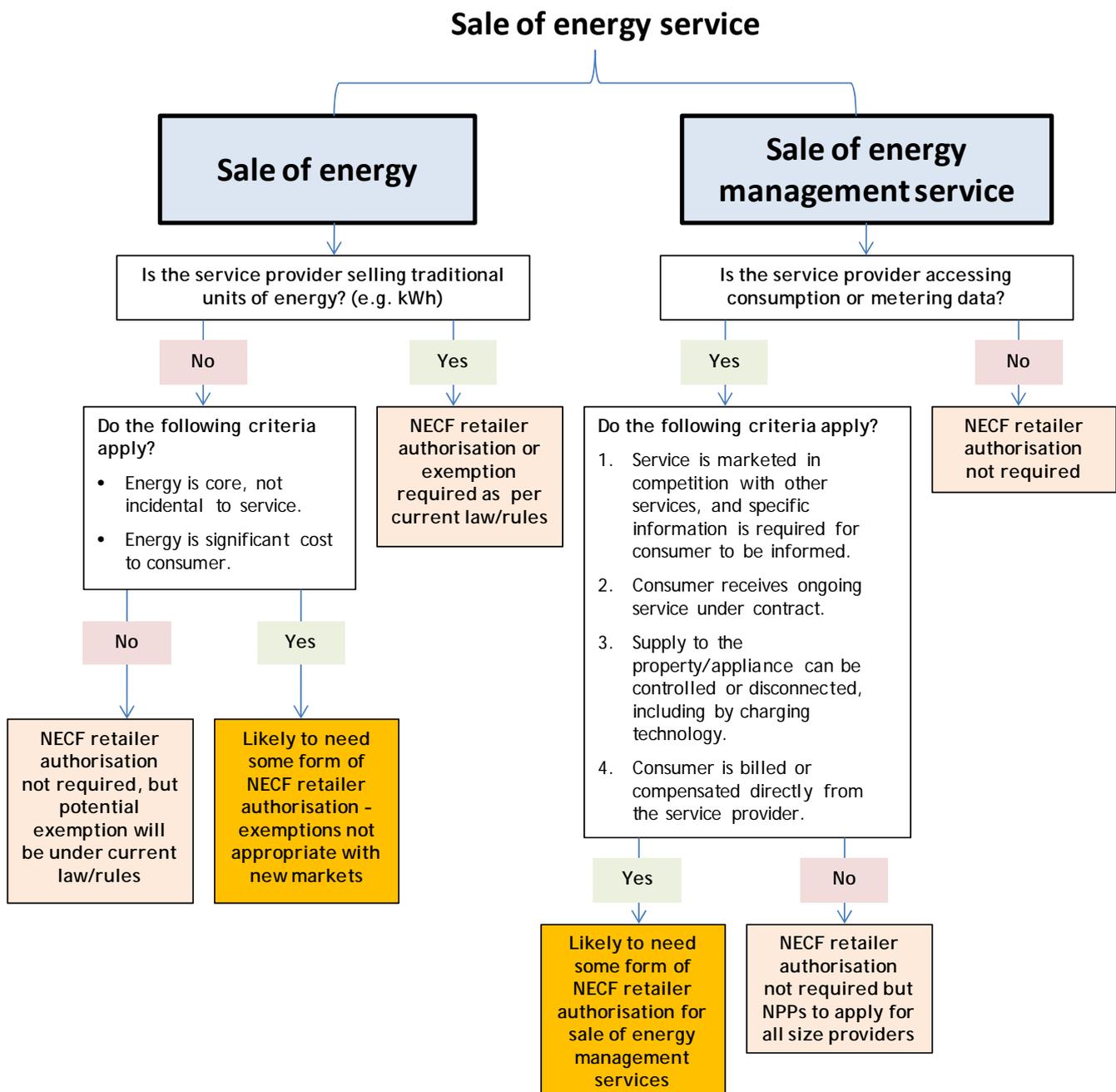


Figure 1: A proposed conceptual framework for new retail authorisations

2.3.2 Commercial driven investment in DSP technology

Question 17: What amendments to the metering arrangements in the NEM are required to facilitate commercial investment in metering technology which supports time sensitive tariffs?

Origin does not believe current arrangements governing metering in the NEM require amendment. The lack of widespread penetration of smart meters is as much a function of regulatory impediments (manifested through the bundling of meter provision and data service charges into network tariffs) as it is to the economic case to install meters. These factors are as important as the perceived “split benefits” problem that has been previously

analysed under the National Smart Metering Programme during its cost benefit analysis in 2007-08.

There are alternatives to accelerated mass-deployments of smart meters. These alternatives - such as a concentrated geographic roll out, a metropolitan roll out, or a joint retailer/distributor roll out - may engender more community support than a decision to mandate a deployment on an accelerated and universal basis. They may also prove to be more cost effective over time as particular network constraints and consumer preferences have more chance of being accommodated.

Existing provisions in the NER correctly assign the decision to upgrade meter technology to the party who will bear the economic cost and risk the most, that is, the FRMP. To the extent that smart meters can be provided on an unregulated basis or on the basis of hybrid regulated provision, then existing rules generally accommodate this outcome. Origin is keen to ensure that the cost of installing smart meters does not outweigh the benefits to consumers, and most of the benefits should accrue to the end user in any event. While Origin supports the mandated roll out of smart metering infrastructure in Victoria, there were alternative policy settings that may have resulted in greater community acceptance and a lower cost per consumer than has taken place.

2.3.3 Consumer choice in metering capability

Question 18: Are the current arrangements sufficient to facilitate a consumer's decision to install their own meter as a revenue meter? If not, what changes to the current arrangements are required?

Consumers are unlikely to initiate a request to have a smart meter installed at present. Origin's position is that current arrangements in the rules accommodate this choice. The customer, by accepting an offer to have a smart meter installed, would need to accept the costs associated with this choice, regardless of whether they were on a regulated or market based agreement for energy supply.

Question 19: Are any amendments to the arrangements required to encourage either the network businesses or retailers to invest in metering capability in order to support DSP options?

Origin does not support a change to the rules at this time. Under chapter 7 of the NER, retailers (as financially responsible Market Participants) are able to become the Responsible Person for a NMI and nominate a meter provider and data provider. These roles may be carried out by the distributor. The FRMP may also request an offer from the distributor.

In absence of a jurisdictional roll out decision (where a derogation to the NER, similar to that in place in Victoria prevents competition from other providers), Origin believes that distributors and retailers should concentrate on competitive, market based models of smart meter provision and delivery of related services.

To encourage retailers to invest in metering capability, nationally uniform (across NEM jurisdictions) changes should be made to unbundle regulated meter service costs (reading and provision) from other regulated costs. This would provide the opportunity to avoid regulated meter service costs where contestable smart metering is installed. This would require changes to the NER Chapter 6 (the rules applying to AER price determinations) to require unbundling in the allocation of meter related costs. In the short term, the changes could be managed through consistent determinations by the AER under the direction of the Commission.

2.3.4 Optimising the value of technology and system capability

Question 20: Are there aspects to the arrangements regarding the integration of DSP technologies into energy networks that requires further consideration under this review?

There is a risk that integrating DSP for small end-use consumers into the provision of monopoly network services will have the effect of confusing the role of distributors in the NEM as providers of access to infrastructure. Taking devices and DSP options beyond the meter - already a point of contention - entangles customers into purchasing network services, reduces choice and diverts investment from the distributor's primary responsibility.

Origin supports distribution businesses investing in smart grid technology and systems that improve the efficiency and reliability of the network (for example, communications and diagnostic technology through the smart grid to zone sub stations that also enable communications with smart meters). Where integration of technology extends beyond the poles and wires (the principle responsibility of the distributor) and into competitive customer-facing segments of the market, the level of technological integration (via infrastructure) should not disrupt competition in related markets, or discourage parties other than the distributor from participating.

2.4 Supply chain interactions

2.4.1 Distribution of DSP impacts across the supply chain

Question 21: Can you provide a practical example of a DSP option which could deliver a net benefit to the market and also to the various parts of a supply chain. What are the reasons for such opportunities not being captured today?

As discussed throughout this submission, we believe that distributors seeking to manage network peaks should consult with retailers to develop more cost reflective time of use tariffs that can appeal to consumers, and retailers can also contract with distributors to deliver more firm DSP such as direct load control. Distributors should also pass through the benefits to incentivise retailers and their customers to engage. Through this simple approach alone DSP for the mass market can be pursued, and if there is a reduction of peak demand it will have positive effects for the wholesale market, distributors and retailers, and of course consumers will benefit from lower prices and lower bills as their consumption shifts to cheaper times of day and further network augmentation costs are avoided.

2.4.2 Co-ordination across the supply chain

Question 22: How do the current market arrangements promote co-ordination across the supply chain to promote efficient DSP? What potential improvements should be considered?

Question 23: Do you consider that there is inconsistency between how the wholesale and market sectors value DSP impacts? If so, is this a material problem to be addressed?

Question 24: Can market mechanisms be improved to facilitate supply chain interactions for efficient DSP? If so, what options should be considered by this review and what considerations should be taken into account?

Origin is of the strong belief that market arrangements should not be changed, and that efficient DSP will eventuate as long as distributors are incentivised to manage DSP projects appropriately and contract effectively with retailers to deliver the consumer side (as discussed in later sections of this response).

The issue that remains is what 'efficient' DSP looks like: this should not be confused with maximised DSP, which is a purely theoretical construct given it would require an overhaul of the wholesale market and full smart metering, with nodal network pricing and spot prices for consumers. These types of changes would require significant administration costs and infrastructure costs and would be socially and politically infeasible.

Without this, maximised demand side reduction can only happen in the short to medium term through coordination by a centralised planning body, where decisions can override the

commercial decisions of the various generators, networks and retailers in the disaggregated industry, which is, of course, the antithesis of the reform in the industry to date. This is also an approach Origin that fundamentally disagrees with. The costs of this approach will be felt in other ways, even if DSP is seen to be successful.

If the objective of DSP policy is to have significant uptake of DSP across the mass market customer base the only practical way this can occur given the current industry structure is through appropriately authorised parties selling DSP energy products in the competitive market (perhaps with contracts behind the products between retailers and distributors). Consumers then need to be in a position to understand these products, to value them, and to effectively respond with enabling technology such as smart meters and associated products. The outcomes of this approach alone are unlikely to be predictable, as they will be organic and will depend on consumer preferences that are not yet clear. This is why DSP and peak load reduction overall will also depend on non-mass market responses such as distributors improving their consultation and connections policy in order to better manage new significant load and improve targeting of distributed generation. This is discussed later in this submission.

2.4.3 Role of cost reflective pricing

Question 25: Would fully cost-reflective price signals enable the supply chain to act in a co-ordinated manner towards efficient DSP opportunities or would additional amendments be needed?

Question 26: Would applying a network tariff scheme, similar to Orion's approach, be effective in the NEM?

As we have noted above, fully cost reflective pricing to consumers is neither practical nor desirable. Real-time wholesale market prices and fully nodal demand-based network charges may promote DSP but they are completely infeasible in a real world sense on any large scale.

The Orion example could be considered for non-household load as an alternative to critical peak pricing; however, it is not clear how it would work for a large population across many networks. From the information provided the Origin approach does not appear to be workable in our mass market environment compared to the existing options.

2.4.4 Co-ordination across the supply chain and the single actor option

Question 27: What are your views on possible approaches to achieving co-ordination across the market participants in the supply chain?

Question 30: If the required co-ordination across the supply chain cannot be achieved, should a market participant be assigned with the responsibility to procure DSP options? If so, what issues need to be considered in the design of such an approach?

The two means of achieving co-ordination that the Commission discusses are (a) multiple parties entering into DSP contracts (such as retailers and distributors in the same customer contract) with customers, potentially including ESCOs and aggregators as well; or (b) a mechanism or rules imposed on parties, such as a regulatory peak demand incentive scheme that has one market participant act to manage co-ordination. The first of these approaches will develop if and when the market sees value (and regulatory incentives on distributors also play a part); to impose any approach across the supply chain at this stage will distort the market and allocate risk in ways that all parties are unlikely to find tolerable.

Again, the problem that the Commission seems to be seeking to address is the 'problem' of a vertically and horizontally disaggregated industry structure not being controlled or controllable by one entity with a particular agenda. Central planning is the very aspect of the previous versions of our industry that the restructuring and reform of the past twenty years was to address; we cannot partially restore that planning model now because it may suit some parties' preferred view of how customers might behave if only the right levers

were pulled. Origin supports DSP but not a regulated approach, and certainly not one that reallocates risk that commercial entities have the right and the responsibility to manage on behalf of their stakeholders, including customers.

2.4.5 Measuring and forecasting DSP benefits to the market

Question 28: What should be the approach to quantify the value of DSP options?

Question 29: Should standardised, common methods to forecast the impacts of DSP be developed? Is there a need for common approaches between network and operational planning?

Origin agrees that standardised, common methods to forecast the impacts of DSP should be developed. We also agree that there is a need for more co-ordination and assessment of the results emerging from the various DSP trials and pilots.

A key issue to be addressed and understood is the method of understanding and valuing non-firm customer response to pricing, such as critical peak pricing in order to offset network augmentation. Origin would be surprised if networks actually reduced planned capital expenditure on the basis of non-firm DSP such as CPP; for this to happen we would expect networks (and their shareholders) would want to see several years of reliable local data that clearly supported a consistent demand reduction amount. One trial would not be enough; customer behaviour change can be short-lived and the risks of the network collapsing at a peak period will be too high unless there is widespread and long term consumer response. Again, we can expect that efficient and measureable DSP at the small customer level is not likely to happen for some time and it will be largely be unpredictable in its quantum and effectiveness.

2.5 Wholesale and ancillary services markets

Overall, Origin agrees that changing the current market design is not the most effective way to facilitate demand side participation. The current operational and financial requirements are appropriate given the level of sophistication of the current market design, and changes would increase risk and complexity for existing participants without necessarily increasing demand participation.

2.5.1 Load forecasting incorporating DSP

Question 31: Should there be additional obligations on market participants to provide information to AEMO regarding DSP capability?

We do not believe that there should be additional obligations on market participants to provide information to AEMO regarding DSP capability. This question suggests that market participants will need to set firm predetermined triggers, but in our experience most commercial and industrial customers opt for flexible demand curtailment. Previous submissions to gas and electricity market reviews by major energy users generally cite a reluctance to curtail load or engage in full load shedding due to the risks and business costs. Market participants place a high premium on reliability of supply, and curtail load opportunistically rather than in advance. Given the costs of curtailment and the time to re-establish their businesses once power is restored, most of our large customers prefer to pay higher energy prices than shut down. (It is also not clear that load that is capable of curtailment at short notice would be willing to surrender flexibility and autonomy to an aggregator.)

There is potentially a case to require information regarding DSP contracts exceeding a predetermined threshold volume; however, there will need to be an assessment of what additional information can be provided that does not breach commercial confidentiality. For example, there may be 100MW of demand side contracted that is automatically price triggered, and there would be confidentiality concerns about the provision of the price (or other) triggers. The firmness of the contract is also important. Automatic triggers provide

greater value from the perspective of improving demand forecasts, contracts with optional triggers less so.

2.5.2 Becoming a registered participant for DSP and the role of aggregators

Question 32: Are there issues relating to the costs and processes for becoming a registered participant in the NEM that require to be considered further in this review? If so, why?

Question 33: What issues should be considered regarding the role of aggregators in the NEM? Should there be a new category of market participant for aggregators?

Origin does not disagree that there are costs and processes associated with becoming a registered participant in the NEM, such as prudential requirements, administrative costs to comply, cash flows paying for energy and variable costs based on spot price. However, these are required for robust and efficient market practices.

In our view, the simplest and most cost effective way for an aggregator of DSP to participate in the market is to enter into a contractual agreement with a retailer.

2.5.3 Access to short term financial contract markets

Question 34: How effective are current financial contracts markets at providing a hedge against price risk for DSP options?

We do not entirely understand the relevance of this question. While we believe that current financial contracts markets are effective in a general sense this does not have any direct relationship with DSP options. In Origin's view, DSP contracts and options have risk built in and do not require a separate financial hedging measure.

2.5.4 Remuneration for providing DSP in the wholesale market

Question 35: Given the discussion regarding the appropriate payment to DSP resources in the NEM, are there any other issues that should be considered by the Commission in regard to this matter? Are there any potential improvements to existing processes and other means to better facilitate DSP into the wholesale market that require consideration?

We do not believe that there are issues to be addressed or improvements to be made. In our view, any DSP incentives can and should be worked out between retailer and customer as part of the DSP contract agreed to.

2.6 Networks

2.6.1 Profit incentives on network businesses

Question 36: Do you consider that the current regulatory arrangements could prevent network businesses from pursuing efficient DSP projects which could contribute to achieving a more economically efficient demand/supply balance in the electricity market?

Question 37: What options for reforming the current regulatory arrangements should be explored under the next stage of the review?

Question 38: Do the current arrangements need to clarify distribution network businesses' involvement in distributed generation and if so, how?

Origin does not consider that the current regulatory arrangements prevent network businesses from pursuing efficient DSP projects. However, they do not necessarily support the pursuit of efficient DSP projects either. For example, and as observed by the Commission there is a bias toward capital expenditure in favour of operating expenditure,

meaning that distributors are less likely to purchase solutions from DSP service providers and more likely to favour their own DSP options. The risks associated with the regulator's assessment of DSP also make heavy investment in DSP to avoid augmentation a less appealing option.

This is not to say that something more could not be done to improve the situation, and addressing the capex and opex issue would be a start. It would also seem reasonable that changes currently contemplated through the AER's rule change proposals ERC0134 and GRC0011 could incorporate a DSP element. As discussed in our submission to the Commission on the AER's proposed rule changes,⁴ we believe that the current framework may be too favourable to network interests, at the expense of network users.

In addition to the evidence outlined in the AER's proposal, the research of academics Stephen Littlechild and Bruce Mountain further supports the conclusion that the regulatory framework has resulted in some inefficient spending.⁵ In 2010 Littlechild and Mountain compared the electricity networks in New South Wales with those in Great Britain. They found that average revenue per customer in NSW was projected to jump from two times the Great Britain average in 2000 to close to four times by 2014. Littlechild and Mountain's findings bring into question the assertion that Australia's situation uniquely justifies higher per unit distribution costs than comparable networks overseas. The authors demonstrate that conditions on the NSW distribution networks and the British grid are in fact quite comparable, and factors such as reliability standards and customer density do not provide convincing explanations for differences in cost.

Littlechild and Mountain's findings provide support for an amended approach that gives the AER more scope to benchmark network performance and cost metrics across jurisdictions, based on top-down approaches. Equally, they call into question any assertion that reliability and safety standards must fall in order to reduce capital expenditure per customer.

In light of the above, Origin agrees with the AER that the regulator's ability to challenge networks' revenue proposals could be enhanced. As the AER has gathered data through its first round of decisions it should be in a stronger position to benchmark Australian electricity networks, including making thorough comparisons with networks in other markets. Moving this discussion into DSP, we can see that the AER should also have a clear role to apply reasonable DSP performance standards to networks, within reasonable constraints. With developments around the world in this area it would seem reasonable to use these to benchmark Australian network efforts to avoid network augmentation through reliable DSP over time.

It should be noted that we do not consider 'reliable DSP' to be direct approaches to customers to market DSP products such as critical peak pricing and load control, certainly not where this is funded through regulated revenue. Distributors have other options, such as contracting with retailers and other (authorised) parties to manage consumer load, releasing network constraint maps and consulting with developers on development options and locations for new load and for distributed generation, and going out to tender on augmentation projects where DSP solutions are part of the mix. These are the forms of DSP that Origin would like to see built into the distribution regulatory regime.

2.6.2 Research into estimating potential demand reduction of non-contracted DSP

Question 39: How should network businesses estimate the potential demand impacts associated with DSP? Should there be consistency in approach across the business and should arrangements provide guidance on how to do such estimation?

⁴ See Origin (2011) Letter to Richard Khoe, 'RE: NER RULE CHANGE PROPOSALS ERC0134, GRC0011', 8 December.

⁵ Mountain and Littlechild (2010), *Comparing electricity distribution network costs and revenues in New South Wales and Great Britain*, Electricity Policy Research Group, University of Cambridge, Working Paper 0930.

Question 40: What should be the framework for recognising the impacts of DSP in the forecasting methodologies used during the regulatory revenue determination process?

As stated in our response to questions 28 and 29, we support a consistent approach to how potential demand impacts of DSP are assessed and forecast, and our key concern is how firm and non-firm DSP is valued and measured. Firm DSP (such as contracts for load control) is relatively easy to account for, but non-firm DSP (such as customers responding to time of use products, including critical peak pricing) is more problematic. Given that consumers choose at the peak time whether or not to turn off their appliances or otherwise reduce consumption, the impact of non-firm DSP measures cannot be known beforehand.

As noted previously, Origin would be surprised if networks actually reduced planned capital expenditure on the basis of non-firm DSP such as critical peak pricing; for this to happen we would expect networks (and their shareholders) would want to see several years of reliable local data that clearly supported a consistent demand reduction amount. One trial would not be enough; customer behaviour change can be short-lived and the risks of the network collapsing at a peak period will be too high unless there is widespread and long term consumer response. Again, we can expect that efficient and measureable DSP at the small customer level is not likely to happen for some time and largely be unpredictable in its quantum and effectiveness.

2.6.3 Exemption from Service Standard Incentive Schemes

Question 41: Is it appropriate for network businesses to be exempt from the service standard incentive scheme during the initial development phase of DSP projects? What factors need to be taken into consideration in designing such an exemption?

If a network business can make a reasonable argument for exemption from the service standard incentive scheme during a DSP trial we believe that this should be considered. It is perhaps worth exploring this topic further through community consultation; if a network business can show its affected customers understand and support the trial and its implications there is no reason for an exemption to not be granted. However, we believe that these trials should be network specific and not involve marketing products per se; the DSP we would see in this space would be distributed generation projects as discussed below.

2.6.4 Engagement with consumers

Question 42: Should network businesses play a greater role in informing consumers about the potential benefits from DSP and various DSP products? If so, how should they do so?

Origin does not believe that network businesses should play a greater role in informing consumers about the potential benefits from DSP and various DSP options, although there may be a benefit in them communicating in a targeted way with consumers installing distributed generation, in order to better plan larger projects and to also manage the impact of small customer load such as PV and electric vehicle charging. As discussed above, we see authorised retail entities (retailers and other parties authorised to sell energy services) as the main parties who should communicate with consumers about DSP. As also noted above, governments and regulators also have a role to educate consumers about the value of shifting and/or reducing load, such as through the AER's website www.energymadeeasy.gov.au and the Department of Climate Change and Energy Efficiency's site at www.livinggreener.gov.au.

2.7 Retailers

2.7.1 Settlement load profile for residential consumers with accumulation meters

Question 43: Do you consider that settlement profiles which more accurately reflect actual consumption patterns improve incentives on retailers and/or consumers to offer/provide DSP?

Settlement profiles that more accurately reflect actual consumption patterns will certainly improve incentives on retailers and/or consumers to offer/provide DSP, compared with the basic profile used for customers with accumulation meters. Increased granularity in profiles will provide greater opportunity to target retail products to customers.

However, improving settlement profiles is a distant second best to rolling out interval meters - there is no substitution for accessing a customer's actual use rather than the best guess of a profile. The costs involved with setting up the systems and processes for more granular profiles would be better spent on rolling out smart meters.

2.7.2 State based retail price regulations

Question 44: What are the specific aspects of state based retail price regulations that restrict retailers from offering innovative tariffs or products? What amendments to the regulations could better enable retailers and other parties to facilitate DSP?

Question 45: Should retail price regulation provide some certainty for retailers in their ability to recover any costs associated with facilitating DSP?

There are no specific aspects of state based retail price regulations that restrict retailers from offering innovative tariffs or products, the presence of price regulation alone is a problem for any innovative tariff offerings. Regulated tariffs become a ceiling, or at least a reference point for all other offers, and if the regulated tariff is set low this can mean that other offers cannot compete effectively.

We do not have suggestions to make on existing retail price regulatory regimes with regard to DSP, except for an observation about the new Queensland regulatory requirement to offer time of use tariffs standing offer contracts from 1 July 2012. This approach does not allow for retailers to capture wholesale benefits and pass these on to customers. The initial stages of the new tariff will have retailers only able to settle on the existing net system load profile: actual data from smart meters in use for this tariff will not be provided to retailers. We acknowledge the issues with setting up new systems to cater for half-hourly data, but are concerned that this may not be resolved in the medium to long term. Obviously this does not promote the basic cost-reflectivity required for effective DSP.

2.7.3 Engagement with consumers

Question 46: Should retailers play a greater role in informing consumers about the potential benefits from DSP and various DSP products? If so, how should they do so?

Much of the story of DSP for consumers relies upon reliable measurement of consumption by time of day; again, we believe that smart meters and associated technologies are required for effective DSP to be a possibility (and for consumers to see benefit for more than basic energy efficiency measures). Retailers have a fundamental role to advise consumers about the potential benefits from DSP and various DSP products, whether this is energy retailers in the traditional sense or in the suggested sense of 'retail' incorporating energy services provision such as direct load control and other forms of energy management (see our response above that these services require some form of retail authorisation under NECF).

The substance, format and timing of information provision will depend on the nature of the DSP product on offer, but we see strong competition in this space and so education about pricing options, costs and benefits will be the foundation of offers in the future.

As discussed above, we see authorised retail entities (retailers and other parties authorised to sell energy services) as the main parties who should communicate with consumers about DSP. As also noted above, governments and regulators also have a role to educate consumers about the value of shifting and/or reducing load, such as through the AER's website www.energymadeeasy.gov.au and the Department of Climate Change and Energy Efficiency's site at www.livinggreener.gov.au.

2.8 Distributed generation

As a preliminary issue, we note the Commission's view that while there is merit in considering an explicit methodology for calculating avoided TUOS, the value of existing avoided TUOS payments is unlikely to be a significant component of a typical DG project's financial viability. Given its view that the existing arrangements may not materially impede the promotion of DG projects, the Commission has stated it will not consider the existing arrangements for avoided TUOS payments in this review.

Origin does not agree with this conclusion: we believe that avoiding TUOS charges will incentivise the uptake of DG, and that a standardised method for calculating TUOS is a reasonable requirement. We ask the Commission to reconsider this issue and are happy to discuss further with the Commission at its convenience. On the matter of avoided DUOS, we reiterate our previous arguments that distributors should be required to share the benefits of DSP (including DG) with their stakeholders, and this will also incentivise DG uptake.

2.8.1 DNSP Incentives schemes for DG

Question 47: What incentives should be provided to DNSPs to ensure that they support DG projects? Is there merit in the proposal for DG proponents to pay DNSPs a fee-for-service to connect a DG installation? If so, how should this proposal be applied?

As discussed above, we believe that DG is the one area where distributors could take a clear lead in managing DSP. However, we do not believe there are efficient incentives for distributors to support DG projects. While there is some merit in the proposal for DG proponents to pay DNSPs a fee-for-service to connect a DG installation, we would be concerned that this could also act as a barrier to the development of DG projects in the first place. There will need to be more market testing of this idea so it is clear that the costs (eventually passed on to consumers) of implementing such an incentive were outweighed by measureable benefits. Having said this, there should not be a barrier on interested parties negotiating a fee for service where this is voluntary and transparent to the regulator.

Instead of further attempts to incentivise distributors we support further regulatory guidance in several areas.

First, we believe that distributors should be required to release network constraint maps and have formal consultation processes in place for DG proponents such as developers to discuss development options and locations for new load and for distributed generation.

Second, there could be some requirement for distributors to go out to tender on augmentation projects where DG solutions are part of the mix.

Third, there should be standard connection procedures regardless of customer size. As already discussed at length with the Commission, DG proponents should have some certainty about how and when their connection requests will be dealt with by a network business. The Commission has advised that for DG installations with a capacity under 5MW issues relating to the timeliness of the distributor in processing a formal connection application are expected to be addressed under the time frames in proposed Chapter 5A of the rules. Under this proposed rule change, distributors are required to provide an offer to connect a DG applicant within 10 business days if the connection service sought by the applicant is a basic connection service or a standard connection service. However, there is still no time frame for negotiated connection services. While we agree with the Commission there are difficulties in trying to place specific time frames because these connections tend

to be unique and specialised, we would support further development of some principles for the negotiated connection service framework under Chapter 5A.

2.8.2 Metering and settlement arrangements for DG

Question 48: What are the appropriate metering and settlement arrangements to facilitate the ability of consumers and DG projects to sell their demand response to any party?

Origin supports the existing metering and settlement arrangements; the parent-child metering and shared NMI changes suggested by some parties will be costly for consumers and will not support longer term customer benefit. As we responded to the Commission's recent consultation on electric vehicles,⁶ we would expect the consumer benefit of choice of service provider for different appliance load to be heavily outweighed by the costs of creating a child NMI and creating an embedded network. Creating an embedded network is hard to undo and impedes the consumer's choice to then aggregate household load under the one energy account with a retailer.

Question 49: Are amendments to the current market arrangements required to facilitate DSP contracts which enable the DSP provider to sell its services to any party? If so, what amendments are appropriate?

Origin does not believe that amendments to the current market arrangements are required to facilitate DSP contracts to enable the DSP provider to sell its services to any party.

2.8.3 Maximising the export value of DG to address peak demand

Question 50: Should there be supplementary provisions to the arrangements governing feed in tariff payments to encourage such consumers who have micro generation units to maximise their export at times that enable deferment of network augmentation? If so, what are possible options to achieve this?

Origin supports feed-in tariffs moving to time of use feed-in tariffs over time, as long as these schemes are net and not gross.

Furthermore, Origin does not support retailer-only funded 'one for one' feed-in tariffs: such tariffs fail to recognise the avoided costs and the benefits to retailers receiving feed-in energy.

2.9 Energy efficiency regulatory measures that integrate with or impact on the NEM

Question 51: What do you consider is the role for regulatory energy efficiency policies and measures in the context of facilitating uptake of cost effective DSP in the electricity market?

As a preliminary point, Origin does not believe that energy efficiency schemes should be developed to address peak demand as a priority. This stretches the definition of energy efficiency beyond any practical purpose. However, energy efficiency provides an important support to other forms of DSP that directly address peak demand, and it is also among the least expensive forms of DSP and can usually be implemented quickly. For example, improving the efficiency of office lighting will provide an absolute reduction in MW demand, as well as MWh demand, during peak periods. Peak demand reduction would be even greater for efficiency improvements in appliances that are used during peak times, such as air-conditioners, and this could be facilitated through minimum energy efficiency standards outside the energy market.

⁶ Origin (2012) *Submission Response - EMO0022 AEMC Energy Market Arrangements for Electric and Natural Gas Vehicles Approach Paper*, 23 February.

Origin supports a nationally rationalised suite of policy solutions to facilitate cost effective energy efficiency, such as the national Energy Savings Initiative (ESI) currently under consideration by the federal government, which is to replace jurisdictional energy efficiency schemes. However, it should be noted that energy efficiency policies such as this can risk distorting the market and so should be wound back once market mechanisms are established. Energy efficiency policies should certainly not substitute for retail tariff options such as time of use pricing (supported by smart meters).

Question 52: In your view, do consumers consider energy efficiency measures separately to DSP, or do they consider all actions as part of managing consumption and hence controlling electricity costs?

Customers should not need to differentiate between energy efficiency and DSP, but rather be able to choose among them as part of a spectrum of energy services that provide value by reducing bills, emissions and/or providing increased empowerment in managing bills generally. However, if peak demand is to be targeted above all, then the choices that reflect greater impact on peak reduction (that is, not just energy efficiency) will need to be particularly appealing to consumers.

Question 53: What are the elements for a best practice model or approach for energy efficiency policy to facilitate efficient investment in, and use of, DSP in the electricity market?

A best practice model or approach for energy efficiency policy to facilitate efficient investment in, and use of, DSP in the electricity market should:

- Include national governance in the form of a single, national organisation that is a joint initiative of the Commonwealth, States and Territories to be solely responsible for developing policy advice to all Governments and administering national energy efficiency measures that complement other policies such as the Carbon Price, and Australia's energy market arrangements.
- Ensure all energy efficiency policy options are non-discriminatory, non-distortionary and focus on the direct removal of the key barriers to energy efficiency such as lack of awareness, split incentives, and access to capital.
- Utilise direct regulation (e.g. minimum standards), which is a valid policy response in some cases, as long as it remains outside the operations of the energy market.
- Harmonise existing state retailer obligation schemes into one market - such as the national Energy Savings Initiative (ESI) as opposed to having three, or potentially more, different schemes operating.⁷ It is crucial that a national scheme completely replace state schemes and not add to the existing plethora of energy efficiency policy. Origin considers that harmonisation - whether it is achieved at a federal level in the form of a national ESI or at a state level amongst state governments - will deliver similar benefits. However, Origin does not support the ability for states to carve out legacy provisions - with all the additional complexities and costs that this would potentially lock into a national scheme - and consider a national ESI as the option with the greatest likelihood for avoiding this.

⁷ See Origin (2012) *Origin submission on Issues Paper: National Energy Savings Initiative Scheme*, 5 March; and Origin (2010) *Origin's submission to the PM's Task Group on Energy Efficiency - Issues Paper*, 7 May.