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Australian Energy Market Review
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Power of choice – giving consumers options in the way they use electricity

Dear Commissioners

AGL Energy (**AGL**) welcomes the opportunity to make a submission in response to the Australian Energy Market Commission's (the **Commission**) Power of Choice Directions Paper (the **Paper**).

AGL is well placed to comment on the development of demand side opportunities in the Australian energy market. AGL operates across the supply chain and has investments in energy retailing, energy services, coal-fired electricity generation, gas-fired electricity generation, renewables and upstream gas extraction. The diversity of this portfolio, together with the suite of energy services AGL offers, has allowed the business to develop an understanding of the risks and opportunities presented by improving demand side participation (**DSP**).

DSP has a role to play in improving the efficiency of Australia's National Electricity Market (the **NEM**). It is an important complementary measure to a carbon price and energy efficiency policy, and may help to slow the need for investment in infrastructure, which is a major contributor to rising electricity costs. DSP gives consumers greater control over how they manage their energy consumption, which will also mitigate the impacts of higher energy prices. DSP has the potential to create engaged consumers in a market which has traditionally seen low levels of consumer interest, by providing them with information about the options available to them, tools to manage their consumption, and the confidence that they are making the right choice for their circumstances.

While there are many positive aspects to improving DSP in the NEM, there is also a risk that if a clear policy and regulatory framework does not exist to support it, consumers may end up confused and disengaged. Accordingly, while AGL supports the introduction of new entrants into the market offering DSP, for effective competition to exist, new entrants and/or existing participants that seek to provide offerings directly to customers, must be subject to the same regulatory obligations that currently exist for retailers. This will ensure the appropriate standards and protections for consumers, as well as a level playing field for all other participants in the market.

AGL recognises that regardless of how comprehensive the policy and regulatory framework is with respect to DSP, there will be some residential consumers who will be unable to participate without additional assistance. For example, there will be consumers who are unable to shift their load, perhaps due to medical requirements, and others on low incomes who may be further disadvantaged by the widespread introduction of dynamic pricing. It

is important, however, that in endeavouring to ensure that vulnerable consumers are not adversely impacted, the introduction of measures designed to promote DSP are not unduly delayed for the majority of consumers.

As the Commission is aware, there are a number of other important energy sector consultations running concurrently with this consultation – in particular, on national smart meter consumer protections and pricing, a national energy savings initiative and the draft Energy White paper. AGL encourages the Commission to ensure that relevant stakeholder feedback gathered in respect of these consultations is incorporated, where appropriate, into its final recommendations with respect to this review.

Answers to specific questions raised in the Paper are in Attachment A.

Finally, we note that while we have not addressed every question raised in the Paper, AGL endorses the ERAA's submission, which does respond to each of the questions.

Should you have any questions or comments in relation to this submission, please contact Anna Stewart, Manager Energy Policy and Strategy at astewart@agl.com.au or on (03) 8633 6830 or Anita George, Manager Regulatory Policy at ageorge@agl.com.au or on (03) 8633 7212.

Yours sincerely,



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Attachment A

1. Consumer engagement and participation

AGL supports the Commission's view that consumers will need to be educated about the benefits of DSP and the technologies and tools available in the market. There is little point in introducing new pricing structures or technologies unless consumers are actively engaged and feel confident exercising choice with respect to the offers before them. AGL therefore believes that a joint Government, retailer and community sector customer engagement program, aimed at educating customers about the tools that will enable them to engage in DSP such as dynamic pricing and the impacts and benefits of supporting technology in the energy market, is a critical first step to any further arrangements being deployed.

An education program would benefit customers if it is targeted towards explaining the cost implications of rising peak demand, and the benefits smart meters and time of use (TOU) pricing, combined with energy efficiency schemes, can have in terms of enabling consumers to better manage their energy use. AGL believes that retailers must play a pivotal role in educating customers, particularly if we want to encourage customers to take up new forms of pricing. Within this broader education program, individual retailers could work with their own customer base to educate them. Information could be provided on-line, or in mail outs, but it should be left to each retailer to determine the most appropriate methods to inform their customers about the benefits of DSP.

By way of example, the Oklahoma Gas & Electric Company's Smart Study TOGETHER: Impact Assessment of Enabling Technologies and Dynamic Pricing Rates study¹ revealed the importance of combining technology, time sensitive pricing and customer education and engagement when trying to encourage consumer acceptance and take up of demand side options.

In response to question 1 of the Paper, AGL recognises that it will be important for customers to have adequate access to their energy consumption data if they are to more effectively manage their use. AGL supports the ERAA's view that the current arrangements for accessing data are adequately provided for in the existing Rules, and do not require amendment.

2. Efficient operation of price signals

At a time when peak electricity demand continues to rise, it is critical that consumers are provided with the right pricing signals. One of the problems associated with the continued regulation of retail pricing is the lack of appropriate user-pays pricing signals being developed. Regulated retail prices are generally based on average cost pricing models. Essentially, this results in low energy consumption households subsidising high energy consumption households.

As AGL highlighted in its previous submission to this review, the continued regulation of retail tariffs (other than in Victoria) constitutes a material barrier to improved DSP and energy efficiency outcomes in the residential sector. The current regulation of tariffs effectively limits the ability of the industry to introduce innovative tariffs that provide incentives for consumers to reduce demand during periods of high demand. Simshauser and Downer (2011)² recently demonstrated that the introduction of relatively simple peak, off-peak and critical peak pricing, combined with smart meters, could significantly improve

¹ The Oklahoma Gas & Electric Company conducted a study in 2010, the primary goal of which was to assess the impact of multiple levels of enabling technology combined with different dynamic pricing rates on a customer's energy consumption. To achieve this goal and enable effective and efficient targeting, a randomized sample of approximately 2,816 residential participants and control group customers, and 465 small business participant customers, in the area of Norman, Oklahoma, USA, were selected in the spring and early summer of 2010.

² <http://www.aglblog.com.au/wp-content/uploads/2011/03/No.24-Limited-Form-Dynamic-Pricing.pdf>

the utilisation of existing infrastructure. Such an outcome would manifest itself in significant reductions in unit pricing.

The continued regulation of retail electricity and gas prices in Queensland³, South Australia⁴, ACT and New South Wales is a constraint on four key government objectives:

- *Economic growth:* As prices are regulated for residential customers who have an increasingly peaky demand (due to air conditioning penetration), there is a cross subsidy in network pricing which is perpetuated by the ongoing regulation of retail prices. This results in businesses effectively cross-subsidising households which results in lower economic activity, fewer jobs and lower real wages growth.
- *Innovation:* There is significant scope for new technologies to be deployed that will assist customers in managing their energy consumption more effectively. In-home displays, wireless appliance device controllers and other innovations are deployable today. But companies with this expertise are unwilling to invest significant sums of capital given the risk that regulated prices will be kept artificially low, thereby undermining their attractiveness and an acceptable rate of return.
- *Environmental outcomes:* Efficient pricing of energy is critical to achieving environmental outcomes. Prices that are kept artificially low by regulators mute the impact of carbon policies, thereby resulting in sub-optimal abatement outcomes.
- *New investment:* Regulated retail energy prices provide a distinct disincentive for new investment in electricity generation plant. Over time, the continued regulation of electricity prices is likely to result in sub-optimal timing of investment decisions and higher than necessary energy prices.

While smart meters are not required in order to deregulate prices, the innovative TOU pricing that smart meters will facilitate are unlikely to be developed by retailers until actual cost-reflective pricing is allowed. As such, price deregulation, combined with an increase in the number of smart meters in the market, will greatly improve retailers' incentives to offer innovative TOU pricing structures.

AGL believes that market offers should be unfettered and the ability for retailers to develop and offer innovative pricing should not be confused with hardship assistance. For example, in Victoria there is currently a moratorium on the introduction of innovative TOU pricing structures largely because of concerns around the impact of such tariffs on vulnerable customers.

AGL acknowledges that not all customers will be better off as a result of cost reflective pricing, however, it is not correct to assume that flat tariffs will always be a better option for vulnerable customers. The only way to reduce costs for all customers, including vulnerable customers, is to make demand side valuable, assist people to manage their load and to subsidise energy use or saving activity. Other products and services with delivery of relevant and timely information in a useful format will be important tools for assisting vulnerable consumers. Energy concessions and other government rebates will also assist vulnerable consumers to better manage the introduction of cost-reflective pricing structures.

3. Technology and system capability

AGL supports the development of technology that facilitates DSP by enabling customers to better manage their energy consumption. Technology such as smart meters and in-home communication devices provide customers with greater visibility of their energy use and allow real-time communication to customers of cost reflective price signals.

³ We acknowledge that gas prices are not regulated in QLD and the ACT.

⁴ With respect to South Australia, we note that this jurisdiction has recently adopted a more market based methodology in terms of setting the standard retail contract prices, an approach which AGL supports in the absence of full price deregulation.

Interactive technologies are, however, required if customers are to be allowed to make longer term and more efficient changes. Interactive thermostats, automated compliance control and the ability to balance utility with cost are necessary requirements for sustained DSP.

In response to questions 17 and 18 in the Paper, AGL considers that the existing regulatory framework for type 4 metering is sufficient to incentivise customer demand for smart meters.

In response to question 15, AGL notes that it is imperative that metering (both meter and metering service provision) and demand side products remain contestable services to drive innovation, increase efficiencies, and lower costs. It is important also that there be no exclusivity in the provision of metering services to customers, and that customers are not locked into purchasing particular types of technologies. AGL is also of the view that any roll out of technology that would support DSP measures should be done on a non-exclusive and non-proprietary manner. We note that it would be expected that market efficiencies may cause one or two firms to dominate but the competitive environment will allow innovation and customer focussed solutions.

By way of contrast, AGL draws the Commission's attention to the Victorian AMI roll out. As the Commission would be aware, this roll out was required to be performed by distribution businesses and was done using proprietary technology and with no competitive access. The Victorian distribution businesses also control the particular smart meter functionalities that are available for use and the performance of the technology, and therefore the services that can be provided to the customer. For example, although remote re-energisation / de-energisation is a functionality that is currently enabled in smart meters in Victoria, it is at the distributors' discretion as to whether the remote capability is used or not. Further, distribution companies' service level agreements with retailers are based upon distribution companies making 'best endeavours', which is difficult for retailers to enforce and reduces the quality of the services available to customers. AGL considers there to be considerable risk that such a proprietary approach will stymie future market developments and benefits to customers, including greater competition and innovative consumer products.

It is imperative that network tariff metering and service charges be unbundled, so as to allow parties besides the distribution company to provide and charge for metering services. This is particularly an issue in Queensland and New South Wales, where metering service charges are currently bundled with network supply charges, which therefore necessitate the customer paying two forms of metering charge should they wish to change their meter. This clearly has the effect of stifling consumer choice and competition generally in the provision of metering services.

However, technology alone is not sufficient to support the widespread acceptance and utilisation of DSP, and must be seen alongside other equally important factors. We reiterate our earlier comments in relation to consumer engagement – there is little point in a wide spread technology rollout if consumers are not first educated about the benefits of the technology and how to use it.

In response to question 16, AGL supports the introduction of new entrants such as ESCO's into the market as this has the potential to promote competition and innovation. However, given the interaction that third parties providing energy management services will have with customers and the access they will have to customers' information, it is important that new entrants be subject to equivalent regulatory obligations as existing players. This will ensure a level playing field in the market, and will ensure that consumers are adequately protected. AGL is not suggesting that ESCOs necessarily require authorisation, however, we suggest that the possibility of introducing some form of accreditation system be further investigated.

At a minimum, all parties offering DSP services directly to customers, must be required to:

- obtain explicit informed consent from the customer; and
- adhere to the marketing provisions under the National Energy Customer Framework and the Australian Competition Law.

Further, it is important that third parties providing DSP services to customers are required to inform the customer's retailer that they are providing the services, so as to better enable the retailer to manage their customer's energy service provision. The retailer, as the FRMP for the customer, has the contract with the customer for the sale of electricity at the connection point and therefore bears the financial risk. It is highly relevant to the retailer, therefore, if their customer has entered into a side arrangement with a third party for DSP services. For example, we consider that it would not be appropriate for a customer to receive a peak rebate cash payment from a third party ESCO if that customer has an outstanding debt with their retailer.

4. Supply chain interactions

AGL is supportive of changes to current market arrangements which will improve co-ordination across the supply chain to promote effective and efficient DSP.

The issue of supply chain interactions, commonly abbreviated to the expression "split incentives" arises because no products are currently available to allow ready sale of demand side between the market sectors. This is mainly due to a lack of focus rather than the rules.

In response to question 21, an example of a product that meets the characteristics described by the Commission would be an ability to curtail a guaranteed volume of load in response to a particular trigger. This guarantee could then be sold to retailers or networks depending on who values it the most at the time.

This parcel would be valuable to retailers as a hedge against high prices, the equivalent of a cap, if it were available for dispatch during high price periods. To be of most value, the parcel would need to be a package of the specific retailer's customers, although the idea of separating the load and DSR at a site (by Enernoc at the recent Forum) would remove this requirement. Any person could develop this product and market it.

The parcel would also be valuable to networks where a network element is under stress due to high loads or was developing a fault. The value would be locationally specific (linked to a feeder or item of plant) and probably time bounded. The value would at some times coincide with retailer value (and be complementary) but sometimes clash (if there was a limit to its use).

This parcel of demand side would therefore be best most efficiently used if it were able to be sold to the highest bidder for defined periods, including for joint use. This product would not require Rule changes (although the Enernoc proposal may) and would be most efficiently mediated through a contract market (possibly a day ahead market as well).

The only changes required to allow this sort of package to enter the market are to technology and the relationships of the parties in the market. We consider that these will develop during the next few years.

In response to questions 22 and 24, AGL is of the opinion that the current market arrangements do not actively promote co-ordination across the supply chain to promote efficient DSP. This is largely because DSP is in a state of relative infancy, with market participants often not utilising demand side options because they are not yet widely available in the market. It is particularly important in this context that competitive forces are allowed to operate to encourage the development of an efficient market for DSP products and services.

AGL recognises that retailers and networks value DSP impacts differently – retailers value it from a time-based perspective and it is of most value when the spot price is high, whereas networks value it from both a time and geographic point of view, with their relevant costs only generally persisting until specific network elements are upgraded. However, this difference in value does not represent an inconsistency nor a material problem that needs to be addressed, so long as DSP products and/or services can be packaged into products that can be sold to whichever party in the supply chain values it most at a particular point in time. AGL believes this can be done and in fact is currently being done to a limited extent already.

To address questions 25 and 27, AGL has made the point previously that neither fully reflective price signals, nor technology, on its own, is sufficient to create the conditions that promote the development and widespread acceptance and use of DSP measures. Instead, both, in combination with a targeted customer education program aimed at engaging and informing customers of the benefits of these measures, are necessary in order to encourage efficient DSP activities in the market. AGL believes that this would encourage innovative products and services to emerge, motivated by the opportunities created by the technology, dynamic pricing, and an engaged and informed consumer base.

In response to question 28, AGL reiterates the points made above. The value of DSP services tend to vary depending on whether it is viewed from the perspective of a retailer or a distribution business. Retailers' value of DSP services would be more likely to be the cost of a cap contract that they would otherwise purchase in order to cover their exposure in the spot market, whereas distribution businesses would be more likely to value it at the cost of the network augmentation that would be delayed or avoided. AGL sees no inherent inconsistency or problem with this difference in the value placed upon DSP services. The creation of a market for these products and services in which DSP products and services are traded between market participants would lead to the development of an efficient price.

AGL does not believe that it is necessary for a market participant to be specifically charged with the role of procuring DSP options. The procurement of DSP options should be seen as another tool by which market participants can manage their volume and price risk. Once the appropriate combination of technology, dynamic pricing availability, and consumer engagement has been achieved, then AGL considers that it would be appropriate to allow the market to deliver the solution.

5. Wholesale and ancillary services market

AGL fully supports arrangements being put in place to encourage and facilitate DSP in the wholesale market to the greatest extent possible. AGL considers that this would be done most effectively and efficiently through enabling scheduled load to be registered with AEMO and bid into the NEM in a way equivalent to the treatment of scheduled generation. Much of this could be done under existing Rules, however there are some aspects of the Rules which will require modification.

Currently, the Rules allow for a single connection point and therefore single FRMP at a site. In order for third party aggregators (as opposed only to the FRMP for the site) to bid load into the NEM, it would be necessary for the Rules to allow multiple connection points (and therefore multiple FRMPs) to be registered at a site. Further, virtual metering would be required in order to enable the differential calculation of the volume of load and the volume of demand side response. For these arrangements to work effectively, it is also necessary for third party aggregators to be able to aggregate load from multiple sites and bid it into the market as a whole, as opposed to individually bidding in the load of multiple sites. This aggregation of loads is currently disallowed under the Rules therefore relevant amendments would need to be made in this regard.

In order for these arrangements to be implemented under existing market arrangements, aggregators should operate in the market as Intermediaries under the Rules, acting on behalf of the owners of the demand side response that they are aggregating and bidding into the market.

One issue that would need to be resolved is the method of metering what is effectively a non-value in the NEM (ie. a reduction in consumption) for the purposes of being dispatched. An option that has been raised is the possibility of Type 7 meters being used (ie. effectively a deemed value is attributed to the volume of avoided consumption as opposed to it being specifically metered). AGL has not yet settled on a position as to which option would work best in this regard, but we raise it as an issue that requires further consideration by the Commission.

In response to question 31, AGL does not consider it necessary for there to be additional obligations on market participants to provide information to AEMO regarding DSP capability as the obligations that they would owe in their roles as Intermediaries under the Rules would be sufficient.

In response to question 32, AGL considers it important to minimise and simplify, to the extent possible and while maintaining the integrity and safety of the market, the registration requirements for small entities to be able to participate in the market.

The AEMC asks in question 33 whether there should be a new category of market participant for aggregators. AGL does not consider this necessary, given that under the arrangements we suggest above, aggregators would take on the role of Intermediaries in the market, acting on behalf of the demand side response owners.

In response to question 34, AGL considers that the current financial contracts market does provide a sufficient hedge against the price risk of DSP options.

6. Networks

AGL is fully supportive of distribution businesses using demand side measures as a way of managing load and reducing network costs. However, if distribution businesses want to offer financial products directly to consumers, it is imperative that there be a clear separation of roles and responsibilities between retailers and owner/operators of distribution networks. Historically this has been achieved through ring-fencing competitive retail focused activities from monopolistic aspects of an integrated retailer/distributor. As distributors and retailers have physically separated over time since energy markets were deregulated, there remains a lack of clear separation of the activities of retailers and distribution network businesses.

The original intent of ring-fencing prior to the structural separation of retailers and distributors was that:

- retailers are the entities responsible for the provision and billing of energy to customers; and
- to ensure that there is clear operational separation between the regulated and unregulated aspects of entities providing customer facing products and services.

It is critical that regulators and policy makers ensure that only entities that are appropriately ring fenced from network activities provide DSP products and services directly to customers. AGL reiterates that at a minimum, all parties including networks offering DSP services directly to customers, must be required to:

- obtain explicit informed consent from the customer; and
- adhere to the marketing provisions under the National Energy Customer Framework and the Australian Competition Law.

AGL considers that regulated businesses should not provide such services directly to customers because:

- customers do not have appropriate consumer protection since distributors currently have limited requirements to comply with relevant energy-specific consumer protection regulations; and
- distribution businesses should not utilise regulated revenues to compete in unregulated activities.

AGL notes that the AER has advised that 'distributors using regulated revenue to fund unregulated activities is unlawful'⁵. AGL believes that this concept should be extended to include information gained from regulated activities to provide unregulated services. This requirement for the separation of unregulated activities from the regulated roles of distributors is recognised in the National Energy Retail Law. Any blurring of roles increases the risk of distortion of the competitive aspects of the market through an increased risk that distributors subsidise and inappropriately distort the retail market based on regulated revenue and information.

⁵ Accenture Final Report: Department of Primary Industries IHD Inclusion into ESC scheme, December 2011, page 85 references an email from Chris Pattas, General Manager, Networks, AER received by Accenture 25 October 2011

7. Distributed generation

AGL reiterates the views it put forward in its previous submission to the Commission in relation to this Review. AGL believes that currently there are few incentives for distributed generation and co-generation units. AGL is of the view that incentives should be introduced to bridge any gap between network regulation, demand management and participation in the wholesale market. Incentives are especially needed for co-generation units to be able to access the pool price at times of high demand.

AGL does not support feed-in tariffs that result in a transfer of wealth from one consumer to another consumer. However, AGL does support nationally consistent feed-in tariff policies that ensure that owners of distributed generation units receive the value attributable to the energy produced by their system. The value of the energy should be based upon the time-based wholesale value of the energy generation and avoided transmission losses. Based upon evidence provided by network businesses, it appears highly unlikely that distributed generation avoids distribution network costs (due to the ability of owners to export power and the need to maintain a network connection for imports for security of supply).

Further, we reiterate our view on the importance of minimising, to the greatest extent possible, the barriers to entry for small participants. In particular, registration fees and network connection charges should be based upon and be proportional to market impact. We believe that fees payable in respect of DSP options should follow the same principle as rule 5.4A of the National Electricity Rules in respect of generation, under which those wishing to connect to the system should pay the full costs of doing so, but should also receive all the benefits of their connection.

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

As a national retailer, AGL experiences directly the inefficiency caused by inconsistent regulatory and policy settings with respect to energy efficiency. Therefore, AGL considers it critically important that there be a nationally co-ordinated focus on improving energy efficiency, particularly given that there remains great potential for step-change in Australia's energy consumption practices. AGL is strongly supportive of amalgamating the existing state-based energy efficiency schemes and introducing a national energy efficiency scheme. Such a scheme should be targeted at overcoming institutional and cultural barriers preventing allocative (pricing) economic efficiency.

Given that AGL's strong view is that the objective of a national scheme should be overcoming barriers to allocative efficiency, we do not consider that the scheme should specifically seek to target peak demand, but rather, be implemented in conjunction with suitable time-of-use pricing regimes. A reduction in peak demand would then be an outcome of improved energy efficiency. As such, energy efficiency policy is complementary to DSP measures.

As AGL stated in its submission to the Department of Climate Change and Energy Efficiency in response to its current consultation on the development of a national energy savings initiative, a national scheme should have the following characteristics:

1. Multi-sectoral coverage: To capture energy efficiency opportunities in both the residential, and commercial and industrial markets. As a market-based obligation, the least-cost opportunities would be captured first.
2. Retailer obligation: an annual obligation to pursue and facilitate energy efficiency projects should be placed on holders of electricity and gas retail licences in each jurisdiction. Retailers have existing relationships and obligations with consumers, and optimally these would be capitalised on.
3. Flexible methodologies – approaches to evidencing energy efficiency outcomes should be adopted that are reflective of the scale of take up and the individual savings/load of each project.

4. Appropriate price signals: a NESI should feature a price cap/penalty value that is aligned with delivery of desired targets to ensure market participants have sufficient pricing information to apply to projects.

In response to question 52 in the Paper, while recognising that not all consumers think the same way, AGL's view is that the majority of consumers (particularly at the residential level) would not consider energy efficiency measures separately to DSP. For many consumers, the ultimate aim is to reduce their energy costs. They recognise that this can be achieved by, for example, using energy efficient appliances, or shifting load to off-peak times, where possible. However, it is unlikely that in making these decisions, they would be considering whether one is an energy efficiency measure as opposed to a DSP measure.

As AGL acknowledges earlier in this submission, some vulnerable customers may be worse off as a result of introducing certain DSP measures, such as TOU pricing. AGL considers, however, that a national energy efficiency scheme may help to ameliorate some of the potential negative impacts of DSP measures on energy affordability, provided that efforts are directed at low-income households with high consumption patterns.