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**Dr Kerry Schott AO**

**Chair, Energy Security Board**

Submitted by email: [info@esb.org.au](mailto:info@esb.org.au)

**28 November 2018**

### **Consultation on Strategic Energy Plan**

Dear Dr Schott,

AGL Energy (**AGL**) welcomes the opportunity to make a submission in response to the Energy Security Board's (**ESB**) Consultation on metrics to inform its Strategic Energy Plan.

AGL is one of Australia's largest integrated energy companies and the largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to around 3.5 million customers throughout eastern Australia.

In addition, AGL is continually innovating our suite of distributed energy services and solutions for customers of all sizes. These behind-the-meter energy solutions involve new and emerging technologies such as energy storage, electric vehicles, solar PV systems, digital meters, and home energy management services delivered through digital applications.

#### **Strategic Energy Plan**

The Independent Review into the Future Security of the National Electricity Market (**Finkel Review**) recommended that, by mid-2018, the COAG Energy Council develop and maintain a Strategic Energy Plan for the National Electricity Market (**NEM**). The purpose of the Strategic Energy Plan was to ensure a clear strategic focus for the Energy Council's work and to provide clarity of direction to market bodies and market participants.

In the Energy Council's report to COAG in November 2017, it was agreed that the Energy Council would develop the Strategic Energy Plan in consultation with the ESB to improve clarity and direction for market bodies and participants in the transitioning energy system. The Energy Council will review the Strategic Energy Plan every 12 months.

In our view, a Strategic Energy Plan would be of most value if it served a coordinating role between the extensive current work programs of the three energy market bodies comprising the ESB, providing guidance as to the most effective prioritisation and coordination of these pieces of work in light of the overriding objectives for the transforming energy system. From the consultation paper, it is not clear if the ESB will be seeking to set a much more detailed work plan with timeframes to meet the stated outcomes of the Plan,.

We note that the energy market bodies that comprise the ESB already have their own specific objectives – namely, the National Electricity Objective (**NEO**), National Gas Objective (**NGO**), and National Energy Retail Objective (**NERO**). We consider that a Strategic Energy Plan for the national energy markets should acknowledge these existing objectives.

#### **Strategic objectives for the energy sector**

The Strategic Energy Plan builds on the Finkel Review and the AEMC's 2017 consultation on the strategic objectives for the Australian energy sector. It identifies the following five high-level desired outcomes:

1. affordable energy and satisfied consumers
2. a secure electricity and gas system
3. a reliable and low emissions electricity and gas supply
4. the effective development of open and competitive markets (where appropriate), and
5. efficient and timely investment in networks.

While AGL considers these to be appropriate high-level outcomes to pursue, the Strategic Energy Plan as it stands provides little indication of timeframes, dependencies, constraints, and limitations to achieving these outcomes. Contextualising the desired outcomes in this way is an important step in being able to identify appropriate metrics to assess their achievement.

AGL supports the depiction of the five key outcomes comprising the Strategic Energy Plan as needing to be underpinned by strong and agile governance. It may therefore also be appropriate that metrics are also developed to assess progress towards long-term energy policy stability, effective governance arrangements that provide leadership and strategic direction, clear roles and effective coordination among the energy market bodies, and faster rule changes and responses to market developments.

Rule changes, policy shifts, reviews, inquiries, investigations, increased regulation, and substantial market reforms are disruptive to both customers and energy market participants. The stability of the policy framework and the governance associated with the transition of the energy market should therefore be monitored as well as business and consumer confidence in Government energy policy. This is a principle benchmark by which the NEO, NGO, and NERO will be achieved.

### **Measuring the progress of strategic objectives**

We note that it is proposed that the ESB's annual Health of the NEM report will assess progress against the Strategic Energy Plan each year. The Strategic Energy Plan is also intended to form the basis of the Statement of Expectations and Roles for each of the market bodies. The outcomes, objectives, and metrics are therefore of critical importance as the structure of market bodies and their work plans will be assessed with reference to the success in reaching metrics under the Strategic Energy Plan.

In our view, the metrics should therefore be objective, specific, and reasonable. Aspirational outcomes are useful for the energy industry to work towards; however, in reaching those outcomes, metrics for success need to be attainable or at least objectively measured. Where this measurement is not possible, qualitative metrics should be considered instead of quantitative metrics.

Care should also be taken that specific metrics are realistic so as not to affect the operation of the market with consequences in other areas. For example, the careful framing of metrics regarding security or reliability performance is important to ensure they do not drive operational, planning, or price outcomes that are not appropriately balanced against other energy sector objectives.

### **Source of Data**

Where possible, the ESB should source data from existing reports and information or clarify the source of truth for the data required. For example, metrics relating to electricity price monitoring or gas pricing could be aligned with information that is published by the ACCC on a regular basis, performance data could be collected from existing AER and ESCV performance reporting processes, and market data could be accessed from AEMO. There may also be overlaps with existing reports such as the AER's annual State of the Energy Market report. Where possible, we consider that the collection of data and publication of metrics should be made as simple as possible to not create additional cost overheads that will be passed through to customers, and information on the reporting processes expected of all data providers should be clarified.

Finally, the ESB should make its inputs and calculations for metrics public where possible, based on open data that can be analysed, interrogated, and used for further public policy analysis.

Specific comments on the metrics proposed by the ESBV are included in **Attachment A** to this document.

Should you have any questions in relation to this submission, please contact Aleks Smits, Manager Policy & Research on 03 8633 7146, or myself on 03 8633 7252.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'Eleanor McCracken-Hewson'.

**Eleanor McCracken-Hewson**

Senior Manager Policy, Research & Stakeholder Engagement, AGL Energy



## Attachment A – Proposed Metrics

Objectives	Proposed Metrics	AGL Proposal
<b>Outcome: affordable energy and satisfied consumers</b>		
<p>Energy is increasingly affordable for all consumers, supported by adequate consumer protections and access to dispute resolution</p>	<p>Reduction in energy spend as a % of household disposable income</p> <p>C&amp;I customers' energy costs are competitive with international counterparts</p> <p>X% consumer disputes/complaints resolved by retailers/ombudsman schemes</p>	<p>Affordability and customer satisfaction metrics are clearly very relevant to the overall operation of energy markets. Spend as a % of household disposable income may need to be considered alongside increases or decreases in energy usage for example as a result of energy efficiency improvements or demand increases, as well as external economic forces, such as economic growth and real wage increases. It may be the case that more specific energy indicators, such as customers paying on time and customers on a payment plan or in a hardship program, could contribute more directly to measuring this outcome.</p> <p>The ESB could also consider the overall value of concessions and rebates, as well as finance metrics as they relate to the upper and lower quintile of income earners, which can provide greater insights into affordability concerns. Deeper assessment of equity issues and impacts related to the transformation of the energy system may be more informative than a simple focus on overall affordability</p> <p>Regarding C&amp;I energy costs, competition on an international basis is difficult to measure objectively and depends on numerous factors such as international purchasing power parity, subsidies and tariffs, energy efficiency improvements, contracting structure, sector-specific factors, and the characteristics of the NEM compared to other energy markets.</p>
<p>Consumers are empowered to manage their demand and can access distributed energy and energy efficiency solutions</p>	<p>Increase in consumers accessing data related to their energy usage</p> <p>Increased participation in wholesale demand response or energy efficiency programs year on year</p>	<p>Metrics on access to DER and energy efficiency should also include the number of solar and battery installations. A qualitative assessment of access to programs may be a more useful measure, as well as a separation of access issues between owners and renters, as incentives are starkly different and represent different issues in the market.</p>
<p>Consumers are able to easily identify and secure the best deal for their circumstances</p>	<p>Increasing percentage of consumers on better/best contracts</p> <p>Increasing number of consumers using energy data and analytic tools (EME, switching sites, flipper sites) to make energy decisions</p> <p>Consumers can switch retailers in “five clicks” or less and will be changed to their new provider in less than 2 business days</p>	<p>The concept of a best contract might be too arbitrary if measured on price alone without taking into account the evolving nature of bespoke tariffs and energy agreements offering multiple services including EV charging, DER services, and additional products and services. Some element of the range of offers from retailers might be useful to include.</p>



		<p>A measurement of the % of customers that were able to find a better offer after seeking a better offer may more directly measure this objective, including the channels through which a better deal was found to assess which channels are operating most efficiently.</p> <p>Faster switching or requirements that customers can sign up in a set number of clicks can create perverse outcomes for customers, where important information and the switching experience for customers is not prioritised as it should be. Customer satisfaction on the switching experience is a better metric and is far more important as an objective than a number of mouse clicks, which has little relevance to the outcome sought in this instance.</p>
<p>Vulnerable consumers are on suitable pricing plans, receiving concessions when needed, and can benefit from distributed energy and energy efficiency schemes</p>	<p>100% of vulnerable consumers on better/best market contracts</p> <p>Clear hierarchy of easily accessible support and concession measures available for vulnerable consumers</p> <p>Energy efficiency, solar and/or storage programs implemented in public housing where cost efficient</p>	<p>Clarity is required on a definition of vulnerable customers; for example, if this includes customers on a retailer's hardship program or a more general cohort of customers, which may be harder to identify.</p> <p>We agree that no customers on a retailer's hardship plan should be on a standing offer (although we also note EIC is also required to enact these changes), but the 'best' deal needs to be considered carefully. For example, high pay on time discounts or direct debit benefits may not be appropriate for vulnerable customers. We think this needs to be assessed more qualitatively than quantitatively. All retailers should have hardship policies that meet these objectives so the metric could be better measured as compliance with regulated hardship policies.</p> <p>Further metrics on energy concessions and financial support for customers in public housing and receiving Government assistance would be useful, although this may be better suited to a broader review of concessions reform in Australia. Similarly, attempts to address limits to renters and public housing tenants accessing DER and energy efficiency solutions would assist in recognising that addressing hardship is a shared responsibility that cannot be resolved by energy reform alone.</p> <p>Increase in Government spending on energy programs targeted at low-income earners would be a useful metric.</p>
<p><b>Outcome: Secure electricity and gas system</b></p>		
<p>Markets operate safely, securely and efficiently, under full range of operating</p>	<p>Electricity market operates within power system security standards (frequency operating standard) and technical requirements (voltage, temperature, current limits)</p> <ul style="list-style-type: none"> <li>Market operated in secure state for greater than X% of time each year</li> </ul>	<p>We agree that these are useful metrics. However, the level of detail may be the limiting factor in the usefulness of the dataset; for example, measuring indicators system-wide, at a feeder level, or with even more granularity. Performance can vary significantly across network areas and power system standards can vary at a very localised level that can be hard to measure.</p>

<p>conditions, with minimal intervention</p>	<ul style="list-style-type: none"> <li>• System wide outages (aggregation of network and any generation related) less than X% per year</li> <li>• System interventions &lt; X per year</li> </ul> <p>Gas system operates securely within technical operational parameters</p>	<p>Intervention in this context could include market operator intervention but also network intervention (i.e. constraints). Outages should be clearly reported by cause (i.e. network, scheduled, unscheduled, capacity shortfall, etc.)</p> <p>Metrics regarding ancillary services may be more appropriate to measure this objective, and there may need to be an emerging assessment of inertia and system strength capabilities in the market.</p> <p>We would caution against these metrics becoming KPIs for market participants and the market operator; while metrics on system operation should be aspirational, the day-to-day operation of the market should not be distorted by attempts to meet KPIs; rather the market needs to continue to operate in a predictable fashion in accordance with established rules and procedures.</p>
<p>System planning and development is informed by clear and transparent rules</p>	<p>Measurable progress against a roadmap setting out development and implementation of solutions to identified system and market issues</p> <p>Review of National Electricity Rules conducted by ESB by 1 July 2020</p> <p>Establishment of the Cyber-Security Framework and implementation for high and medium risk participants within established timeframes</p> <p>Adaptation processes are in place to upgrade energy infrastructure to deal with increasingly severe weather events and cyber-security risks</p>	<p>This objective would better link back to the processes to action system planning proposals in a clear way that meets cost benefit tests. Measurable progress against proposed developments do not need to be advanced if they do not meet investment tests; what is more important is that the cost-benefit test is appropriately considered.</p> <p>Better metrics may therefore be productivity metrics against costs in the market from investment in regulated assets, as clear and transparent rules should lead to more efficient investment outcomes.</p> <p>Investor sentiment and planning, connection, or development timeframes could also be measured to reflect ease and simplicity of process.</p>
<p><b>Outcome: Reliable and low emissions electricity and gas supply</b></p>		
<p>Electricity and gas sectors efficiently deliver at least their share of emissions reduction target/s while ensuring reliable supply</p>	<p>Electricity and gas sector emissions reduce in line with the sectors' share of national emission reduction target/s</p> <p>Reliability standard achieved</p> <p>Annual reduction in number of times RERT procured and activated</p> <p>Development of, and then maintenance of or improvement in, key metrics:</p> <ul style="list-style-type: none"> <li>• Strategic reserves</li> </ul>	<p>The primary metric should be if there is a policy in place to drive emissions reductions with annual targets both at a State and federal level; energy participants cannot operate efficiently without this guidance and there is no real metric to meet without a clear target being set in this regard.</p> <p>With clear targets, electricity and gas emissions sector on both an absolute and per capita basis can then be reported in accordance with these targets.</p>



	<ul style="list-style-type: none"> <li>Flexibility and dispatchability</li> </ul>	<p>We support measuring reliability against a standard which reflects the value of reliability to customers, such as the reliability standard which is currently set at 0.002% unserved energy.</p> <p>RERT costs and interventions could also be reported under this metric, but again care needs to be taken on KPIs that may impact the day-to-day operation of the market, which should not be impacted by attempts to meet metrics but rather should follow established procedures.</p> <p>It is not clear to us why reserves additional to the RERT or flexibility and dispatchability metrics need to be measured if other metrics regarding the efficient operation of the market are being measured. The ESB's metrics should be technologically neutral as long as other market objectives are being met.</p>
<p>Investors efficiently manage risk to support investment, operation, retirement and innovation decisions</p>	<p>Accurate and transparent market information on forecast demand, generation investment and generation withdrawal to inform market participants (and potential participants)</p> <p>Average forward swap and cap contract prices for electricity in line with the efficient levelised cost of energy</p> <p>Cost of capital for new electricity and gas market investments are competitive with international standards</p> <p>All market participants comply with any rules around notice of closure</p>	<p>Could report on the accuracy of AEMO's forecasts and ESOO with actual market conditions, given the importance of forward looking conditions to the investment outlook.</p> <p>Could report on overall investor confidence metrics, which would be a better leading indicator of investment support and risk levels. Managing risk is a commercial decision, indications of risk management include RoLR events, companies entering administration, prudential margin calls, lack of clarity surrounding closure dates of generation, and market participant uncertainty, but in the absence of specific events, healthy energy markets should look to strong investor confidence and regular capital investment from a broad number of participants.</p> <p>Principally this requires clear policy for efficient market operation as well as reductions in information asymmetries. Metrics should therefore look at boosting confidence and making information that supports investment decisions more transparent.</p>
<p><b>Outcome: Effective development of open and competitive markets (where appropriate)</b></p>		
<p>Wholesale and retail markets are competitive and deliver efficient outcomes for consumers</p>	<p>Retail and wholesale prices over time (contract and average spot) reflect the long run marginal cost of producing electricity and gas</p> <p>Market concentration continues to decline across all regions</p> <p>Reduction in # of customers on standing offers over time</p> <p>Increase in new market participants year on year</p>	<p>Noting that the ACCC will be undertaking an extensive electricity price report six-monthly, it may be more prudent to measure more objective price and competition metrics.</p> <p>Regarding competition, it might be worth considering the HHI (Herfindahl-Hirschman Index, which is a commonly accepted measure of market concentration. The adoption of this metric will also assist with international comparison.</p> <p>Regarding price, objective market metrics such as customer switching numbers, retail offers in market, number of retailers, innovative offers, etc., may more directly establish improvements in competition.</p>



<p>Deep, liquid and transparent financial markets for electricity and gas and related services</p>	<p>Increase in transparency of contract markets (prices, duration) for products including swaps, caps, PPAs and demand response</p> <p>Increase in the ratio of traded volumes to demand for the physical product for gas, power and coal over time (establish benchmarks based on other global markets)</p> <p>Increase in gas secondary trading volumes, for commodity and transportation</p>	<p>Volume and price of exchange traded products is already transparent. Improvement in OTC transparency could however be measured, although adverse outcomes from improving transparency need to be measured against the benefits. AGL has previously provided a submission to the ESB in this regard.</p> <p>Length of contracting for market customers as well as price discovery for energy contracts over a longer basis could be useful metrics.</p>
<p>Access to efficiently priced fuel and transport</p>	<p>Increase transparency of metrics on fuel reserves and prices (coal, gas, hydro)</p> <p>Commodity costs competitive with international spot price less liquefaction or shipping</p> <p>Increased transparency in gas transport costs</p>	<p>Measuring access for gas relates more directly to improvements in gas supply; better metrics might be the existence of policy restrictions on supply development and levels of gas reserves as well as pipeline capacity trading metrics.</p> <p>Fuel reserves are already reported through AEMO; however, we could look specifically on how to improve these through provision of more transparent participant information.</p>
<p>Innovation is incentivised and enables value from new technologies</p>	<p>Creation of value streams for the efficient delivery of system security services (e.g. inertia, fast frequency response)</p> <p>Increased uptake of service provision from DSR &amp; DER (volume year on year)</p> <p>Increased transparency of information and knowledge sharing from proof of concept trials</p>	<p>At a wholesale level, innovation in new types of derivatives and funding arrangements can be monitored; at a retail level, innovation is likely to take many forms that need to be monitored and reported on at a case-by-case level.</p> <p>Better metrics would be reporting on qualitative improvements and case-studies as well as sentiment of new entrants and existing participants through surveys.</p>
<p><b>Outcome: Efficient and Timely investment in Networks</b></p>		
<p>Investment solutions are optimal across all resources</p>	<p>Congestion levels are not material or are being examined through RIT-T/Ds</p> <p>Reduction in market impacts (costs) of inter- and intra-regional constraints</p> <p>X% of smart meter customers on cost reflective network tariffs by jurisdiction</p> <p>Reducing generation connections times from project commitment</p> <p>ISP/RITs consider non-network solutions and investments are undertaken where in customer benefit</p>	<p>Could report on utilisation and improvement of non-network solutions to resolve network issues, as well as network productivity improvements.</p> <p>Could develop metrics on measuring efficient RIT-T and RIT-D processes for network investment.</p> <p>Increases in customers on cost-reflective tariffs may be impeded by policy decisions regarding implementation (opt in/out) or implementation of regulated default retail rates., The metric may usefully highlight this relationship.</p> <p>Metrics to measure the balance of transmission investment with generation investment could be considered as overall system cost is important, although generally speaking the best final metric might simply be reductions in energy prices over the long-term.</p>



<p>Efficient regulation of monopoly infrastructure</p>	<p>Cost of capital for new network investments in line with international standards</p> <p>Development of, and then maintenance or improvement in, performance and productivity metrics on regulated networks - e.g. network productivity, utilisation, affordability, reliability, customer engagement and/or connection</p>	<p>Not only the cost of capital but all inputs into network determinations should be in line with international and domestic standards on rate of return.</p> <p>Network productivity and reliability standards are already measured; better standards would be network service order standards such as disconnections/reconnections and meter reads.</p> <p>Improvements in actual meter reads and days to perform service orders would drive better consumer outcomes.</p>
<p>Networks incentivised to be efficient platforms for energy services</p>	<p>Increased integration of distributed energy resources in distribution networks</p> <p>Increased transparency in prices and obligations for distributed energy resources connecting and using the distribution network</p> <p>Time taken to consider and process rule changes and regulatory approvals in line with best practice international regulatory processes</p>	<p>Metrics would include utilisation of non-network solutions rather than capex costs in network augmentation.</p> <p>Decreases in connection times for customers connecting and reduction in localised system operating constraints such as extreme voltage conditions that affect customer's DER performance.</p>