

ATCO

AUSTRALIA

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By Email

Ms. Lyn Camilleri

Director

Adjudication

Australian Competition and Consumer Commission

Email: Lyn.camilleri@accc.gov.au

Dear Ms. Camilleri,

As an energy infrastructure and related services company active in Australian gas and electricity markets, ATCO Australia has a keen interest in the evolution of energy markets to address the dynamic and challenging issues in South Australia. ATCO Australia believes that the best approach to dealing with these issues is to promote competition in the South Australian energy sector through policy and infrastructure solutions that are consistent with promoting the long term interests of customers (**LTIC**).

In this regard, ATCO Australia supports SACOME's (the **Applicant**) request to establish a joint electricity purchasing group to jointly tender, negotiate and contract for the supply of electricity in South Australia. ATCO's submission addresses the following topics raised for comment by the ACCC:

1. The rapid acceleration of both utility scale and distributed renewable generation sources to meet aggressive targets will continue to distort market signals and investment decisions without appropriate reform of relevant regulatory frameworks;
2. The current lack of liquidity in the South Australian wholesale energy market has the potential to adversely impact commercial sustainability, economic development and the LTIC;
3. While ATCO is not in a position to comment on the operational performance of the Applicant's members, it is clear that energy costs are a significant component of operating costs and driver of competitive advantage, or disadvantage when competing in international markets;

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4. Given the concentration of supply in the South Australian wholesale energy market, the negotiating position of the Applicant should encourage more competitive behaviour from retailers and suppliers;
5. The nature of the limited, and often constrained, interconnection with the National Electricity Market (**NEM**) combined with the high penetration of intermittent renewable generation has resulted in the South Australian market operating somewhat independently from the NEM;
6. The entry of a relatively firm, aggregated load into the South Australian market is expected to increase competition and ultimately deliver lower cost energy to customers;
7. ATCO understands that the Applicant represents approximately 10% of the South Australian market, which is not expected to create any concentration risks or anti-competitive outcomes;
8. The Applicant's 180MW of aggregated load is considered attractive to existing and potentially new sources of generation;
9. Some form of synchronous generation will be required to meet the Applicant's load requirements, with this type of generation also able to improve system reliability through the provision of inertia and other ancillary services;
10. The Applicant's proposal is expected to increase the level of competition for energy services, which will encourage investment in synchronous generation, improve system security, put downward pressure on power prices and drive efficiency across the energy supply chain;
11. Following from the competitive tensions outlined above, the likelihood of any public detriment is considered low; and
12. The proposed period of authorisation appears reasonable given the long lead times typically associated with policy reform processes, infrastructure planning processes and the investment horizons of investors.

The above points are expanded in the body of this submission.

Background

The ATCO Australia group of companies includes businesses that operate within the electricity sector through the ownership and operation of gas fired power stations in Karratha (wholly owned) and Adelaide (co-owned).

The ATCO Australia group of companies also includes ATCO Gas Australia which owns and operates the vast majority of Western Australia's gas reticulation network, serving approximately 725,000 end users via the Mid-West and South West Gas Distribution System (regulated by the Economic Regulation Authority of Western Australia (**ERA**) and networks in Kalgoorlie and Albany.

The ATCO Australia Group is part of the world wide ATCO Group of companies with more than 8,000 employees, and assets of approximately \$12 billion. ATCO's companies are engaged in utilities (natural gas and electricity transmission and distribution), energy (power generation, natural gas gathering, processing, storage and liquids extraction) and structures & logistics (manufacturing, logistics and noise abatement).

Within the NEM, ATCO Australia co-owns and operates the Osborne combined cycle gas generation facility located close to Adelaide in South Australia. ATCO Australia has been directly affected by the dramatic changes in the South Australian power market that have taken place over the last few years. To date, the NEM has failed to keep pace with the rapid rate of technological change, particularly with the policy induced rise in small and large scale renewable generation. This has resulted in some very costly events including periods of very high prices in South Australia and a black start event, neither of which would appear to be consistent with the LTIC.

ATCO Australia has been directly affected by these events. As an interested party, we are concurrently pursuing changes to transmission pricing and related market rules that could reduce the likelihood such adverse outcomes in the future.

Likely future without

1. Please identify major developments expected to impact on the wholesale and retail electricity industries in South Australia in the coming decade.
2. Without the proposed collective purchasing, are there barriers to the Applicants securing reliable and similarly priced electricity contracts?
3. Without the proposed collective purchasing, are any of the Applicants likely to cease operations in South Australia?
4. Is the collective purchasing likely to increase competition between suppliers of electricity in South Australia? Why?

Response:

Market Developments and Barriers to Securing Reliable Energy Contracts (Q. 1 & 2)

The reasons behind the recent black start event in South Australia have been extensively explored, but the immediate cause was a lack of appropriate resources within South Australia to maintain a secure system after the failure of the interconnection to Victoria. In particular, the change in generation mix from conventional thermal to renewables left South Australia with insufficient inertia and fast response generation/demand side management to prevent a catastrophic collapse in system frequency. Historically, South Australia had greater levels of thermal generation in operation sufficient to meet that need.

As a direct response, the Government of South Australia introduced a requirement that the South Australian system operate so as not to exceed a 3 Hz/second rate of change of frequency (**RoCoF**) limit¹. AEMO chose to implement this requirement by reducing the level of power flows across the Heywood Interconnect (**Heywood**) to 650MW and by requiring two gas fired generators within South Australia to remain synchronised at all times. ElectraNet has issued a Regulatory Investment Test for Transmission (RIT-T) to secure network and non-network solutions as a corrective, setting out a preferred operating standard of 1 Hz/s with 750MW flows across Heywood that would provide a greater level of security than the current standard in the event of further Heywood failures.

¹ That is, in the event of an interconnector failure, the maximum rate of change in system frequency should not exceed 3 Hz/s as a RoCoF in excess of this would result in an unacceptably high risk of system collapse.

While the RIT-T is in progress and the results not yet known, ElectraNet has put forward four new interconnection options for consideration². Each option includes costly 'greenfield' investment in transmission infrastructure that will add to growing consumer concerns regarding the continuing increases to already high electricity costs. Further, the relatively low-cost option of augmenting the existing Heywood Interconnector appears to have been excluded from the initial assessment.

Evaluation of these options is being made using the same "scenario" approach previously referenced in determining whether each option delivers a net benefit and which option delivers the largest positive benefit. Unfortunately this methodology is flawed, given that the starting assumption is that the solution to South Australia's system security issues is another interconnector. This approach does not adequately consider the following:

- The probable market impact and response of existing baseload generators in South Australia and neighbouring states to further load erosion and demand unpredictability if more interconnectors are built;
- The impact on system stability and cost of a NEM with ever increasing levels of renewables (to meet aggressive renewable targets in most member states) and reducing levels of baseload synchronous generation, including the loss of lower emissions gas generation;
- The importance of Frequency Control Auxillary Services (**FCAS**), Network Control Services (**NCS**) and inertia to system security and reliability and the value of locating these services near the source of demand; and
- The potential to optimize utilisation of existing transmission assets and lower emission synchronous gas generation to support renewable energy by creating an appropriate policy framework.

The rapid transformation of the energy sector in Australia is placing increasing pressure on installed network infrastructure. At the same time, ongoing policy uncertainty at both the State and National level discourage new investment in long term assets.

Events in South Australia also provide an important lesson in the risks of policy-driven rapid renewable penetration without a policy framework that also addresses cost and security of supply. In hindsight, a more comprehensive plan addressing optimizing of existing infrastructure in concert with renewable growth would have produced a much more robust and cost effective solution while still significantly reducing carbon emissions.

As noted above, it is ATCO Australia's view that there are significant opportunities to enhance the market-based mechanisms that will continue to drive both efficient investment and long term customer value. However, in the absence of these reforms and considering the long lead times to implement the required market rule changes and/or infrastructure solutions, it may be reasonable to conclude that the ability of customers to secure reliable and competitive electricity contracts has been diminished in the immediate and longer term.

Applicant Operations (Q. 3)

² The four options proposed by ElectraNet are (1) Central SA to Victoria, \$500m to \$1,000m capex, (2) Mid north SA to NSW, \$500m to \$1,500m capex, (3) Northern SA to NSW, \$1,500m to \$2,000m and (4) Northern SA to Queensland, \$2,000m to \$2,500m. The details of each options can be found on the ElectraNet website <https://www.electranet.com.au/projects/south-australian-energy-transformation/>

Regarding item (3), ATCO Australia is not in a position to comment on the operational drivers or characteristics of the Applicant(s) given lack of publically available information.

Supplier Competition (Q.4)

Regarding item (4), the creation of a block load in the order of 180MW by the Applicant is expected to create a strong investment signal to the market, in particular where suppliers are in a position to enter into competitive bilateral arrangements that leverage economies of scale. The electricity market in South Australia is dominated by AGL and Origin. New generation is at a distinct disadvantage as AGL, Origin, Energy Australia and Engie have a significant portfolio which results in a cost structure and risk structure that makes it very difficult for a new entrant to compete. In some cases these companies have:

- Legacy gas contracts which are below current market prices;
- Upstream operations which produce and supply gas to downstream operations;
- Significant customer scale which allows them to manage demand risk across their portfolio;
- Long term gas transportation positions which may be more favourable than a new entrant; given their scale;
- Geographic diversity across the NEM; and
- Diversity of generation assets.

A new entrant, in particular one which plans to build generation, needs to secure sufficient off-take to justify the investment in generation or establishing a retail business, especially given the large amounts of fixed costs. The new entrant is only able to compete where there is sufficient scale to justify the investment in generation or establishing a new retail business.

The proposed collective purchasing allows a new generator to justify this investment and enter the market to compete with the incumbents. In ATCO Australia's submission, should this proposal proceed, ATCO Australia would consider entering the market and using its existing generation as the basis for establishing a new energy retailer.

Areas of competition

The Applicants consider that the relevant markets are the market for: (i) the generation and wholesale supply of electricity in the National Electricity Market or in the South Australian region of the NEM, and (ii) the market for the retail supply of electricity in South Australia.

5. *Please comment on whether the South Australian region of the NEM constitutes a separate market.*
6. *Please comment on whether any upstream or downstream markets are likely to be impacted by the proposed conduct.*

Response:

Market Separation (Q. 5)

While South Australia is technically part of the NEM, the de-rating of the Heywood Interconnector in addition to the market failures noted above effectively practically curtails customer access to a competitive NEM in the immediate and longer term.

As noted above, proposals to increase access to the NEM for South Australian customers, through construction of new 'greenfield' Interconnectors, is unlikely to deliver improved outcomes for South Australian customers or the Applicant as:

- Capital intensive, long-lived transmission infrastructure will add to growing consumer concerns regarding the continuing increases to already high electricity costs;
- Existing baseload generators in South Australia and neighbouring states may reduce investment or shut down operations in response to further load erosion and demand unpredictability if more interconnectors are built;
- Increasing levels of renewables (to meet aggressive renewable targets in most member states) and reducing levels of baseload synchronous generation, including the loss of lower emissions gas generation, will further reduce system stability and increase the cost of the NEM to customers;
- The value of FCAS, NCS and inertia to system security and reliability, and the value of locating these services near the source of demand, will quickly erode; and
- The opportunity to optimize the utilisation of existing transmission assets and lower emission synchronous gas generation to support renewable energy by creating an appropriate policy framework will be lost.

Upstream or Downstream Impact (Q. 6)

Regarding Item (6), ATCO Australia believes this proposal would encourage generators that are at risk of closure and new generators to provide an alternate retail supply proposal on basis which are different to the incumbents.

Public benefits and detriments

7. *Please comment on the relative bargaining power of the Applicants (individually and as a group) and of relevant electricity suppliers.*

Response: (Q. 7)

ATCO Australia understands that the combined electricity consumption of the Applicant represents less than 10% (1.4 TWh) of the total consumption in the South Australian market (12.9 TWh)³. All things being equal, the impact on upstream and downstream markets is expected to be minimal where the tender process is open and transparent and does not discriminate against the upstream supplier, generation technology or fuel type.

The Applicants argue that the joint tendering arrangement may induce new entrants in the supply of electricity, incentivise existing suppliers to expand operations, or incentivise existing suppliers not to cease or roll back operations.

³ AEMO, *South Australian Electricity Report*, August 2016, p. 14.

8. Do you consider the proposed arrangements are likely to incentivise new entry or expansion in the relevant electricity supply market?

Response: (Q.8)

ATCO Australia's view is that the Applicant's proposal, supported by reform of relevant ancillary services and transmission pricing frameworks, will create appropriate signals and incentives for continued investment in the South Australian energy market.

ATCO Australia would consider its position in the South Australian market and would propose to engage in any tender process.

The Applicants also argue that 'the introduction of further synchronous generation into the South Australian market' would increase power system security and reliability, citing two instances of unreliable electrical supply in November 2015 and September 2016 (pp14-15).

9. Please comment on the likelihood and extent that the proposed conduct may increase power system security and reliability and prevent future instances of unreliable electrical supply.
10. Please provide any other comments regarding the public benefits claimed by the applicants or any other public benefits of the proposed collective purchasing.
11. Please provide any other comments regarding any public detriments likely to arise from the proposed collective purchasing.

Response:

Impact on System Security and Possible Public Benefits (Q. 9 & 10)

It is ATCO Australia's view that there are significant opportunities to increase competition and enhance market-based mechanisms that will in turn continue to drive efficient investment and long term customer value in the South Australian energy sector. The Applicant's proposal will create an effective signal for market participants and policy makers to develop a comprehensive plan that recognizes the value of optimizing existing infrastructure in concert with renewable growth. This type of plan is likely to result in a much more robust and cost effective energy solution for South Australia while still significantly reducing carbon emissions.

In the short term, ATCO Australia views the Applicant's proposal as a potential mechanism to create competitive opportunities for longer term offtake agreements for lower carbon gas baseload generation located in the State. Baseload gas generation in South Australia remains the most cost effective and efficient means by which to improve system stability and reliability.

The Applicant's proposal could also stimulate the adoption of new approaches to deliver cost-effective and reliable supply by encouraging further market reforms. For example through using transmission pricing mechanisms to efficiently balance renewable and synchronous generation on the grid:

- As and when new wind or solar generators, spurred by subsidies aimed at increasing renewables, contemplate connection to the network they would face a price for the use of transmission services that reflects the costs of transmission augmentation necessary to ensure the continued security and reliability of the system.
- At the same time, existing generators (or Demand Side Management, **DSM** resources), closure of which might similarly have given rise for the need for additional transmission in order to secure the system, would face a price for the use of transmission services. But

because their maintained operation would lower the need for new transmission, that price would be negative.

Pricing paradigms of this type for transmission use of system (TUOS) are well understood and operate in several overseas markets.

It is difficult to predict exactly what would have happened in South Australia if the above model had been in operation but several outcomes could have reasonably been expected, all of which would have facilitated promoting the Long Term Interest of the Customers:

- The pace of renewable penetration for a given level of subsidy would have slowed, which might have allowed the system to adapt in a timely manner without catastrophic outcomes⁴;
- Renewables might have preferred different locations and/or different technological choices (such as inverter settings that allowed them to provide more and faster 'synthetic inertia') so as to reduce their TUOS charges and the need for transmission augmentation⁵;
- Transmission network service providers (TNSP), ElectraNet in this case, would have observed a powerful price indicator showing whether it would be efficient (in the sense of meeting LTIC) to build additional transmission, from the willingness of renewables to pay the specified TUOS charges;
- Existing thermal generators in strong locations would have additional revenue (from negative TUOS charges) that would reduce the likelihood of closure or mothballing for a given level of renewable penetration; and
- There would be a natural bias in favour of new renewable generation seeking to make use of existing transmission assets under-used as a result of demand changes or thermal generator closures, maximising the use of assets that are otherwise sunk.

Public Detriments (Q. 11)

ATCO Australia has not identified any public detriments to the Applicant's proposal.

Period of authorisation

12. Please comment on the appropriateness of the period of authorisation requested, which is a total of 11 years, comprising 6-12 months for the tendering process, a 3-5 year contract term plus the option to extend for a further 3-5 years.

Response: (Q. 12)

The range of policy, market and infrastructure solutions that are required to address the prevailing affordability and reliability issues in the South Australian electricity market may take several years to implement:

⁴ ATCO recognises the imperative of shifting to lower emission technologies within the NEM and the importance that subsidies can play in engineering that transition. However, it is not sensible policy to engineer the transition by means of an inadequate subsidy that is, in effect, masked by a deterioration in system security that necessitates excessive new transmission build.

⁵ By way of example greater wind generation build in Victoria and less in South Australia would most likely have resulted in being able to meet a market-wide renewables target at lower overall cost to customers. This might be at the expense of failing to meet a specific local renewables target in South Australia, but from an LTIC perspective, such local renewables targets are distinctly inferior to targets set more broadly across the NEM.

- Given the politicised nature of energy market issues, relevant legislative processes required to address recommendation arising from the currently ongoing Finkel Review are expected to be subject to extensive debate and negotiation;
- Any subsequent AEMC rule changes and/or investment tests are also lengthy processes and are subject to public consultation; and
- The planning, approval and construction phases of significant energy-related infrastructure projects take several years to implement, where the viability of these projects will in turn be dependent on the successful implementation of the above legislative and market rule processes.

Therefore, the Applicant's proposed 11 year period of authorisation appears reasonable given the expected length of time it will take to implement the suite of reforms required to increase the competitiveness, affordability and reliability of the South Australian and national electricity markets.

It should also be noted that the scale of investment requires long periods to recover that investment. A longer term provides a greater degree of certainty for anyone looking to invest and increases the attractiveness of the tender to a range of interested parties.

ATCO Australia welcomes any opportunity to discuss our response to the Applicant's proposal with the ACCC or other market participants.

Sincerely,



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