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**Sustainably Growing Energy and Mining in South Australia**

AGL Energy (**AGL**) welcomes the South Australian Government's focus on sustainable growth opportunities for the energy and mining sectors and the opportunity to comment on the Department for Energy and Mining's Consultation Paper (**Consultation Paper**).

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 3.7 million customers throughout eastern Australia.

AGL is strongly invested in South Australia. We have close to 500,000 retail customer accounts across electricity and gas, and our South Australian generation operations include the Torrens Island gas fired power station and wind farms at Hallett and Wattle Point. We have also made a number of investments which seek to innovate in the provision of reliable, fast start capacity to support the reliability and stability of the region. These include our vanguard Virtual Power Plant, which recently reached a milestone of 1000 participating batteries, and our Barker Inlet Power Station expected to commission before the end of 2019. We are also in feasibility stage for the Kanmantoo pumped hydro plant.

**NEM-wide policy processes fundamental to energy sector investment**

AGL agrees that investment in the energy sector is an opportunity in itself, as well as an essential underpinning for investment attractiveness across other sectors given the importance of a competitively priced and reliable energy supply. As the Consultation Paper notes, in energy, the investment opportunity is significant but has been hampered by a range of policy uncertainties. As a capital-intensive industry, laying down sound and durable policy and market frameworks is fundamental to stimulating private sector investment.

It is well known that the industry is facing a number of complex market design and operational challenges as it seeks to facilitate a smooth transition to a low-emissions grid in which reliability, security and affordability are maintained. In fact, this is the major focus of the Energy Security Board's NEM25 review. As the National Electricity Market (**NEM**) becomes characterised by increasing levels of intermittent



renewable generation, it is widely acknowledged that the portfolio of investment must include responsive capacity and other services that can flexibly support reliability and system security.

Greater interconnection between NEM regions offers opportunity to export greater volumes of South Australian renewable energy. Through expanded opportunity for import it may also further reduce demand for South Australia's remaining gas generation and result in its earlier exit – an outcome that has been forecast by ElectraNet, the proponent of the SA-NSW interconnector. This highlights the importance of ensuring the NEM's frameworks sufficiently value the services that this synchronous capacity has traditionally provided in terms of reliability and security in order to support timely investment in replacement capacity and other grid-stabilising technologies (which is likely to include capacity from the demand-side and new technologies).

Being in many ways at the forefront of this transformation, the South Australian Government has an important voice in the energy market reform process. This voice is used to best effect when working within national frameworks under the auspices of the COAG Energy Council. In particular, the South Australian government should seek wherever possible to enhance the predictability of NEM operation. Actions such as Government-funding for back-up generation which is later diverted into market operation, or NEM derogations operating by Ministerial order, can have the unintended consequence of introducing further risk and uncertainty into the market.

### **South Australian frameworks can support emerging projects and industries**

Beyond national policy reform, the South Australian government plays a vital role in facilitating timely project development and commissioning. Two current examples where AGL is working closely with the South Australian government in this respect are in relation to our Barkers Inlet Power Station and Kanmantoo project. Both projects are positioning to address the State's increasing need for fast-start, flexible and low-emissions capacity:

- **Barkers Inlet Power Station (BIPS):** is a 210 MW fast-start generation facility being built at a cost of \$295m. BIPS is close to commissioning and will deliver more efficient and flexible generation as older generation at Torrens Island Power Station (TIPS) is phased out. Working with the State, we are keenly focussed on the phasing of BIPS commissioning and TIPS mothballing so as to support a continuing reliable energy supply to South Australian households and businesses;
- **Kanmantoo:** is a 250 MW pumped hydro energy storage project at Hillgrove Resources Limited's Kanmantoo copper mine in South Australia's Adelaide Hills region, currently at feasibility stage. The recent action of the Department of Energy & Mining to formally grant the Kanmantoo development a Crown Sponsorship means the project can expect an efficient approvals pathway, assuming that all relevant aspects of the project are appropriately addressed.

The South Australian government also plays an important role in research and development and the incubation and commercialisation of new technologies and resources. The State's Hydrogen Action Plan, Renewable Technology Fund and its Grid Scale Storage Fund are examples of positive action from the South Australian government to support emerging industries and technologies. The guiderails for any such program (e.g. size of financing opportunity, requirements regarding technology maturity, scope of market / operational applications, competition and governance) are important if they are to catalyse rather than replace private sector capital deployment.



We note the State's preference to work collaboratively with agencies such as the Clean Energy Finance Corporation and Australian Renewable Energy Agencies which have complementary objectives. Certainly ARENA's support was vital for the rollout of AGL's vanguard 1,000 battery / 5 MW residential Virtual Power Plant (**VPP**) in South Australia. This leading-edge project has and continues to demonstrate the potential for an orchestrated fleet of distributed batteries to support grid reliability and security while also reserving primary value for the customers who have co-invested in the technology. Through demonstration and knowledge-sharing components the project supports the ongoing evolution and potential of VPP models. This is evidenced in new battery and orchestration offers coming into the South Australian market, supported by the Government's own Home Battery Scheme.

Similarly, we see a role for the South Australian Government in stimulating the local market for electric vehicles. As we set out in more detail in our recent submission to the South Australian Electric Vehicle Strategy, beneficial government activity here could include supporting the range and affordability of new and used battery electric vehicles (e.g. through carefully designed financial incentives and the establishment of a Government EV fleet target), as well as the potential to drive efficient industry investment in fast charging infrastructure through a competitive grant program.

The value of electric vehicles lies not only in the reduction of transport emissions but their potential to support more efficient utilisation of the network and renewable energy sources and, with advancing technology, potential to provide vehicle-to-grid services. In this way there is opportunity to both advance energy productivity goals and enhance the reliability and security of the system. Realising these benefits requires well-designed vehicle charging frameworks (pricing, coordination) and would benefit from further competitive electric vehicle innovation programs allowing solutions to be tested in the South Australian context. For example, a vehicle-to-grid innovation program would complement Everergi's current ARENA-backed public participation program.

We would welcome a discussion on any aspect of this submission.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'B Sterland', written in a cursive style.

**Barry Sterland**

General Manager Policy and Strategy