AGL Energy Limited
T 02 9921 2999
F 02 9921 2552
agl.com.au
ABN: 74 115 061 375

Level 24, 200 George St
Sydney NSW 2000
Locked Bag 1837
St Leonards NSW 2065

Australian Government

Department of Climate Change, Energy, the Environment and Water

By email: hydrogenheadstart@dcceew.gov.au

3 August 2023

AGL Response to the Hydrogen Headstart Consultation Paper

AGL Energy (AGL) welcomes the opportunity to contribute to the Australian Government's Hydrogen Headstart grant program consultation paper.

About AGL

AGL is a leading integrated essential service provider, delivering 4.3 million gas, electricity, and telecommunications services to our residential, small, and large business, and wholesale customers across Australia. We operate Australia's largest electricity generation portfolio and have the largest renewables and storage portfolio of any ASX-listed company, having invested $4.8 billion in renewable and firming generation over the past 20 years and added more than 2,350 MW of new generation capacity to the grid since 2003.

AGL understands the importance of supporting a range of technologies with complementary functions in the transition from traditional fossil fuel-based power generation to a fully decarbonised grid.

In our inaugural 2022 Climate Transition Action Plan (CTAP), we clearly state AGL's updated ambition to become an integrated low-carbon energy leader, including:

- Targeting a full exit from coal-fired generation by the end of FY35 (up to a decade earlier than previously announced);
- Ambition to meet customer energy demand with around 12 GW new firming and renewable assets by 2036; and,
- An initial target of 5 GW new firming and renewables by 2030.

AGL has also committed to repurposing its large thermal generation sites into low carbon industrial energy hubs. Our industrial energy hubs at Loy Yang, Torrens Island and in the Hunter will bring together renewable energy production and storage with energy-intensive industries, centred around a shared infrastructure backbone. This existing infrastructure backbone may also play a role in hydrogen industry developments.

For example, AGL is currently undertaking a green hydrogen feasibility study in the Hunter region with Fortescue Future Industries and other consortium partners across multiple sectors. This study will shed light on critical inputs to such a facility including renewable energy costs, firming requirements, electrolyser capital costs, logistics and utilisation and will add critical detail to our vision for an industrial low carbon energy hub at the site of our Liddell and Bayswater power stations.

In 2022 we undertook a commercial and technical feasibility study for our Torrens Island site to investigate the production of hydrogen-derived products to serve both domestic users in South Australia and interstate, as well as wider export markets.

At this early stage of hydrogen industry development, we are supportive of a broader grant program with built-in flexibility allowing a variety of project partners who can leverage their existing assets and attract a multitude of off-takers with a variety of end uses to underpin a strong project business case.

Our position on these issues is further elaborated in our reposes to the consultation questions included at Appendix A to this submission.

We look forward to further opportunities to engage on this program. If you would like to discuss this submission further, please contact Aleks Smits (Senior Manager Policy) at asmits@agl.com.au.

Yours sincerely,

Chris Streets

General Manager (a/g), Policy and Market Regulation

AGL Energy

Appendix A – Response to Questions Raised in Issues Paper

Question 2.1: Please provide any feedback on the proposed eligibility requirements. Are there any other eligibility requirements the Program should consider?	We are supportive of the proposed eligibility requirements, particularly the flexibility of methods for certifying the renewable electricity given that the Renewable Energy Guarantee of Origin (REGO) scheme is still under development. We also support the proposal that all end uses of hydrogen or hydrogen-derived products be eligible for the program. Given the program focus on large-scale production, the ability to include multiple off-takers could help to derisk projects. We would welcome further detail on the definition of a single-site deployment. We don't foresee any issues with limiting the site of the electrolyser/s in the project, however, if it were required that multiple project components be restricted to a particular radius, for example, the renewable energy generation, the electrolyser, the conversion to another hydrogen derived product and/or the export of the final product, this could rule out a number of export-focused projects. Building in flexibility to the program so that different project partners can utilise existing sites could help with project economics.
Question 2.2: Is a minimum deployment size of 50MW appropriate for the Program?	Given developments in announced projects and in the international hydrogen space, it seems feasible that we will see 50 MW electrolysers deployed by the time this grant program commences in 2027/8. However, the program could be amended to allow for staged project rollout to build in flexibility in the event that supply chain constraints limit project timelines.
Question 2.3: Are there benefits to considering a suite of project sizes, with both large and smaller scale projects (for example less than 50MW) being eligible?	Noting that there will likely be a trade-off between project start time and project scale, a portfolio approach could be taken to achieve both expedited hydrogen production and (later) hydrogen production at scale. However, proponents would benefit from government indicating how the total funding pool will be allocated towards both small scale and large scale projects. This will help to determine which projects to progress for this grant process.
Question 2.4: Are there benefits to considering projects that may only have scale if aggregated across multiple, but related sites?	In our view, aggregation of multiple assets across different sites would not be the best use of funding – for example multiple smaller electrolysers in different locations. This would duplicate project costs such as storage costs at each site. A scaled approach would be more economically efficient.
Question 2.5: Other international schemes have sought to implement additional requirements of the renewable energy used in hydrogen projects such as new-build or time matched renewable energy. Please provide your views on any additional requirements the Government should consider for the Program in relation to renewable energy.	With the current supply chain constraints and network connection approval timeframes, it is unlikely sufficient renewable energy capacity could be developed to meet the scale of ambition indicated in this paper by the 2027/8 operational deadline, if new renewable energy build were a mandatory requirement for funding. We note that proposals relating to time-stamping renewable electricity certificates are currently being considered through the development of the government's Guarantee of Origin (GO) REGO scheme, which is likely to be operational by 2027/28. In our view, while time-stamping renewable energy certificates should not be mandatory in the first instance, there is merit in building this capability into the design of REGO certificates to allow

	certain use cases to be pursued on a voluntary basis; for example, the certification of electricity consumed by electrolysers for the production of green hydrogen. Equally, REGOs are likely to include information as the date of commissioning of source generation, which will facilitate the certification of renewable electricity from new-build generation if this is a requirement in the future. In our, view, time stamping and age of generation are not issues that should necessarily be linked to the criteria for this grant program, given that the REGO scheme is still under development.
Question 2.6: Some international schemes have limitations on proposed end uses of hydrogen such as the UK scheme which specifically excludes gas blending. Should any limitations be placed on the end uses eligible for the Program?	We are supportive of broad end use eligibility at this early stage of hydrogen industry development. In our view, keeping the end-use open gives the best chance of multiple off-takers or gives the proponents the flexibility to choose the highest value off-takers for their particular consortia or project design.
Question 2.7: Other international schemes consider both export and domestic use of hydrogen as eligible while others specifically exclude export projects. How should the Program consider projects with proposed export offtake and the extent to which this offtake may support the development of an Australian hydrogen industry or other additional benefits to Australia?	We see merit in the program considering both export and domestic applications. This question can be addressed through the design of the merit criteria. The criteria could require a domestic component to the project. This could be through an agreement for future offtake as the domestic industry develops, for example when the use case is more strongly demonstrated or the price of hydrogen is more economic.
Question 4.3: How should the Program treat additional Commonwealth or State Government funding or other support for the same project?	Securing additional state or commonwealth funding should be regarded as high merit. This funding should be declared and factored into the project business case and the HPC value requested by proponents.
Question 4.4: How should the Program treat a project that has been able to attract international government investment such as that under H2Global? How can the Program best leverage this support?	Our understanding is that securing international investment is one of the objectives of the program and the national hydrogen strategy so should contribute to project merit. It should also be expected that the scale of the project and the HPC requested reflect the total government investment secured – both Australian and international. However, even at this early stage, government should consider how export-focussed projects where Australian government funding is awarded, can benefit local communities (to improve social licence) and benefits to energy consumers where projects may impact on electricity networks and impact costs passed through to consumers.
Questions 4.5: How should the HPC consider inflation?	We would welcome further detail to understand the government's approach.
Question 6.1: Do you think the Program should include volume risk support? If so, why?	Yes, the scale and timing for green hydrogen offtake agreements is currently very uncertain. Therefore, some structured supporting mechanism would be welcome to manage demand-side risks.
Question 6.2: If volume risk support is required, what is the preferred structuring of the mechanism?	

Question 7.1: Please provide any feedback on the proposed payment frequency and term.	The payment frequency and term seem feasible, noting that this could lock out smaller participants who are more reliant on a regular financial flow. Given the focus of the program is fairly large scale, it is reasonable to expect that only major hydrogen industry participants will apply.
Question 9.3: Should an applicant be required to have at least a conditional offtake arrangement in place before applying to the Program? What standard should be applied to determine the reliability of such an arrangement?	We are supportive of an approach whereby a certain proportion of offtake has been agreed on a conditional basis.
Question 9.5: What other aspects of an export-oriented proposal should be assessed to ensure the Program funds demonstrate tangible benefits to Australians?	Demonstrated tangible benefits to Australians can be addressed in grant program merit criteria by including a requirement to disclose the direct and indirect benefits a project offers. These benefits should include broad social benefits, for example to local communities in areas surrounding projects helping to build social licence for Australia's hydrogen industry.