



AUGHINISH ALUMINA LIMITED
(Registered in Ireland No.59982)

System Services
Future Arrangements
Scoping Paper
SEM-20-044

Aughinish Alumina Ltd
Response

System Services Future Arrangements

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This response is non-confidential

Introduction

Aughinish welcomes this opportunity to contribute to the System Services Future Arrangements consultation. Aughinish have been a supporter of the DS3 program since its inception, and provide a number of system services from its two CHP units. Aughinish understands the changing dynamic of energy generation, and is supportive of new and clean technology to help Ireland to achieve its 2030 targets. Aughinish has undertaken all the necessary requirements to facilitate an increased SNSP, such as ROCOF testing, and welcomes the social benefits it will provide. Aughinish's core business is the production of Alumina and is one of the country's largest consumers of electricity.

As a large grid connected consumer of power Aughinish is aware of the risks to Ireland Inc. should the pursuit of government policy result in a weakened power grid. We support the DS3 team in ensuring the Irish grid remains competitive on a world stage and in so doing support indigenous and foreign investment. It is imperative that while the dynamic of energy generation in Ireland changes, that the quality of power remains excellent. A characteristic of increased renewables is a 'noisier' supply of electricity. Any loss of supply to Aughinish, however brief, would prove catastrophic, bringing Alumina production to a halt. It is Aughinish's view that any proposed change to the DS3 program to provide a more stable and secure grid, is a welcome one.

With our existing assets we will follow clear short term market signals as they materialise. Capital investment decisions get ranked, those with a strong long term business cases will likely be winners over those with large uncertainty. For 30 years we have invested heavily in putting Energy Efficiency First as a 'no regret' means to move towards fully sustainable manufacturing. While we have done a lot there is more to do, investment in DS3+ services will be considered on their business merits, and ranked against other projects such as energy efficiency, legal compliance, decarbonisation etc.

Comments on System Services Future Arrangements

The DS3 program to date has brought significant flexibility to the network, and succeeded in accomplishing record levels of SNSP.

System services are a key part in the SEM, and together with the energy market and capacity market, ensure that there is a robust, reliable electricity system. It is important to consider the impact on the energy and capacity markets when determining the Future Arrangements for System Services. Ireland is unique within Europe, in that it is an island with a huge wind resource, and as of the end of 2020, no interconnection with another EU neighbour. When assessing the Future System Arrangements, it is important that these limitations are considered. While EU legislation on a market

based approach for system services may be appropriate for the rest of the EU to reach 40% SNSP, it may not be appropriate for Ireland who are approaching 70% SNSP. The providers of today's system services, which facilitated the record levels of SNSP, may not be there in 2030. Ireland's renewable generation trajectory is in line with the CAP, but there is a potential deficit of system service providers. With the current ambition for renewable penetration, a 100% market based approach for Ireland is not appropriate at this time. Investors are needed to provide these services from new technology, and investors will avoid projects which do not give long term certainty.

A mix of bespoke arrangements and daily auctions should be investigated. RAs should not be afraid of slight over procurement of System Services if the benefit of integrating RES is vastly more than the cost of these services. It is possible that a "Least regret analysis" of over procurement might give the RAs confidence to provide long term contracts even if absolute volume requirements are not perfectly clear. In developing the future arrangements, Aughinish would encourage the RAs to invite potential service providers to participate in workshops and consultations on the future arrangements, so as to deliver the services required to meet decarbonisation agenda for 2030 and beyond.

An alternative approach which could offer value to the end customer, could be a mix of bespoke contracts and daily auctions. Certainty could be given to investors with a long-term contract for system services, and in combination with daily auctions to flex to required levels of system services. It may be necessary to have a capacity rate and an utilisation rate. Investors would benefit from some long term certainty without exposing consumers to over procurement.

Product offerings will also have to adapt and expand, and one particular option which will be of particular value to the TSO is a Demand Turn Up Service. This is currently used in the UK to increase demand in times of high renewable generation. We would recommend introducing and improving this service. It encourages large energy users and generators to either increase demand or reduce generation at times of high renewable output and low national demand. This product would incentivise the electrification of heat and help reduce curtailment, carbon emissions, and in turn provide more confidence to renewable investors.

DS3 Regulated Cap

Within the present system service arrangements, there is a cap on available funds to provide system services. The current cap of €235m was for the 40% target for 2020 and associated SNSP. In planning for a 90% SNSP target, the cap must be increased accordingly.

While currently there is a connection between the energy and capacity markets, and the provision of system services, this will weaken over time. This connection is made by large thermal generators who provide inertia and other system services to the grid. In the coming years, the dynamic between energy markets and system services will change as more and more thermal units cease to operate, and therefore cease to provide much needed system services. As more renewables come onto the grid, the connection between the energy and market and system services market will weaken, and even diverge. Fast-acting batteries will replace large thermal generators. While previously the capacity and energy markets provided the majority of income for system service providers, this will undoubtedly change. The main income for battery providers will be from system services, whereas the large generators were previously paid for by the energy market and capacity markets. The assumption is that the pot of money for system services should therefore increase, and this is an important consideration for the future arrangement. Aughinish suggest the DS3 cap should be based the benefits

received from society. It may also be necessary to analyse the appropriateness of the cap on the capacity market, and the need for adjustment.

One of the key barriers to future investment in system services rollout, is lack of investment certainty. Certainty is currently provided to renewable generators through the RESS auctions, however the need for system services investment certainty is going to increase as more renewables are needed, and more traditional thermal generation is mothballed.

Market Power

It is not only appropriate and just, but crucial to the success of a market based approach that the majority of system services are not provided by a single entity. The CRU has previously been effective in ensuring a monopoly within the energy industry is avoided, and this should continue. Independent and community led projects should be facilitated and encouraged through the future arrangements, where possible. However, Aughinish do not have any views on options for mitigation of market power at this time.

Revenue collection

Ireland's society benefits from Ireland's pioneering integration of wind power generation. Electrification is a tool for decarbonisation, hopefully more and more transport and heat will move towards electrification. Aughinish understand the DS3 pot is funded through Use of Services. The Regulators should consider if this is appropriate. Ever increasing levies and charges on consumption of electricity is making fuel arbitrage impossible. Decarbonisation costs should be funded through general taxation or ring-fenced within carbon and EU ETS income streams. There is a risk the DS3 pot will be exhausted in overcoming these added costs. Removing these barriers would increase the service provision from the DS3 pot of money.

Conclusion

Ireland will fail to meet its Climate Action Plan 2030 targets if investors do not invest in decarbonised system services. What is more, our fleet of zero carbon wind turbines will suffer greater amounts of dispatch down. Investors will invest their money elsewhere (in other jurisdictions, in other technologies) if the future system services offers them little revenue certainty. Therefore Aughinish suggest the future system services must give long term certainty to investors.

Aughinish propose a new service already in existing in the UK, Demand Turn Up, with a capacity and a utilisation element would be appropriate in Ireland to reduce dispatch down of wind turbines whilst also bringing new zero carbon service providers.

Designing enduring future arrangements fit for purpose that will enable Ireland to reach its carbon emissions targets, while also offering good value, will need stakeholder engagement and a holistic approach to new services. The Regulators should perform a least regret analysis on the risk of over procurement of services but reaching our 2030 target verses under procurement and failing to reach our targets.