

Public Consultation on State Aid Guidelines for Climate, Environment Protection and Energy (CEEAG)

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1. State Aid Guidelines for Climate, Environment Protection and Energy

Aughinish welcomes the new revision of the State Aid Guidelines which are providing extended support for climate initiative. The Guidelines represent an opportunity to reflect the recent EU regulatory and policy developments towards a low carbon transition.

The scope extension towards new decarbonization technologies, circularity and new supportive measures for energy intensive users will be critical to survival of the alumina sector in Europe.

In particular, we strongly support:

- The State Aid Measure for the reduction and removal of greenhouse gas emissions including through support for renewable energy
- The State Aid Measure in the energy sector for infrastructure
- The preservation of existing provisions on aid schemes for Energy Intensive Users (EIUs) via the reduction of levies supporting Renewable Energy Systems (RES) as well as introducing the possibility of exemptions from new charges, including Combined Heat and Power (CHP).

2. European Alumina Industry at High Risk of Carbon Leakage

Aughinish Alumina Limited (Aughinish) is based in the west of Ireland on the Shannon Estuary. Aughinish commenced operations in 1983 and is Europe's largest and most modern alumina refinery with production of 1.9 Mtpa in 2020. It is considered a benchmark alumina refinery worldwide for its organisational, labour, energy and carbon efficiency.

Aughinish produces smelter grade alumina from bauxite and its alumina is mainly exported within Europe as shown in figure 1. The European Commission (EU COM) communicated on the 3rd of September 2020 that bauxite is now considered a critical raw material in Europe [1]. Bauxite is primarily used for the production of alumina and aluminium in Europe. This shows the importance of the aluminium value chain in Europe which includes the production of alumina from bauxite.

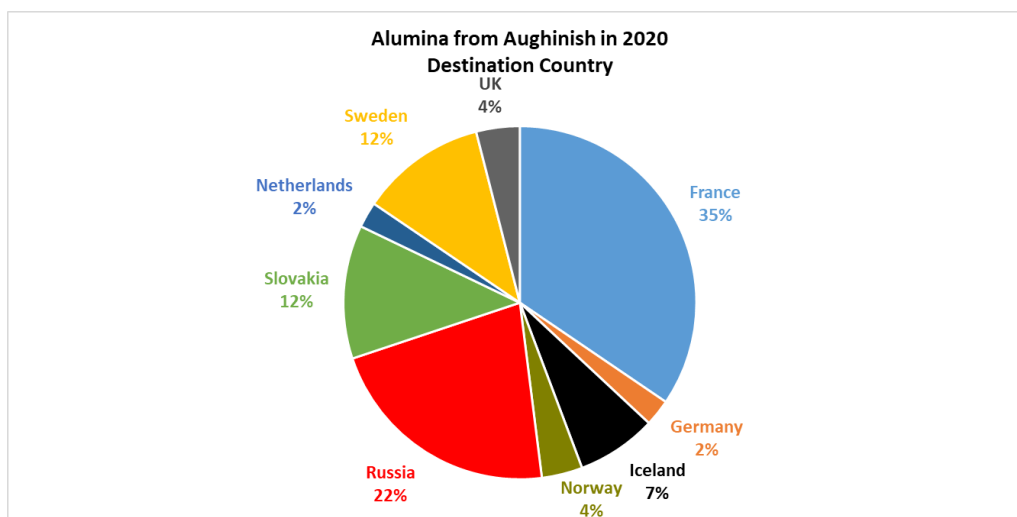


Figure 1. Alumina Production Exported from Aughinish

Alumina and aluminium production made in Europe is essential to provide resilience in raw materials supply and ensure that Europe does not depend on foreign countries for alumina/aluminium production. Securing reliable and unhindered access to raw materials is important for the EU, with security of supply from EU sources a key pillar in the context of the Circular Economy Action Plan

and the EU Industrial Strategy. Strategic materials and value chains in the EU could drive change across all sectors and help solve environmental and societal challenges.

Worldwide alumina production was of the order of 134 Mtpa in 2020, of which 5.6 Mtpa or 4.2% was produced in European Union (EU) 27 countries and 10.2 Mtpa in the wider Europe regions. Aughinish produces more than 30% of the EU 27 alumina.

In 2005, a benchmark year for the EU Emissions Trading Sector (ETS), worldwide alumina production was of the order of 64.6 Mtpa, with Europe regions producing 11 Mtpa or 17%. Worldwide alumina production has more than doubled but European manufacturing of alumina has declined during that 15-year period.

Currently, only 20% of the world alumina production is from countries adopting carbon reduction policies (Kyoto protocol on climate change). 80% of global alumina production has no Greenhouse Gas or Carbon Emission restrictions or cost implications that a producer in a climate change programme is faced with.

The current Emissions Trading System (ETS) Directive and new ETS directive proposal released on 14th of July 2021 continue to provide compensation to industrial sectors deemed to be exposed to carbon leakage.

This level of protection to highly exposed sectors to carbon leakage is necessary but will be insufficient to EU alumina sector to support the transition to lower carbon emission technologies which will require major investment in innovative technologies. These innovative technologies are currently not financially viable for the alumina industry sector without State Aid support.

3. Aughinish at Greater Risk of Carbon Leakage

Aughinish is recognised as one of the most energy efficient alumina refineries in the world. In addition, the carbon emissions per ton of alumina of Aughinish is one of the lowest in the world at 0.516 t CO₂ versus the world average at 1.29 t CO₂.

The current ETS system provides some level of protection against carbon leakage but due to an unintended consequence, Aughinish is classified as an electricity generator. As a result of this classification, Aughinish will receive a much-reduced level of free allocation of allowances for 2021-2025 period in comparison to other alumina refineries in Europe. The current classification will have a significant adverse impact on the ETS free allowances provided to prevent carbon leakage.

It is clear that the level of protection provided by ETS for Phase IV period is critical but will not be sufficient to provide adequate support to Aughinish in this period of complete transformation to renewable energy technology.

4. Major Investments required to decarbonise the alumina sector

All possible improvement to energy efficiency and carbon reduction have been implemented in past decade or so using current available technologies. Major investments are required in the alumina sector and at Aughinish to significantly reduce carbon emissions. The challenge is much greater than during the ETS phases I, II and III as there is currently no viable commercially available technology options to deliver on the ambitious EU ETS targets. The new technologies are not yet at a scale and cost to support the industry.

These major investments can only be implemented with climate and energy policy design that provides financial support to the most efficient installations via State Aid and financial investment support during the transitional period to these new technologies.

In summary, additional State Aid beyond ETS support will be required to finance the new technologies that are not currently viable.

5. Key Climate State Aid Measures required for Alumina Sector

5.1 Aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy

We welcome the scope extension to all technologies that reduce greenhouse gases and improve energy efficiency and that the aid for decarbonisation can take a variety of forms including up front grants and contracts for ongoing aid payments such as contracts for difference.

5.2 Aid in the energy sector for infrastructure

Significant infrastructure will be required to provide new energy sources to the industry sector including the alumina sector. These infrastructures are currently not there to move towards electrification of production processes and to switch fuel source such as green hydrogen.

The industrial installations alone will not be able to deliver the infrastructures needed. It will be critical for the Member State to provide support for the construction and distribution of new energy sources to the energy users such as Aughinish.

5.3 Aid in the form of reductions from electricity levies for energy-intensive users (EIUs)

The new Guidelines will continue to allow for levy reductions for energy-intensive users. This is very important considering that the financial burden for these levies will most likely increase in the coming years due to higher renewable deployment. It is also welcome that reductions have been extended to new areas, based on recent case law and market developments, such as support for high efficiency Combined Heat and Power (CHP)

6. Conclusion and Recommendations

The revision of the Guidelines is very much required to support the transition to climate neutrality by 2050 through using renewable energy sources.

Energy intensive users such as the alumina sector will require aid to support the electrification of production processes to avoid operating costs which are not economically viable.

Industrial installations such as Aughinish will require support from its Member State to provide new infrastructures to enable storage and distribution of the new energy sources needed for decarbonisation.