14 February 2024

Safeguard Team
Safeguard & NGER Branch
Clean Energy Regulator
Department of Climate Change, Energy, the Environment and Water

RE: EXCESS NOTIFICATION – EXPLANATION – POITREL MINE

Dear Clean Energy Regulator,

Stanmore SMC Pty Ltd (Stanmore) owns and operates the Poitrel Coal Mine in Central Queensland (Poitrel).

Amendments to the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015* (Cth) (Safeguard Rules) that commenced on 1 July 2023 require Stanmore to provide a written explanation in circumstances where the total number of ACCUs surrendered for a facility is equal to or greater than 30% of baseline emissions number.[1] The explanation is required to address the following matters:

(b)(i) whether limitations in available technologies affected the level of carbon abatement undertaken at the facility during the period;

(b)(ii) whether there are barriers, including regulatory barriers, to undertaking carbon abatement at the facility; and

(c) include information about future opportunities for undertaking carbon abatement at the facility; and

(d) identify any information included in the explanation that is commercially sensitive.[2]

Limitations in carbon abatement available technologies

Our primary challenge in achieving significant carbon abatement at Poitrel stems from the fact that diesel emissions account for the majority of Scope 1 Emissions. Diesel is used in equipment predominantly for mine waste and coal material movement as well as site preparation, drilling and blasting, and rehabilitation activities. Each of these activities is necessary for the mining operation.

There are limited opportunities to replace the existing diesel-powered equipment. For instance, while electric shovels and excavators exist, it would require major Capital Expenditure (CAPEX) to retrofit the site to support this equipment; this cannot be economically justified on a ~8-10-year mine life. Adoption would require significant on-site infrastructure development, including the establishment of the appropriate electrical supply and distribution networks within the mine area.

The replacement of haul trucks presents an even more complex challenge. Currently, battery-electric technology faces limitations in payload as well as charging times and are not yet commercially available. Hydrogen fuel cells show promise as an alternative, however they are still in the development stage and are not expected to be available until closer to 2030. There are alternative fuels available to replace diesel (such as renewable diesel or biodiesel) in mining equipment, however to date they are cost prohibitive and there has been consistent lack of surety of supply.

[1] Safeguard Rules section 72C.
[2] Safeguard Rules section 72C(5).

Barriers to undertaking carbon abatement, including Regulatory barriers

At present, we do not identify any specific regulatory barriers beyond the standard compliance requirements for the operation. The main challenge is the lack of credible 'off the shelf' solutions and the major CAPEX required to retrofit an existing operation which is difficult to support against the remaining mine life.

Future Opportunities for undertaking Carbon Abatement

Stanmore continues to investigate carbon abatement opportunities across its portfolio of assets, including Poitrel. We have conducted Marginal Abatement Cost Curve (MACC) assessments across all of our operational mine sites and these will flow into the broader decarbonisation plan for Stanmore.

We have had a renewable power purchase agreement in place for our Isaac Plains mining complex since 2019 and will continue to pursue carbon abatement opportunities where it meets our broader business and stakeholder requirements. As technology matures and becomes more readily available to deliver carbon abatement, we will assess its use within the portfolio of assets.

A series of diesel efficiency projects are underway, targeting minor but cumulative savings on diesel consumption ranging from 1-5%. These initiatives aim to optimise existing equipment to reduce overall emissions. Example of initiatives include haul route optimisation, driver-behaviour based education programs, and optimisation of fleet utilisation.

Yours sincerely,

Damian Zagel
Chief Development Officer