

REGIONAL DEVELOPMENT — MAGNIUM AUSTRALIA — MAGNESIUM SMELTER

789. Dr D.J. Honey to the Minister for Regional Development:

- (1) On 17 June 2022, the Minister for Regional Development announced that a pre-feasibility study for the proposed magnesium smelter in Collie had been completed. Can the Minister provide the study?
- (2) The 17 June 2022 press release stated that the Government was investing \$2 million into a feasibility study into the provision of magnesium hydroxide as a byproduct of desalination for the proposed smelter. Has this study been completed and, if so, is it available to the public?
- (3) Does the project proponent (Magnium Australia (Magnium)) currently operate any other manufacturing or processing facilities in or outside Australia? If so, what facilities do they currently operate?
- (4) The 17 June 2022 press release mentioned that Magnium would commercialise a breakthrough technology developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) for producing magnesium metal. :
 - (a) What is the name of the breakthrough CSIRO technology;
 - (b) What is the largest scale that the technology has operated at (daily throughput or maximum batch production); and
 - (c) What was the fuel/reductant used in these production trials (carbon/coal/hydrogen/other?) – please name?
- (5) Will the Magnium proposed process be using coal in their process as the fuel/reductant?
- (6) If the Magnium process does not use coal as the fuel/reductant for their process, what other fuel/reductant will they be using?
- (7) Will the Magnium process be using green hydrogen and, if so, what percentage of the fuel/reductant mix will be provided by hydrogen?
- (8) If the Magnium process proceeds at Collie at the announced rate of 100,000 tonnes magnesium production per year, what is the anticipated approximate amount of carbon dioxide equivalent emissions?
- (9) When does the Government believe that the Magnium project will commence construction?
- (10) When does the Government believe that the Magnium project will be commissioned?
- (11) Has the Government (Ministers or Departmental officials) held any discussions with unions and/or community groups in Collie about a proposed commencement date for the proposed magnesium smelter?
- (12) How many jobs does the Government anticipate the Magnium project will generate during both construction and operational phases?

Mr D.T. Punch replied:

- (1) The Financial Assistance Agreement between Magnium Australia and the State Government provides provision for the protection of the proponent's commercial-in-confidence intellectual property. As such, a copy of the report can not be tabled by the WA Government.
- (2) No, this study is still progressing.
- (3) Magnium Australia has an office in Victoria where preliminary works are underway to commercialise the CSIRO technology. Magnium Australia do not operate any other manufacturing or processing facilities outside of Australia.
- (4)
 - (a) The technology in question, developed by the Commonwealth Scientific and Industrial Research Organisation (CSIRO), is referred to as MagSonic.
 - (b) During the development and testing phase, the Magsonic technology was operated at sample scale only. The Collie Pilot Plant announced on 6 April 2023 is required to demonstrate the commercial scale (at a capacity of up to 800 tonnes per annum) and continuous operation capability of the technology.
 - (c) In the production trials, carbon was used as the fuel/reductant.
- (5) Magnium do not intend to use coal as the fuel/reductant in the process.
- (6) Magnium is working to utilise an alternative fuel/reductant – biogenic metchar.
- (7) Currently the process does not include the use of green hydrogen as a part of the fuel/reductant mix.

- (8) CSIRO's Magsonic process is zero carbon. The exact rate of CO2 emissions for the Collie plant is currently unclear, a key objective is to achieve carbon neutrality. Magnium are currently undertaking a life-cycle analysis in relation to this.
- (9) Funding to support the construction of a pilot scale plant in the Collie Light Industrial Area was announced on 6 April 2023. Magnium are currently working to finalise the timeframes for construction and commissioning of this facility.
- (10) As above.
- (11) Not under the Regional Development portfolio. I am unaware of any other discussions that may have occurred.
- (12) The Government has provided grant funding for the Pilot Plant stage of the Magnium project. This pilot stage is expected to generate 28 construction jobs and 18 ongoing FTE.