Speech By

Colin Boyce

MEMBER FOR CALLIDE

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ADJOURNMENT

Green Hydrogen

Mr BOYCE (Callide—LNP) (6.18 pm): Green hydrogen is the latest alternative energy solution touted by the state government to meet its 50 per cent renewable energy target by 2030. Many business and industry representatives are on board as they aspire to meet the commitments to decarbonise Australian industry. The Gladstone Hydrogen Ecosystem is part of the overall plan.

What is green hydrogen? Put simply, it is the process of splitting the water molecule—H_20—into its basic elements of hydrogen and oxygen using renewable energy. This is water electrolysis and involves the passing of a huge electrical current through water via a machine called an electrolyser. The electricity comes from green energy produced by solar, wind or hydro generators, hence the term 'green hydrogen'. We can argue all day as to the viability and economics of such proposals, but rather than do that I would like to point out some issues and questions that have yet to be answered.

It takes around 10 litres of fresh water to produce a kilogram of hydrogen. If we expand that out to producing industrial quantities of hydrogen—and I am talking millions of tonnes of it—we will require hundreds of thousands of megalitres of fresh water, so where is the water going to come from? Water is the necessity of life and we live on one of the driest continents in the world. Water is our most precious resource. Our state relies on flooding rains to continue our production of clean, fresh food, fibre and fodder, with dam storage and underground water supplies being replenished by these large seasonal downpours.

To make the Gladstone Hydrogen Ecosystem viable, there needs to be an abundance of water. It is my understanding that both Awoonga Dam at Gladstone and the new Rookwood Weir allocations have been fully allocated to other industries and household use. I have recently written to the Queensland Minister for Energy and the Minister for Water asking for their answers to this question. My answer is to build the Nathan Dam between Taroom and Theodore in Central Queensland. The Nathan Dam is the largest shovel-ready water infrastructure project in Australia with all approvals in place. It is an 880,000 megalitre dam situated on the Dawson River approximately halfway between the small towns of Taroom and Theodore in Central Queensland. If the Nathan Dam were to be built, downstream flows to supplement the Rookwood Weir would enable water to be pumped to the Gladstone area via water pipelines, thus providing a water source for a future hydrogen industry at Gladstone or possibly to the proposed green hydrogen project at the nitrate plant at Moura. Without water, the green hydrogen industry will not succeed. There is a problem with the Nathan Gorge dam, and that is that the Coordinator-General's report has now lapsed, so I have asked a question of the Minister for State Development to clarify exactly what is the status of the Nathan Dam proposal. I eagerly await an answer or a different answer to this question: where is the water coming from?