Siemens Supports South Australia's Hydrogen Roadmap

Global technology giant Siemens has announced support for South Australia's Hydrogen Roadmap that will help the state transition to a clean, safe and sustainable economy.

Announced today by the state's Mineral Resources and Energy Minister Tom Koutsantonis, the Hydrogen Roadmap seeks to use South Australia's world-leading renewable wind and solar assets to attract international investment in hydrogen production.

Developed by Advisian (a part of the WorleyParsons Group) and Siemens, the techno-economic Roadmap illustrates how demand from Asian countries could drive a significant new industry in South Australia – one that leverages existing infrastructure investments.

Early implementation of the Roadmap has already begun with:

- a call for hydrogen infrastructure proposals under the \$150 million
 Renewable Technology Fund
- a call for tenders to supply at least six hydrogen cell buses for the Adelaide
 Metro fleet along with supporting production and refuelling infrastructure
- creation of an interactive map to provide investors and project developers with a tool to identify sites that are suitable for hydrogen infrastructure within South Australia.

Minister Koutsantonis highlighted the opportunities provided by the technology stating that, "Hydrogen offers an opportunity to create a new industry in South Australia and export our sun and wind resources to the world. By developing this

technology in South Australia, motorists will have new choices in electric and hydrogen-powered vehicles as well as the infrastructure needed to support those options.

"Our Hydrogen Roadmap aims to have South Australia at the forefront of hydrogen development in this region within the next decade. Within two years, commuters in Adelaide will be able to ride on the first of a fleet of hydrogen-powered buses using locally-produced fuel. Within three years, South Australia will have the capacity to export its first hydrogen supplies produced using our renewable energy assets."

Jeff Connolly, Chairman and CEO Siemens Australia and New Zealand echoed the announcement stating that the energy transition inevitably leads to intermittency which requires comprehensive energy storage solutions. "Hydrogen can play a critical role in this for South Australia. The beauty of Hydrogen is that it can be made using excess energy capacity driven by renewables and then use it in a vast range of business applications. South Australia's abundant renewable resources and renewable targets lends itself to hydrogen solutions."

"If Australia can find a way to export renewable energy then we can build on our coal and gas export businesses and maintain our role well into the future as a regional energy export superpower."

The Hydrogen Roadmap follows a Memorandum of Understanding signed between WorleyParsons and Siemens to focus on leveraging innovative technologies for energy solutions.

Last year, the ACT government announced a fleet of 20 hydrogen-powered Hyundais as a result of a \$180 million hydrogen energy storage investment by Neoen, Megawatt Capital and Union Fenosa. Neoen and Megawatt, the developers of the Hornsdale Wind Farm, are partnering with Siemens and Hyundai to establish the 1.25MW hydrogen electrolyser that will create the fuel.

Background

Hydrogen can be produced from renewable sources such as wind or solar through a process called electrolysis. Surplus electricity from renewable generators is used in an electrolyser to split clean water into hydrogen and oxygen. That hydrogen can then be used in a hydrogen fuel cell to power vehicles in South Australia and exported around the world.

Japan and South Korea as hosts of the Olympic Games are among nations aiming to transition their economies to use hydrogen as an alternative zero-carbon emitting fuel source.

South Australia's world-leading use of renewables, established trade routes and reputation as a safe exporter of fuels makes it the perfect place to develop this emerging industry.

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Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2016, which ended on September 30, 2016, Siemens generated revenue of €79.6 billion and net income of €5.6 billion. At the end of September 2016, the company had around 351,000 employees worldwide. Further information is available on the Internet at www.siemens.com.