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Press

21st February 2018

# Australia's First Hydrogen Demonstration Park with Siemens Technology to be Built in Adelaide

South Australia's Tonsley Innovation District is set to become a hub of hydrogen activity in Australia after Australian Gas Infrastructure Group (AGIG), the country's largest gas distribution business, announced the construction of the country's first hydrogen production and distribution facility. This will be enabled by a 1.25 mega watt Siemens PEM electrolyser that will produce hydrogen using electricity from the grid and potentially on-site solar.

The power-to-gas demonstration plant – to be called Hydrogen Park SA (HyP SA) will produce hydrogen from renewable electricity, which will then be injected into the local gas distribution network at the Tonsley Innovation District in Adelaide to provide low-carbon gas to homes and businesses. Hydrogen Park will play a crucial role in demonstrating how electrolysers can be integrated into electricity networks to support network stability – particularly in renewable-rich regions such as South Australia.

Announcing the project at the *CEDA: Economic and Political Overview in Adelaide* event in Adelaide, Jeff Connolly, CEO and Chairman of Siemens Australia said, "Hydrogen holds exciting potential for Australia, and it's great to be partnering with the South Australian Government and the Australian Gas Infrastructure Group to deliver proven and world leading hydrogen technology.

"It's pleasing to see hydrogen become reality since we began driving this conversation in Australia only a few short years ago. Reticulating hydrogen into the gas network supports de-carbonisation of the state. It also supports the

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development of a domestic market for hydrogen which I believe can lead to Australia becoming a renewable energy export superpower if we harness the untapped renewable assets of the country."

The hydrogen produced will be injected into AGIG's local gas network to power the Tonsley Innovation District – but with the ability to be expanded to supply a proposed residential development in the area and other remote customers through tube and trailer facilities.

Andrew Staniford, AGIG Chief Customer Officer welcomed the decision saying, "We are delighted that South Australia will lead the way with this pioneering technology. It propels South Australia's status as a leader in renewable technology and a first mover in hydrogen. The demonstration plant will illustrate the complementary nature of gas and electricity in meeting the decarbonisation challenge – a key in balancing the energy trilemma."

Hydrogen has been a significant focus area for Siemens in Australia. This announcement follows last year's release of Hydrogen Roadmap by South Australia, which in turn followed a Memorandum of Understanding signed between WorleyParsons and Siemens to focus on leveraging innovative technologies for energy solutions.

**About PEM**

Proton exchange membrane (PEM) Electrolysers are designed to operate in highly variable conditions such as those created by renewable energy generation. PEM Electrolysers have a very fast start-up time and can quickly absorb excess renewable energy from a power system, converting water into hydrogen and oxygen. These utility scale electrolysers can, with surgical precision, be energized and de-energized in less than 10 seconds, capturing excess energy from the grid when energised.

The PEM electrolysers essentially play a demand side management role within the energy system, and may be used as a tool to keep the grid in balance.

This is about using inexpensive or free energy, which would otherwise be spilled to produce a clean form of stored energy that has many value streams – 100% pure hydrogen, with the only by-product being 100% pure oxygen.

## Contact for journalists

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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 170 years. The company is active around the globe, 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 2017, which ended on September 30, 2017, Siemens generated revenue of €83.0 billion and net income of €6.2 billion. At the end of September 2017, the company had around 372,000 employees worldwide. Further information is available on the Internet at .