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DO BELIEVE THE HYPE: AGIG IS REPLACING NATURAL GAS WITH HYDROGEN

Plagued with calamities of Biblical proportion, ranging from extinction-level forest fires and devastating floods to the mass bleaching of their famed coral reefs in marine heatwaves, Australians are sensitive to extreme weather events and committed to doing their part to reduce and hopefully, someday, reverse the effects of climate change. Industry is being asked to do its part to reduce emissions and Australian Gas Infrastructure Group (AGIG), a CK Infrastructure (CKI) member company, is boldly moving to replace fossil fuels with zero-emission hydrogen.

Two projects go by the shared moniker of HyP: Hydrogen Parks. Pronounced “hype”, they aim to replace natural gas supply to homes and industry with clean burning hydrogen.

These hydrogen parks are no playgrounds, but rather create hydrogen to blend with natural gas to produce an even cleaner fuel for homes and factories. The first project is Hydrogen Park South Australia (HyP SA), located at the Tonsley Innovation District. Its establishment was supported with an A\$4.9 million grant from the state Government of South Australia to promote research and testing in hydrogen supply. The official opening on 19 May 2021 hosted the Premier of South Australia, The Hon

Steven Marshall and the South Australian Minister for Energy and Mining, The Hon Dan van Holst Pellekaan, showcasing the state- and national-level importance of the project.

HyP SA is supplied with renewable energy from the grid, which is used to create up to 20kg of hydrogen an hour, to be blended into the existing natural gas network and supplying more than 700 homes. Production is adjustable depending on the demand from households and industry, with up to 40kg of storage on-site when supply exceeds demand. Production can be ramped up or down depending on the electricity supply from wind and solar sources as the wind blows or the sun shines. Either way, the whole project vents only oxygen, an entirely benign emission.



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LEAD AND THEY WILL FOLLOW

HyP SA isn't the only one of its kind, but rather the prototype from which more will follow. The HyP Gladstone project has been similarly supported by the Queensland Government. They plan to begin pushing blended hydrogen through their gas pipes later this year, aiming to supply 770 homes and businesses across their entire gas network with a 10% blend – to start.

AGIG's leadership is recognised through research partnerships across the country. The Dampier to Bunbury Natural Gas Pipeline is also the recipient of a grant from the state Government of Western Australia for a feasibility study on blending hydrogen into the pipeline for use by industry in Perth and other major communities.



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The Australian Hydrogen Centre is the locus of research for completing comprehensive studies looking to decarbonise gas in Victoria and South Australia, with a focus on implementing 10% hydrogen into gas networks and converting gas networks to 100% renewable gas. It is a collaboration between AGIG and the federal government Australian Renewable Energy Agency and, in addition to accelerating learning from experiences at HyP SA, it will build public awareness about Australia’s hydrogen future.

Collaboration with other world leaders complements the cooperation with Australian government agencies. Executives and engineers from AGIG share experiences with, for example, Northern Gas Networks, a leader in the hydrogen economy of the UK – and a CKI member company. While Australians are feeling some of the hardest blows of an unpredictable climate, they know they are not alone. AGIG is their ally, exploring how the whole nation can do its part and encouraging people to just believe the HyP.