

**A glimpse at a hydrogen future**

ENA - Dennis Van Puyvelde 11 Apr 2019

Germany is clearly ahead of Australia in its hydrogen economy. The technologies to produce and use hydrogen have been developed, tested and are clearly working as expected.

Australia appears to have bilateral political support to develop the hydrogen opportunity, especially as it builds on our energy export industries.

While still a relatively new industry globally, there are lessons to be learned from countries like Germany and others who are ahead of us in the rush towards a hydrogen future.

I was fortunate to travel to Germany last month with a study group to observe what this hydrogen future might look like.





















Area of Development	Stage of Development				
	No activity	R&D	Pilots	Demos	Commercial
Hydrogen production from renewables					
Methanation using renewable hydrogen					
Renewable gas incentives					
Injection in transmission pipelines					
Injection in distribution networks					
Appliance testing					
Hydrogen used in mobility					
• Passenger cars					
• Forklifts					
• Buses					
• Trains					

Figure 1: Comparison of hydrogen Developments, Australia vs Germany

Hydrogen production from renewables - Parts of Germany, like parts of Australia, at times generate more energy from renewable sources than can be consumed. In Germany, the north creates excess renewable energy from wind. This cannot currently be supplied to the south due to limitations in transmission lines. The power to gas concept is well developed in Germany and we visited a number of projects that produce hydrogen from renewables and inject this into the gas grid. One of those projects is the Falkenhagen project near Hamburg, the other being the Mainz Energy Park near Frankfurt. Read the full article [here](#)

**Renewable Gas in Australia Symposium**

Being held - 6 June 2019, Sydney: Energy Networks Australia and Bioenergy Australia are hosting the [Renewable Gas in Australia Symposium](#) to discuss emerging innovations and research in hydrogen and biogas – Click on the link for the program details.



THURSDAY 6 JUNE 2019 — Maritime Museum, Darling Harbour, Sydney



**Gas Appliance  
Manufacturers  
Association of  
Australia**

**GAS  
Connections**