

News from under the Southern Cross (Edition 52): Towards the Hydrogen Era

28 January 2022

Last week I embarked on my third trip to Melbourne since taking up my post as Ambassador. This time, the primary reason for the visit was to attend a history-making ceremony regarding hydrogen.

1. One year later

It was March of last year. I travelled on a bus, my face pressed against the glass watching the white lines rushing past— not to St Kilda but to the vast brown coal reserves in Victoria's Latrobe Valley (those of my generation will surely know this reference to a classic Aussie tune).

Before too long, I found myself at the neighbouring coal gasification and hydrogen production facility where I participated in a ceremony to commemorate the launch of a project to produce hydrogen from brown coal (for more information please see edition 8 of News from Under the Southern Cross).

Since then, almost a year has passed. Finally, this pilot project has reached the stage where the hydrogen produced can be shipped from Australia to Japan.

2. The *Suiso Frontier*

The name of the incredible ship which will carry hydrogen gas that has been cooled to minus 253 degrees and liquefied is the *Suiso Frontier*. It set sail from Kobe Port and docked at the Port of Hastings. I felt incredibly humbled and proud to have the opportunity to see its elegant hull, which embodies the skilled craftsmanship and the engineering marvels of Japan.

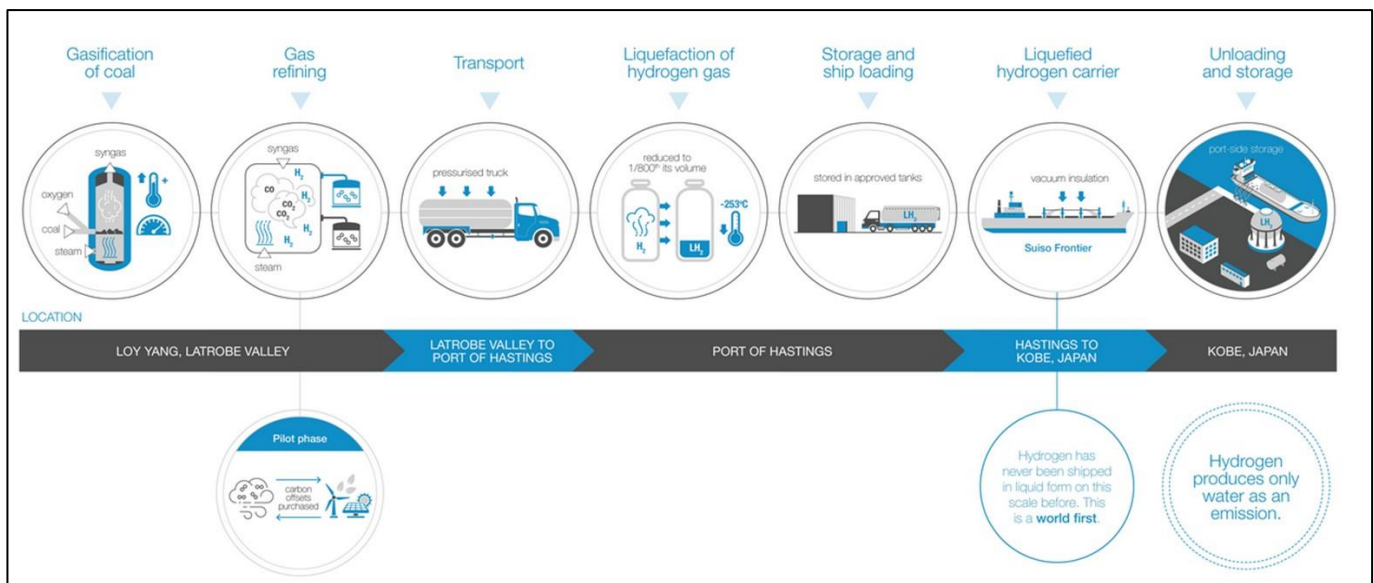


The heroic figure of the *Suiso Frontier* berthed at the Port of Hastings

Hydrogen will be loaded onto the *Frontier* before it is expected to spend around sixteen days traveling the 9,000 kilometres to Kobe Port. It will be the first shipment of liquid hydrogen in history.

3. A spectacular ceremony

On 21 January, a ceremony to celebrate the arrival of the Suiso Frontier in Australia was held on a pier at the Port of Hastings. From the Federal Australian Government, two federal ministers, my friend Energy Minister Angus Taylor and Resources Minister Keith Pitt, were in attendance, along with Assistant Energy Minister Tim Wilson and Special Adviser Dr Alan Finkel AC. From the Victorian State Government, Treasurer Tim Pallas and Investment Victoria CEO Ms Danni Jarrett also attended. Including the Japanese stakeholders such as those from participating Japanese companies, myself and Melbourne Consul-General SHIMADA, there were over 160 present at this grand celebration.



Overview of the HESC Project Source : [HESC official website](#)

As society focuses ever more on the task of tackling climate change, here was a story of those at the forefront of innovation. The ceremony and statements made by cabinet officials, including Japan's Minister of Economy, Trade and Industry, HAGIUDA Kōichi, who participated via a video message from Japan, therefore received a lot of attention from both the Australian and Japanese media, which resulted in a considerable amount of coverage.

(My speech can be found [here](#)).

4. A 'well done!' to those involved

All of this was only possible because of the incredible hard work of Japanese and Australian companies, namely Kawasaki Heavy Industries, J-Power, Iwatani, Marubeni, Sumitomo Corporation and AGL. When I saw the beaming smiles of those involved in the project at the ceremony I was filled with joy at how far the project had come and a desire to let them know my heartfelt congratulations.



A commemorative photo taken with Minister Taylor, Minister Pitt, Assistant Minister Wilson and State Treasurer Pallas

Of course, the Japanese Government had provided a subsidy through its New Energy and Industrial Technology Development Organization (NEDO) and there had been financial assistance from both the Australian Federal Government and the Victorian State Government. Considering HESC's importance as a cutting edge, pioneering project cooperation between the public and private sectors was imperative.

5. Towards the Hydrogen Era

Under its policy to reduce emissions to net zero by 2050, the Japanese Government has set a goal of increasing its use of hydrogen tenfold and of ensuring that ten percent of its energy mix comes from hydrogen.

Hydrogen production in Australia and its import to Japan is vital to achieving this. Once the project reaches the commercialisation stage, it is expected that the Latrobe Valley brown coal reserves will be able to produce more than 220,000 tonnes of hydrogen each year.

It must also be said, however, that will not be the only source of hydrogen production in Australia. Currently there are over twenty Japanese company-supported hydrogen projects

underway across Australia. As we embark towards this new hydrogen era, the HESC project is leading the way. It has taken on the role of 'game changer' by changing the face of clean energy production.

6. Hydrogen vehicles

I was glad to see that Toyota's hydrogen fuel cell vehicle, the Mirai, was a hot topic at the ceremony. It seems that already this model is being leased to various environmentally conscious customers including the Victorian State Government.



Special Adviser to the Australian Government on Low Emissions Technology Dr Alan Finkel AC
with the Mirai hydrogen fuel cell electric vehicle

I was also allowed the pleasure of getting in the driver's seat. The sleek outer body is reminiscent of a luxury sports car, but once inside it's as quiet as a serene study. Yet it's also powerful enough to reach 100 kilometres per hour with one step on the accelerator. I went away really hoping I'd get to take it for a whirl next time.

As a great variety of exciting initiatives start to take form in Australia to help the country balance economic prosperity and emissions reduction, one won't be able to tear one's eyes away.

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