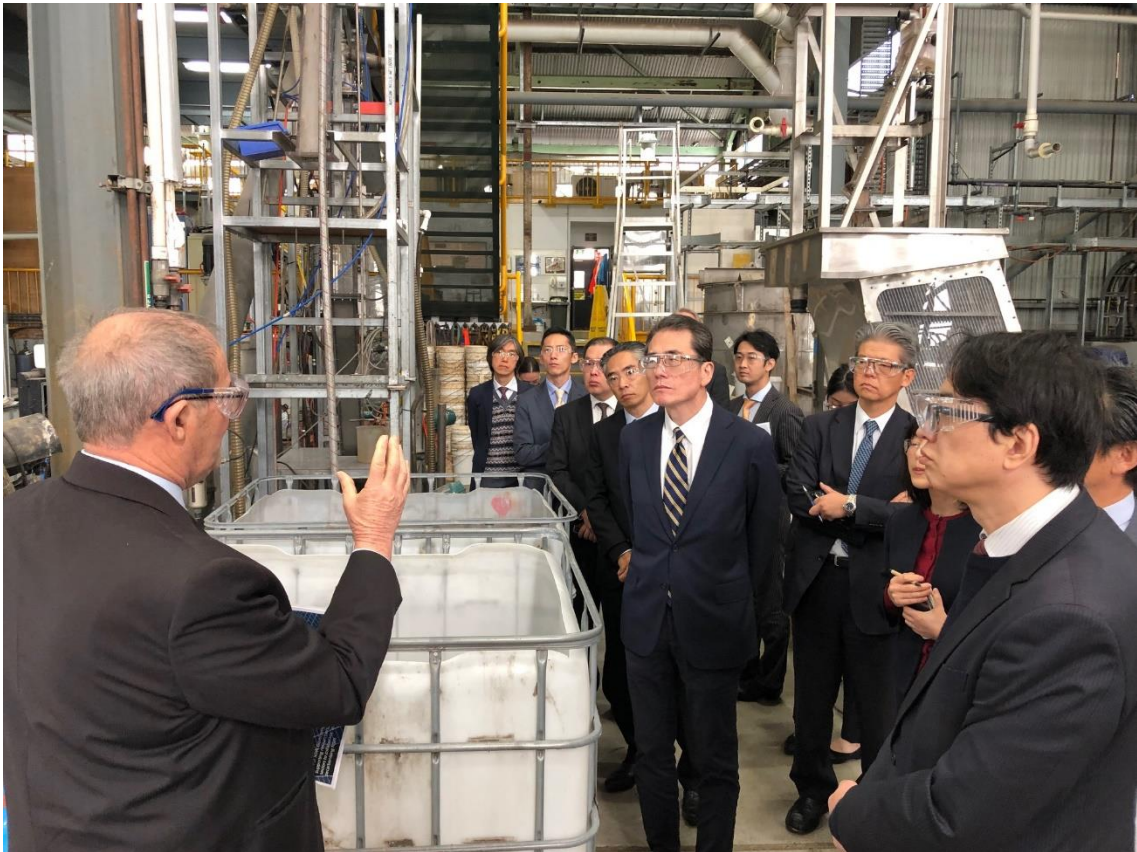


24 June 2022



**Newcastle Institute for Energy and Resources (NIER) study tour
(10 June 2022)**

Probably the hottest topic in Japan-Australia business today is energy and decarbonisation. Here in NSW, the largest energy and decarbonisation centre is the Hunter Region. This state-leading coal mining and industrial region is now in the process of transforming into a region of new energy and new industries.

Following on from [delegation of Japanese government organisations to the Hunter Region led by Ambassador Yamagami](#) in January this year, on 10 June a delegation of [Sydney's Japan Chamber of Commerce and Industry \(JCCI\) Resource and Energy Sub-Committee](#) visited the region. I accompanied the delegation, and in this issue of my newsletter, I would like to report to you about the outcomes and my impressions of the visit.



**Briefing by Prof. Alex Zelinsky, University of Newcastle Vice-Chancellor and President, and Prof. Alan Broadfoot, Executive Director of NIER
(10 June 2022)**

- **Newcastle Institute for Energy and Resources (NIER)**

The visit to the Hunter Region by Sydney's JCCI Resource and Energy Sub-Committee included 13 delegates from 10 member businesses and organisations, among them, JCCI President, Mr SHIRAI Hiroshi (General Manager, Mitsui & Co. Australia), and Sub-Committee Chair, Mr KATAYAMA Hiroyuki (Director, Japan Oil, Gas and Metals National Corporation (JOGMEC)). The delegation was received by [Business Hunter](#) which kindly organised the schedule for the visit.

The first destination was the [University of Newcastle](#), which is a hub for resources related to renewable energy, including the development of the "[Hunter Hydrogen Roadmap](#)". The delegation was greeted by the Vice-Chancellor and President of the University of Newcastle, Professor Alex Zelinsky, who explained that not only is the University first in Australia for cooperating with industry and for UN SDG initiatives, the Hunter Region also accounts for about 10% of the NSW state economy and provides approximately 70% of the state's energy, and as far as hydrogen-related investment, cooperation between government and industry is progressing.

Next the delegation heard from the Executive Director of the [Newcastle Institute for Energy and Resources \(NIER\)](#) (also University of Newcastle), Professor Alan Broadfoot, who gave an overview of collaboration initiatives between industry and academia at NIER, for example, in green energy, low emissions, energy efficiency improvements, critical minerals and the circular economy. In addition, he explained that Newcastle University, in partnership with the University of NSW, is responsible for [Australian Trailblazer Recycling and Clean Energy \(ATRaCE\)](#) and the [NSW Decarbonisation Innovation Hub](#), and that many start-ups are also being produced.



**Equipment that produces hydrogen from moisture in the air and sunlight
(10 June 2022)**

Following the briefings, we were able to see inside the research facility, and I was able to see with my own eyes what “research commercialisation” and “in-house prototype factory” actually entail.

The NIER institute has extensive grounds. It is here that at the request of federal and state funds and large domestic and foreign companies experimental facilities relating to resources and energy are set up and operated. When new technologies emerge through research and development, various proof-of-concept experiments are conducted using small-scale facilities at the institute, and optimum methods are established before large-scale capital investment occurs.

This institute is based on an earlier one which was established in 2010. The original facility had a staff of four; the number has grown very quickly. Five years ago, it had grown to around 60 people, and today, there are around 420 people. Now, NIER is being approached by industry.



Hunter Energy Investment networking lunch
(31 May 2022)

- **Hunter Energy Investment networking lunch**

Later, an energy investment networking lunch was held at the office of a legal firm in the Newcastle CBD. After the CEO of Business Hunter and a representative of the City of Newcastle delivered the opening remarks, eight Hunter Region organisations and businesses gave presentations.

The [Hunter & Central Coast Development Corporation](#)'s presentation left a strong impression. After the BHP steelworks closed in 1999, the City of Newcastle invested in major redevelopment, radically improving the industrial, research and residential environment and creating a "culture to reinvent".

The various companies based in the Hunter each gave well-crafted presentations, which included presentations by the manager of [Hunter Hydrogen Technology Cluster \(NewH2\)](#), the CEO and managing director of electronics manufacturer [Ampcontrol Group](#) (visited by the earlier delegation in January), the general manager of ammonia producer [Orica](#), the managing director of defence and vehicle manufacturer [Varley Group](#), a senior manager from energy giant [AGL](#), and the director of AI start-up [Saphi Engineering](#).



**Newcastle University's Professor Paul Dastoor's presentation
about photovoltaic film (10 June 2022)**

The director of Newcastle University's [Priority Research Centre for Organic Electronics](#), Professor Paul Dastoor, gave a presentation about a new photovoltaic film that is manufactured by printing materials onto a plastic film. This is both economically and environmentally friendly, as both the materials and the film are reusable.

Afterwards, the companies answered questions from the Japan side which included questions about the prospects for coal in the Hunter Region, the trends in the use of hydrogen in logistics and transport, and the current state of cooperation with foreign companies. I seemed to me that this type of interaction between businesses would lead to concrete business development in the future.



Observing facilities at the Port of Newcastle (10 June 2022)

- **Observing facilities at the Port of Newcastle**

Following the investment networking lunch, the group moved to a wharf in Newcastle Harbour and received an explanation of the port facilities during a one-hour cruise. Due to a commitment that same evening back in Sydney, I was unfortunately unable to join them for this explanation and saw the delegation off at the wharf.

The [Port of Newcastle](#) covers an extensive area and boasts some of the top port facilities in Australia. They are used for various purposes including not only coal, but also hydrogen and ammonia. The delegation was blessed with fine weather as they observed the various locations within the Port of Newcastle while listening to explanations from the Port's manager. I hope it was useful to delegates for considering future investment.



**In front of the Newcastle Institute for Energy and Resources (NIER)
(10 June 2022)**

● **Resources and energy business opportunities in the Hunter Region**

Following on from the January delegation of Japanese government organisations, this visit by Japanese businesses involved in the field of resources and energy was realised thanks to the efforts of both Sydney's Japan Chamber of Commerce and Industry (JCCI) and Business Hunter. I thank them warmly for their efforts.

In particular, the opportunity to meet directly with such stakeholders, together with the opportunity to observe the actual places where industry and academia are collaborating to realise and commercialise new technologies in the resource and energy, was incredibly valuable. I have also heard from participating Japanese companies that it was a very informative visit.

For Japan, energy security and decarbonisation are issues that must be addressed now. I hope that Japanese companies which participated in this visit will apply the results in their own business, and that this will lead to significant developments in energy and decarbonisation cooperation between Japan and Australia in the future.

Kiya Masahiko, Consul-General of Japan in Sydney