

Ammonia Energy Conference 2023 - Australia

# Regional energy ecosystems in development:

## Gladstone

Alana Barlow

16 August 2023



**Regional centres will be at the heart  
of the energy transition.**

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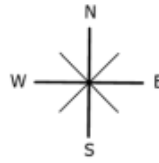
Greatly expand our energy and ancillary networks: powerlines carrying renewable energy, and pipelines carrying hydrogen, CO2 and desalinated water

E+ 2020

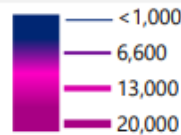
INDICATIVE ONLY

2020  
(for context)

0 200 400 800 Kilometers



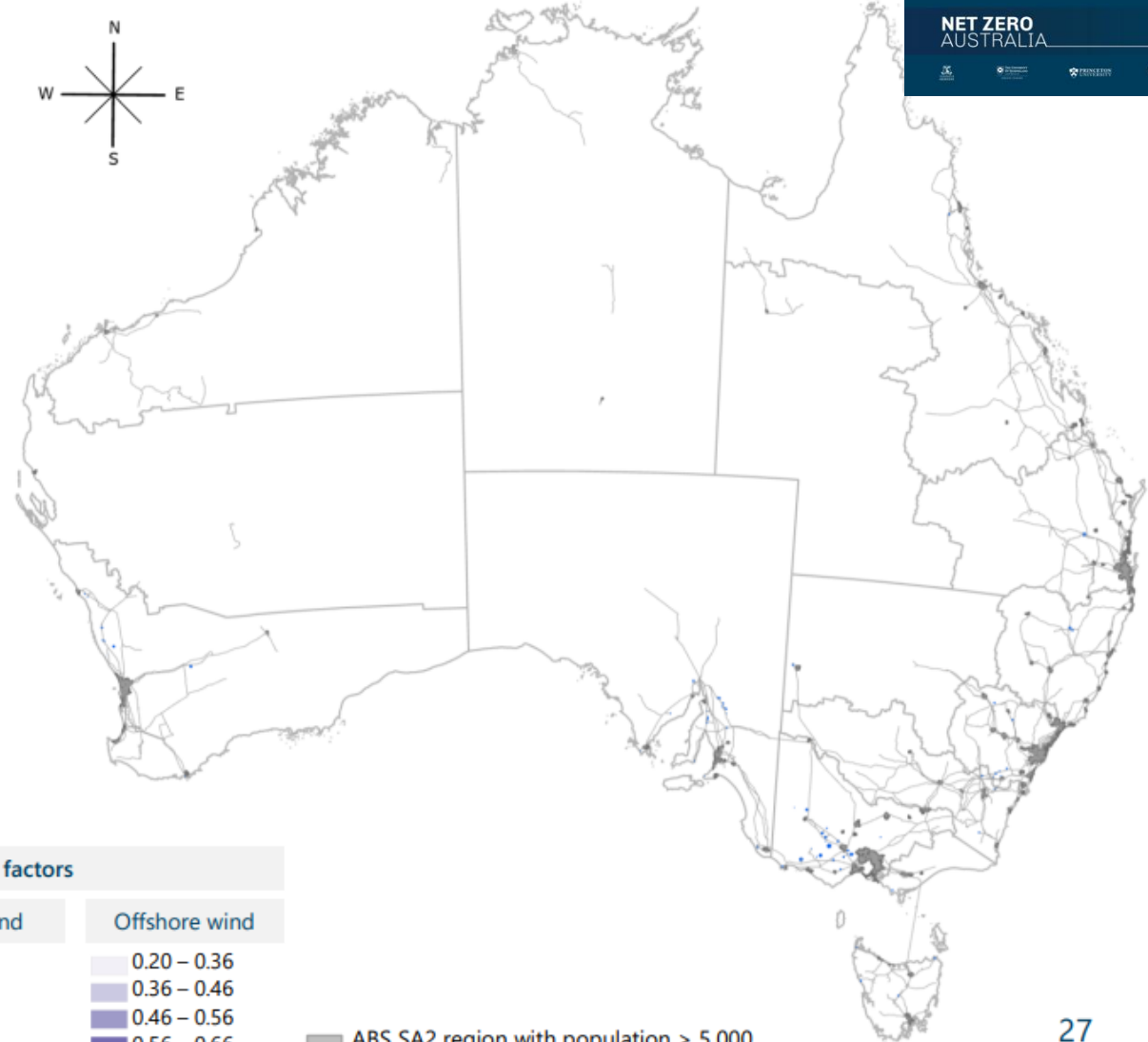
Transmission (MW)



VRE project capacity factors

Solar PV	Onshore wind	Offshore wind
0.14 – 0.20	0.21 – 0.26	0.20 – 0.36
0.20 – 0.21	0.26 – 0.28	0.36 – 0.46
0.21 – 0.22	0.28 – 0.30	0.46 – 0.56
0.22 – 0.23	0.30 – 0.31	0.56 – 0.66
0.23 – 0.29	0.31 – 0.38	0.66 – 0.81

ABS SA2 region with population > 5,000 people & density > 100 people/km<sup>2</sup>



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Final modelling results

April 2023

NET ZERO AUSTRALIA

Logos for various organizations including the Australian Government, Energy Australia, and others.

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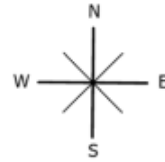
Greatly expand our energy and ancillary networks: powerlines carrying renewable energy, and pipelines carrying hydrogen, CO2 and desalinated water

E+ 2050

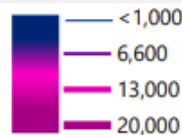
INDICATIVE ONLY

2050

0 200 400 800 Kilometers



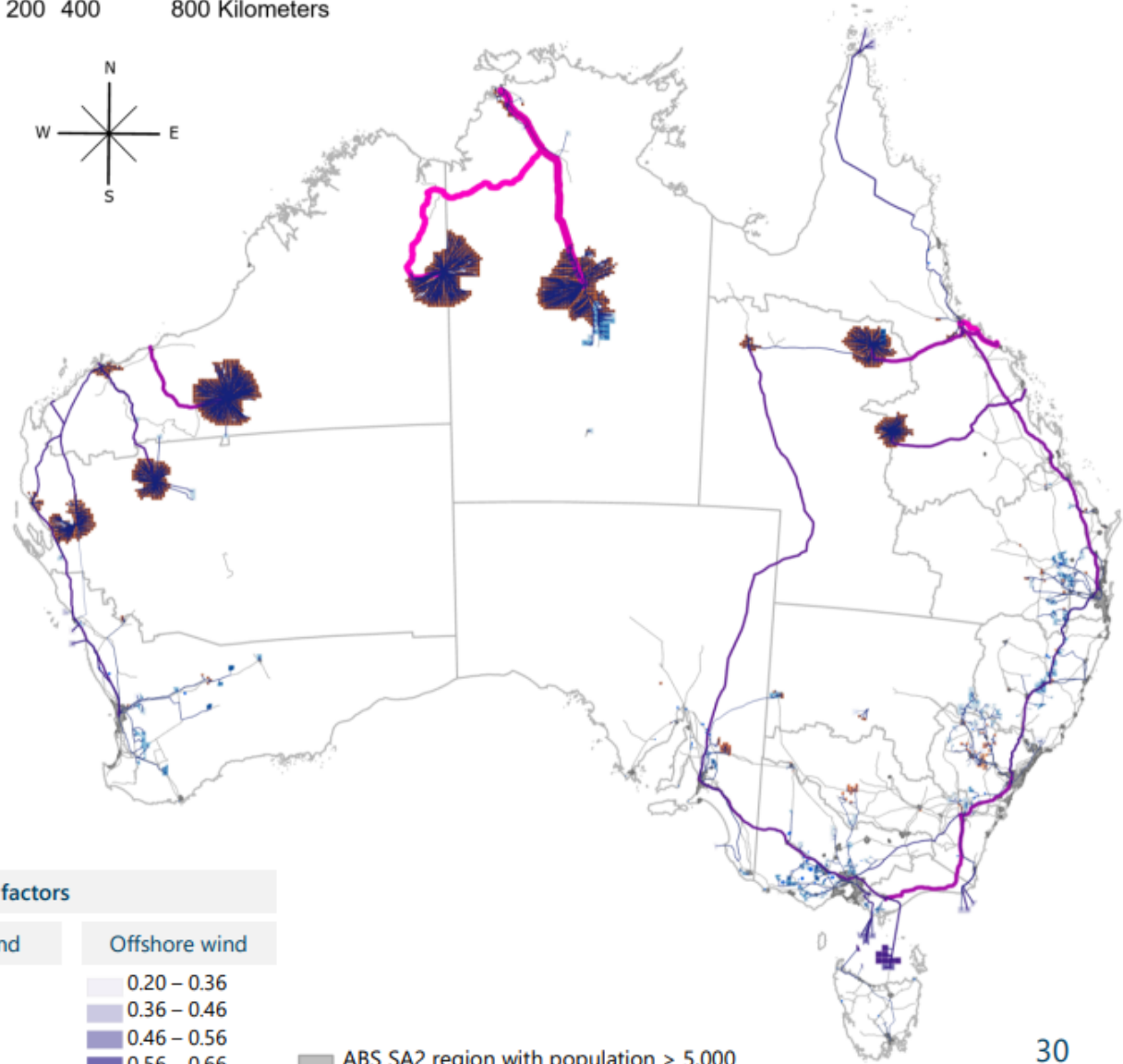
Transmission (MW)



VRE project capacity factors

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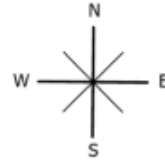
Greatly expand our energy and ancillary networks: powerlines carrying renewable energy, and pipelines carrying hydrogen, CO2 and desalinated water

E+ 2060

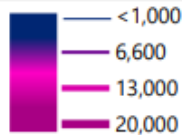
INDICATIVE ONLY

2060

0 200 400 800 Kilometers



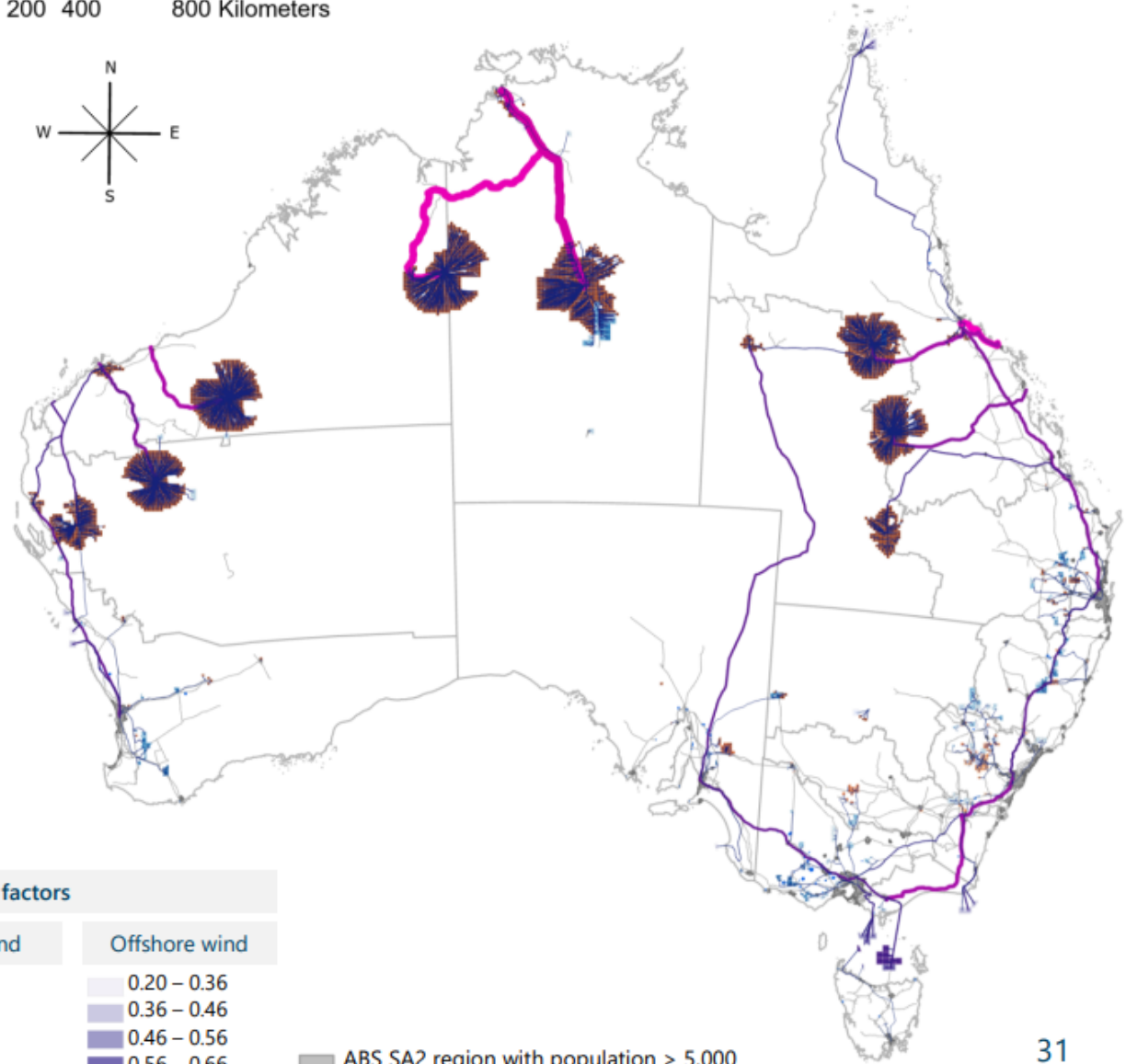
Transmission (MW)



VRE project capacity factors

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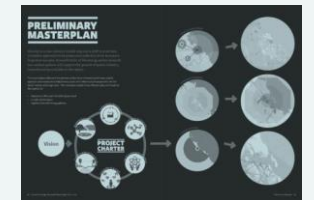


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# Developing ecosystems and facilitating transformation: 2021



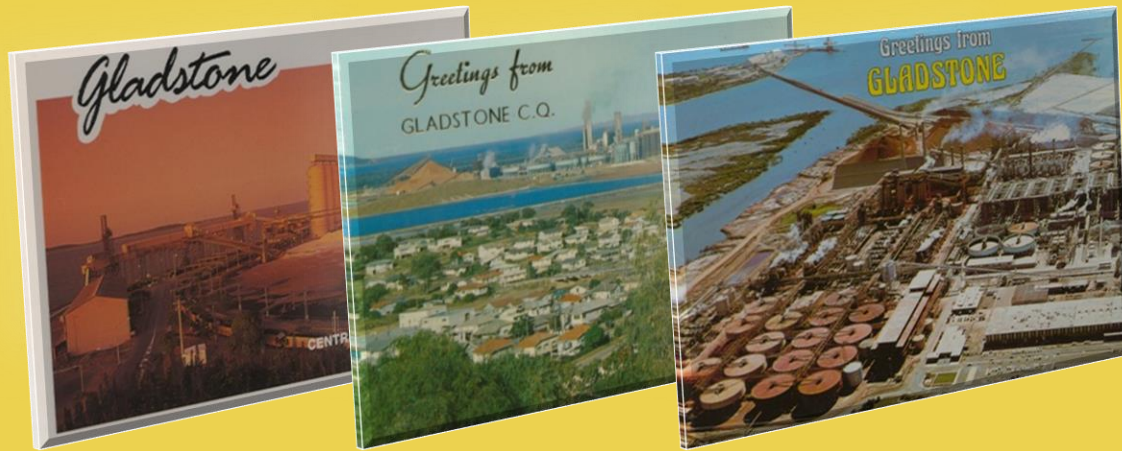
## Gladstone Hydrogen Ecosystem and Net-Zero Region Project Scope



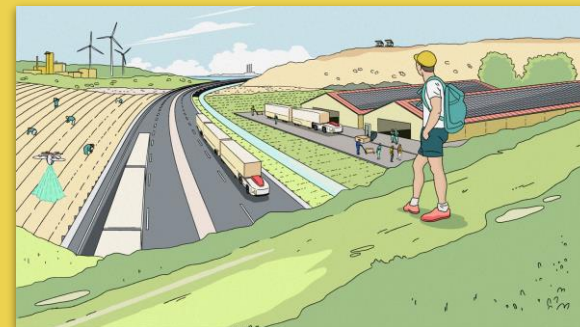
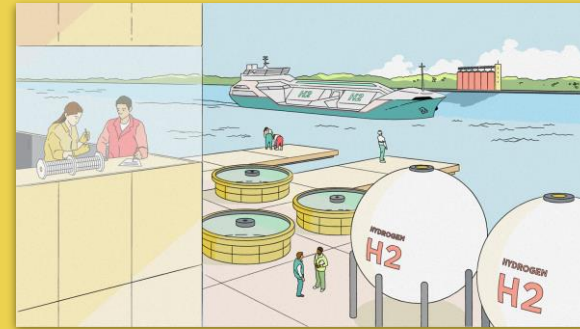
**IDEO**

**ARUP**

# 6 Postcards from the Future

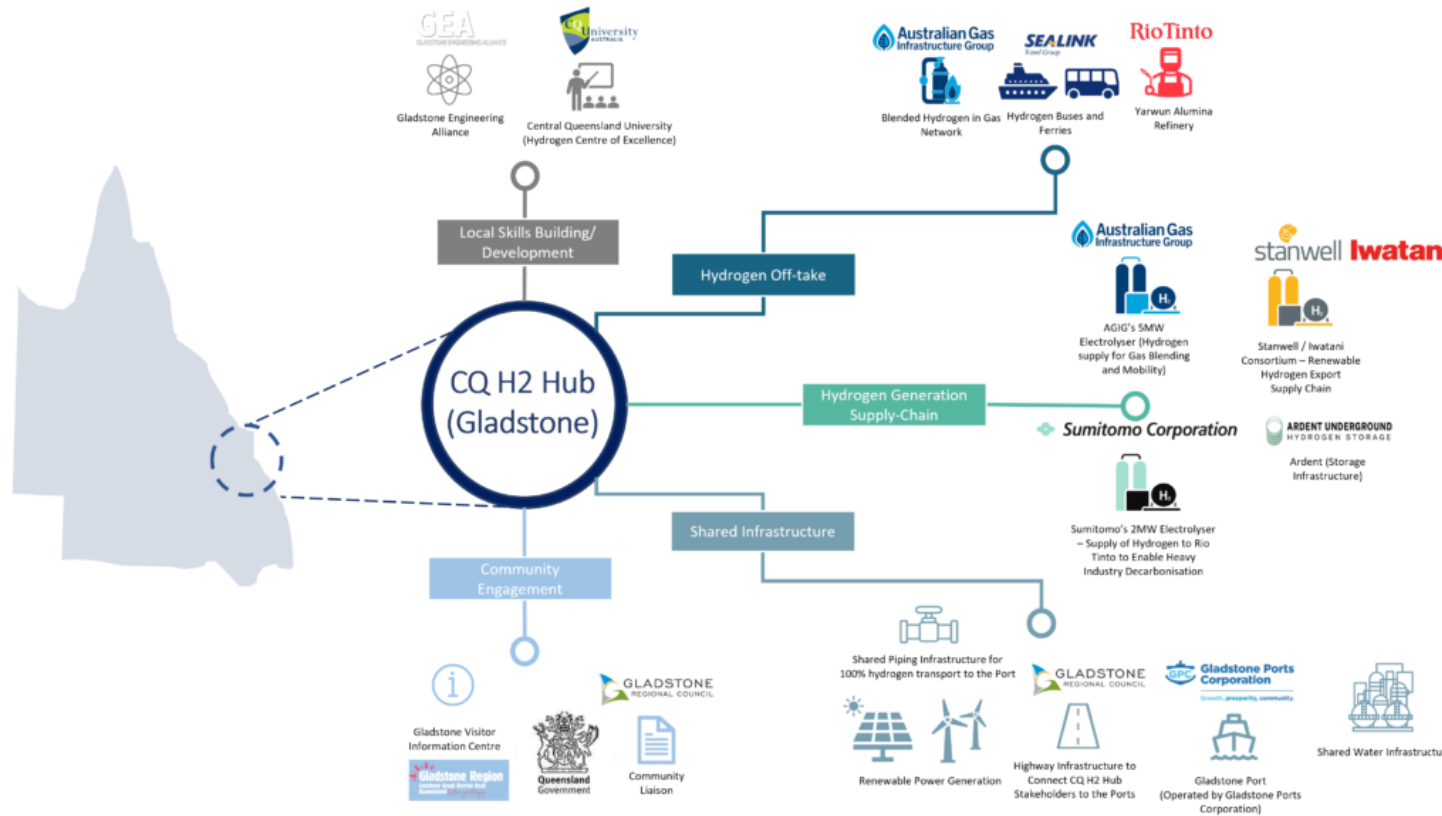


Each one of these postcards highlights **key aspects of Gladstone**, **major shifts** that take place, and a collection of **important stakeholders**.



# 2023: Where is Gladstone Now?

- **CQH2 Alliance:** Gathering of hydrogen proponents, GOCs, State and Local Government, State Owned Infrastructure Providers (Power, Transmission, Water etc), Education Institutions
- **Hydrogen Hubs Funding:** \$69.2M awarded
- **Masterplanning:** State Government scoping master-planning for CQ leading on from the Sumitomo work
- **Demonstrating** outcomes through project development:
  - FEED for CQH2, with MOU for Ammonia plant signed by Keppel + IPL
  - Pre-FEED for H2U's H2>Ammonia plant





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Thank you

