

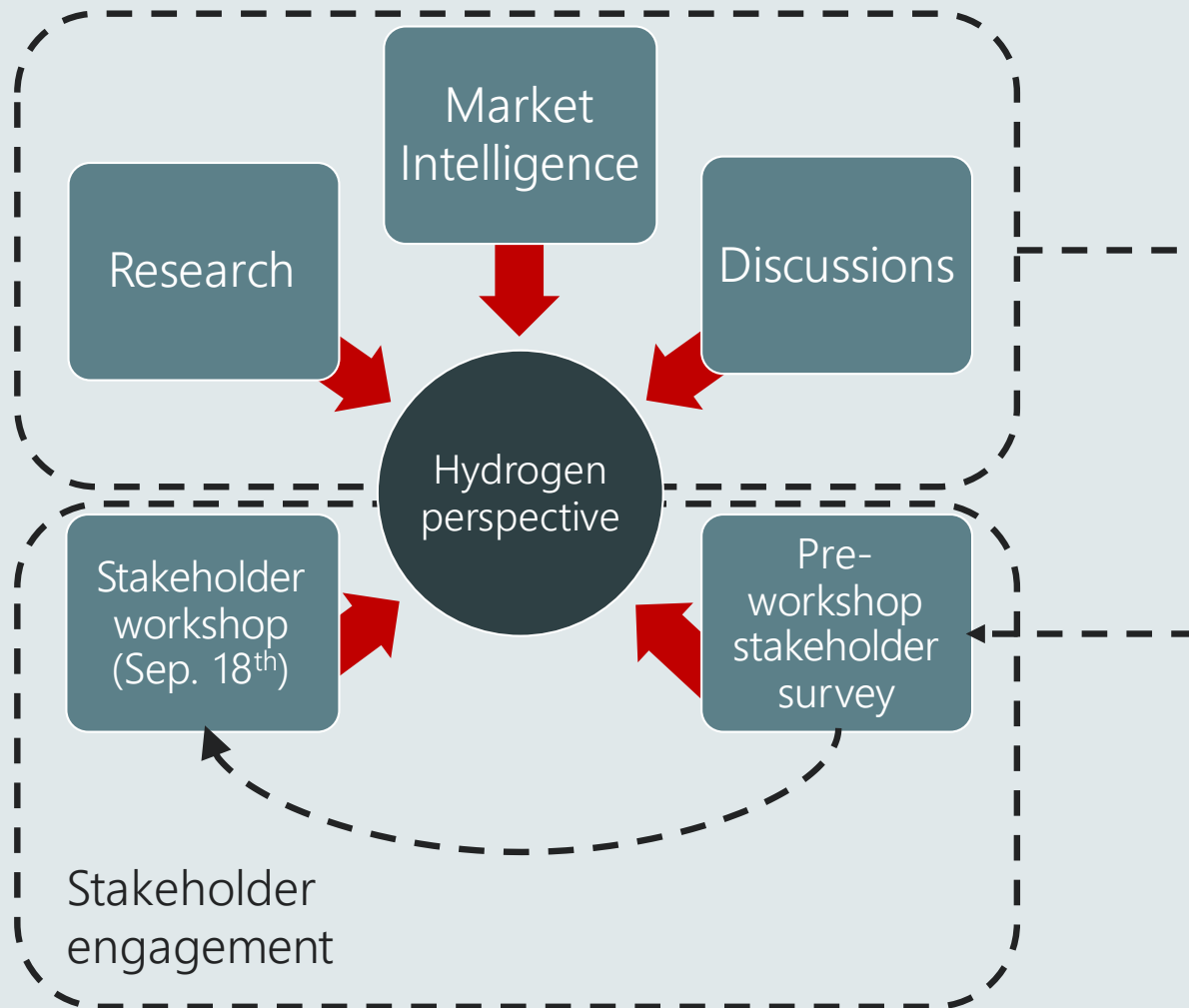
Hydrogen update

September 30th FRG meeting

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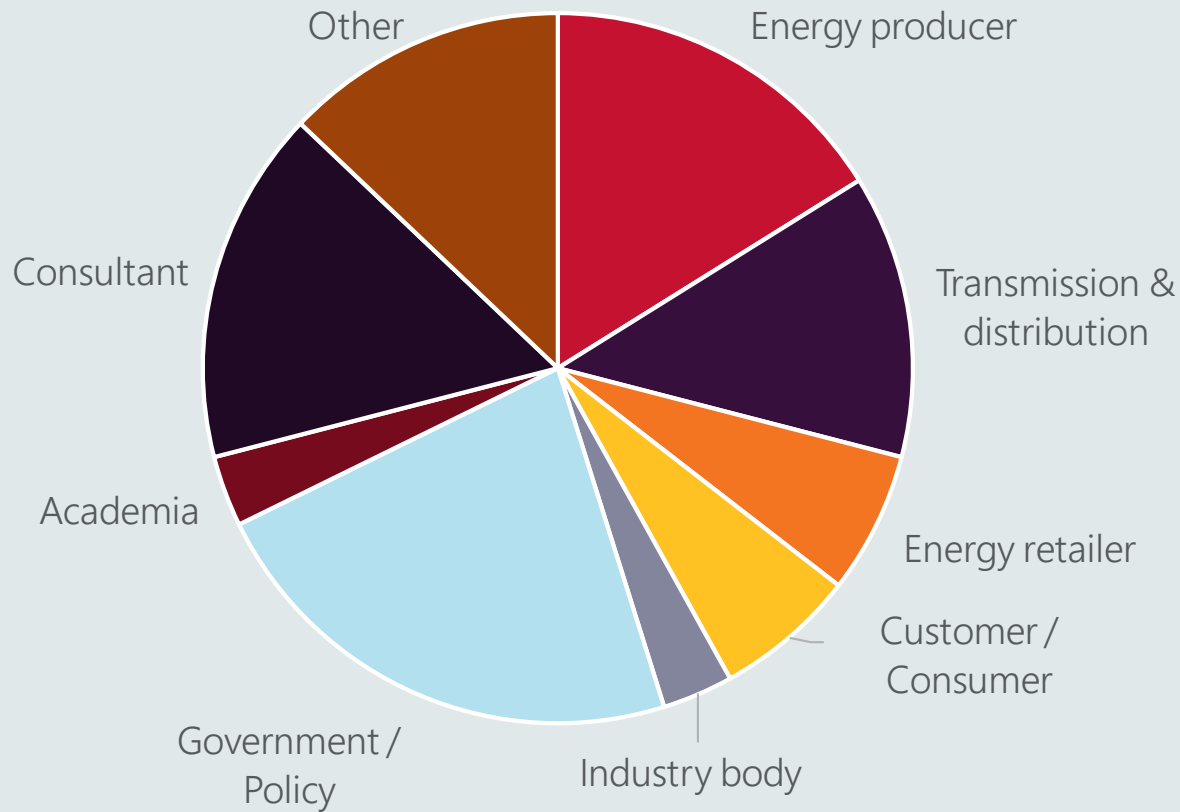
Understanding hydrogen - process to date



We need to broaden the existing set of GSOO scenarios to consider hydrogen.

However, there is notable uncertainty in the various projections and we needed to develop a consensus view with the industry, informed by earlier works.

Broad industry representation



Based on survey responses

Consensus on strong hydrogen potential

There was a consensus that:

- Hydrogen would become economic within the next 20 years.
- Hydrogen deployment will play a major role in Australia's energy future from 2030. *This is within AEMO's planning horizon for the GSOO.*

Hydrogen will play a major role in Australia's energy mix by:

2030: requires government support

2040: split view on need for government support

2050: does not require government support

- Decarbonisation will highly influence hydrogen uptake

- Australia's hydrogen future likely to rely on a strong global drive for decarbonisation
- Domestic decarbonisation targets would become a key driver for increased domestic hydrogen consumption
- With successful carbon capture, utilisation and storage (CCUS), natural gas may be a viable option for hydrogen production

Consensus on key hydrogen drivers

Customers

- Decarbonisation

- Australian production driven by global decarbonisation targets
- Partnerships with international demand centres
- Diesel replacement ✓

Falling cost of technology

Costs reduction drive up production volume ✓

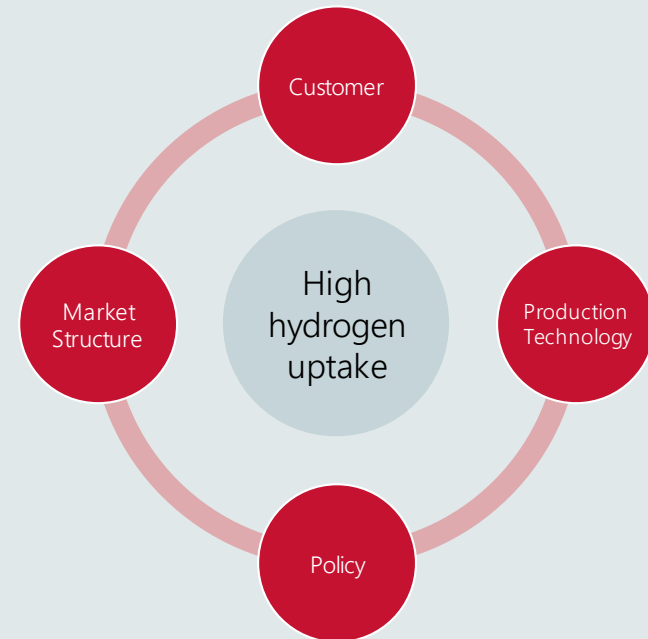
Gov. support/policy:

- Domestic targets
- Project funding and de-risking
- Investment environment

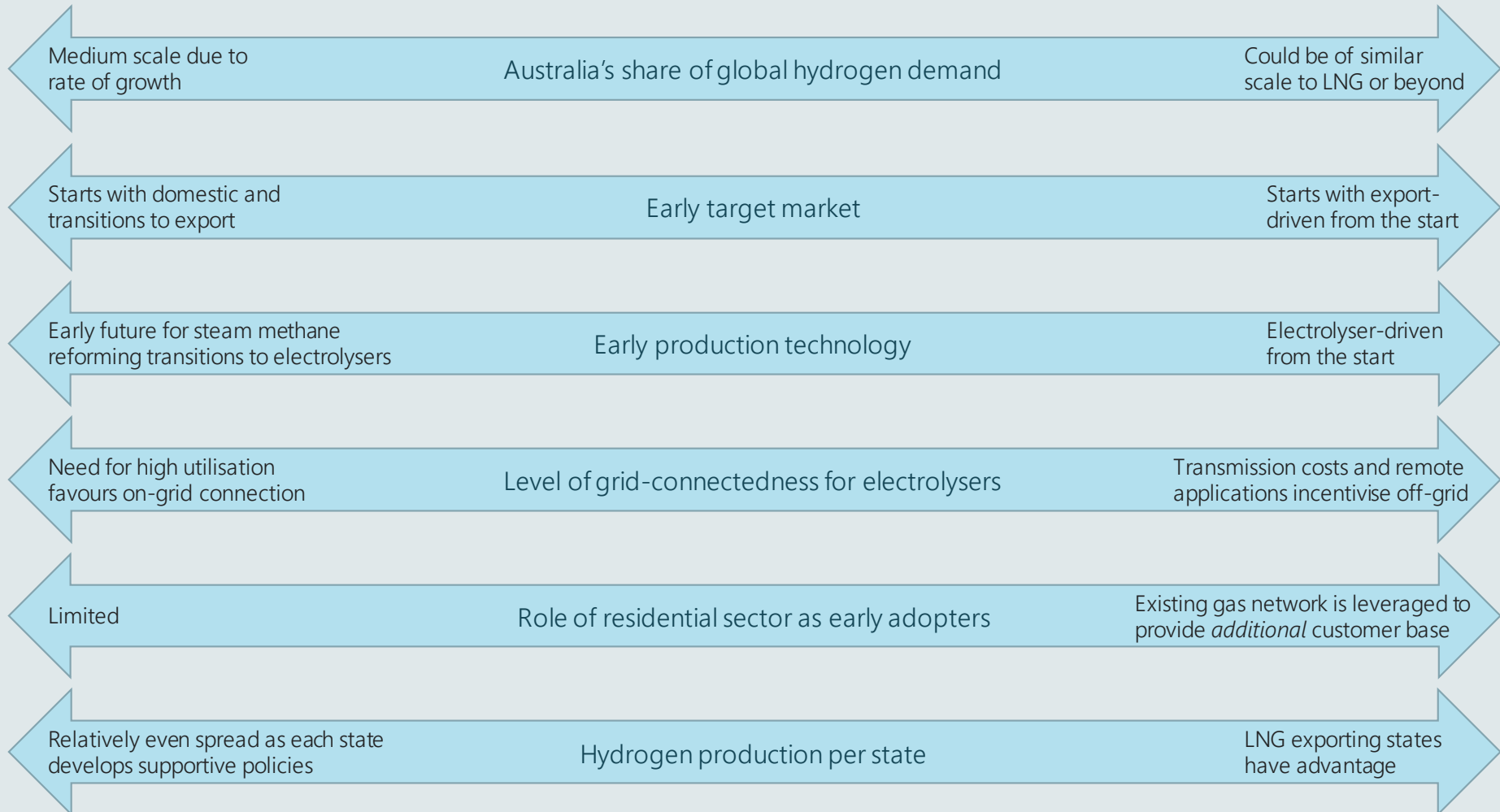
- Promote domestic applications
- Help establish relevant infrastructure
- Accelerate cost reductions
- Provide confidence for investors ✓

Market framework to recognise full value of hydrogen

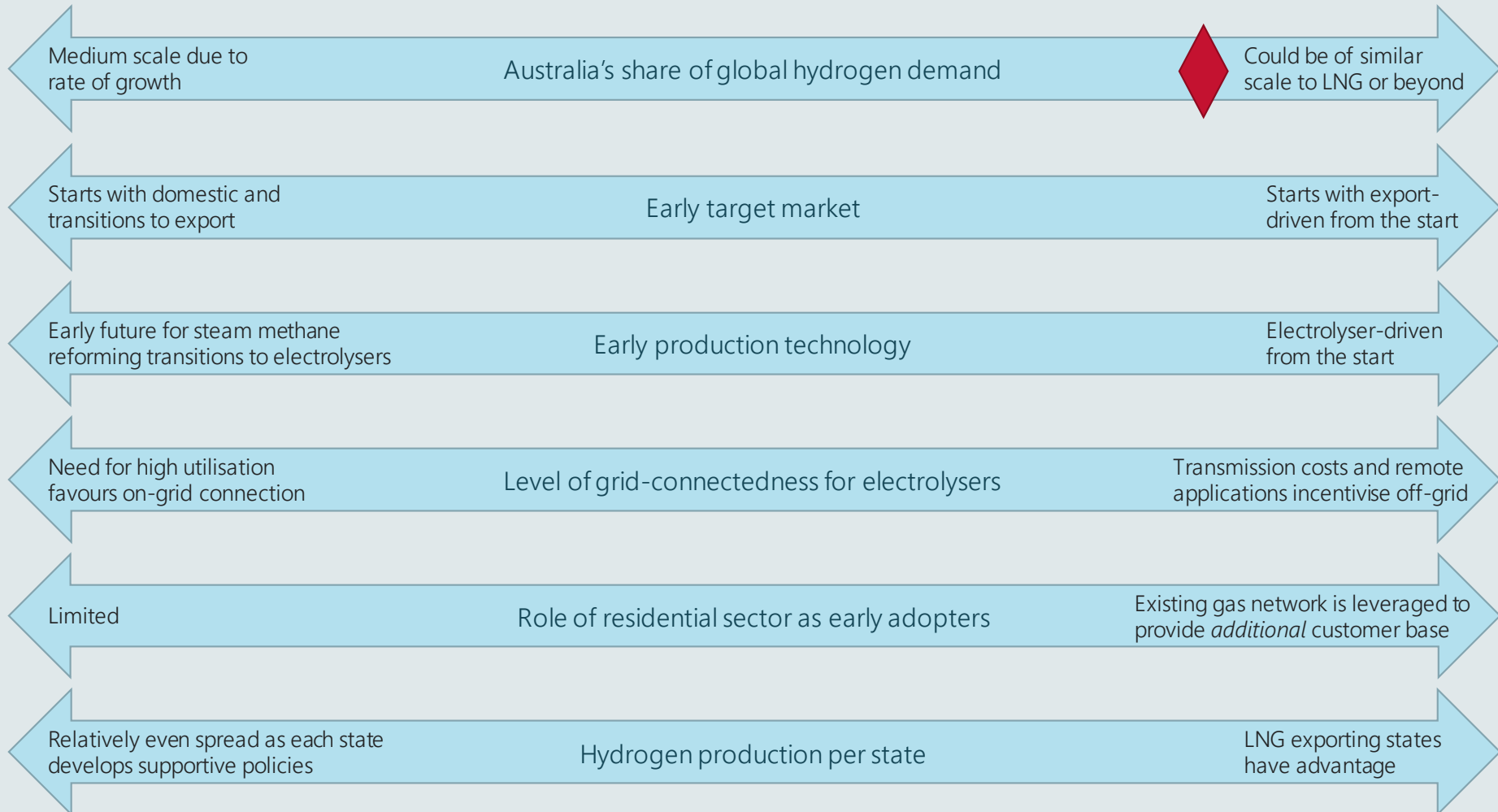
Hydrogen economics improved by value stacking ?



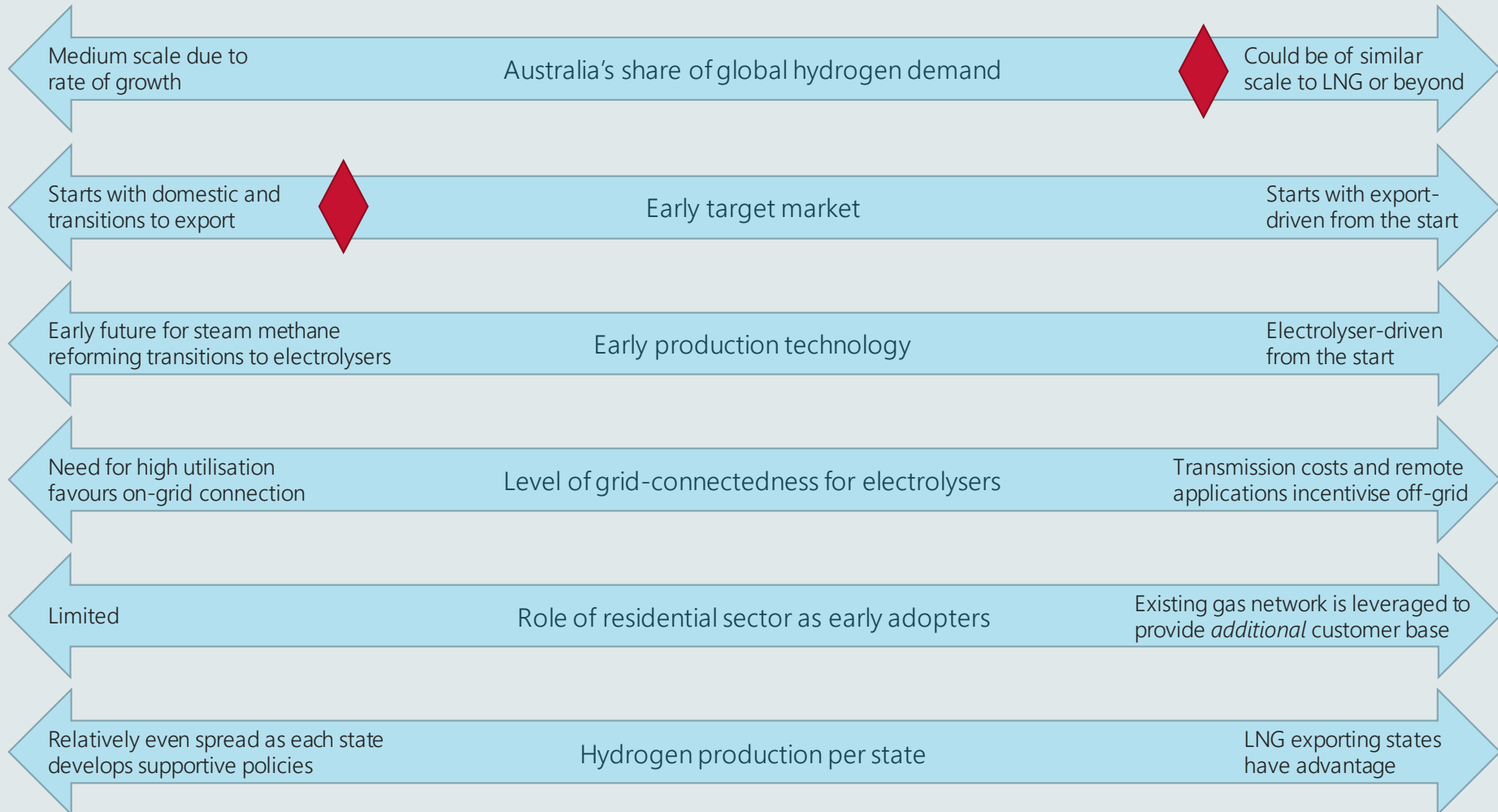
Uncertainties on paths to big hydrogen



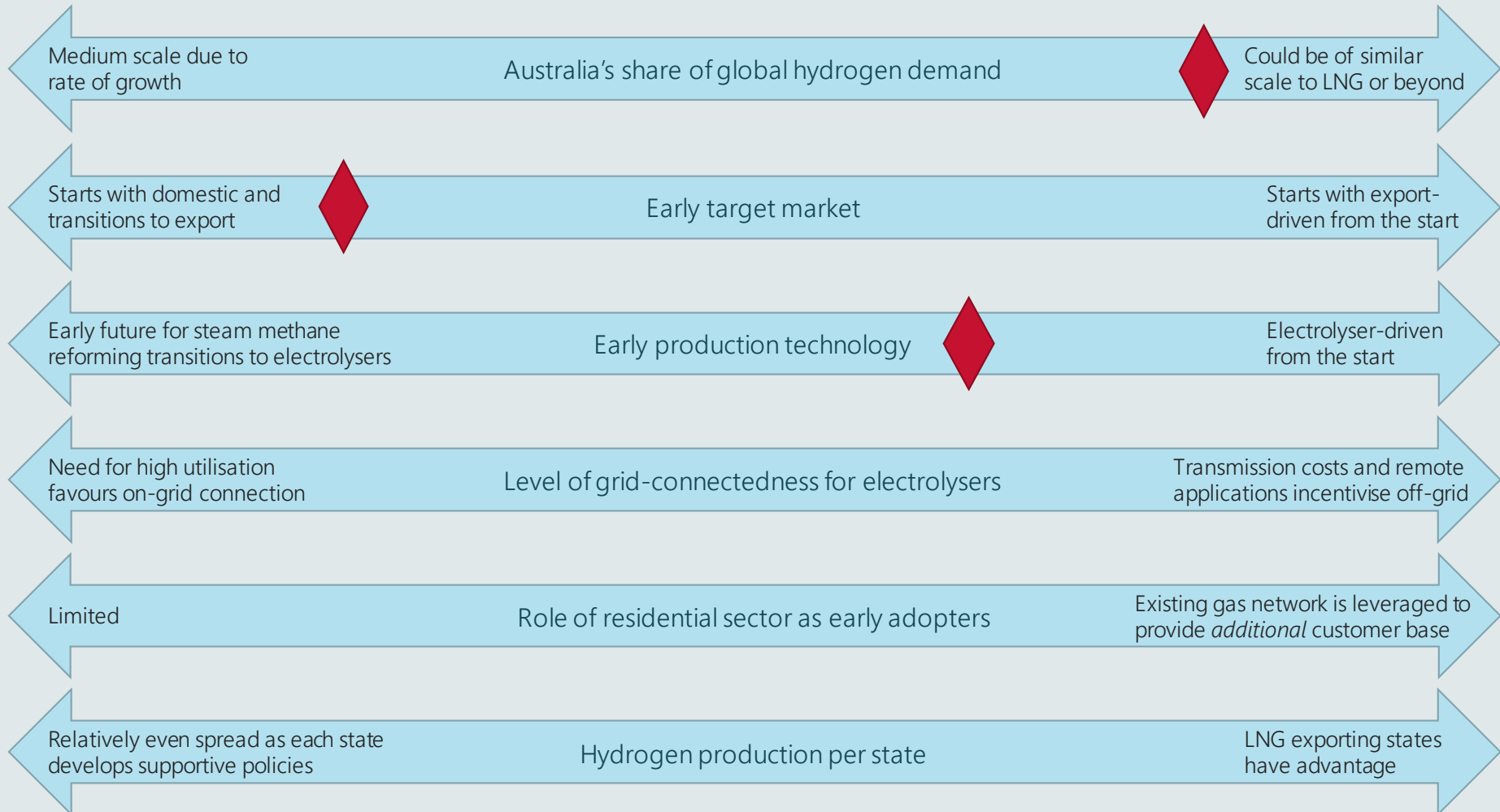
Proposed narrative settings



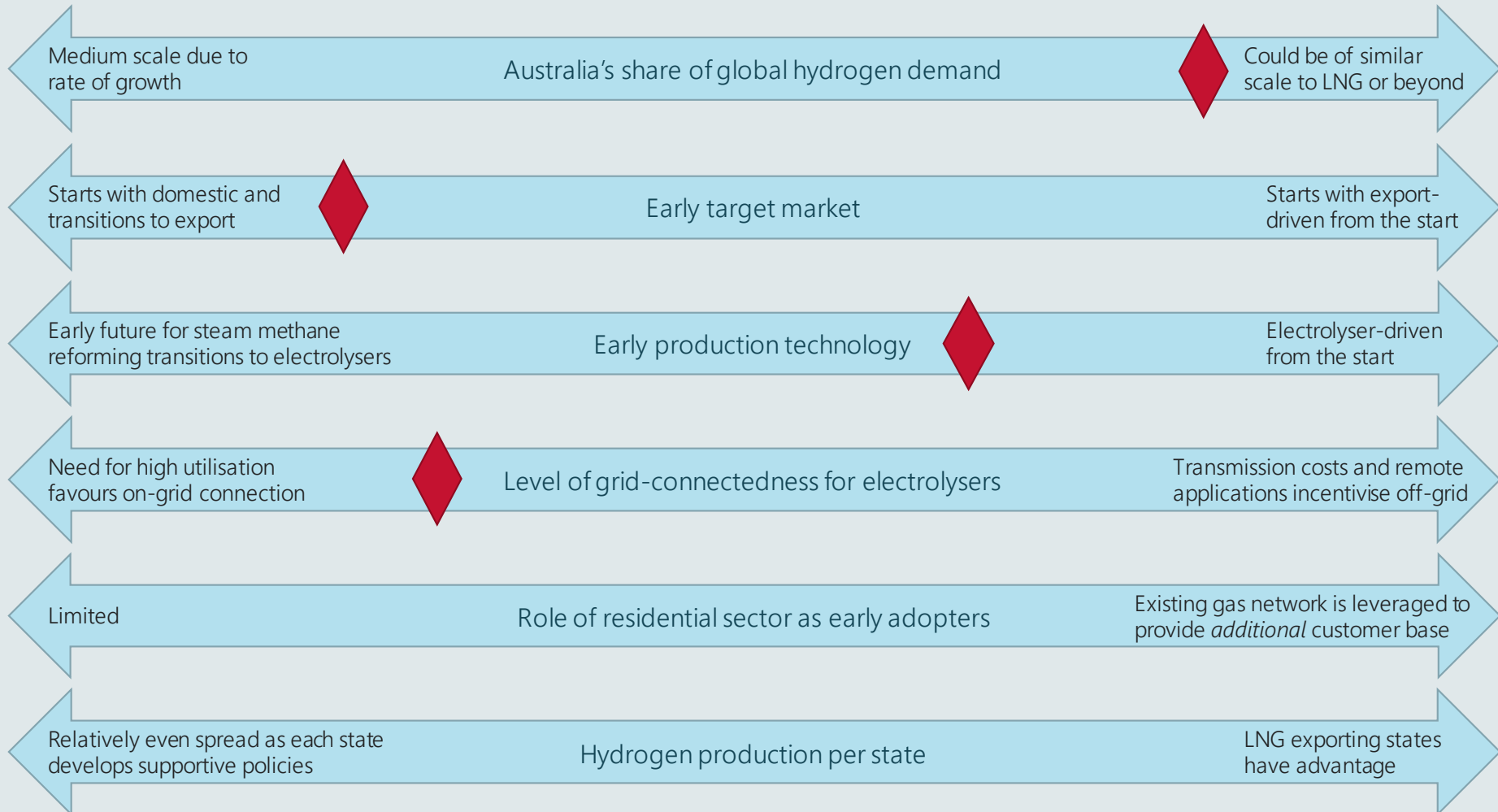
Proposed narrative settings



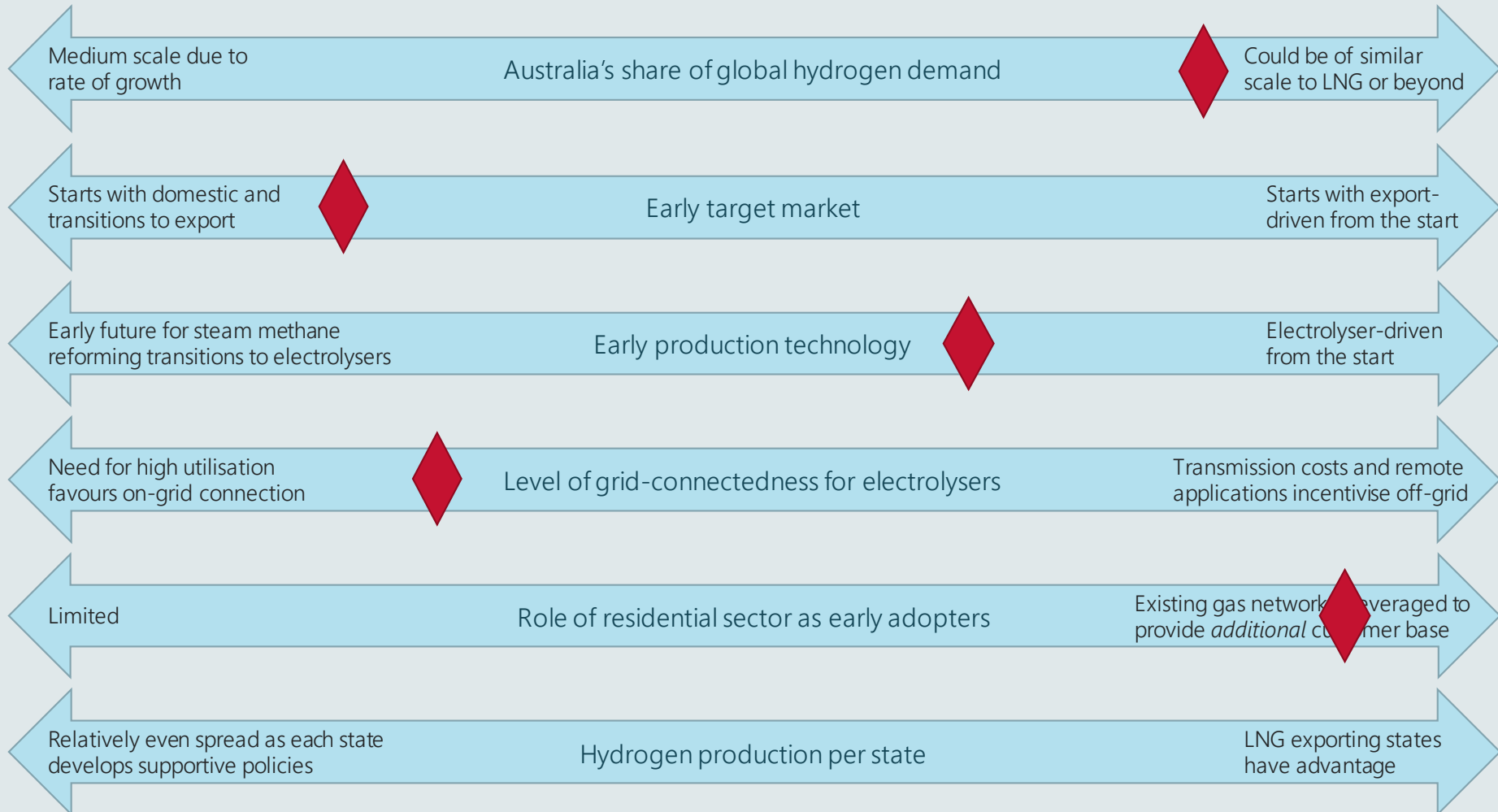
Proposed narrative settings



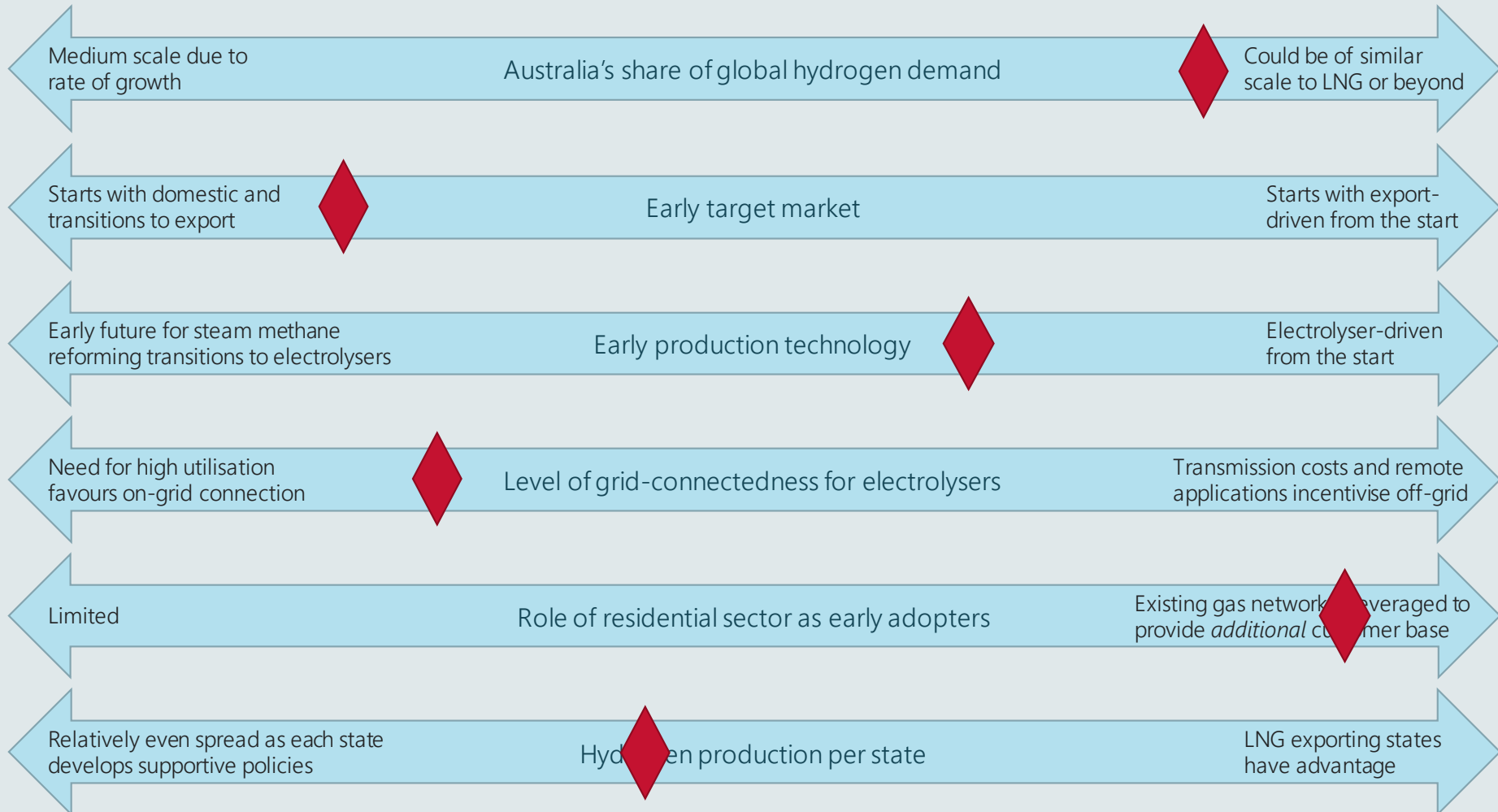
Proposed narrative settings



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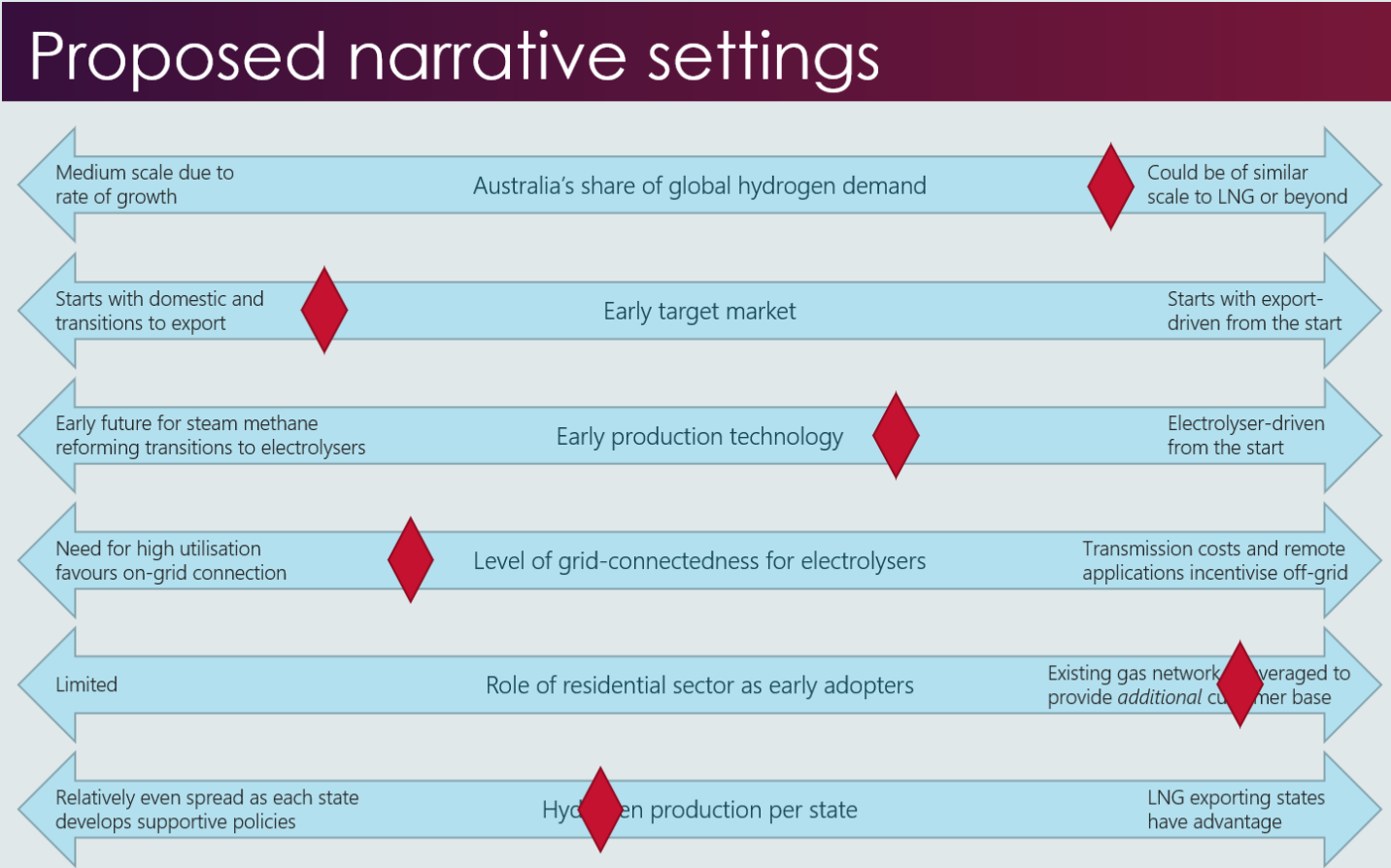


Over to you!

Does this accurately reflect the workshop outcomes?

What are your perspectives on these proposed settings?

Is there anything missing?





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