

# Chapter 6

## Conclusions and Policy Recommendations

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## CHAPTER 6

### Conclusions and Policy Recommendations

This chapter presents the conclusions of and recommendations from the study:

1. Brunei Darussalam is a gas-rich country, and the potential of producing hydrogen from gas will clearly be significant, according to this study. But to pay attention to climate change issues, zero emission measures such as CO<sub>2</sub>-enhanced oil recovery (EOR) and carbon capture utilisation and storage (CCUS) will be applied once available technically and affordably.
2. On the other hand, large potential of hydrogen demand in Brunei Darussalam will be forecasted in both the transport, especially road, and the power generation sectors. Shifting to hydrogen from oil and gas will provide the country with two benefits: (i) significant reduction of CO<sub>2</sub> emissions and (ii) economic benefits from increased oil and gas exports.
3. But shifting to a hydrogen society in both demand and supply sides requires lots of efforts:
  - Appropriate hydrogen policies both demand and supply sides
  - Action plans to shift from internal combustion engine to fuel cell electric vehicle (FCEV), including incentives
  - Action plans to increase hydrogen mixing rate at existing gas power plants
  - Action plans to hydrogen supply chain in Brunei Darussalam, such as hydrogen charging stations
  - Action plans to continue hydrogen export to Asian countries
  - To shift from internal combustion engine to FCEV, FCEV can demonstrate its strength, especially in the use of heavier duty vehicles (over 100 km/day, 10 tonnes) such as medium-to-large cars, trucks, buses, and bus rapid transit (BRT) and light rail transit (LRT) systems.
  - In the future, hydrogen sources in Brunei Darussalam will shift from fossil fuels to renewable energy. In other words, grey and blue hydrogen will change to green hydrogen. The country could also consider increasing renewable energy supply through cross-border collaboration with Borneo as an option.
4. Hydrogen production and supply cost is essential.
  - The shift to a hydrogen society is fully dependent on hydrogen production and supply cost. In this regard, the introduction of hydrogen in the market, government policy and support – such as national future visions – funding and market supporting mechanisms, research and development promotions, awareness programmes, international cooperation, etc. can be strong drivers.