

Pathways to net zero

ADGO 2021



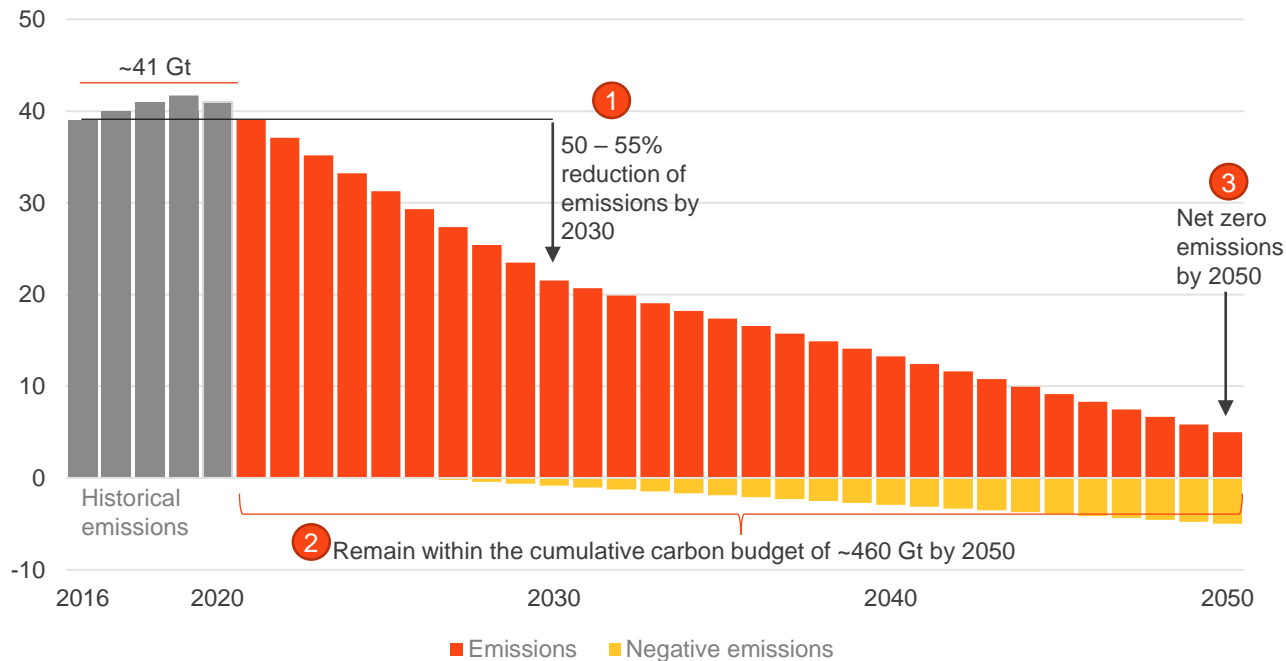
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Pathway for global CO₂ emissions

To limit temperatures from rising above 1.5C the world faces a limited carbon budget¹

Carbon dioxide emissions, Gt CO₂



Global CO₂ emissions

- Five-year global average: ~41 Gt/yr
- Energy sector average: ~33 Gt/yr
- At this rate the remaining ~460 Gt carbon budget gets exhausted ~12 years and well before 2050.

Three features per IPCC recommendation to limit temperatures below 1.5°C:

- 50-55% emission reduction by 2030.
- Remain within the cumulative budget of 460 Gt by 2050.
- Achieve net zero CO₂ emissions by 2050. Methane and Nitrous oxides are also steeply mitigated.

Source: 1. IPCC Special Report on the impacts of global warming of 1.5°C
Note: Intergovernmental Panel on Climate Change (IPCC)

An integrated approach to decarbonisation

Three Rs to help our customers thrive through the energy transition



REDUCE



- **Reduce emissions from our current and future gas assets :**
 - Focus on reducing methane emissions
 - Rank projects using marginal abatement cost curve (MACC)
 - Technology innovation – equipment & digital
 - Renewable electricity
 - Improve designs of future projects so that emissions are minimised from Day 1

REMOVE



- **Remove CO₂ from the atmosphere to neutralise our remaining GHG footprint and to help our customers meet their decarbonisation targets**
 - Credible Offset Projects
 - Carbon Capture & Storage

REIMAGINE



- **Reimagining products and services**
 - Renewable Fuels – H₂/NH₃ etc
 - Carbon neutral LNG
 - CCS-enabled low carbon H₂/NH₃
 - New materials using CO₂ as feedstock (concrete, polymers, plastics)
 - Emissions reduction and carbon offsets services

Enabling the energy transition

A customer focused energy business positioned for a low carbon future



Exploration & production acreage

- Origin upstream acreage
- APLNG upstream acreage
- Origin farm-in

Generation

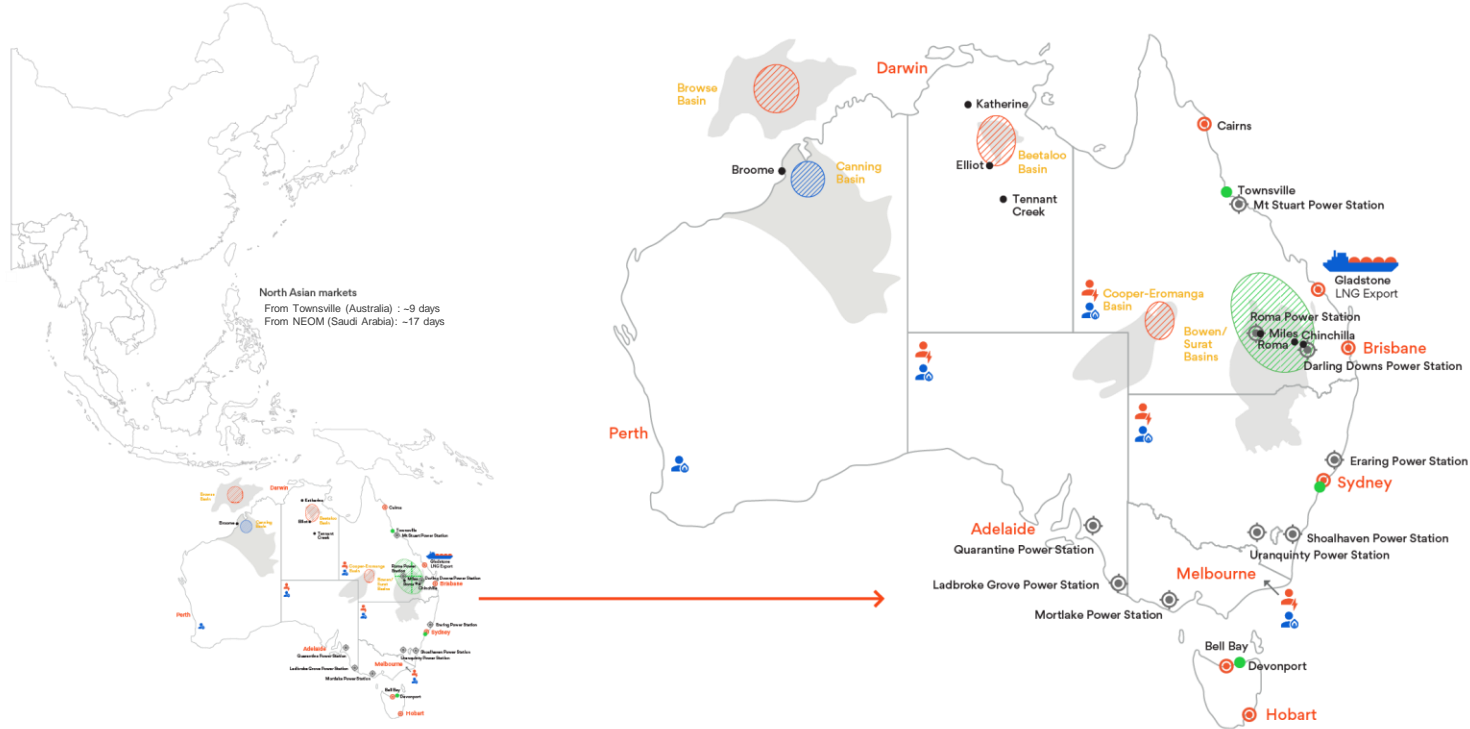
- Power Stations
- LPG seaboard terminal

Retail Electricity

- Electricity customer accounts
- Natural gas customer accounts

Future Fuels

- Hydrogen / ammonia facility



Thank You