



East coast gas outlook: the view from Narrabri

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ENERGYQUEST

EAST COAST GAS OUTLOOK



Introduction

The view from Narrabri:

- Domestic southern gas supply is not likely to meet southern region demand
- NSW has no domestic gas supply
- Narrabri could supply up to half of NSW's gas demand
- It is not without technical challenges, and...
- ...the social licence is still to be tested
- All this with uncertain and changing government policies and interventions



EnergyQuest...

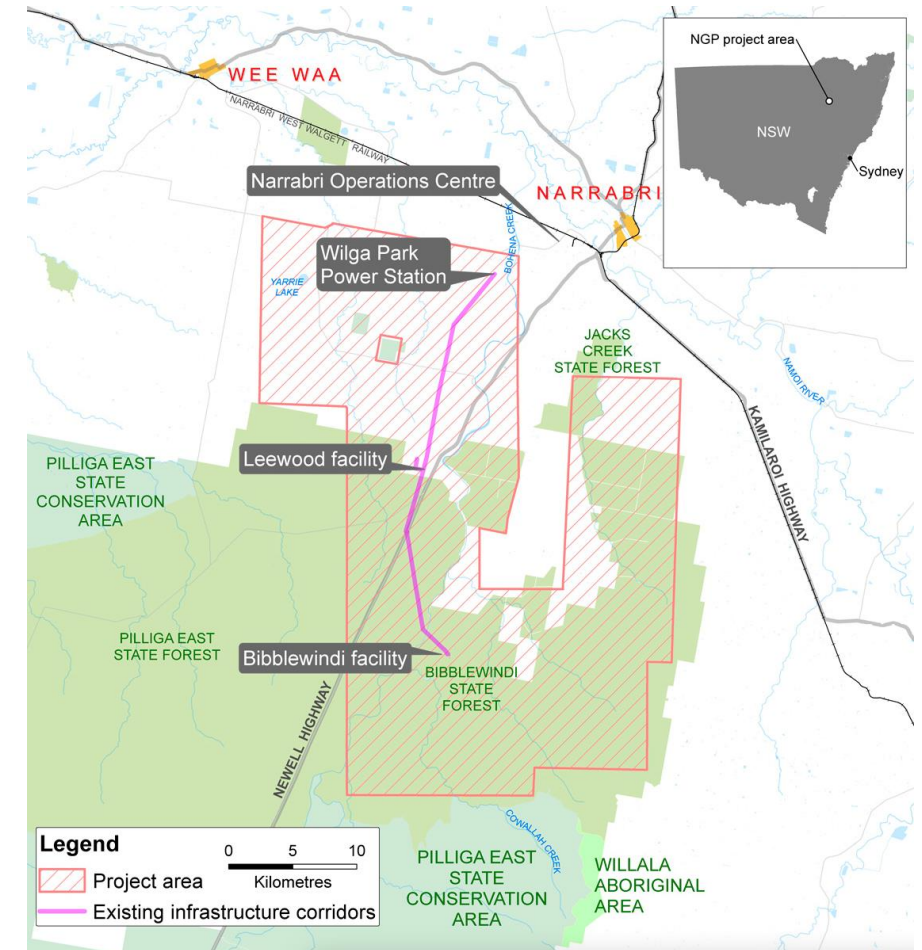
- *An advisory firm, providing independent energy market analysis and strategy for energy companies, energy buyers, investors and governments around Australia and the world.*
- *Twenty year track record of energy analysis*
- *Regular reports include the EnergyQuarterly, LNG and energy essentials monthly report, East Coast Gas Outlook, and West Coast Gas Outlook.*

Narrabri project: overview

- Santos purchase completed 17 November 2011, more than 13 years ago
- Contingent Resource (2C) of 1,967 PJ
- 100% for domestic markets
- Project capacity 150 – 200 TJ/d
- 850 wells on a maximum of 425 well pads
- Wells to use various technologies including multi-laterals, Surface to Inseam (SIS), deviated and vertical
- Estimate of 3 to 4 years from FID to plateau production – without delays/interruptions
- FID may be as early as 2025, subject to approvals and permits



Narrabri Project area:



Source: Santos

Narrabri project: technical challenges

Subsurface challenges:

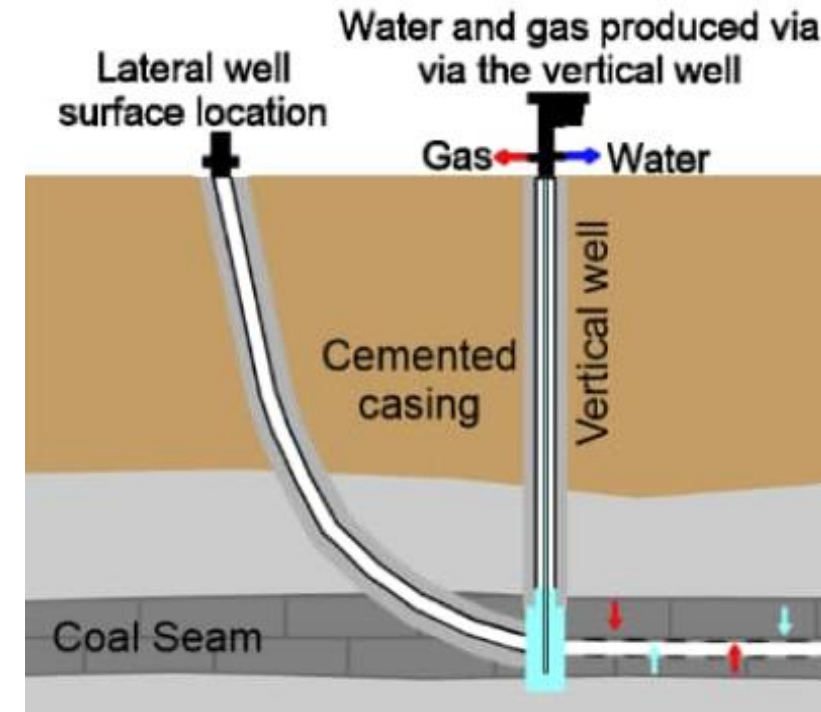
- Permeability is variable with areas that are less productive
- Multiple thin coal seams leading to complex multiple lateral SIS well design – expensive and higher mechanical risks

Carbon dioxide (CO₂):

- Santos EIS has an assumption of 10% CO₂
- This is highly variable (up to 20%?), and needs to be properly appraised within the field
- Operator has to deal with the CO₂
 - Industrial use of CO₂
 - Ship with other CO₂ back to Moomba CCS
 - Venting is not an option
- CSG CO₂ increases as field depleted



SIS well conceptual:



Source: Comet Ridge

Narrabri project: pipelines

- Santos working on pipelines including negotiations with landholders - no pipeline contracts let

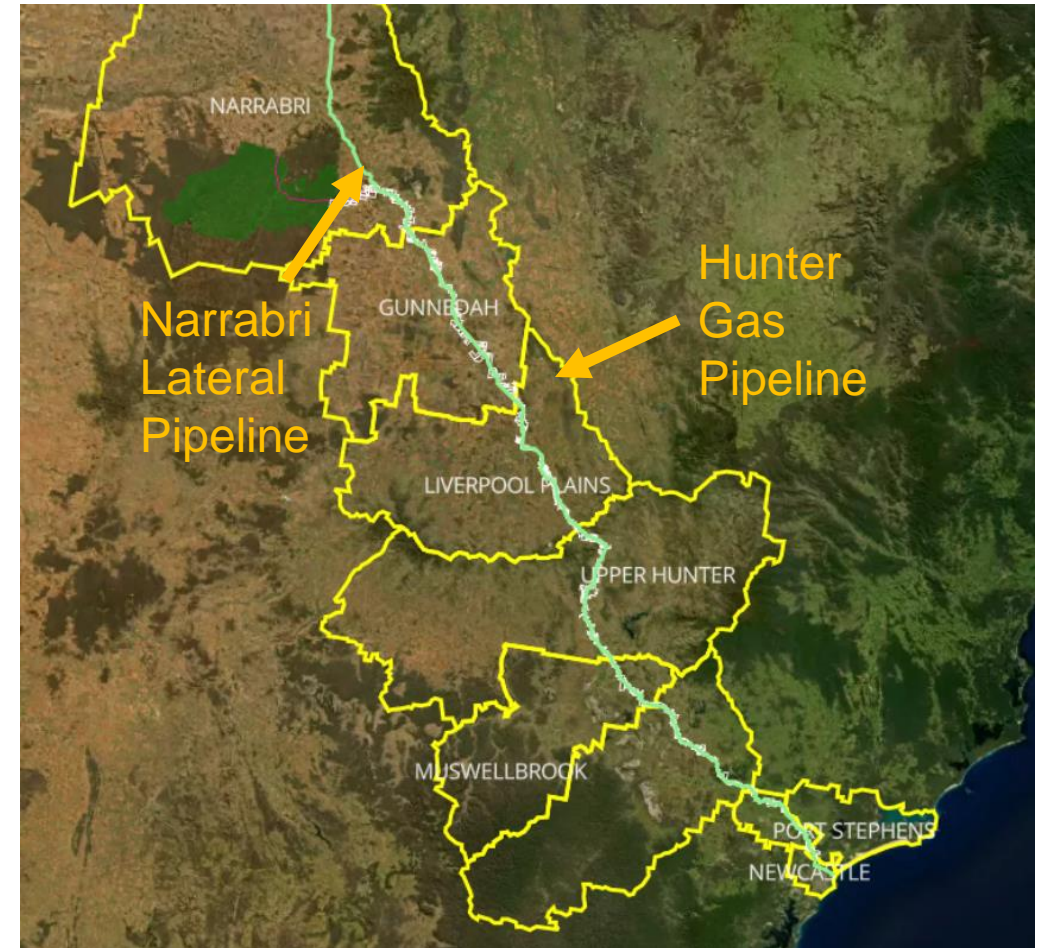
Hunter Gas Pipeline:

- Federal court allowed a Native Title appeal against the pipeline which is now in court
- If claimants are successful, then delay to at least late 2026 expected

Narrabri Lateral Pipeline:

- 50-60 km pipeline from processing facility at Leewood to Hunter Gas Pipeline
- Working on environmental approvals

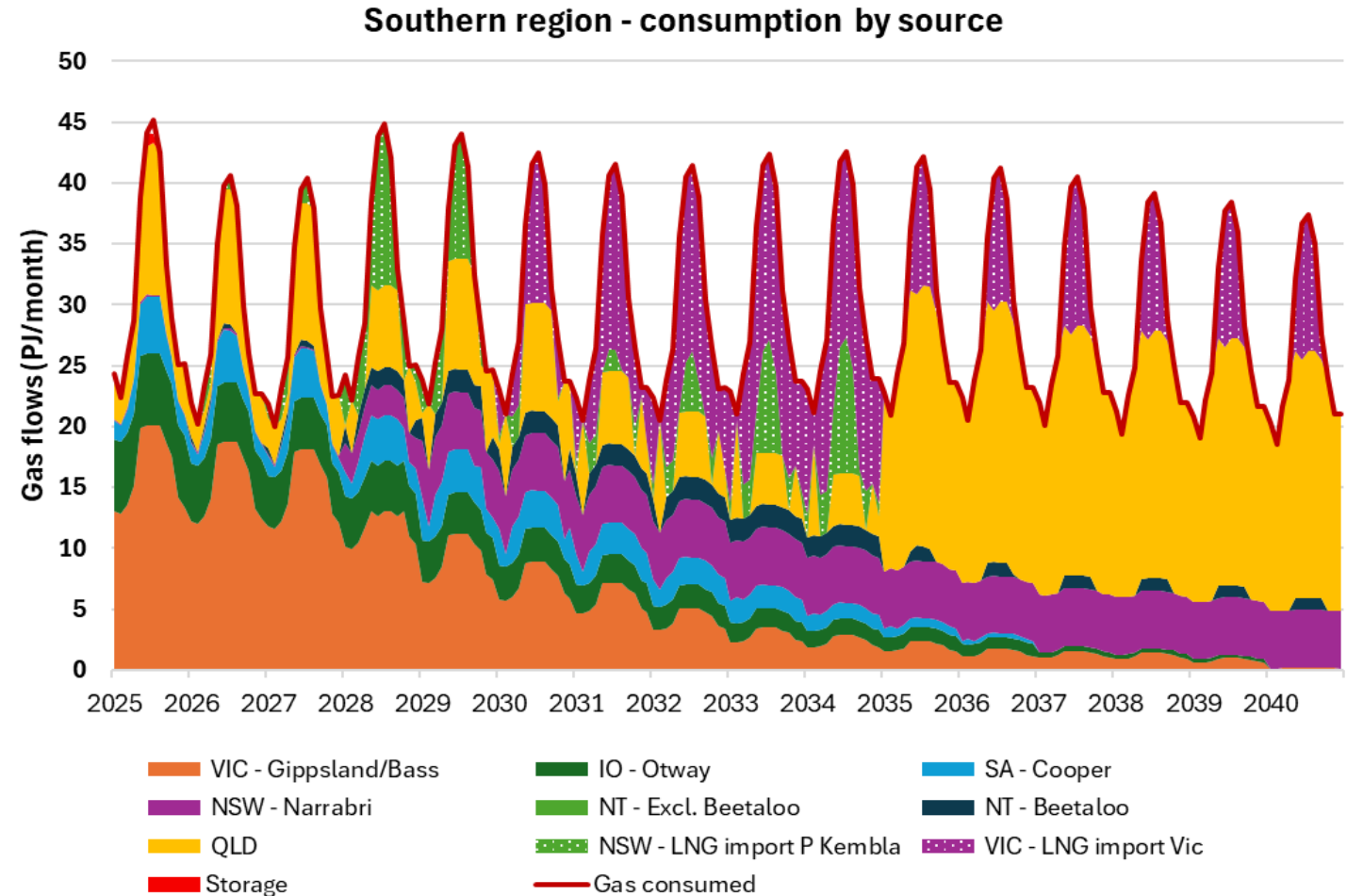
Narrabri Project gas pipelines:



Source: Santos Hunter Gas Pipeline website; accessed March 2025

Southern gas supply

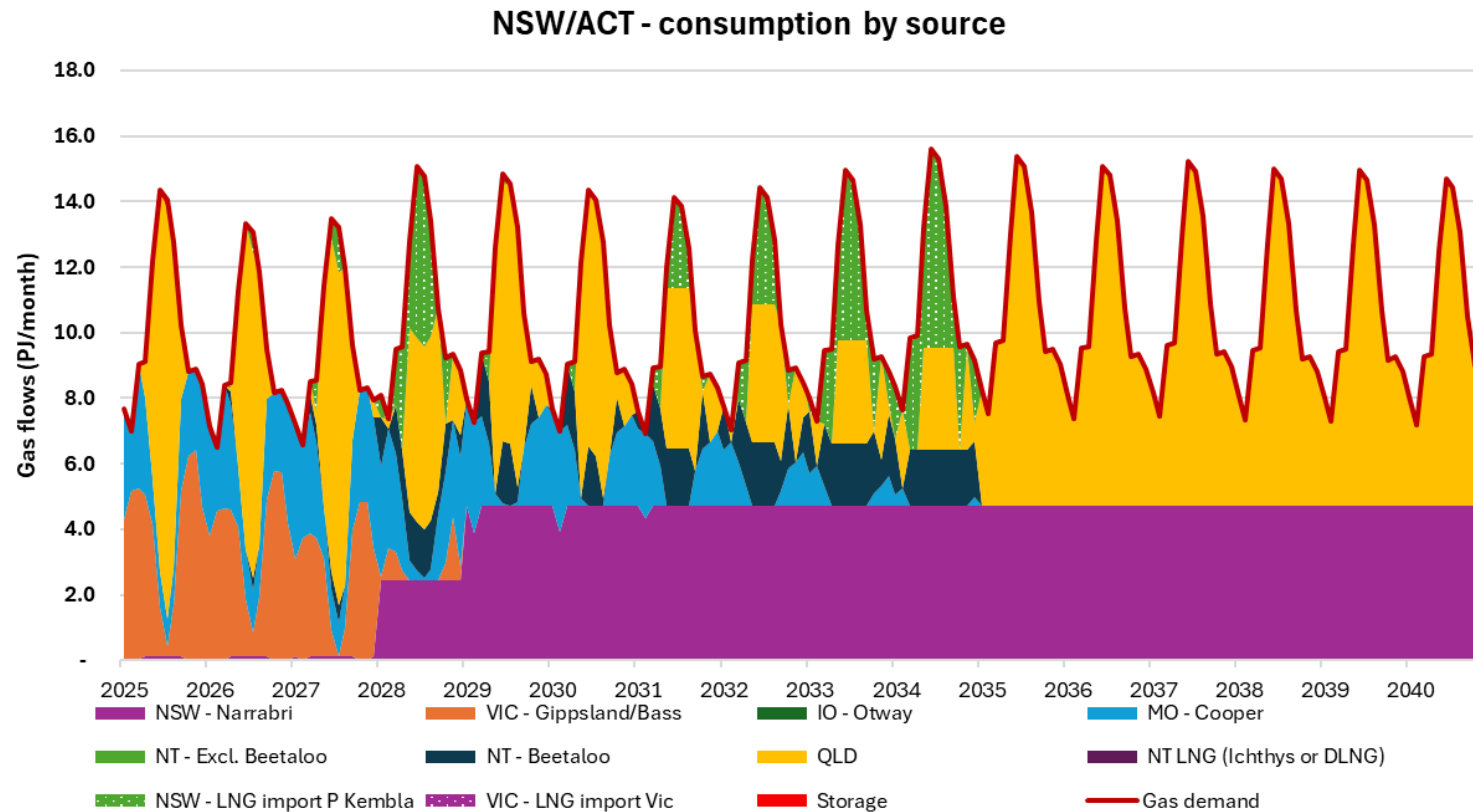
- In the gas short southern region...
- Narrabri becomes the largest southern gas producer within four years of start up...
- passing traditional Gippsland and Cooper Basins
- The alternatives are:
 - QLD/NT gas
 - LNG regasification
 - More coal-fired power generation
 - or....?



Source: EnergyQuest Topaz modelling – includes announced APA expansion, and extended Eraring

NSW supply challenges

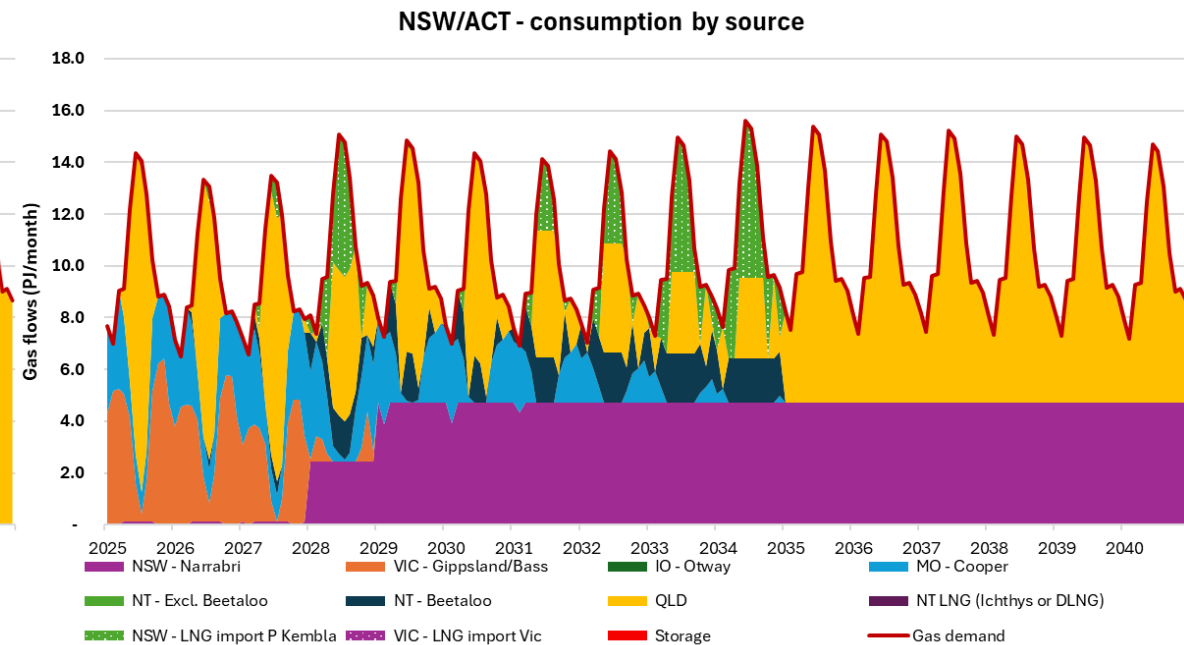
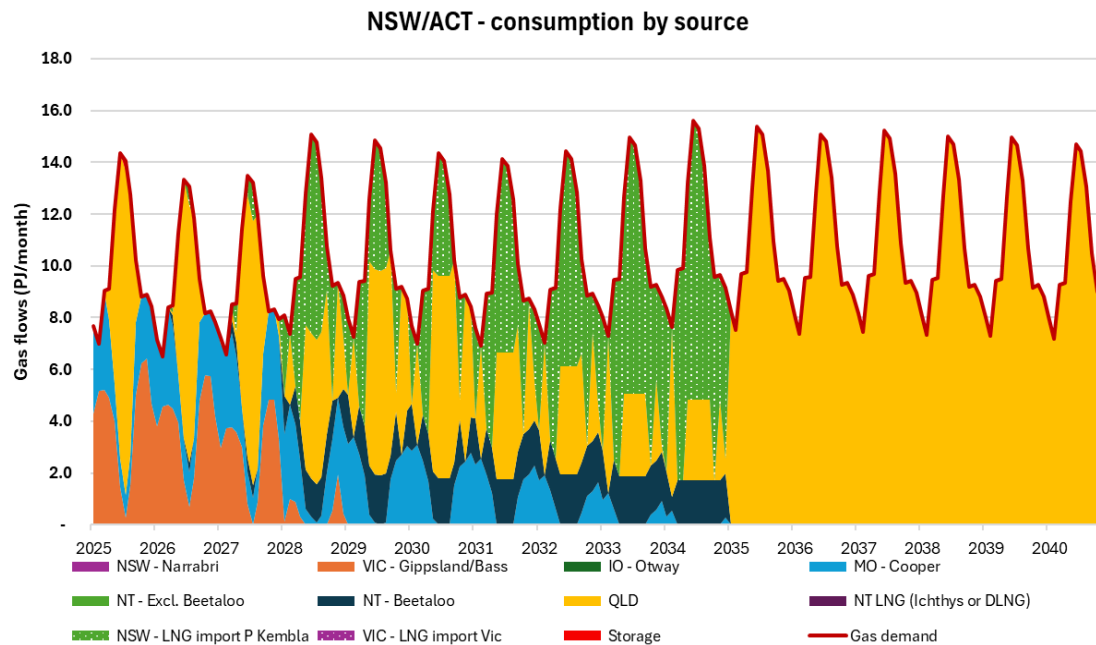
The importance of Narrabri is even more extreme in NSW with no other indigenous gas supply



Source: EnergyQuest Topaz modelling

NSW supply challenges

Without Narrabri, more than 92% of NSW gas supply in three years is being shipped more than 2,000 km



Source: EnergyQuest Topaz model

Key points

Project (medium risk):

- Even with the challenges of complex wells, tricky geology and CO2 to manage...
- ...it is technically feasible for a good operator
- Costs may be an issue, especially with any gas price caps

The market (low risk):

- The NSW market has no other indigenous gas, and this will be a major problem as supply tightens

Government, legal and regulatory risk (high risk):

- Lack of overt support, and market interventions make future support an open question



And one more thing...



Thank you

EnergyQuest publications:

- East Coast Gas Outlook
- West Coast Gas Outlook
- EnergyQuarterly
- Monthly LNG and energy essentials report
- Unlocking the potential of carbon capture

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