



Cost of equity

APGA Presentation

11 Aug 2021



Overview



Parameter	View
MRP	✓ ENA
Beta	✓ ENA (but consider if enough information for gas)
Avg period	✓ ENA
Cross checks	See last week

- Thinking about risk for gas sector
 - Range of gas futures and regulatory responses
 - Consider need for action
 - Consider and assess tools
 - Consider other regulators
 - APGA view

Range of gas futures



Complex regulatory responses

No change in regulation

No change in economics of gas sector

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Know gas will no longer be needed and exactly when

Economist – cover opex and maintenance.
Lawyer – what does regulatory compact in NGL mean?

- Hydrogen manufactured not mined
- Change in nature of competition for energy at demand source
- Unclear how long any transition might be (and to what)
- Options for re-use and repurposing of gas assets

Investors won't wait for a bad decision to act, but will assume the worst if plans are unclear. Beware path dependency!

Is there a need for action?



- In theory, if risks changed market would reprice everything automatically, AER need do nothing, but:
 - Markets are imperfect and do not price all risks perfectly, particularly as they change
 - AER can't pull perfect information from the market
 - Use of historical data, small sample sizes, imperfect models, imprecise results, mix of gas and electricity information, etc, etc
 - AER only pulls information from the market sporadically
 - RoRI once every 4 years, AA once every 5
 - Future of gas is moving *much* more quickly than this

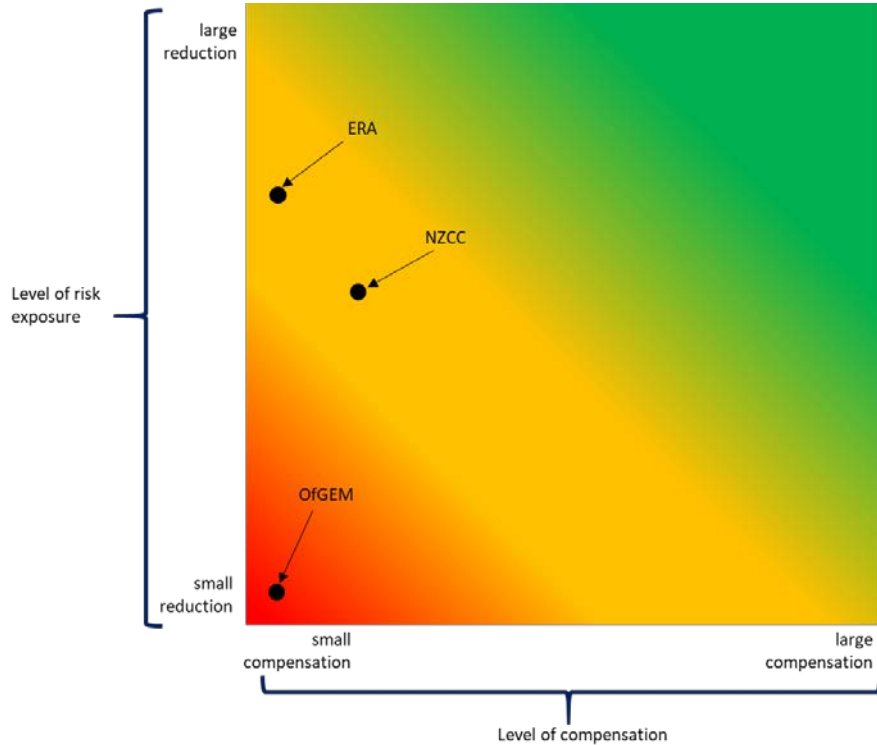
In practice, the AER needs to think about changing risk profiles, and cannot simply rely on perfect markets to solve all problems

Stranding and WACC



- Should asset stranding be dealt with in WACC?
 - Some aspects associated with asset stranding may be systematic
 - Decarbonisation is as global as interest rates and industry exposure differs
 - If regulation reduces risk, and gas is headed for competition, higher WACC makes sense
 - Risks are complex and costs of errors may be high
 - Direction of desired investment signal is unclear
 - Path dependency is a problem – railways example
 - Lowest cost solution for consumers will require many tools
- Answer should be driven by pragmatic consideration of long term interests of consumers, not arcane economic theory

Tools and their use



- Change the risk via tools like accelerated depreciation
- Compensate for risk via tools like WACC
- But:
 - future uncertain so you never know how much to accelerate, so;
 - some risk always remains on table
- So tools work together
 - Pragmatic balance of most efficient combination given information set
 - Too much reliance on one tool may *increase* cost to consumers

Other regulators



- NZCC
 - Allowing changes in asset lives – “economic asset stranding”
 - Principle of *expected* financial capital maintenance
 - Firms should expect to get invested capital back
 - Allowance to account for uncertainty of expectations
- ERA
 - Accepted depreciation acceleration on basis of small price change, no change in WACC (asked for or given)
 - Solution not perfect but kudos for not simply kicking can down the road
- OfGEM – laggard, but cases before CMA may force action
 - Businesses have asked for depreciation and WACC solutions

APGA preference



- Recognise that something needs to be done
 - Risk of gas businesses different to electricity
 - 2022 RORI should be developed with stranding asset risk approach in mind (no more siloes)
- No double-counting, but best available response for each business
 - Accelerated depreciation and WACC can play a role, which may differ business to business and through time as information evolves
 - Accelerated depreciation captures *expected* change in asset lives and WACC the *confidence in* that change -NZCC
- Consider price impacts of options (eg – ERA)
- Support development of robust methodology
 - Investors need to be understand how AER will assess risks and act next year
 - We need to plan over 30 years, not four and not five