Genesis & MDAG Discussion

Price discovery in the New Zealand wholesale electricity market under 100% renewable electricity supply

genesis With you. For you.

Approach

- Project Scope discussion questions are broad covering several dimensions
- MDAG will have had the benefit of views from a range of consultants and industry participant
- Genesis will focus on relevant experience and insights from our current role as the principal provider of dry year risk solutions

Security of Supply – Dry Year Shortage Risk

- Insights from current challenges that will need to be considered in a 100% renewable supply scenario:

    - ➢ Ongoing challenge in investing and maintaining plant for low probability high priced events.

    - ➢ Sustained high prices / dry year events are infrequent.

    - ➢ Without this experience, when they occur market participants, customers, politicians and other interested parties often see the market as broken as market dynamics and outcomes don’t meet their expectations.

    - ➢ Early expectations of market designers was that a deep / fulsome contract market would develop has not transpired.

    - ➢ Swaption contracts are challenging to put in place, and reflect the very limited value pool for risk solution providers.

Security of Supply – Dry Year Shortage Risk (cont …)

- Potentially requires a market mechanism developed to support ongoing investment in backup generation
  - Would support ongoing investment in back up generation in the short term
  - Provide framework and price signals for new back up generation (whether batteries, pumped hydro, demand response or a combination) providers to invest

Security of Supply – Peak Demand Shortage Risk

- Peak demand risks (e.g. 9 August 2021 shortages)
    - ➢ Uncapped volatility (other than as resolved through a UTS) would be challenging for providers
    - ➢ Consider exploring vol caps (both price and period) such as those in Australia

Next steps

- MDAG’s process and timing
- Further engagement as problem definition settled and proposed options developed