

Fonterra submission on the Orderly Thermal Generation Transition

August 2023

Fonterra welcomes the opportunity to comment on the Electricity Authority's consultation document "Ensuring an Orderly Thermal Transition".

Fonterra is a dairy co-operative owned by around 9,000 New Zealand farming families with 27 manufacturing sites across the country, making us the country's largest exporter and a major supplier of dairy products to the domestic market.

Fonterra is committed to achieve net-zero emissions by 2050 for our operations. We recently announced that we are lifting our scope one and two emissions reduction targets and accelerating our industrial decarbonisation plans, from a 30 percent absolute reduction by 2030 to a 50 percent absolute reduction (compared to FY18 levels). This means we are bringing forward several significant decarbonisation projects and we remain committed to ending the use of coal by 2037, in line with the Climate Change Commissions' recommended pathway.

To this end decarbonisation of our manufacturing sites via electrification is a key pathway and requires, among other things, affordable electricity prices. The current high wholesale electricity prices are not conducive for electrification projects and there is limited ability to procure low-cost electricity ASX hedges to reduce financial risk.

The first half of 2023 has given us a glimpse into the future of the New Zealand electricity wholesale market, with prices collapsing to under \$50/MWh when hydro and gas generation availability was high outside peak demand hours, and prices jumping to over \$300/MWh during peak periods. This price volatility was signalled by MDAG in its analysis of a 100% renewable electricity system.

Unfortunately the ASX forward curve did not significantly decline to match this new operating zone and appears to have consistently passed all thermal fuel risk onto the end user, resulting in significant profit taking during the off-peak periods which exceeds the cost of generation during the peak periods.

Q1: Fonterra does not believe that desired outcome is sufficiently articulated. We agree with the need to consider the thermal generation transition, but we believe the bigger issue is imbalances in generation supply versus demand. If thermal generation is completely removed, there will continue to be price shocks when generation does not match demand. This problem needs to be solved to ensure an orderly transition from thermal baseload and peaking to 100% renewable.

Q3: We believe the modelling and conclusions reached are overly optimistic around the amount of thermal generation that will remain in the system out to 2032, the decommissioning of baseload thermal generation will accelerate as it requires prices over \$300/MWh to remain profitable the ASX forward curve is only just reaching \$200/MWh during the winter peak demand periods. Our view is that the EA needs to plan for full thermal exit prior to 2030 as a utilisation of just 1.5% would require significant price recovery, potentially up to the value of lost load.

Q4: In line with the EA's requirements for thermal generators to provide information on their thermal fuel supply risk, the EA should also require thermal generators to provide annual declarations of future retirement dates and key drivers for the selection of those dates for public disclosure. The aim with this would be to eliminate the information asymmetry between incumbent thermal generators with plans for new generation and new independent renewable generation entities needing to consider future price conditions without all information. Such public announcements of thermal retirements have occurred in the past, i.e. the Huntly Rankine units, although given they have continued operating past their announced closure date, this disclosure measure alone is unlikely to be sufficient for improving information asymmetry

Q5: As MDAG has shown, there will be a need for a very deep and robust dispatchable demand response market. The current Real Time Pricing (RTP) market makes no attempt to incentivise dispatchable demand any differently than the prior market did, i.e. companies can choose to be hedged and reduce demand thereby generating revenue from the hedge. We believe there needs to be a balanced approach to incentivise deeper demand response. The incentive could be guaranteed financial compensation for having the demand response available, i.e. interruptible load. This financial compensation would assist in the capital cost of batteries, thermal storage or smart EV charging. This incentive would be matched by a requirement to bid into the RTP market, thereby providing the system operator clear visibility of the potential demand response and delivering a more accurate combined generation demand response price stack.

Q6: We believe the current ASX hedge market is not functioning as intended as it is now pricing all future risk in the market. This is illustrated by flat winter peak prices, whereas in the past participants would have expected to see movement down towards the LRMC of the average generation fleet as no generator has visibility of the weather risk three years.

Q10: We disagree that lumpiness does not threaten to disrupt the orderly transition. We have experienced the impact of thermal single unit retirements, such as Southdown and again when the Otahuhu units were shut down. In both cases, the immediate result was wholesale price increases as the remaining thermal generators took a more pivotal role in setting the price stack. This was also shown by the market price activity when TCC availability or lack of availability is announced to the market.

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