December 2024

Risk Management Review

Electricity Authority

PO Box 10041

Wellington 6143

Submission on Review of risk management options for electricity retailers

This submission supports the Electricity Authority's view that further work is required on reviewing the availability and pricing of risk management products available to non-integrated retailers (NIRS .

I submit as a developer of a demand response service. The consultation paper notes that:

Fuel access may be a constraint on the ability of gentailers to offer risk management products to NIRs; and

Demand response (DR) is a viable alternative to purchasing a risk management product for NIRs.

I have concern about:

- The depth of likely fuel supply market going forward, which may impact on the depth of the gentailer market in offering risk management products; and
- Current technology limitations may limit the timing of development of a deep DR market in NZ.

Both concerns tend to reinforce the view that further investigation, and possibly some intervention, in the risk management market may be warranted.

10 Hataitai Rd, Wellington 6021
Mobile +64 21 626 851
www.NWCL.co.nz, Email: Neil.Walbran@NWCL.co.nz

Background - Attempting to Develop an Alternative DR Service

For context I am currently attempting to develop an alternative DR service (low cost smart charging service for EVs) which could be offered as a DR aggregation service on NIRs. I am attempting to develop this service because I agree with MDAG that price volatility is likely to increase and DR is a way of helping mitigate this. I say alternative DR service as I am aiming for a low cost service using off the shelf internet of things devices as most of the current EV smart charging services I am seeing are relatively expensive to implement[1] and may not offer a compelling value proposition to an NZ EV owner for home charging as at today.

Concerns on Depth of Fuel Supply Market - Economies of Scale in Developing New Fuel Supplies

I tend to share MDAG's concerns that access to fuel for flexible generation may limit availability of flexible generation and thus the ability of gentailers to offer much in the way of super peak hedges. For example the recent GIC report on future gas supply and demand scenarios suggested LNG importing is likely to be expensive as it is likely to have a low utilisation rate[2]. It also appears that development of a new LNG import terminal, or new offshore gas exploration, are both relatively high capital cost projects. So there may be a limited range of parties willing to underwrite such projects. So there is a risk that fuel access for flexible generation could end up concentrated in just a few players. Increasing the risk of exercise of market power in fuel supply and hence market power in provision of super peak hedges.

Concerns on Timing of Deep DR Market - Current Technology Unlikely to Achieve Deep Penetration in NZ Soon

I also agree with the EA's view that DR does provide a viable alternative to super peak hedges. However the examples cited in the paper have technical limitations which might constrain how quickly they are adopted in NZ. For example:

Hot Water Control Service - Concentrated Service Supplier - Relatively High Cost

It is good to see several retailers taking up the hot water control service offered via smart meters. However the provision of smart metering services, with the ability to control hot water independent of the EDBs, is relatively concentrated in NZ at

[1] Many of the current offerings seem to require installation of specialist hardware on the consumer site, or rely on in-car "smarts" which are currently only offered by higher end (expensive) EV manufacturers.

[2] Supply and demand - Gas Industry

present. That is Vector Metering are a dominant provider so face little incentive to minimise the price they offer this service at.

Smart EV Charging - Either Expensive Hardware or Expensive Cars

I also agree smart EV charging is, in the long term, a promising source of DR and likely to have more players, and more competitive pricing, than hot water control as a DR service. But the examples quote in the paper either require smart cars (where the ability to turn charging off in response to a spot price signal is built into the car[3]) or a dedicated smart charger[4].

Smart car offerings seem to be limited to higher end EVs at the moment (e.g. Tesla, BMW etc). I am not seeing any second hand cheaper EV imports offering this functionality in NZ yet.

Dedicated smart home chargers are still relatively expensive, by the time they are installed, in NZ at present.

These cost limitations are likely to impact the speed of uptake of these services.

Alternatives Take Time to Develop

As I said in my introduction I am trying to develop a lower cost smart EV charging service, but frankly this is proving very slow to develop from scratch and is unlikely to significantly impact the depth of DR services available to NIRs in NZ in the medium term.

No part of this submission is confidential and I am happy for my submission in its entirety to be released publicly.

Regards

Neil Walbran

[3] The service offered by Octopus and David Electricity quoted in the paper appear to be based on this approach.
[4] The services offered by existing gentailers appear to be mostly based on this approach.

Managing Director

Neil Walbran Consulting Ltd

Response to specific consultation questions

Q1	Do you agree that retailers have a range of different options for managing wholesale price risk, but that shaped OTC hedge contracts will remain an important option for at least the short to medium term?	Yes I agree they have a range of options, including DR, but I also agree that shaped OTC hedge contracts will increase in importance in the short to medium term. I say increase as I think the demand for risk management will increase, for the reasons th paper outlined, but the alternatives may be slower to develop for the reasons I outline above.
Q2	Do you have any comment on our preliminary findings in relation to the supply and pricing of super-peak OTC hedge contracts? Specifically: (a) Do you have any further evidence that could assist us to better understand the impact of scarcity (fuel and capacity) on the supply and pricing of super-peak OTC hedge contracts? (b) Do you have any further evidence regarding the risk premia that may be applicable to super-peak OTC hedge contracts?	The only evidence I can offer wrt fuel scarcity is to point you to the GIC study of gas supply and demand scenarios, with suggests a lack of depth in options for new fuel supply. And economies of scale suggest a limited range of players may be able to develop such new options outlined in the GIC study. No evidence regarding risk premia.
Q3	Do you have any views on how we have assessed in chapter 7 the indicators for and against gentailers having market power in relation to super-peak OTC hedge contract prices and availability?	I agree with your indicators and highlight the likelihood of uncertain or scarce fuel supply.
Q4	Do you agree with the criteria for intervention we have set out in Chapter 8? Have we missed any that you think are important?	I agree with your criteria and can't add to them.