31 October 2022

To: inefficientpricediscrimination@ea.govt.nz
Electricity Authority
Wellington

EA: Inefficient price discrimination in very large electricity contracts

This submission to the Electricity Authority ("EA") is made following the release of the 18 August 2022 consultation paper *Inefficient price discrimination in very large electricity contracts*. Elemental Group, BlueFloat Energy and Energy Estate are pleased to provide feedback and welcome ongoing dialogue between the EA and interested parties.

Partnership

Elemental Group, BlueFloat Energy and Energy Estate have formed a partnership to develop a portfolio of offshore wind projects in New Zealand.

Our partnership brings together complementary skill sets and experience in the global offshore wind industry and deep understanding of the New Zealand electricity sector. Our projects will accelerate decarbonisation by supporting new, reliable and stable generation, providing power for industry, encouraging new industries and creating skilled and enduring jobs across the country.

Our development principles are based on partnerships with iwi, government, other industry participants and local stakeholders. We are committed to fostering the growth of a New Zealand offshore wind industry, local supply chain and building local capacity.

Overseas experience

Power purchase agreements for offshore wind projects tend to be large contracts of several hundreds of MW with large gentailers, corporates and/or clubs of corporates. This is due to the scale of offshore wind farms and the need to put in place power purchase agreements of sufficient volumes to underpin the final investment decision. In November 2021 we released Haumoana – offshore wind capacity building in New Zealand and included a section on the global experience with power purchase agreements and other support arrangements for offshore wind farms – please see https://offshorewind.co.nz/reports/

Response to the EA's paper

We do not believe that EA's major contract "solution" will achieve what is required to bring additional liquidity in the New Zealand energy markets. We do however believe that other measures can be implemented to increase competition and bring down prices in the electricity market.

We are very supportive of the need for material changes to the existing rules to encourage new generation and transmission. In order to attract global energy market participants and the investment required to facilitate a rapid transition of the energy sector we believe that reforms are required. One of our concerns with the major contract solution is that it gives new entrants the

impression that large energy contracts and the users and gentailers on the buyside of any contract are being discouraged.

We believe there is an urgent need to stimulate investment in new sources of bulk supply for large existing loads such as Tiwai and Glenbrook and this new investment could be enabled by partnering with existing generators – but on the face of it this would fall with the ambit of the major contract solution proposal. New generation capacity will also be required to meet loads such as mass EV charging, electric process heat, green hydrogen exports, domestic clean manufacturing and data centres. The NZ Battery proposition may itself need significant quantities of new generation (including for the initial fill).

We do agree that mechanisms like buyers being entitled to on-sell power facilitates a liquid market and we are generally supportive of such provisions. Alternatively, you could look at use it or lose it provisions which requires the seller to make the capacity available to the market if the buyer will not use the capacity.

To give some market protection for electricity exports embodied in other products such as milk powder, aluminium, steel etc, we believe serious consideration should be given to a demand response requirement of say 15% capacity which is callable for high demand events such as outage conditions or dry year events. This is similar to protection systems used in the Western Australia gas market and ignored in East Australian gas markets to the detriment of consumers and businesses. It is also contemplated in the Southern Green Hydrogen load arrangements.

In general, we are strong supporters of the need for significant amounts of new dispatchable capacity in the New Zealand market such as long duration PHES and hydrogen storage. This complements new generation sources such as offshore wind and should address many of the liquidity concerns which EA has been seeking to address through the major contract solution.

The settings for the NZ electricity market should be premised on a basis of serving ourselves and then sharing our energy with the world in order to take advantage of our globally significant renewable energy resources, both onshore and offshore. This will only occur with a suitable balance between the supply and demand side of the equation.

Response to the EA's questions

Question	Answer
Q1 Are there plausible reasons for why major generators with no commercial contract with NZAS would be willing to subsidise them staying, other than because of the impact NZAS's exit would have on aggregate prices facing all generators?	In our view this question is based on an assumption that a large energy user such as NZAS is effectively a parasitic load on the NZ energy system. If you take this argument to its logical conclusion NZ should encourage all large energy users to shut down because their ability to negotiate cheaper prices than other consumers results in a subsidy. We believe that large energy users such as NZAS are vitally important to the future of the

	NZ energy system. NZAS and other larger energy users such as NZ Steel, Fonterra and the forestry and meat processing sector provide players like BlueFloat Energy and Energy Estate with confidence that there are enduring loads which service domestic and export markets. From the perspective of other generators you realise the critical importance of such loads and the long term disruptions which can occur if such loads suddenly disappear.
Q2 Do you agree that where there are restrictions on reselling by large users who are in a position to threaten exit, the Authority should have a concern to examine whether the expected overall value of the contract to the generator is less than the best alternative value in the absence of the contract?	As noted above we understand the rationale for seeking to impose resale rights or equivalent mechanisms in contracts of a certain size in a market like New Zealand where liquidity is at a premium. However, we believe that giving this power to the EA and focussing on the overall value of the contract to the generator is the wrong approach when considering the investment required in large energy intensive industry. At any point in time in a market anywhere in the world you can always say the energy would have been more valuable being used somewhere else in the system. But in many cases the capacity would not have been built and the energy user would not have created the load without the initial contract being in place. When New Zealand is seeking to attract new industries such as green hydrogen, sustainable aviation fuels and clusters of data centres how would investors make a decision to invest with EA having this power to intervene. Another relevant example is Air NZ moving to electrify its short haul fleet which may increase NZ electricity demand by 10% (or close to that of NZAS). If the Air NZ power price was struck at a time which looks like a good deal in hindsight, wouldn't this rule apply?
Q3 Do you agree with the problem definition? If not, why not?	No, as the analysis fails to account for the nature of contracts between parties with dedicated interconnection and limited access to the wider grid. We expect some of our offshore

	wind projects will connect directly to dedicated consumers with limited grid connectivity. It is not clear to us that such arrangements would be excluded from the rules despite the technical issues involved and the lack of an incentive to build additional transmission capacity.
Q4 Do you agree that for the types of contracts the Authority is interested in ensuring the efficiency of (very large contracts which have the potential to shift market prices for other consumers), they will prima facie be inefficient if: a) the value of the contract to the generator is below the generator's best alternative value taking into account any credible threat to consumption and b) the large load user is not able to on-sell any consumption under the contract it forgoes and remain subject to the same terms as if it consumed the electricity itself?	Our approach is somewhat different. The main way to drive power prices down is to encourage new capacity into the market and ensure that there is adequate competition on the demand side for consumers. Any rule which disincentivises investment by potentially preventing generators from entering into long term contracts which can underpin an investment should be discouraged. We do not disagree with the need for on-sell rights and we also believe that there need to be appropriate incentives to ensure that dispatchable capacity is not hoarded when it should be made available to the market.
Q5. Do you agree with the principles: a) the relevant counterfactual against which to assess the value of the contract to the generator is the best alternative value taking into account any credible threat to consumption? b) direct value components of the contract including and in addition to the contract price should be recognised and taken into account when assessing the value of the contract to the generator, so long as the generator can value them in a transparent and credible manner? c) the value to the generator from increases in prices to other consumers as a consequence of the contract should be excluded from the assessments of the value of the contract to the generator? d) the assessment should be made at the time the offer was made (or extended or renegotiated by the generator) on the basis of information in the immediate lead up to the generator signing the offer or contract?	We believe that rather than this mechanism it would be better to spend the time identifying and dealing with barriers to entry and acceleration of deployment of new generation.

Q6. Do you agree with focusing on contracts related to the physical consumption of electricity?	No we do not.
Q7. Do you agree the threshold for a Materially Large Contract should be the equivalent of net 150MW?	No we do not.
Q8. Do you think the threshold should be set in MW or the equivalent MWh set over a 12 month period? eg, in the case of a net 150 MW the threshold could be defined as either: • net 150 MW • net 1,314,000 MWh over any 12-month period	N/A
Q9. Do you consider that the proposed provisions to ensure the intent of the Code changes are not undermined by contract structures are sufficient?	N/A
Q10. Do you agree with focusing on whether the net value to the contract to the generator is positive?	We do not understand how this can ever be determined in a competitive market. There are many factors which go into a decision to enter into a large contract – such as finding your first customer for an investment in a large geothermal project in order to raise the project finance necessary. If generators are unable to enter such contracts for fear of running foul of EA's large contract rules this ends up having the opposite of the desired effect as the only market players who can build new generation are the integrated gentailers. While the proposed rule seeks to exclude new capacity, this means that new entrants may not be able to enter the market by acquiring existing generation and then contracting this generation alongside new capacity to meet existing and growing large loads.
Q11. Do you agree with focusing on contracts which restrict on-selling?	We consider that contracts should enable improved market liquidity by allowing either the seller to sell into the market under a use it or lose it clause or the buyer selling into the market through a reselling clause. We also

	consider that large export contracts for say hydrogen or other embodied exports like dairy, steel and aluminium should contain a 15% reselling threshold which can be called to add capacity when the market price starts to drive electricity scarcity.
Q12. Should the Authority consider other criteria to determine which contracts the proposed Code amendment should apply to?	In addition to our answers above, where feasible, contracts should enable demand-responses under the operation of the contract.

Conclusion

We consider that the introduction of a major contracts scheme as proposed will not have the desired effect on the market and could hurt competition by stifling new investment. Our solution to the issues identified by EA is to focus on facilitating investment in new large scale renewable energy generation and storage capacity and a transmission system which connects the new clean and dispatchable generation to existing and future load across the electricity market to reduce power prices and stimulate retail and wholesale market competition, allow New Zealand to meet its zero emissions targets as soon as possible and stimulate economic development across the country.

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