Meridian Tiwai electricity contract

Comment on Electricity Authority market review

NZIER report to MEUG

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Key points

Problem definition needs clarification

The Electricity Authority (EA) has defined the potential for inefficient price discrimination by generators as a market outcome that it needs to prevent. However, it is not clear if the EA wants to prevent a replication of the Meridian Tiwai contract at the end of its current term or if it expects a proliferation of smaller inefficient price discrimination contracts.

The EA notes the Meridian Tiwai contract *has several relatively unique attributes, including the large size of the supply and its impact on prices, such that all generators' revenues are expected to increase from the contract.* This suggests a proliferation of smaller inefficient price discrimination contracts is unlikely.

EA is equivocal about the efficiency of the Meridian Tiwai pricing contract

The Electricity Authority (EA) has identified a contract between NZAS and Meridian for the supply of electricity over 2021 to 2024 as a potential example of inefficient price discrimination and noted that it was rational for Meridian to make this agreement because of the scale of Meridian's generation capacity compared to other generators nationally and in the South Island. The EA but does not explicitly either describe the agreement as inefficient an exercise of market power. This issue is analysed in detail by the EA in its initial response to the wholesale market review[1]. The EA presents two very different estimates of the materiality of the impact of the agreement:

- Additional costs to spot market purchasers of $1.6 billion to $2.6 billion over three years based on the movement in forward prices after the contract was announced.
- An efficiency cost to the New Zealand economy of $57 million to $117 million.

Proposed options for EA intervention are not consistently assessed

Five of the eight options proposed by the EA are administrative solutions - rule changes designed to prevent discriminatory pricing. The success of these measures relies on setting effective rules and efficient processes for monitoring and on the regulator being able to identify and prove they have identified a better combination of trades than the market. This is likely to be difficult for the task of deciding when discriminatory pricing reflects different product and service attributes as opposed to an attempt to subsidise some customers at the expense of others.

Two of the options are to improve competition in hedging markets but these require deep and active markets to be successful.

The EA has suggested a set of evaluation criteria for the proposed options, but the consultation questions focus on pros and cons and do not apply the evaluation criteria.

[1] 'Inefficient Price Discrimination In the Wholesale Electricity Market – Issues and Options an initial response to the Wholesale Market Review

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1 Problem definition

The issues paper focuses on inefficient price discrimination which may have the following effects[2]:

- *Consumers with relatively low valued uses of electricity may potentially consume too much electricity and other consumers with higher valued uses may consume too little.*
- *The benefits of consuming electricity may be less than the costs of producing it. This is a waste of finite resources*
- *Resultant market prices may distort signals for investment in generation and electrification, thereby compromising the efficient transition to a low emissions economy.*

The Authority considers good market design should ensure that the incentives on generators are such that all participants can be confident that electricity is going to consumers with the highest valued use.

The EA used the Meridian Tiwai contracts to illustrate the potential for inefficiency caused by discriminatory pricing but has not determined that the contracts were inefficient at the time they were negotiated.

It is not clear whether the EA is attempting to prevent an extension of the Meridian Tiwai contract at the end of its current term or a proliferation of much smaller contracts.

The lack of clarity in the definition of the problem that the EA is attempting to address make it difficult to comment on the costs, benefits and risks of the options that the EA is proposing.

2 Options

The EA has suggested options that it could advance through Code amendments to address the risk of inefficient price discrimination:

1. *Status quo.*
2. *Prohibit 'use-it-or-lose-it' clauses.*
3. *Electricity Authority pre-approval of large contracts.*
4. *Require public offering of all (or some percentage of) hedge contracts.*
5. *Require public offering of large hedge contracts.*
6. *Extend trading conduct provisions beyond the spot market to hedge markets.*
7. *Non-discriminatory pricing rules.*
8. *Hybrid of non-discriminatory pricing and pre-approval of contracts.*

[2] 'Issues Paper', page iii.

The proposed evaluation criteria [3]are shown below. These have not been applied to the options listed in the issues paper and are not included in the EA consultation questions for the options. They also seem to assume that the EA can measure the effect of an intervention against each of the criterion accurately and comparably.

Figure 1 EA evaluation criteria

Table 3: Proposed criteria to evaluate proposed policy options

	Criterion	Description
Efficiency	Highest value use of electricity	• Electricity is provided to consumers who value it most highly and value it more than the cost of production
	Transparency	• Provides assurance (to public and Authority) that electricity is efficiently allocated
	Confidence	• Minimises risk premiums
	Flexibility	• Supports bespoke transactions that create value, including the allocation of risks to parties that are best able to bear
	Addresses inefficient discriminatory pricing	• Addresses root cause of inefficiency and any competition concerns
Competition and reliability	Reduces potential for price mark-ups over cost	• Reduces consequence of market power
	Incentives to invest in new generation	• Supports price signals for efficient investment in generation and electrification
	Supports investment to maintain future reliability	• Avoids additional uncertainty for investment during transition
Practicality	Within Authority mandate	• Feasible policy actions to achieve outcomes consistent with Authority's legislative mandate
	Timely	• Can be addressed before any further contract negotiations between generators and large consumers
	Benefits outweigh costs	• Satisfies usual cost–benefit analysis required by section 39 of the Electricity Industry Act 2010, including implementation and compliance costs

Source: EA Issues and Options Paper

Any regulatory intervention carries the risks that:

[3] 'Issues Paper', page 51.

- A decision to intervene is made when there is no actual problem or when the intervention can only produce an outcome that is different rather than clearly better than the outcome without intervention
- Intervention is poorly implemented or crowds out other more efficient solutions that could be negotiated by the market or is simply overtaken by events.
- Incentives for market participants to innovate are dulled by uncertainty about whether they will attract intervention.

Appendix A EA questions on problem definition

Table 1 Problem definition

Question	Comment
Qu. 1 NZAS has a number of unique attributes as a consumer of electricity, including size, location, the related potential for stranded water, and capacity to provide demand response. Do you agree that these factors support a discount relative to Benmore prices (as the reference South Island node)? Are there other relevant factors and how might one determine an appropriate level of discount?	The key relevant factor is the next best alternative use of the energy supplied to Tiwai. The EA analysis does not clearly state its assumptions about the relief of the Clutha-Waitaki constraint with respect to timing and how it affects opportunities to supply to customers in the rest of South Island and the North Island. (The EA counterfactual does not discuss the potential HVDC constraint.)
Qu. 2 Do you have any additional feedback or information on the efficiency of the existing Tiwai contractual arrangements and their consequences?	See comment on question1.
Qu. 3 Do you agree that the Authority should investigate price discrimination in relation to wholesale contracts?	Yes.
Qu. 4 Should the Authority's consideration of policy implications from price discrimination practices extend to situations where electricity is supplied both at discounts and premiums to market prices?	Yes.
Qu. 5 Do you agree these baseline assumptions are reasonable? What other assumptions should be tested?	The assumptions about the alternative market for electricity sold to Tiwai need to be clarified. (See answer to Qu.1.)
Qu. 6 Do you agree that any investment issues raised by the Tiwai contracts are best addressed through a review of barriers to new investment more generally, as the Authority intends to undertake in 2022?	Yes.
Qu. 7 Beyond the Tiwai context, do you consider discriminatory pricing or discriminatory terms and conditions are adversely affecting efficiency and competition in the electricity system? If so, please provide evidence.	No comment.
Qu. 8 Are there other options the Authority could implement to mitigate inefficient price discrimination?	No comment.

Source: NZIER

Appendix B EA questions on options

Table 2 Option 1: Status quo

Question	Comment
Qu. 9 What are the pros and cons of the status quo?	Agree with EA description of the status quo as dynamic in paragraph 6.16.
Qu. 10 Do you consider that the status quo addresses the problem identified?	Partially. Meridian has strong long- term incentives to reduce its reliance on supplying Tiwai. A scenario analysis of the impact of retirement of thermal capacity and removal of transmission constraints would be helpful in comparing the options.

Source: NZIER

Table 3 Option 2: Prohibit 'use-it-or-lose-it' clauses

Question	Comment
Qu. 11 Do use-it-or-lose-it clauses have a legitimate commercial role? What would the effect be of prohibiting them in wholesale electricity markets?	No comment.
Qu. 12 Which contracts (eg, minimum size) should be subject to a prohibition on a use-it-or-lose-it clause?	If there is a threshold, it should be based on the estimated inefficiency – the price differential and the contract size (as implied in paragraph 6.22 in the discussion of option 3).
Qu. 13 What are the pros and cons of prohibiting use-it-or-lose it clauses?	Agree with the EA list.
Qu. 14 Do you consider that prohibiting use-it-or-lose it clauses addresses the problem identified?	No. Probably difficult to prevent parties from making commercial arrangements that have the same effect.

Source: NZIER

Table 4 Option 3: Electricity Authority pre-approval of large contracts

Question	Comment
Qu. 15 Should this option be limited to pre-approval of contracts or extended to apply to offers that one party considers are discriminatory?	If this option is adopted, it should be initially limited to contracts to allow the EA to focus on deals market participants are ready to make.
Qu. 16 What criteria should the Authority consider in pre-approving large contracts?	The criteria for evaluating policy options in Table 3 of the EA paper (included as Figure 1 in this report) would be a starting point for the assessment of the effects of contracts.
Qu. 17 What should the MW or dollar threshold be for contracts requiring pre-approval?	The threshold, should be based on the estimated inefficiency – the price differential and the contract size
Qu. 18What are the pros and cons of Authority pre-approval?	The EA list of pros and cons covers the main issues. However, the 'potential pros': '*Focus exclusively on…'* and *'Does ex-ante what is currently occurring ex post…'* overstate the potential benefits. The cons do not mention the additional transaction cost for the participants required for the approval or the difficulty the EA will face in establishing accurately the benefits of intervention.
Qu. 19 Do you consider that pre-approval of large contracts addresses the problem identified?	Contracts may become 'inefficient' as market circumstances change.

Source: NZIER

Table 5 Option 4: Require public offering of all (or some percentage of) hedge contracts

Question	Comment
Qu. 20 Would greater reliance on exchange-traded derivatives provide as much risk mitigation as current arrangements that also encompass over-the-counter risk products? Please explain your reasoning.	Unlikely that derivative markets would be deep enough to replace a Meridian Tiwai type contract because these entities have much larger supply and demand than the other participants in the market.
Qu. 21 What products would you want to be offered in addition to the existing publicly traded hedge products?	The choice of 'products' would need to be based on whether there is enough buy and sell interest for a liquid market to operate.
Qu. 22 What percentage of hedge contracts should be offered publicly?	No comment.
Qu. 23 What are the pros and cons of public offering of hedge contracts?	The removal of the OTC market and other closed forms of negotiations reduces the opportunity and flexibility that large buyers and sellers have in managing supply and demand risk. The effect of this type of intervention on dynamic efficiency is very difficult to assess.
Qu. 24 Do you consider that public offering of hedge contracts addresses the problem identified?	No, because the market is unlikely to be deep enough to offer an alternative to the Meridian Tiwai contract.

Source: NZIER

Table 6 Option 5: Require large hedges to be traded publicly

Question	Comment
Qu. 25 How should 'large' hedges be defined?	Unlikely that derivative markets would be deep enough to replace a Meridian Tiwai type contract because these entities have much larger supply and demand than the other participants in the market.
Qu. 26 What are the pros and cons of this option?	No comment.
Qu. 27 Do you consider that the option addresses the problem identified?	No, because the market is unlikely to be deep enough to offer an alternative to the Meridian Tiwai contract.

Source: NZIER

Table 7 Option 6: Extend trading conduct provisions beyond the spot market to hedge markets

Question	Comment
Qu. 28 Which types of contracts should be covered by trading conduct-type provisions?	Unclear if this option is workable because of the difficulty of defining competitive circumstances in thin markets – (small number of large or long-term transactions occurring at different times in different situations with few attributes that can be compared either with each other or to mass market transactions.)
Qu. 29 How would trading conduct-type provisions be monitored: • Where a party to an offer or contract believes they are being disadvantaged? • Where the parties being harmed are not a party to the contract? • Where no offer was received?	The monitoring would need to be based on the problem definition set by the EA in consultation with market participants.
Qu. 30 What are the pros and cons of extending trading conduct-type provisions?	No comment.
Qu. 31 Do you consider that extending trading-conduct provisions to hedge contracts would address the problem identified?	Unlikely because the variation in the terms and conditions of the non-exchange traded products make them much harder to compare than products traded in the spot market

Source: NZIER

Table 8 Option 7: Non-discriminatory pricing rules

Question	Comment
Qu. 32 What attributes of a contract should be permitted reasons for price discrimination? What attributes should be expressly precluded?	No comment.
Qu. 33 What remedies would be appropriate if discriminatory pricing was found?	No comment.
Qu. 34 Are the current penalties under the Electricity Industry Act 2010 sufficient to deter inefficient price discrimination of the scale potentially associated with the Tiwai contracts?	No comment.
Qu. 35 What are the pros and cons of non-discriminatory pricing rules?	The pros and cons seem to assume that differences between contracts described in paragraph 6.52 along with the appetite for risk of the parties to the contract can be forecast and valued with certainty at the time the contract is made.
Qu. 36 Do you consider that non-discriminatory pricing rules would address the problem identified?	Unlikely to be successful because of the difficulty in defining a credible and quantifiable justification for price differences.

Source: NZIER

Table 9 Option 8: Hybrid of non-discriminatory pricing and pre-approval of contracts

Question	Comment
Qu. 37 What are the biggest risks of implementing this hybrid combination of non-discriminatory pricing and pre-approval of contracts?	Difficulty of aligning the assessment frameworks of between the two approaches to ensure consistent outcomes.
Qu. 38 What are the pros and cons of this hybrid option?	
Qu. 39 Do you consider that this hybrid option would address the problem identified?	No, because it requires the combination of two complex approaches that are unlikely to be effective.

Source: NZIER

Table 10 Other options that could be considered

Question	Comment
Qu. 40 Is inefficient price discrimination best addressed through an amendment to the Electricity Industry Participation Code 2010 or through structural options that would involve other parts of government?	Changes to the Code offer a more flexible, agile and proportionate responses to the hypothetical issues identified by the EA and have a much lower risk of unintended consequences than structural changes.
Qu. 41 Which structural options do you think should be considered further? Please explain your reasoning.	None. The structural options proposed are much more complex and expensive than the hypothetical problem they are intended to address.

Source: NZIER

Table 11 Criteria for evaluating options

Question	Comment
Qu. 42 Do you agree with the criteria proposed to assess the options? If not, what additional criteria should be used to evaluate policy options?	The proposed criteria are a starting point. However, the EA should also compare the proposed approach to the criteria suggested in 'Government expectations for good regulatory practice[4]' which include[5]: • *Clear objectives* • *Least cost method and least adverse impact on market competition, property rights, and individual autonomy and responsibility* • *Flexibility to adapt to the needs of different regulated parties, and to allow those parties to adopt efficient or innovative approaches to meeting their regulatory obligations* • *Processes that produce predictable and consistent outcomes* • *Proportionate, fair and equitable in the way it treats regulated parties* • *Sets out legal obligations and regulator expectations and practices in ways that are easy to find, easy to navigate, and clear and easy to understand* • *has scope to evolve in response to changing circumstances or new information.*

Source: NZIER

4 'Government Expectations for Good Regulatory Practice, April 2017'. Available at https://www.treasury.govt.nz/sites/default/files/2015-09/good-reg-practice.pdf

5 The remaining bullet points are edited quotes from 'Government Expectations for Good Regulatory Practice' page 2.