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Trading conduct review: Pivotal vs Net Pivotal

Market Development Advisory Group

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Introduction

This presentation:

- provides definitions of ‘pivotal’ and ‘net pivotal’
- describes why a party in a ‘net pivotal’ position has an incentive to raise prices
- Identifies how often generators may be pivotal and net pivotal at a national level
- identifies potential issues with the existing safe harbour provisions
- discusses suggestions from the WAG on how to determine whether high prices by a pivotal supplier are efficient

The purpose of this presentation is to assist the group in identifying the type of behaviour by a pivotal or net pivotal supplier that may be of a policy concern

Definition of ‘pivotal’

Part 1 of the Code:

> **pivotal** means—
>
> (a) in relation to a **generator**, that the total **demand** in a **trading period** at any 1 or more **nodes** would not have been met if the **generator** had not submitted **offers** for all or any of its **generating plant**; and
>
> (b) in relation to an **ancillary service agent**, that the total **demand** in a **trading period** for an **ancillary service** supplied by the **ancillary service agent** in an **island** would not have been met if the **ancillary service agent** had not submitted **reserve offers** for all or any of its capacity to provide **instantaneous reserve** in the **island**

- In technical terms, these definitions are the same as ‘gross pivotal’, ie when a supplier is pivotal, excluding their retail and hedging position. We will use the term ‘pivotal’

Definition of ‘net pivotal’

From WAG discussion paper:

“A net pivotal supplier is a party that is required to generate to avoid unserved load and whose generation is greater than its own retail and hedge sales in the relevant area”

- Reflected by clause 13.5B(1)(c)(iii) and 13.5B(3)(c)(iii) in safe harbours:

  13.5B(1)(c)(iii) the generator does not benefit financially from an increase in the final price at which electricity is supplied in a trading period at a node at which the generator is pivotal

  13.5B(3)(c)(iii) the ancillary service agent does not benefit financially from an increase in the final reserve price in a trading period in an island in which the ancillary service agent is pivotal

A net pivotal supplier has incentives to raise prices

When a supplier is net pivotal they have incentives to raise prices because:

- their hedge position, including retail, provides no financial constraint
- they lack competitive pressure, ie they have market power

Accordingly, the trading conduct safe harbour provisions consider whether a generator or ancillary service agent is net pivotal:

> 13.5B(1)(c)(iii) the generator does not benefit financially from an increase in the final price at which electricity is supplied in a trading period at a node at which the generator is pivotal
>
> 13.5B(3)(c)(iii) the ancillary service agent does not benefit financially from an increase in the final reserve price in a trading period in an island in which the ancillary service agent is pivotal

A fully hedged pivotal supplier may still have incentives to raise prices

A supplier that is pivotal but not net pivotal, ie with generation ≈ hedges/retail, may still have incentives to raise prices in the short term:

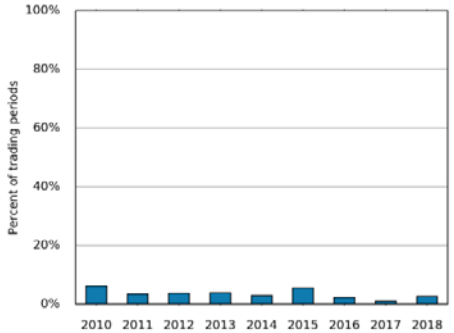
- it may allow the supplier to supply hedges at a higher premium in the future
- it may undermine more exposed competitors and potentially force them to leave the market

Accordingly, a party could potentially be in the safe harbour because they do not “benefit financially” from high prices in the short term, even though they might in the long term

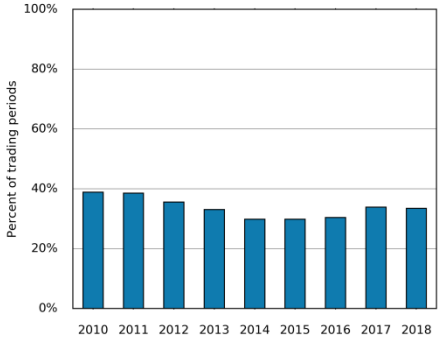
Generators are often pivotal

- Modelled by setting prices to $30k for plant in region shown (eg Contact, South Island means setting Contact's SI plant to $30k)
- Graphs show percentage of time the supplier's generation in that region (ie North Island, South Island, across New Zealand) is required to meet national demand
- Note the Code considers whether a party is pivotal on a nodal basis

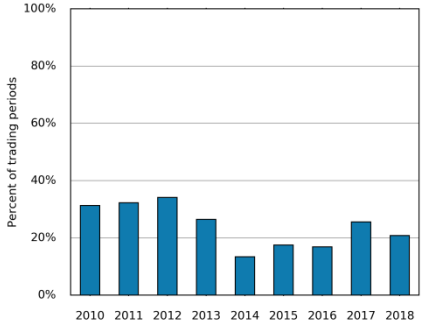
Contact, South Island



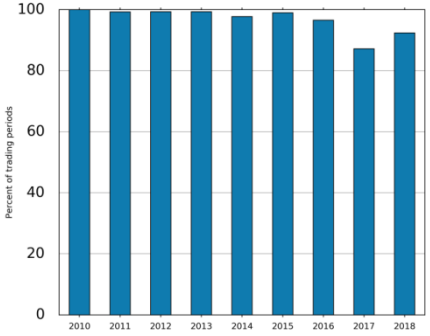
Contact, New Zealand



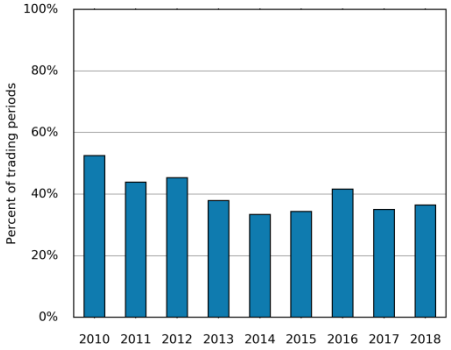
Contact, North Island



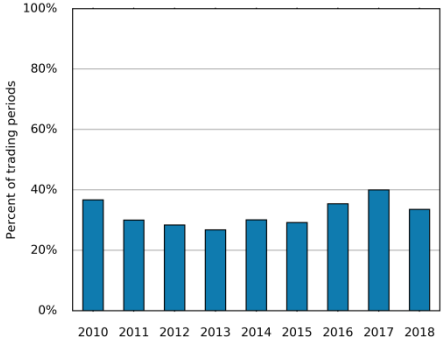
Meridian, South Island



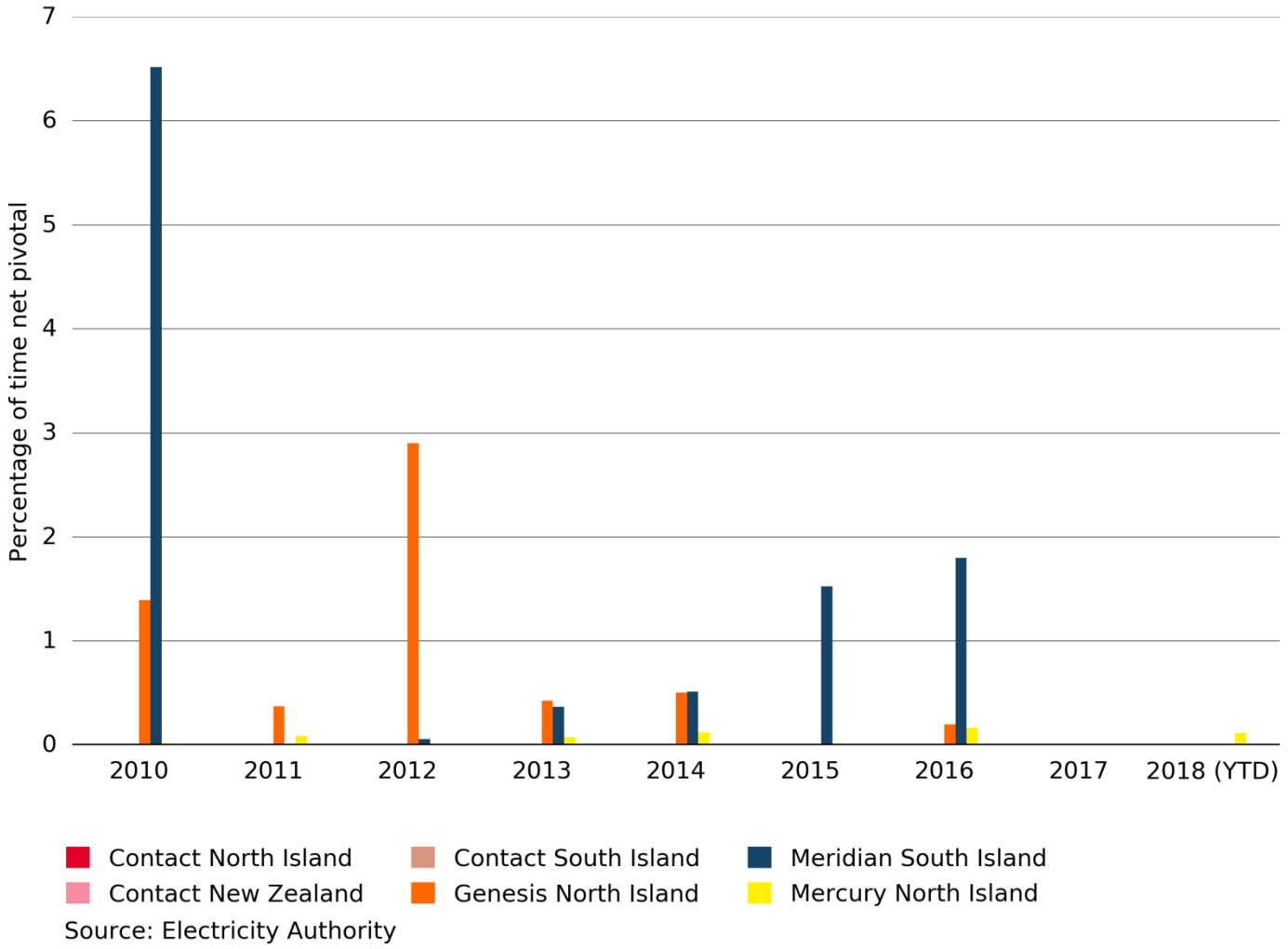
Genesis, North Island



Mercury, North Island



Generators are net pivotal less frequently



Requirements for pivotal generators to be in the safe harbour

For pivotal suppliers to be in the safe harbour (13.5B(1) and (3)) they must:

- comply with the general requirements to offer all available generation and make any revisions to their offer as soon as possible *and*
- the prices and quantities in their offer must not result in a material increase in the final price at any node at which they are pivotal *and*
- their offers must be consistent with those when they are not pivotal *and*
- they must not benefit financially from an increase in the final price at any node at which they are pivotal

Because generators are often pivotal it can be difficult to identify a counterfactual

The safe harbour clause provides as follows:

13.5B(1)(c) in the case of a generator that is pivotal,—

(i) prices and quantities in the generator's offers do not result in a material increase in the final price at which electricity is supplied in a trading period at any node at which the generator is pivotal, compared with the final price at the node in an immediately preceding trading period or other comparable trading period in which the generator is not pivotal at that node; or

(ii) the generator's offers are generally consistent with offers it has made when it has not been pivotal

The WAG's suggestion for determining if a pivotal supplier's high prices were efficient

The WAG noted: "Inefficiency will only arise if spot prices in an area subject to pivotal supply diverge from the marginal value of electricity or reserve at that time and location – ie the value that would be established in a workably competitive market" *WAG Discussion paper: Pricing in Pivotal situations,* p.6

Further: "One approach [to determining whether high prices in a pivotal supplier situation are efficient] is to consider a scenario where the pivotal supplier was notionally a number of separate competing entities. If the spot price outcomes observed in practice were broadly similar to those expected under this scenario, there are unlikely to be particular efficiency concerns." *WAG Discussion paper,* p.7.