From: Sam Fleming

To: Andy Doube; S9(2)(a); S9(2)(a); S9(2)(a); S9(2)(a)

Cc: Jason Woolley

Subject: RE: [EXTERNAL] Questions arising from the Authority"s questions and answers in yesterday"s Market Brief

Date: Wednesday, 1 December 2021 1:34:12 pm

Attachments: image001.png

image002.png

Hi Andy

The extra question I have is around the traffic light tables at pages 8 to 13 of the Information Paper.

How should the traffic light indicators be interpreted? For example, does red mean one (or more) of the following:

- that the measure or indicator is an unreliable or not particularly useful indicator; or
- that the observations against this measure or indicator were different in the review period relative to the pre-review period; or
- that the measure indicates the potential exercise of market power; or
- that the observations of this measure or indicator during the review period are inconsistent with the expectation stated in the column to the left of it; or
- something else?

It's not entirely clear and seems important if you are talking about a potential work programme to turn the indicators green.

Ngā mihi

Sam Fleming (he/him) - Manager Regulatory and Government Relations

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PO Box 10840, Wellington 6143, New Zealand

M. S9(2)(a)



From: Jason Woolley

Sent: Wednesday, 1 December 2021 12:54 pm

To: Andy Doube S9(2)(a)

cc: \$9(2)(a) ; \$9(2)(a)

Subject: RE: [EXTERNAL] Questions arising from the Authority's questions and answers in yesterday's Market Brief

Hi Andy

Thanks for the response. We take it from your response that neither Concept nor Pat Duignan first raised with the Authority the issue of the dummy potentially capturing the exercise of some market power, and that they each express the view that the regression analysis does not imply an exercise of market power (as per the quoted material). If the Authority interprets their views

differently please advise so that we have an opportunity to respond in our submissions. Regards

Jason

From: Andy Doube \$9(2)(a)

Sent: Tuesday, 30 November 2021 3:15 pm

To: Jason Woolley \$9(2)(a)

Cc: S9(2)(a) ; S9(2)(a)

Subject: [EXTERNAL] Questions arising from the Authority's questions and answers in yesterday's

Market Brief

Hi Jason,

Thanks for reaching out to us.

- 1. Yes the reviewers were Concept Consulting and Pat Duignan.
- 2. The question and answer that you have highlighted notes that both supply and demand 'market fundamentals' and 'market power' may be contributing to the significance and magnitude of the dummy variable. (Uncertainty about gas supply being an example of a market fundamental.) The Authority has not been able to resolve the relative contribution of these two factors to the magnitude of the dummy variable. See also the Executive summary, p. ii of the Information Paper, in particular the paragraph beginning "It is not possible to definitively conclude..."

Concept Consulting concurred that the regression analysis does not show whether the coefficient on the dummy variable reflected gas uncertainty or some other reason such as the exercise of market power: "Overall, we agree with the Authority statement that "what the regression analysis does not show, is whether this upwards shift is due to the uncertainty surrounding gas supply from Pohokura and other fields (above that reflected in the gas spot price), or if there is some other reason for the upwards shift, such as the exercise of market power." (See also section H. on p. 7 of their letter.) Concept Consulting's letter indicated that the coefficient estimated for the gas price was surprisingly low and that other factors were likely to be at play. We have released all of the analytical work received from Concept Consulting; the document referred in their letter was just some back-and-forth about drafting of the Information Paper. I understand from colleagues you will be receiving a response to your OIA request shortly.

We are happy to discuss the econometrics of the analysis with you and your colleagues if that is helpful. And we will look to answer the questions that you or Sam send through as soon as we can.

Best regards,

Andy

From: Jason Woolley \$9(2)(a)

Sent: Wednesday, 24 November 2021 12:01 pm

To: Andy Doube \$9(2)(a)

Cc: \$9(2)(a) ; \$9(2)(a)

Subject: Questions arising from the Authority's questions and answers in yesterday's Market Brief

Hi Andv

Yesterday's market brief includes the following Q & A in respect of the Authority's review of competition in the wholesale market:

2. Is the EA planning to continue investigation on this unexplained shift in prices of almost \$40/MWh?

To provide some additional context on the analysis, the dummy variable starts when Pohokura went on outage. We published this analysis in 2020 and considered the dummy to be a proxy for gas supply risk. As it is significant, we considered we had evidence that gas supply risk was affecting the spot price. However, the reviewers pointed out that this dummy could include some exercise of market power. We have tried to identify this, but we have been unable to disentangle these two effects.

The Authority is committed to seeking to better understand what might be driving this change and, to the extent these causes have policy implications, seek to address them. The invitation for stakeholders to provide submissions is the first step in trying to better understand what might be behind the unexplained variation. As discussed, above the work programme and any additional immediate policy responses will be developed post this submissions process. We would welcome any ideas on the drivers of this unexplained shift, and on how we could develop better analytical frameworks to address such issues. Evidence-based submissions on the drivers of this unexplained shift that are supported by data are useful as they allow us to test the drivers in our model.

This prompts some further questions:

- 1. Are 'the reviewers' the Authority is referring to Concept Consulting and Munro Duignan?
- 2. The Authority says that the reviewers "pointed out that this dummy could include some exercise of market power." We take this to mean that at an earlier stage the Authority interpreted the dummy as a proxy for gas supply risk, but that it was the reviewers who raised the issue of the dummy also potentially capturing some exercise of market power. As we read the published letters from Concept Consulting and Munro Duignan they say almost the opposite. That is, the letters emphasise that the regression analysis does not provide any evidence for an exercise of market power given its inability to discriminate between potential causal factors.

The Munro Duignan letter of 19 October 2021 says:

"The analysis in the paper, however, does not allow a definitive assessment of the overall extent to which these generators have actually exercised their market

power since that outage, The obstacle to a conclusion regarding the exercise of market power is the question of whether uncertainty regarding gas supply was modifying behaviour in ways other than through the gas price itself.

Thus, the most significant obstacle to a medium confidence assessment on the extent to which market power has been exercised is the issue regarding gas supply that became apparent after the Pohokura outage. That outage was followed by a series of gas supply disruptions resulting from specific problems and more importantly production from Pohokura has exhibited a trend decline since mid-2020 as illustrated in Fig 6.

It is plausible therefore that much of the structural shift is attributable to increasing uncertainty regarding gas supply over the medium term as Pohokura output has trended downwards. In as much as this uncertainty is not easily translated into a quantifiable variable, it is difficult to see how it could be captured in a regression. Gas storage data obtained at the suggestion of Concept Consulting has not been able to solve this difficulty. When combined with gradually increasing demand and rather dry conditions over the period, the consequence of the gas uncertainty is that it is not feasible to demonstrate that Meridian or other generators have undertaken any sustained exercise of market power on a day-to-day basis

...

The regression analysis cannot however pin down the extent to which the change reflects uncertainty regarding medium term gas supplies, over and above the direct effect on spot gas prices, versus the exercise of market power."

Concept's letter of 12 October 2021 says:

"Finally, we note that the coefficient on the spot gas price variable in the regression equation is 3.08. This implies that a 1 \$/GJ increase in the gas price was associated with an electricity spot price rise of 3.08 \$/MWh on average over the period. This coefficient is significantly lower than might be expected based purely on physical factors. A priori, we would expect the coefficient to be somewhere around the 7-10 range. The regression results indicate that (on average) electricity spot prices have been much less sensitive to changes in gas input costs than would be expected based on physical factors alone. It is possible this arises because of the interaction between the explanatory variables in the model. However, it also reinforces our view that gas spot prices may not be capturing the full picture in relation to gas market conditions.

Overall, we agree with the Authority statement that "what the regression analysis does not show, is whether this upwards shift is due to the uncertainty surrounding gas supply from Pohokura and other fields (above that reflected in the gas spot price), or if there is some other reason for the upwards shift, such as the exercise of market power."

Can the Authority please clarify this point? It may be that the Q and A released yesterday was not well worded. Alternatively is there other correspondence or material from Concept Consulting or Munro Duignan, or from other reviewers, which points out

that the dummy could include some exercise of market power? We have already requested from the Authority a copy of the document originally attached to the Concept letter of 12 October 2021 and referenced on page 2 of their letter where they say "In the following sections we comment on those aspects of the analysis which we regard as being most critical to the overall conclusions. In the attached document we have set out our more detailed comments on the draft empirical paper. These include suggested clarifications or qualifications for consideration by the Authority." To assist submitters in responding as requested by the Authority it would be helpful if a copy of that document could be made available as soon as possible.

Regards

Jason

Jason Woolley (he/him) - General Counsel

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