

**From:** Sam Fleming  
**To:** EA  
**Cc:** S9(2)(a)  
**Subject:** RE: [EXTERNAL] query regarding one of Meridian's feedback  
**Date:** Wednesday, 29 September 2021 4:13:57 pm  
**Attachments:** [image001.png](#)

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Hi S9(2)(a)

In that text box we deliberately used a slightly different but equally valid measure of storage and slightly different timeframes to demonstrate that this piece of correlation analysis is highly sensitive to the inputs selected both in terms of timeframes and the measure of storage chosen, therefore the statement "correlations were stronger prior to the Pohokura outage" should not be presented as a fact.

The Meridian numbers provided are the correlation of *absolute* Pūkaki storage levels and the minimum sell values. In contrast, the Authority's numbers in Table 13 express the correlation of Pūkaki storage levels *relative to historical average* and the minimum sell values. This is a deliberate difference as it's not clear to us why historical mean storage is relevant to the assessment.

The Meridian numbers also deliberately use different timeframes to show the timeframe sensitivity in any correlation analysis. The correlations are almost exactly the same for 2016 and 2017 (two whole calendar years) compared to July 2018 to June 2021 (three whole financial years). The period between those happens to be around the time of the first Pohokura outage. This is why we challenge the statement that the correlation between Meridian's minimum sell values and storage was "stronger prior to the Pohokura outage".

Just as the Authority has asked us why we have excluded the January to June 2018 period we could equally ask why the Authority's correlation analysis excludes September 2018 to January 2019. Is only the second Pohokura outage important?

Regardless of the timeframes or metrics selected, the key point is that correlation findings will be highly sensitive to the timeframes and metrics chosen. As demonstrated, one can easily arrive at a very different conclusion regarding the change (or lack thereof) in the relationship between storage and minimum sell values. We think such sensitivities need to be acknowledged and the Authority should not rely on or draw firm conclusions from a correlation assessment of a single selection of timeframes and metrics.

Hopefully that makes sense.

Ngā mihi

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

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M. S9(2)(a)



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**From:** S9(2)(a)  
**Sent:** Tuesday, 28 September 2021 1:20 pm  
**To:** Sam Fleming S9(2)(a)  
**Cc:** S9(2)(a)  
**Subject:** [EXTERNAL] query regarding one of Meridian's feedback

Hey Sam,

In the fact checking doc that Meridian sent back to us (re: competition review), there was the following statement made by Meridian:

"The second sentence of paragraph 1.5 is not accurate. The correlation between Pūkaki levels and the minimum sell values from 2016-2017 is -52% and -53% from July 2018-June 2021. Excluding the January-June 2018 period, there is in fact no real change in the level of correlation. If the Authority accepts this, changes to paragraph 1.6 will also be required."

Can you please clarify that the dates referred to in this are accurate? They are different to what we have in the table (2016 to Sept 2018, 2019 to March 2021) and I'm wondering why Meridian has done these different dates. Also why exclude the Jan-June 2018 period?

Thanks,

S9(2)(a)

S9(2)(a)

Senior Economist

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