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ECONOMIC CONSULTING

Public Version

CWH/WSI merger – review of draft determination

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21 April 2015

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1. Introduction and executive summary

At the request of Bell Gully, we have reviewed the Commerce Commission's 26 March 2015 draft determination (as amended on 15 April 2015) in respect of the proposed merger between the wool scouring businesses of Cavalier Wool Holdings Limited (CWH) and New Zealand Wool Services International Limited (NZWSI).

Subject to some specific comments, we generally agree with the Commission's economic analysis, and consider it to be broadly consistent with the analysis in *Decision 725* and the subsequent High Court judgment. Accordingly this report focuses on a limited number of issues that we think require further consideration.

Regarding the detriments of the proposed merger, in our view:

- The draft determination underestimates the constraint from overseas scouring; and
- The cost pass-through analysis in the draft determination is incomplete:
  - If the Commission is going to take account of pass-through of cost changes by merchants to growers, it should also take account of pass-through of cost changes by the merged entity to merchants; and
  - The fact that not all wool bought from growers would be subject to a higher scouring charge (since some merchants export wool greasy) means that pass-through to growers would be slower than the Commission assumes.

For these reasons, the 20 percent price increase assumption is implausible, and the allocative efficiency and wealth transfer detriments are overstated. 15 percent is the highest price increase assumption that should be made.

Regarding the benefits of the proposed merger, in our view:

- The [**REDACTED**]; and
- Recent information from NZWSI, following financial review, implies there would be [**REDACTED**].[1].

Accordingly the benefits of the transaction would be higher than those modelled in the draft determination.

We set out in Table 1 below a revised version of Table 8 from the draft determination, which includes the revised net benefits, taking into account the comments above.

[1] We note that the authorisation application was filed by CWH, without the benefit of NZWSI's expenditure forecasts. These have now been provided, and we understand will be submitted to the Commission in parallel with this report.

Table 1
Net impact (NPV): draft determination and NERA adjustment

	Draft determination		NERA Adjustment	
Time Frame	High detriment / low benefits	Low detriment / high benefits	High detriment / low benefits	Low detriment / high benefits
5 years	$2.51 million	$22.88 million	$14.05 million	$28.40 million
10 years	$0.32 million	$31.94 million	$17.47 million	$38.58 million

2. Implausibility of a 20 percent price increase

2.1. Introduction

In this section, we set out the evidence that a 20 percent price increase by the merged entity is implausible. There are three components of this evidence, which we expand on in sections 2.2 to 2.4 below. In summary:

- The threat from overseas scours has increased since *Decision 725*, in which the highest assumed price increase was 15 percent (see section 2.2 below);
- The Commission has accepted in the draft determination that the merged entity would have materially lower variable costs than CWH and NZWSI would under the counterfactual. To be consistent with the Commission's merchant to grower pass-through analysis in the draft determination, a proportion of these expected cost reductions should be treated as mitigating the expected price increases. Otherwise the effective assumed price increase is up to [**REDACTED**] percent, not the ostensible 20 percent (see section 2.3 below); and
- A more appropriate sense check than that used by the Commission at paragraph 259 of the draft determination suggests expected price increases of [**REDACTED**] percent in the North Island and [**REDACTED**] percent in the South Island (see section 2.4.2 below). Indeed, even these price increases are likely to be overstatements, as the empirical evidence suggests that CWH's [**REDACTED**] (see section 2.4.3 below).

For these reasons, we think that the highest plausible price increase should be assumed to be 15 percent, like it was in *Decision 725*. We acknowledge in that case the Commission appeared to treat the binding constraint (at 15 percent) as being entry rather than the threat of wool being exported greasy. However, the evidence discussed in this section suggests that greasy exports would constrain the prices increases to a maximum of 15 percent (or lower) this time.

2.2. Threat from overseas scours

The evidence suggests that the constraint from overseas scours has increased since *Decision 725*. Consequently the volume of greasy wool available for domestic scouring in New Zealand has decreased, placing the domestic industry under pressure. Indeed, because "an increased proportion (over a third) of the wool currently scoured in New Zealand is destined for China" (paragraph 278), the Commission has dropped from its quantitative analysis the most inelastic demand assumption (being -0.05).

Other evidence suggesting that the constraint from overseas scours has increased since *Decision 725* includes:

- The "quantity and quality of the available scouring capacity in [Asia and China in particular] has increased" (paragraph 253 of the draft determination); and
- An increased proportion of New Zealand wool is being exported greasy (paragraph 59.3 of the draft determination).

We disagree with the second (bolded) statement in the following paragraph (137) of the draft determination:

> *Our view [in Decision 725] was that while exports to China would place constraint on prices to wool merchants who already export scoured wool to China,* ***they would not provide a sufficient constraint on prices to most wool merchants exporting scoured wool to other countries or selling to domestic customers****.*

While the initial part of this statement is correct, the bolded part appears to assume that merchants would not seek out more profitable markets if given an incentive to do so. If the merged entity raised prices, merchants would have an incentive to consider switching their wool sales into China or nearby countries, just as the Commission notes [**REDACTED**] (paragraph [**REDACTED**]). The threat of this would constrain the merged entity.

In other words, the relevant question is how merchants would respond if given a profit incentive to do so (e.g., if the merged entity raised its prices), and what (if any) impediments there would be to that response. The response may well be different to existing behaviour. For this reason, we disagree with the logic of paragraph 368 of the draft determination, which states:

> *The Commission also considers that an increase in scouring prices of less than 10% would not necessarily result in a large shift to greasy exports. While around a quarter of the total wool clip is currently exported in greasy form, the amount of greasy exports appears to have remained relatively stable over recent years. Exports of greasy wool in 2014 (44,476 tonnes) are very similar to greasy exports in 2010 (43,015 tonnes).*

It cannot be deduced from the fact the quantity of greasy wool exports has remained static that "an increase in scouring prices of less than 10% would not necessarily result in a large shift to greasy exports". Certainly, for the reasons we discuss in this section, a price increase of 15 percent would be expected to have that result. The current static volumes of greasy wool exports also need to be seen in the context of declining real scouring prices to merchants – see section 2.4.3 below.

2.3. Variable cost reductions

At paragraphs 361 to 375 of the draft determination, the Commission proposes it should be assumed that 90 percent of the post-merger price increases (cost increases to merchants) would be passed through to growers by merchants. We have some concerns about the timing of pass-through, which we discuss in section 3 below. However, the point we wish to make in this section of our report is that if the Commission is going to assess pass-through of a cost change by merchants to growers, then it should also consider pass-through of a cost change by the merged entity to merchants.

Any pass-through of variable cost reductions to prices by the merged entity would have the effect of lowering the allocative efficiency and transfer detriments calculated by the Commission. This point is recognised by the Commission in its *Mergers and Acquisitions Guidelines* (section 7.4):

> *In the context of an acquisition, the combined entity might be able to make efficiency gains that are not obtainable by other means, such that its incremental cost of production would decline. Such gains could have the effect of blunting the impact of a rise in prices post-acquisition, as any increase in the margin of price over incremental cost arising from a lessening of competition would, in effect, be added to a lower level of cost. An efficiency gain could turn a price increase that would otherwise be regarded as lessening competition into one that is not.*

As set out in our 22 October 2014 report, CWH expects that the merger would result in the following variable cost reductions:

- From [**REDACTED**] per kg to [**REDACTED**] per kg in the North Island; and
- From [**REDACTED**] per kg to [**REDACTED**] per kg in the South Island.

For simplicity, suppose that 50 percent of these variable cost efficiencies are passed through to price. As noted by Hausman and Leonard (1999),[2] 50 percent is the lower bound for pass-through of cost savings.[3] If the demand curve is not linear or the merged firm faces competition, then cost pass-through would be greater. Given that the merged firm would be competing with Chinese scours, theory would predict that pass-through would be greater than 50 percent, and therefore our approach is conservative.

Using a pass-through figure of 50 percent, this equates to price drops of [**REDACTED**] per kg in the North Island and [**REDACTED**] per kg in the South Island, prior to any consideration of potential price increases enabled by the merger. Therefore the effective price increase assumed by the Commission is higher than the ostensible price increase. To illustrate this, we have calculated the implied price increase over the counterfactual price that has been lowered to account for cost savings.

This implied price increase is calculated in four steps:

1. Multiply the variable cost savings by 50 percent;
2. Subtract this figure from the unadjusted counterfactual price (P^{CF}) to give the adjusted counterfactual price ($P^{CF,A}$);
3. Calculate the factual prices (P^{F}) by scaling up the unadjusted counterfactual price by the Commission's assumed price increase; and
4. Calculate the implied price increase as the difference between P^{F} and $P^{CF,A}$.

The results of carrying out this calculation for the Commission's price increase range are shown in the following tables.

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[2] Hausman, J and G Leonard (1999), "Efficiencies from the consumer viewpoint", *George Mason Law Review*, Vol 7:3, pp707-727.

[3] 50 percent being the pass-through of a monopolist facing a linear demand curve.

Table 2
Adjusted and unadjusted counterfactual prices ($)

	North Island	South Island
Unadjusted counterfactual price (P^{CF})	[**REDACTED**]	[**REDACTED**]
Variable cost savings pass-through	[**REDACTED**]	[**REDACTED**]
Adjusted counterfactual price ($P^{CF,A}$)	[**REDACTED**]	[**REDACTED**]

Table 3
Factual price ignoring variable cost savings ($)

Assumed price increase	Factual price ignoring variable cost savings (P^F)	
	North Island	South Island
10%	[**REDACTED**]	[**REDACTED**]
15%	[**REDACTED**]	[**REDACTED**]
20%	[**REDACTED**]	[**REDACTED**]

Table 4
Effective price increase assumed by Commission

Assumed price increase	Effective price increase	
	North Island	South Island
10%	[**REDACTED**]%	[**REDACTED**]%
15%	[**REDACTED**]%	[**REDACTED**]%
20%	[**REDACTED**]%	[**REDACTED**]%

These tables demonstrate that the Commission's assumed price increase of 20 percent actually equates to a [**REDACTED**] percent price increase in the North Island and a [**REDACTED**] percent price increase in the South Island, taking into account a 50 percent pass-through of variable cost savings.

One approach to account for this is to calculate "net price increases" whereby the 50 percent pass-through of variable costs is netted off the factual prices that have already been calculated. This calculation is shown in Table 5 below, with the percentage net price increase shown in brackets.

Table 5
Net price increase incorporating 50% pass-through of variable cost savings

Assumed price increase	Net factual price (P^F) ($) including variable cost savings	
	North Island	South Island
10%	[**REDACTED**] ([**REDACTED**]%)	[**REDACTED**] ([**REDACTED**]%)
15%	[**REACTED**] ([**REDACTED**]%)	[**REDACTED**] ([**REDACTED**]%)
20%	[**REDACTED**] ([**REDACTED**]%)	[**REDACTED**] ([**REDACTED**]%)

It is important to note that these calculations assume an immediate 50 percent pass-through. In reality, and as we discuss in section 3 below, pass-through might be more gradual. But it is unnecessary for present purposes to accurately predict pass-through by the merged entity to merchants. Rather the purpose of this analysis is to demonstrate that the 20 percent price increase assumed by the Commission in fact equates to an even higher effective price increase, casting doubt on its plausibility.

2.4. Quantitative sense checks

2.4.1. Commission's approach

At paragraph 259, the Commission reports on a "sense check" it has undertaken on the assumed price increases. While the Commission does not describe in detail its methodology, we assume it has done the following, which we have replicated:

- Using the existing CWH and NZWSI quantities, prices and the assumed elasticities, established a linear demand curve;
- Calculated the profit maximising quantity[4] for a monopolist and then used this to determine the profit maximising price; and
- Compared this profit maximising price with the existing (counterfactual) price.

We recognise that this is just a sense check, but we think there are two problems with the methodology:

- It does not take into account the dynamics of competition, particularly the response of merchants and overseas scours; and
- It assumes the elasticity, i.e., it does not incorporate any sense check on this.

[4] Using a basic profit maximization equation, it is easy to show that a monopolist's profit maximizing quantity is: $Q* = \frac{a-c}{-2b}$ where a and b are parameters of the linear demand curve and c is marginal cost.

We think both of these problems can be addressed by using a more dynamic and complete sense check, being a merger simulation model.

2.4.2. Cournot simulation

Another form of sense check is to simulate the merger using a particular model of competition. Of the two classic merger simulation models (Bertrand and Cournot), Cournot is likely to be more applicable to the present situation:

- The product (scouring) is relatively homogeneous; and
- Production capacity is relatively fixed in the short-term and prices adapt so as to sell capacity.

We have applied a Cournot model to each of the North and South Islands, assuming that, in the pre-merger Cournot equilibrium, there are three firms, being CWH, NZWSI and one "overseas" firm which represents all overseas (primarily Chinese) scours. In the post-merger Cournot equilibrium, the number of firms is reduced to the merged entity and the overseas firm. We then compare the equilibrium prices pre- and post- merger, which yields the equilibrium market price rise. Details of the model are set out in a spreadsheet titled, "Final Cournot Model 160415.xlsx".

Attractive features of this model in the present case are that:

- It explicitly incorporates the effect of expected merger-specific marginal cost efficiencies;
- It calculates market price elasticity of demand based on the market "facts", such as market shares and the marginal cost of CWH (the calculated elasticity is -0.7 in the North Island and -0.9 in the South Island); and
- It (conservatively) assumes that the overseas player has a cost disadvantage,[5] and incorporates a response from overseas scours and merchants (increased quantities being scoured overseas).

The results of the simulation are set out in Table 5.

Table 5
Results of Cournot model

	North Island	South Island
Pre-merger	[**REDACTED**]	[**REDACTED**]
Post-merger	[**REDACTED**]	[**REDACTED**]
Percentage increase	[**REDACTED**]%	([**REDACTED**])%

[5] The Cournot model assumes the lower the market share, the higher the marginal cost. It may well be that the marginal production costs of overseas scours are comparable or even lower than those of CWH and NZWSI, but for present purposes the higher cost can be thought of as reflecting other costs to merchants of scouring overseas, i.e., the "control, cost, and time concerns" mentioned by the Commission at paragraph 157 of the draft determination.

Note that these percentage increases could be viewed as maximum increases on the basis that we have assumed a single overseas entity rather than many. One feature of the Cournot model is that prices are (in the general case) inversely related to the number of competitors. Therefore, if we assumed a number of Chinese, Malaysian and other players, we would expect the post-merger price increase to be lower. To highlight this point we have also modelled the price changes if it is assumed that two equal sized "overseas" competitors are present in the market, and we find that the percentage price increase falls to [**REDACTED**] percent in the North Island and [**REDACTED**] percent in the South Island.

2.4.3. Declining real prices

At paragraph 248 of *Decision 725*, the Commission set out the analysis we had done of CWH's prices between 2006/07 and 2010/11. That analysis illustrated that CWH's real prices had [**REDACTED**] since 2007/08, despite rationalization in the industry with the Godfrey Hirst/Feltex (approved by the Commission on 31 August 2006)[6] and CWH/Godfrey Hirst (approved by the Commission on 6 March 2009)[7] mergers.

CWH has updated that data through to 2013/14, and the updated graphs are set out below.

Figure 1
Time Series of CWH North Island Nominal and Real Tariffs

[**REDACTED**]

6 *Decision 587*.

7 *Decision 666*.

Figure 2
Time Series of CWH South Island Nominal and Real Tariffs

[**REDACTED**]

[**REDACTED**]. This is corroborated by internal CWH documents setting out prices to each customer in 2010 and 2014. According to these documents, [**REDACTED**].

Therefore CWH's nominal prices have [**REDACTED**] between 2010 and 2014, [**REDACTED**]. It follows that CWH's [**REDACTED**].

This evidence suggests that CWH's [**REDACTED**] (assuming CWH's costs have increased in line with the inflation index underlying the calculation of real prices), which is likely to reflect the combination of pressure from overseas scours and a declining wool clip.

2.5. Conclusion on price increase

We think the weight of evidence and analysis suggests that a 20 percent price increase is implausible for both Islands, with the South Island being particularly stark. This evidence suggests that it would be conservative and appropriate for the Commission to adopt as the top of the range 15 percent for both Islands.

3. Pass-through to growers

For the reasons set out in our 22 December 2014 memo, we think the Commission should be cautious in calculating and treating transfers to foreigners as a detriment. This is for a variety of reasons:

- The difficulty in delineating functional from functionless rents;
- The difficulty in determining incidence; and
- The fact that the surplus could end up being reinvested in New Zealand anyway. Indeed, it seems to us to be arguable that transfers (of functionless monopoly rents) only become a detriment to New Zealand once they flow offshore – if the rents are retained by the merged entity, they could still serve a social function.

However, the Commission has not been cautious in its draft determination, but rather has assumed that growers would bear 90 percent of the price increase immediately in year 1. This is despite the Commission noting at paragraph 271 of the draft determination that pass-through would occur "over time". We think it would be more appropriate to assume an increasing level of pass-through over time, building up to 90 percent.[8] This is because not all purchases of wool from growers would incur the higher scouring cost – already 27 percent of the wool clip is exported greasy. Therefore merchants attempting to pay less to growers to account for the higher domestic scouring charge would be at a competitive disadvantage to those merchants intending to export greasy – this would make it more difficult for the former group of merchants to lower wool prices, particularly if there are no binding constraints on the export of greasy wool.[9, 10]

We do not think the Commission has justified the following statement (paragraph 363):

> *This means that should these merchants have a lower willingness to pay for wool at the farm gate because of higher scouring costs, farmers would face limited alternatives to whom to sell their wool to discipline that decrease in price.*

This statement could only be correct if there would be constraints on the ability of merchants intending to scour overseas to increase the quantities they purchase – the Commission has not

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[8] We think this timing issue is distinguishable from the timing issue discussed at paragraph 384 of *Decision 725*, for two reasons: (1) the need to be particularly conservative when treating transfers as detriments; and (2) the fact we are considering effects in a market once removed from the market in which the assumed substantial lessening of competition would occur.

[9] Even if all merchants undertake some combination of domestic and overseas scouring, this logic still applies – a price increase by the merged entity would raise the relative marginal cost of buying a unit of wool destined to be scoured in New Zealand versus one destined to be scoured overseas.

[10] We are not aware of any literature analysing this specific, timing point. The closest analysis is that finding firm-specific cost changes will be passed through to a lesser extent than industry-wide cost changes. See for example Orley Ashenfelter, David Ashmore, Jonathan Baker and Signe-Mary Mckernan, "Identifying the Firm-Specific Cost Pass-Through Rate, January 1998. Accessed via FTC website: https://www.ftc.gov/sites/default/files/documents/reports/identifying-firm-specific-cost-pass-through-rate/wp217.pdf and RBB Economics: "Cost pass-through: theory, measurement and potential policy implications". A Report prepared for the Office of Fair Trading, February 2014. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/320912/Cost_Pass-Through_Report.pdf.

referred to any evidence of such constraints. It is not clear to us why there would be any constraints – there is a global market for wool products, and available capacity in Chinese scours (as the Commission finds at paragraph 156 of the draft determination).

It is therefore unrealistic to assume a 90 percent pass-through in year 1, even if 90 percent is the ultimate incidence on growers. In the absence of any empirical evidence of previous pass-through, there is not really a rigorous way in which to make pass-through assumptions, but one approach would be to assume 50 percent pass-through in year 1, building up linearly to 90 percent by year 5. This is the approach we use in our modelling below.

4. Implications for estimated detriments

Based on the analysis described in sections 2 and 3 above, we have made two adjustments to the Commission's detriments calculations:

- Capped the total price increase for the allocative efficiency and transfer detriments calculations at 15 percent; and
- Assumed a linear glide path for pass-through of price increases by merchants to growers.[11]

Table 6 below reproduces Table 6 from the draft determination with our adjusted results as well as the Commission's original calculations.

Table 6
5 year NPV ($m) of detriments: draft determination and NERA adjustments

Category	Draft determination	NERA adjustment
Allocative efficiency	$4.58 - $20.03 million	$4.60* - $14.38 million
Productive efficiency	[**REDACTED**]	[**REDACTED**]
Dynamic efficiency	[**REDACTED**]	[**REDACTED**]
Net wealth transfers	$3.70 - $7.39 million	$2.41 – $5.33 million
Total of quantified detriments	$10.57 – 28.69 million	$9.10 – 21.20 million

*Note that this figure differs from the figure in the draft determination. Our figure includes the lanolin market detriment, which does not appear to have been included in the figure reported in Table 6 of the draft determination.

** The maximum estimated allocative efficiency detriment arises from an elasticity of -1.0 whereas the maximum wealth transfer detriment arises from an elasticity of -0.5. Therefore the maximum total quantified detriments sum to a different value than the maximum of the individual detriment range. This approach is consistent with how the Commission has reported detriments in Table 6 of its draft determination.

Note that we agree with the Commission's estimates of productive and dynamic efficiency detriments. Consistent with our discussion in section 2 of this report, the merged entity would remain subject to strong pressures from overseas scours and the declining wool clip to be productively and dynamically efficient. This pressure is reflected by the [**REDACTED**], as discussed more fully in section 2.4.3.

[11] 50 percent by year 1, 60 percent by year 2, 70 percent by year 3, 80 percent by year 4 and 90 percent by year 5.

5. NZWSI avoided capex and implications for estimated benefits

At paragraphs 322, 323, 342 and 343 of the draft determination, the Commission discusses the forward-looking expenditure on plant by NZWSI under the counterfactual. In effect the Commission is stating the following:

- Under the counterfactual, NZWSI would [**REDACTED**] (paragraph 342);
- Consequently NZWSI would [**REDACTED**] (paragraphs 342 and 343); and
- Consequently NZWSI would also [**REDACTED**] (paragraphs 322 and 323).

In a submission to be filed with the Commission in parallel with this report, NZWSI has set out its expected plant expenditure under the counterfactual, at both Kaputone and Whakatu.[12] Using this, we have updated Table 4 from our 22 October 2014 report – the new version is set out below.

Table 7
Revised expected future capex on plant

Year	CF	Factual	Difference
1	[**REDACTED**]	[**REDACTED**]	[**REDACTED**]
2	[**REDACTED**]	[**REDACTED**]	[**REDACTED**]
3	[**REDACTED**]	[**REDACTED**]	[**REDACTED**]
4	[**REDACTED**]	[**REDACTED**]	[**REDACTED**]
5	[**REDACTED**]	[**REDACTED**]	[**REDACTED**]
Total	**[REDACTED]**	[**REDACTED**]	[**REDACTED**]
PV	**[REDACTED]**	[**REDACTED**]	[**REDACTED**]

*[**REDACTED**]

The $[**REDACTED**]m benefit can be compared to the $[**REDACTED**]m benefit found by the Commission.

As well as the numbers being different to those used by the Commission,[13] there are two important points to note:

- The [**REDACTED**]. Historically NZWSI has invested approximately [**REDACTED**] in capex across both plants,[14] and NZWSI considers this to be the best assumption moving

[12] We note that the authorisation application was filed by CWH, without the benefit of NZWSI's expenditure forecasts. These have now been provided, and we understand will be submitted to the Commission in parallel with this report.

[13] And different to those (CWH-derived) numbers used in our original report – [**REDACTED**].

forwards (under the counterfactual). [**REDACTED**]. This $[**REDACTED**] avoided capex would be an ongoing benefit, and so would also alter the Commission's 10-year sensitivity check. The 10-year NPV of the net capex saving is $[**REDACTED**]; and

- [**REDACTED**].

The NZWSI submission also states that NZWSI [**REDACTED**].

Based on this updated evidence, the opex numbers used by the Commission at paragraphs 322 and 323 appear to be reasonable, [**REDACTED**][15] to [**REDACTED**], an increase of [**REDACTED**].

Taking into account these changes, Table 7 of the draft determination becomes:

Table 8
5 Year NPV ($m) of benefits: draft determination and NERA adjustment

Category	Draft determination	NERA adjustment
Reduction in Production and Administration Costs	[**REDACTED**]	[**REDACTED**]
Sale of land and plant	[**REDACTED**]	[**REDACTED**]
Capital expenditure buildings	[**REDACTED**]	[**REDACTED**]
Capital expenditure on plant	[**REDACTED**]	[**REDACTED**]
One-off Rationalisation Costs	[**REDACTED**]	[**REDACTED**]
Cartage to North Island	[**REDACTED**]	[**REDACTED**]
Total of quantified benefits	$31.19 – $33.45 million	$35.25 - $37.51 million

6. Implications for net benefits

Taking into account the results in tables Table 6 and Table 8 above, we can calculate the net benefits and reproduce Table 8 from the draft determination with our adjusted results, as shown in table 9 below.

[14] Being [REDACTED] at Kaputone and [REDACTED] at Whakatu.

[15] Note that our figure differs slightly from the [REDACTED] contained in the draft determination. We have not been able to resolve this discrepancy.

Table 9
Net impact (NPV): draft determination and NERA adjustment

	Draft determination		NERA Adjustment	
Time Frame	High detriment / low benefits	Low detriment / high benefits	High detriment / low benefits	Low detriment / high benefits
5 years	$2.51 million	$22.88 million	$14.05 million	$28.40 million
10 years	$0.32 million	$31.94 million	$17.47 million	$38.58 million

We note that our 10-year calculations show higher net benefits than the 5-year calculations across the board, while the Commission's 10-year calculation in the high-detriment/low benefits case yields a smaller net benefit. Our result reflects the fact that our estimation of ongoing benefits exceeds estimated ongoing costs, as shown in table 10 below. Therefore, the longer the time horizon considered, the higher the net benefit.

Table 10
Ongoing[16] detriments and benefits

	Estimated Range	
Detriments (per annum)	*min*	*max*
Allocative	$-1.10 million	$-3.44 million
Productive	$-[**REDACTED**] million	
Dynamic	$-[**REDACTED**] million	
Transfers	$-0.80 million	$-1.60 million
Total annual ongoing detriments	**$-2.40 million**	**$-5.54 million**

[16] Estimates of ongoing benefits and detriments from year six onwards. We note that the annual contribution of benefits and detriments vary in early years due to one off / year-specific effects, but these are all assumed to have occurred by year six in our modelling, so that the only ongoing benefits and detriments from year six onwards are those set out in the table above.

Benefits (per annum)		
Non-capital cost savings	$[**REDACTED**] million	
Plant cost savings	$[**REDACTED**] million	
Total annual ongoing benefits	**$[REDACTED] million**	
Annual net benefit	**$[REDACTED] million**	**$[REDACTED] million**

However, we agree with the Commission that the 10-year timeframe should only be used as a sensitivity test, because the further out a benefit or detriment is, the greater the uncertainty about it, and the lower its present value. [17]

[17] We agree with the logic in paragraph 246.2 of the draft determination, but it is unclear how this would somehow justify use of a longer time frame.