

## Market Study into the retail fuel sector

### Submission in response to:

**“Return on average capital employed OIA response document:**

[Commerce Commission – Return on average capital employed \(ROACE\) in response to Official Information Act request – 16 September 2019xlsx - 222 KB | Published on 17 September 2019”](#)

and,

**“Conference Consultation” held on 24 September 2019**

**11 October 2019**

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## **Disclaimer Statement:**

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This is policy analysis by a financial analyst. It draws together conventional methodologies commonly applied in the investment and securities markets research and the author's experience and judgement. Many of the measures are also used for regulatory purposes.

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**Introduction:**

1. This submission responds to the Commerce Commission's posting of the "spreadsheet" document on 17 September subsequent to publication of the "Draft Report" on 20 August and my related submission on 13 September 2019 (and prior to the "Consultation Conference" on 24 September).
2. The spreadsheet is a technical financial document. Financial detail matters to the formulation of the Commission's view of the Retail Fuel Market, acceptance by stakeholders and for soundly based policy making.
3. This spreadsheet file is divided into several worksheets which I refer to as ["name" worksheet]  
  
"Return on average capital employed OIA response Commerce Commission – Return on average capital employed (ROACE) in response to Official Information Act request – 16 September 2019xlsx"<sup>1</sup>
4. At paragraph 8. in my 13 September submission:<sup>2</sup>  
  
"I believe that the Commission's analysis is deficient to the extent that underlying data, assumptions and computations supporting its positions or conclusions are mostly hidden."
5. Now, with the benefit of the spreadsheet information related to paragraphs 27. to 31. in this submission, I offer additional comments and to identify possible errors, omissions, inconsistencies, etc. These relate to Draft Report Figures D5, D6, D7, D8 and D9 as a group, given the same basic data set is generally related. As the Commission did not provide narrative supporting the spreadsheet information, I assume that it relates to Figures D5 to D9.
6. This submission builds on "Observations on Figures D5 to D9", as included in the **Appendix** from page 11.

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<sup>1</sup> The OIA request was not made by IWA.

<sup>2</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0027/174942/Ireland,-Wallace-and-Associates-Limited-Submission-on-Retail-Fuel-Draft-Report-13-September-2019.PDF](https://comcom.govt.nz/_data/assets/pdf_file/0027/174942/Ireland,-Wallace-and-Associates-Limited-Submission-on-Retail-Fuel-Draft-Report-13-September-2019.PDF)

### Spreadsheet comparator sample and filter

7. The Commission specifies the Bloomberg retail comparator sample filter is principally based on "... Product Segment Revenue Percent from Refining & Marketing  $\geq$  75" [75%]. Arguably, the filter should be based on segment assets, not revenue, and thereby better reflecting the New Zealand Fuel market subject. It has nothing to do with the "Upstream" oil and gas exploration and production. The relevant market segment is "Downstream". If based on segment assets most of the fuel majors would likely be excluded from the sample.

**Table A** is an incomplete sample of 2018 revenue, asset and capital:<sup>3</sup>

|                        |        |                 |                   | <b>Table A</b> |
|------------------------|--------|-----------------|-------------------|----------------|
|                        | US \$m | <b>Upstream</b> | <b>Downstream</b> |                |
| <b>BP</b>              |        |                 |                   |                |
| Sales                  |        | 56,399          | 270,689           |                |
| Assets                 |        | 24,318          | 5,634             |                |
| <b>ExxonMobil</b>      |        |                 |                   |                |
| Sales                  |        |                 |                   |                |
| Capital Employed (ave) |        | 177,874         | 25,740            |                |
| ROACE                  |        | 7.90%           | 23.30%            |                |
| <b>Shell</b>           |        |                 |                   |                |
| Sales                  |        |                 |                   |                |
| Capital Employed       |        | 115,312         | 56,633            |                |

8. Integrated Fuel firms generally disclose their ROACEs for Upstream and Downstream business segments based on their stated formulations which are emulated by the Commission in its approach.

<sup>3</sup> **Shell** <https://reports.shell.com/investors-handbook/2018/data/financial-data/additional-segmental-information-and-capital-data.html>

**ExxonMobil** <https://corporate.exxonmobil.com/-/media/Global/Files/investor-relations/annual-meeting-materials/annual-report-summaries/2018-Summary-Annual-Report.pdf> p6

**BP** <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form-20f-2018.pdf> p157-159

9. The ROACE for Z Energy is included in the comparator sample worksheet as well as in NZX 50 worksheet and hence, is benchmarked against itself [Figures D5 and D7].

### ROACE formulations and calculations

10. The Commission defined the ROACE with NOPAT (essentially, operating earnings plus net interest after tax) and Capital Employed applied to Bloomberg data as:

Capital Employed is “Total Assets” less “Total Current Liabilities” plus “Short Term Debt” plus “ST Portion of LT Debts” less “Goodwill”.

**Table B** summarises the detailed approach applied to Z Energy in the spreadsheet.

| <b>Z Energy Bloomberg</b>                         |                                 |     |       |       |       |       |       |       |       | TableB |
|---|---------------------------------|-----|-------|-------|-------|-------|-------|-------|-------|--------|
|   |                                 | \$m | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019   |
| Pre-Tax Income                                    | PRETAX_INC                      |     | 169   | 170   | 134   | 6     | 86    | 342   | 366   | 252    |
| Earnings Before Interest & Taxes                  | IS_EBIT                         |     | 182   | 167   | 166   | 40    | 127   | 382   | 425   | 316    |
| Short Term Debt                                   | BS_ST_DEBT                      |     | -     | -     | -     | -     | -     | 51    | 150   | 135    |
| Finance Cost                                      | IS_FINANCE_COST                 |     | -     | -     | -     | -     | 58    | 78    | 68    | 103    |
| Total Assets                                      | BS_TOT_ASSET                    |     | 1,652 | 1,906 | 1,540 | 1,373 | 1,394 | 2,473 | 2,805 | 2,847  |
| ST Portion of LT Debts                            | BS_ST_PORTION_OF_LT_DEB         |     | -     | -     | -     | -     | 147   | -     | -     | -      |
| Interest Expense                                  | IS_INT_EXPENSE                  |     | 18    | 18    | 18    | 60    | 49    | 67    | 60    | 96     |
| Total Interest Expense                            | IS_INT_EXPENSES                 |     | -     | -     | -     | -     | -     | -     | -     | -      |
| Statutory Tax Rate                                | IS_STATUTORY_TAX_RATE           |     | 28%   | 28%   | 28%   | 28%   | 28%   | 28%   | 28%   | 28%    |
| Total Current Liabilities                         | BS_CUR_LIAB                     |     | 807   | 837   | 449   | 367   | 440   | 534   | 950   | 867    |
| Goodwill  | BS_GOODWILL                     |     | -     | -     | -     | -     | -     | 158   | 158   | 193    |
| Net Income/Net Profit (Losses)                    | NET_INCOME                      |     | 121   | 137   | 95    | 7     | 64    | 243   | 263   | 188    |
| Interest Income                                   | IS_INT_INC                      |     | 15    | 15    | 15    | 23    | 24    | 21    | 16    | 52     |
| <b>Capital Employed</b>                           | <b>Capital Employed</b>         |     | 846   | 1,069 | 1,091 | 1,006 | 1,101 | 1,832 | 1,847 | 1,922  |
| <b>Average Capital Employed</b>                   | <b>Average Capital Employed</b> |     | 846   | 957   | 1,080 | 1,049 | 1,054 | 1,467 | 1,840 | 1,885  |
| <b>NOPAT + NI(1-t)</b>                            | <b>NOPAT + NI(1-t)</b>          |     | 123   | 140   | 98    | 34    | 82    | 276   | 295   | 220    |
| <b>ROACE</b>                                      | <b>ROACE</b>                    |     | 14.6% | 14.6% | 9.0%  | 3.2%  | 7.8%  | 18.8% | 16.0% | 11.7%  |
| source: worksheets: International Data and NZX 50 |                                 |     |       |       |       |       |       |       |       |        |
| <i>check</i>                                      |                                 |     |       |       |       |       |       |       |       |        |
| <b>NOPAT</b>                                      | Net Income                      |     | 121   | 137   | 95    | 7     | 64    | 243   | 263   | 188    |
|   | + Net interest after tax        |     | 3     | 3     | 3     | 27    | 18    | 33    | 32    | 32     |
|   | <b>NOPAT + NI(1-t)</b>          |     | 123   | 140   | 98    | 34    | 82    | 276   | 295   | 220    |
| <b>Capital</b>                                    | Total Assets                    |     | 1,652 | 1,906 | 1,540 | 1,373 | 1,394 | 2,473 | 2,805 | 2,847  |
|   | - Current Liabilities           |     | (807) | (837) | (449) | (367) | (440) | (534) | (950) | (867)  |
|   | + Short Term Debt               |     | -     | -     | -     | -     | -     | 51    | 150   | 135    |
|   | + ST Portion of LT Debts        |     | -     | -     | -     | -     | 147   | -     | -     | -      |
|   | - Goodwill                      |     | -     | -     | -     | -     | -     | (158) | (158) | (193)  |
|   | <b>Capital</b>                  |     | 846   | 1,069 | 1,091 | 1,006 | 1,101 | 1,832 | 1,847 | 1,922  |

11. The spreadsheet narrative and formulas seem to be mismatched throughout the worksheets. What is the basis for adding back Debt (shaded in the Z Energy example) to Total Assets?
12. The Commission’s ROACE formulation, outlined in the Draft Report from D155 is different or inconsistent. For instance, in the Z Energy example, “Goodwill” is deducted but “Contracts acquired” are not (and amortisations reversed). Other comparability issues include “cash equivalents” and “non-operating investments”. Capitalised leases are excluded.

13. The Commission adjusts Z Energy's Capital for revaluations (D152 and D173) but not in the Bloomberg formulation. This creates comparability barriers.
14. Are the ROACE Bloomberg formulations the same for "NZ Fuel", "International comparator sample", NZX 50, "Major" and Gull/smaller firms summarised in Figures D5 to D9? Figure D8 source is not Bloomberg.
15. Quoting the source for Figure D7: "Commerce Commission analysis of financial statement data reported by various New Zealand fuel companies ..." I believe they should be disclosed if it is publicly reported.
16. In **Table B** above, the Commission calculated ROACE (shaded) for Z Energy at: 18.8%, 16.0% and 11.7% for 2017, 2018 and 2019 respectively. This compares with a 3-year geometric rolling average rate of 21% (based on sighting in Figures D5 and D8). Given Z Energy's weighting I question the two results. [refer to paragraphs 26 and 27 below and **Table F**]
17. In the "NZX 50" worksheet, The A2 Milk Company ("ATM") is shown as blank for 2019. ATM is the largest weight in the NZX 50. The ROACEs for 2017 and 2018 were 50% in each year.

### Years

The end year in Figures D5 to D9 is 2018 while Bloomberg data ends at 2019. Is the Z Energy data for 2019 included as 2018? Further, Bloomberg data includes 2018 in 2019 if it is the latest available. Thus, if the data set were to be updated to include 2019 then all previous years would be pushed back a year - well that is how I see it.

18. **Table C** illustrates the "year" alignment issue.

|   |       |       |       |       | Table C |
|---|-------|-------|-------|-------|---------|
| <b>Meridian Energy: possible time lag</b> |       |       |       |       |         |
|   | \$m   | 2016  | 2017  | 2018  | 2019    |
| <b>Total Assets</b>                       |       |       |       |       |         |
| <b>Bloomberg</b>                          |       |       |       |       |         |
| "NZX 50" worksheet                        | 7,661 | 8,538 | 8,683 | 8,632 |         |
| MEL Annual Report 2019                    | 8,538 | 8,683 | 8,632 | 9,657 |         |
| <b>"Net Income/Profit"</b>                |       |       |       |       |         |
| <b>Bloomberg</b>                          |       |       |       |       |         |
| "NZX 50" worksheet                        | 247   | 185   | 200   | 201   |         |
| MEL Annual Report 2019                    | 185   | 200   | 201   | 339   |         |

19. Figure D5 heading is “2014-2018” yet the chart starts at 2004. Bloomberg data goes to 2019.
20. Bloomberg’s “NZX 50” fails to adjust for (or acknowledge) material revaluations or other fair value adjustments. The Commission at D145 states:” ... amount of capital which the firm has invested compared against estimates of WACC ...”. On this basis the amount of historic cost capital invested (subject to correcting for certain accounting anomalies) would mean reversing accounting revaluations. As it stands revaluations are a one-sided entry. With the alternative revaluation basis, the change in revaluation would go to NOPAT.
21. The issues with “fair value” valuations are highlighted by reference to Meridian Energy (MEL).<sup>4</sup> In **Table D**, “Net book value” is the fair value adjusted “generation structures & plant”. The asset is periodically valued, and in recent years incorporates a premium for control of 20%. Post each valuation the accumulated depreciation is set to zero.
22. The “Carrying value” is disclosed. It represents the depreciated historic cost based on the actual money invested.<sup>5</sup> Deducting carrying value from the revalued asset derives the revaluations.

| <b>Table D</b>                                    |             |             |             |             |
|---|-------------|-------------|-------------|-------------|
| <b>Meridian Energy: fair value adjustments</b>    |             |             |             |             |
| \$m   | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> |
| <b>Generation structures &amp; plant</b>          |             |             |             |             |
| [valuation incorporated a control premium of 20%] |             |             |             |             |
| <b>Net book value</b>                             | 7,566       | 7,774       | 7,776       | 8,654       |
| <b>/less Carrying value</b>                       | (2,700)     | (2,500)     | (2,600)     | (2,500)     |
| <b>Revaluations</b>                               | 4,866       | 5,274       | 5,176       | 6,154       |
|   |             |             |             |             |

23. Bloomberg defined Capital for MEL includes the revaluations (including a control premium) as calculated in **Table D**. Hence, it is materially overstated relative to an adjusted historic cost determination of capital employed.
24. A check on the Bloomberg MEL ROACE shows a lower return than would normally be expected ... just earning half of its cost of capital! Given there are five listed generators the Bloomberg NZX 50 analysis needs to be revisited.

<sup>4</sup> <http://nzx-prod-s7fsd7f98s.s3-website-ap-southeast-2.amazonaws.com/attachments/MEL/339726/306153.pdf>

<sup>5</sup> See footnote 4 to access the financial statements at Note B, p118, p120.

| <b>Table E</b>                         |              |              |              |              |
|--|--------------|--------------|--------------|--------------|
| <b>Meridian Energy ROACE</b>           |              |              |              |              |
| \$m                                    | <b>2016</b>  | <b>2017</b>  | <b>2018</b>  | <b>2019</b>  |
| <b>ROACE</b>                           | 4.1%         | 3.1%         | 3.1%         | 3.1%         |
| Cost of Capital, say                   | 8.6%         | 8.6%         | 8.6%         | 8.6%         |
| <b>Excess profit margin (negative)</b> | <b>-4.5%</b> | <b>-5.5%</b> | <b>-5.5%</b> | <b>-5.5%</b> |
| source: Bloomberg NZX 50 worksheet     |              |              |              |              |

## Z Energy ROACE

25. At the Consultation Conference Lindis Jones CFO said:

“Across the 2016 and 18 period, included in the draft report, Z returns, as calculated by Z, went from 12 to 10%; last year they declined to 8.5%; this year we forecast them to be about 7%.”<sup>6</sup>

26. **Table F** summarises various ROACE results. What stands out is the differences to Z Energy’s self-assessment, including a forecast for 2020. Panel B should be contrasted with Panels A, C and F.

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<sup>6</sup> [https://comcom.govt.nz/\\_data/assets/pdf\\_file/0029/179372/Day-1-Retail-Fuel-Study-Conference-transcript-24-September-2019.PDF](https://comcom.govt.nz/_data/assets/pdf_file/0029/179372/Day-1-Retail-Fuel-Study-Conference-transcript-24-September-2019.PDF) page 9, lines 22-24.

“... as calculated by Z ...” suggests that the ROACE included LIFO inventory adjustments?



|  |              |              |              |                |              | Table F      |              |
|--|--------------|--------------|--------------|----------------|--------------|--------------|--------------|
| <b>ROACE - uncorrected perspectives</b>  |              |              |              |                |              |              |              |
|  | \$m          | 2015         | 2016         | 2017           | 2018         | 2019         | 2020         |
| <i>Panel A</i>                           |              |              |              |                |              |              |              |
| <b>Bloomberg NZX 50</b>                  |              |              |              |                |              |              |              |
| Z Energy by year                         |              |              | 7.8%         | 18.8%          | 16.0%        | 11.7%        |              |
| Cost of Capital, say                     |              |              | 8.6%         | 8.6%           | 8.6%         | 8.6%         |              |
| <b>Excess profit margin (negative)</b>   |              |              | <b>-0.8%</b> | <b>10.2%</b>   | <b>7.4%</b>  | <b>3.1%</b>  |              |
| <i>Panel B</i>                           |              |              |              |                |              |              |              |
| <b>Conference Transcript</b>             |              |              |              |                |              |              |              |
| Z Energy by year                         |              |              | <b>12.0%</b> | <i>from to</i> | <b>10.0%</b> | <b>8.5%</b>  | <b>7.0%</b>  |
| Cost of Capital, say                     |              |              | 8.6%         | 8.6%           | 8.6%         | 8.6%         | 8.6%         |
| <b>Excess profit margin (negative)</b>   |              |              | <b>3.4%</b>  | <b>na</b>      | <b>1.4%</b>  | <b>-0.1%</b> | <b>-1.6%</b> |
| <i>Panel C</i>                           |              |              |              |                |              |              |              |
| <b>Bloomberg Figure D7</b>               |              |              |              |                |              |              |              |
| <b>NZ Fuel firms 3-year rolling ave.</b> | <b>13.0%</b> | <b>14.0%</b> | <b>17.0%</b> | <b>21.0%</b>   |              |              |              |
| Cost of Capital, say                     | 8.6%         | 8.6%         | 8.6%         | 8.6%           |              |              |              |
| <b>Excess profit margin (negative)</b>   | <b>4.4%</b>  | <b>5.4%</b>  | <b>8.4%</b>  | <b>12.4%</b>   |              |              |              |
| <i>Panel D</i>                           |              |              |              |                |              |              |              |
| <b>Bloomberg</b>                         |              |              |              |                |              |              |              |
| <b>Comparator sample by year</b>         |              |              | 1.3%         | 2.4%           | 5.9%         | 7.0%         |              |
| Cost of Capital, say                     |              |              | 8.6%         | 8.6%           | 8.6%         | 8.6%         |              |
| <b>Excess profit margin (negative)</b>   |              |              | <b>-7.3%</b> | <b>-6.2%</b>   | <b>-2.7%</b> | <b>-1.6%</b> |              |
| <i>Panel E</i>                           |              |              |              |                |              |              |              |
| <b>Bloomberg NZX 50</b>                  |              |              |              |                |              |              |              |
| 3 year rolling average                   |              |              | <b>6.6%</b>  | <b>7.1%</b>    | <b>7.3%</b>  | <b>6.8%</b>  |              |
| Mean (weighted)                          |              |              | <b>7.0%</b>  | <b>8.0%</b>    | <b>7.0%</b>  | <b>5.5%</b>  |              |
| <i>Panel F</i>                           |              |              |              |                |              |              |              |
| <b>NZ fuel firms Figure D8</b>           |              |              |              |                |              |              |              |
| <b>Average 3 years</b>                   |              |              | <b>2016</b>  | <b>2017</b>    | <b>2018</b>  |              |              |
| Z Energy                                 |              |              |              |                | <b>22.0%</b> |              |              |
| BP                                       |              |              |              |                | <b>18.0%</b> |              |              |
| ExxonMobil                               |              |              |              |                | <b>19.0%</b> |              |              |
| Gull                                     |              |              |              |                | <b>28.0%</b> |              |              |
| Smaller firms                            |              |              |              |                | <b>24.0%</b> |              |              |

**ROACE Summary**

27. **Table F** presents the various ROACE results before any corrective actions, if ever needed. The Commission should resolve material differences and carefully define and apply ROACE for specific contexts such as (but not limited to): an investor ROACE based on money invested (modified historic cost), business combination ROACE (modified historic cost, absent acquisition premiums) and for New Entrant scenarios.
  
  28. A clear understanding of the Commission's "under the bonnet" analysis would contribute to improved acceptance of the Retail Fuel Market Study report and policy development.
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**APPENDIX: extract from submission dated 13 September 2019<sup>7</sup>**

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**“Observations on Figures: D5 to D9****27. Figure D5**  
NZ v International 3 year rolling average ROACE 2014-2018

The obvious ROACE reversal of international peers and NZ fuel firms' positions has not been explained by the Commission. NZ fuel firms change from a spread of about negative 15% points in 2007 to positive 15% in 2018. It looks like two offsetting cycles. What economics underlie the reversal?

I note the international comparator set includes exploration and production businesses (“Upstream”) which have specific accounting policies unrelated to NZ Fuels market (“Downstream”). For instance, E&P apply different accounting approaches including successful efforts or full cost accounting, specific reserve and fair value accounting, etc.<sup>8</sup>

A question: has the Commission included the group or upstream or downstream entities in the ROACE assessments? For instance, the ExxonMobil's 2017 Financial Operating Review includes Group ROACE ranging from 11.1% in 2017 back to 19.2% in 2013 [page 26]; Upstream 5.8% in 2017 back to 17.5% in 2013 and, Downstream 24.9% in 2017 back to 14.1% in 2013. [page 79]

**28. Figure D6**  
NZ firms' 3 year rolling average ROACE 2004-2018

The 3-year rolling average disguises the actual change in Excess Returns in 2019. The Return on Capital has fallen from 26.9% to 16.8% or -10.1% points on a simple average basis. The Commission's Figure 6 chart may be misleading. [Table A Panel B]

**29. Figure D7**  
NZ firms v NZX 3 year rolling average ROACE 2012-2018

The NZX companies are weighted on a capital basis. It is unclear whether NZ fuel firms are measured on the same basis (refers to “average ROACE”. [D171 and D172])

Some NZX companies revalue “generation structures and plant” on a regular basis. The asset revaluation is added to assets and between equity and deferred tax. The holding gains arising does not pass through the Income Statement (the BP New Zealand issue [B76 to B79]). For instance, Meridian Energy Annual Report discloses [p118] that the net book value

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<sup>7</sup> CC ref

<sup>8</sup> Antill Nick, K Lee, Company valuation under IFRS, 2<sup>nd</sup> 2005, 263-273.

of fixed assets is \$8.6b relative to historical carrying value of just \$2.5b.<sup>9</sup> Has the Commission adjusted the NZX 50 data as it suggests should be done in D171.4?

The conclusion at D172 may need to be reviewed.

The chart shows the NZX 50 (minus 3 banks) rolling 3-year average ROACE ranging from just below 5% in 2012 to about 7% in 2018. The ROACE appears to be below the average cost of capital for all years.

30. **Figure D8**  
NZ firms' High ROACE 2016-2018

Again, this chart disguises the fall in ROACE in 2019 (as shown in **Table A Panel B**).

31. **Figure D9**  
Major firms v Gull/smaller companies annual average excess return 2016-2018

Based on the chart the total Excess Profits were approximately \$398m, split \$360m Fuel Majors) and \$35m for Gull et al. The Fuel Major's dominance on a dollar basis is stark: 91% by size.

Based on my analysis the Fuel Majors have suffered a negative change of 6.6% on a weighted average basis in the 2019 financial year from \$517m in 2018 to \$316m in 2019, a change of -\$201m [**Table A Panel D**]. The return on capital falls by 10.1% points [**Table A Panel B**]."

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<sup>9</sup> As indicated by the size by market capitalisation at \$32b, the 5 listed generators and retailers are material to the assessments.