MEUG update of pilot Economic Profit Analysis of Meridian Energy Ltd for 2021 financial results. For MEUG members, 20th September 2021 – public

Prepared by Ralph Matthes and Garth Ireland.

Purpose

1. This memo summarises the pilot Economic Profit Analysis (EPA) for Meridian Energy Ltd (MEL) after adding the financial results for the year ended 30th June 2021. The updated analysis is dated 15th September 2021.

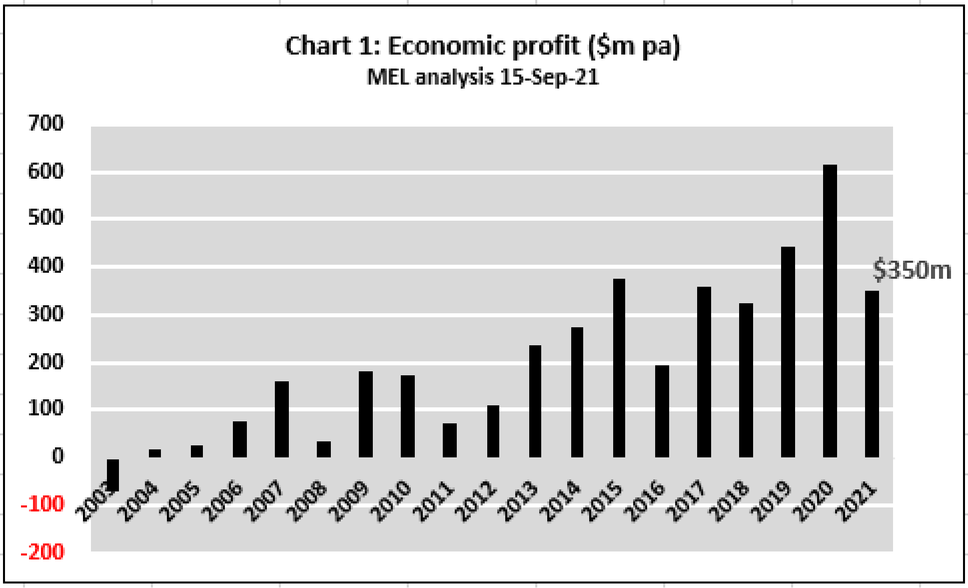
The analysis

2. Updating the analysis for the additional year uncovered some aspects of prior year calculations that needed correcting. Where appropriate, changes were made to those calculations. This led to some differences in results in some years compared to the prior 28th of July analysis with the results not being markedly different. However, on average trends over time are similar and results in the analysis of 28th July tended to understate recent years economic profits.

3. Adding the 2021 financial results took more time than anticipated, notwithstanding additional time for iterations required to test and correct ad hoc issues uncovered. Dissecting the financial statements, correctly entering data into the standard accounting framework developed for the pilot, and applying adjustment rules to use the proprietary EPA, is complicated. MEL restated some of the 2020 financial statements in the 2021 financial results. We considered those were not material and have not adopted those.

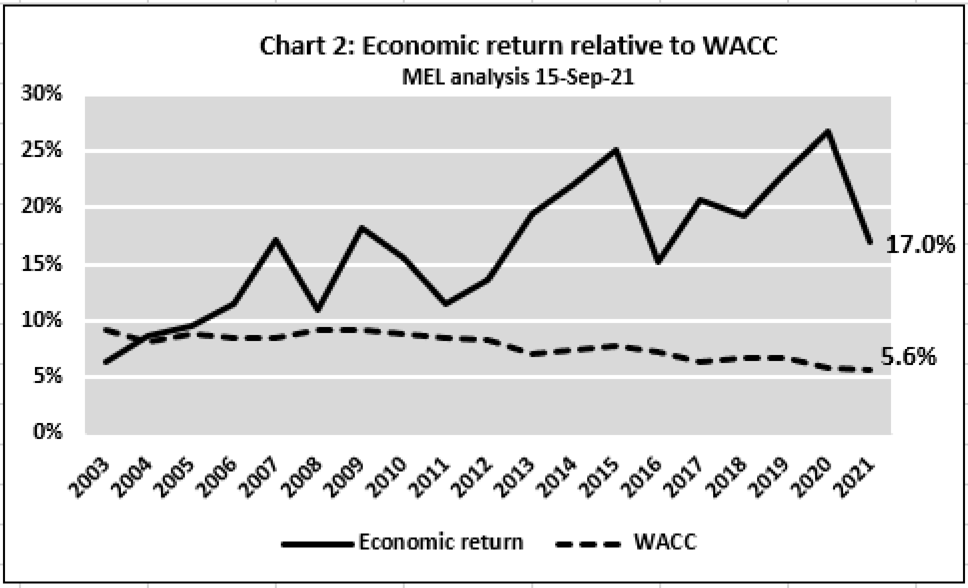
The results

4. Economic profit (i.e., Economic Value Added or EVA) in 2021 was $350m. EVA over time is illustrated in Chart 1. The only economic loss was in 2003.

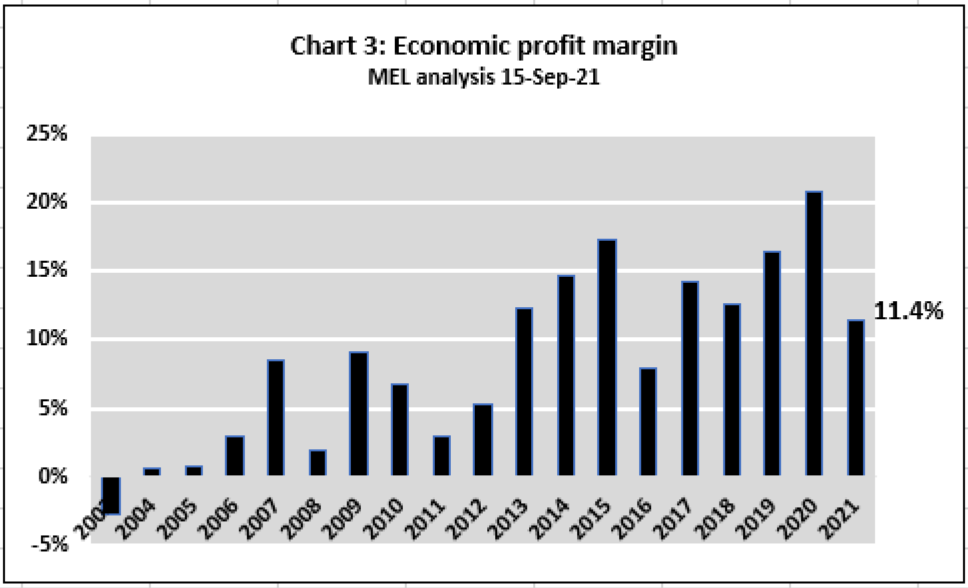


5. A positive EVA means Net Operating Profit after Tax (NOPAT) exceeds the economic capital charge, being the Weighted Average Cost of Capital (WACC) times capital invested. In competitive markets individual companies and the industry in some years will have a positive EVA (earn economic profits), other years a negative EVA (incur economic losses) and over a long period of time cumulative EVA should trend to zero. That has not been the outcome for MEL, especially in the last 5-years, with EVA exceeding $300m each year.

6. Chart 2 illustrates economic return, being NOPAT divided by capital invested as a percentage, relative to WACC over the 19-years 2003 to 2021. The economic return in 2021 was 17% and WACC 5.6%.



7. Economic profit margin, being the difference between economic return and WACC, is illustrated in Chart 3. Economic profit margin, or EVA margin, is the percentage return above WACC. In 2021 the margin was 11.4%.



8. The amount of capital invested over 20 years has remained relatively stable and is currently around $3 billion. WACC has in recent years also been relatively stable. NOPAT, the other variable used to calculate economic profit, decreased from 2020 to 2021. This is illustrated by the decrease in economic return in Chart 2. There are two main reasons for the change in NOPAT between 2020 and 2021. Both of which are important to also understand the level of and variations in NOPAT in other years.

   - MEL's balance sheet in 2021 has Property, Plant and Equipment (PP&E) assets of $9.6 billion. That includes around $7.8 billion of cumulative revaluations over 20-years. For the EPA we calculate capital invested in PP&E by considering only the cash invested in PP&E and remove the increases due to revaluations. Similarly, MEL's financial statements include annual depreciation on revalued PP&E values rather than only on the cash invested or historic cost of PP&E. For the EPA we remove annual revaluation depreciation to transform the financial statements to calculate NOPAT on cash invested in PP&E. The value of revaluation depreciation has increased over time as successive revaluations have inflated the balance sheet value of PP&E. In 2020 and 2021 the value of annual revaluation depreciation removed was $242m and $248m respectively. NOPAT therefore increased.

   - Changes in the fair value of electricity hedges in the Income Statement are reversed when calculating NOPAT because they do not reflect actual cash flow. In 2020 there was a $113m decrease in the fair value of electricity hedges and that was reversed when calculating NOPAT thereby contributing to the large EVA that year. Conversely in 2021 there was a $169m increase in the fair value of electricity hedges and that was reversed when calculating NOPAT thereby contributing to the large step down in EVA. Similar swings in the treatment of the fair value of electricity hedging instruments has been a factor in the volatility of EVA in previous years.

9. It remains to be seen once next year's audited accounts for 2022 are published whether the step down in economic profit in 2021 is the start of a downward trend or not.

10. As with the 28th of July analysis, an important caveat is that the results for MEL cannot be assumed to apply to all companies in the industry. Hence, there is value in extending the analysis to other suppliers.

The pilot EPA is a useful template to consider other suppliers

11. In updating the pilot EPA for the 2021 financial results we did find corrections needed in earlier years as discussed in paragraph 2. Testing the framework by adding an additional year and making corrections has improved our confidence the pilot EPA is a useful template to consider other suppliers. We need to remain flexible and vigilant in how the framework might be improved as possible different aspects of the EPA are tested when adding new suppliers.

12. What works for one supplier may need more granularity of analysis or a re-think of how the framework might be improved to better reflect the objective to calculate economic profits on a "cash returns" on "cash invested" period by period. Implementing EPA is a balance between having sufficient detail to have confidence in the magnitude of the trends in the results over time without expending time on details that are not material.

Mandating suppliers disclose information in a standard format should be considered.

13. Should the EA decide to adopt EPA (or other variations for estimating historic economic profit by adjusting financial statements), there may be value in mandating large suppliers disclose information from their public audited accounts in a standard format. This would assist expedite annual industry updates, avoid risks of information in financial statements being misinterpreted and give certainty to suppliers the data being used is accurate.

Transparency of analytical approaches are needed to allow informed debate of results.

14. EPA and variations for estimating historic economic profit by adjusting financial statements can range from simple to complex with experts reaching very different conclusions. Results can also be misinterpreted. Often only the headline results are published but the methodology, application and analysis are opaque. Below are two recent examples:

    - MEL advised the Minister on 20th August 2021 that PwC had advised that "aside from 2011 and 2019, economic profits have been largely flat but have exceeded the cost of capital by between 0 and 2%." The PwC report comprised 5-pages of narrative on their approach and adjustments and a graph of economic rate of return compared to WACC between 2011 and 2020. The PwC results of economic profits between 2011 and 2019 were significantly lower than our estimate over those years ranging between 3% and 20% illustrated in Chart 3.

      Our analysis could be replicated by other parties using our published financial statement data, using their judgement to apply adjustments to the list we published in the answer to Qu. 14 of the Q&A published 24th August, and using a range of EPA software that are available. In comparison, the PwC analysis applied a smaller set of adjustments and hence reconciling with our results is difficult.

    - The Commerce Commission draft report on the market study into the retail grocery sector found significant levels of economic return using Return on Average Capital Employed (ROACE). ROACE adjusts accounting profits to calculate return on capital before considering capital charges and hence is a measure of economic return, not economic profits.

      Foodstuffs NI (FSNI) in a submission to the Commission on 10th September 2021 stated "FSNI's, and its advisors, calculate its ROACE to be less than half of what the Commission calculates it to be, i.e., 9% compared to with the Commission's figure of close to 24%." Neither the Commission nor FSNI, in our view, published sufficient details to allow other parties to replicate their analysis. Instead, both provided summary results and snippets of their analysis with confidential information redacted.

      As noted in the bullet point above, our analysis is based almost entirely on publicly available audited information.

15. It is difficult to compare our results with the PwC analysis or the Commerce Commission's analysis with FSNI because aspects of those analysis are opaque. Transparency of analytical approaches are important to allow informed debate of different reported headline results.