Analysis of RAB multiples

Response to the May 2022 CEPA report

27 May 2022

Summary of the issue and objective of the CEPA report

The RAB multiple is generally defined as:

$$RAB\ multiple = \frac{Enterprise\ value}{RAB}.$$

It is well known that there are many reasons why a regulated firm may have a RAB multiple in excess of 1. For example, the enterprise value will be greater than the RAB to the extent that the firm has unregulated revenue streams, receives incentive payments, or is expected to improve its OPEX efficiency.

The RAB multiple will also differ from 1 if the allowed return on equity differs from the return that investors require.

The RAB multiple can only provide a reliable indication of the adequacy of the allowed return on equity after the effects of all other items are removed from the estimate of the enterprise value.

That is the objective of the CEPA report[1] – to disaggregate the enterprise value into its component pieces such that the RAB multiple might provide some information about the adequacy of the allowed return on equity.

Our view is that a reliable disaggregation of the RAB multiple is an impossible task. A large number of assumptions is required to even attempt such a disaggregation. We show below that changes to a small number of assumptions (to more reasonable and plausible figures) produces material changes to the disaggregated RAB multiple. In particular, we show that the disaggregated RAB multiple for AusNet – based on a set of assumptions consistent with the Grant Samuel independent expert report and other evidence – is 0.87.

A useful example of the imprecision of the disaggregation task is in relation to the AusNet Development and Future Networks (DFN) business. CEPA estimates the value of that business to be $185 million to $555 million using the simple approach of applying multiples of 1 and 3 times historical revenue. By contrast, the Grant Samuel independent expert report values the same business at $3.0 billion to $3.3 billion using a detailed DCF modelling approach that considers 7 potential future scenarios. Thus, even though CEPA adopts a range, its estimates are all orders of magnitude different from the detailed estimates reported by Grant Samuel.

This example makes an important point. What if we didn't have the careful and detailed analysis set out in the Grant Samuel report? In that case, a reader would be left to rely on the CEPA estimates that are orders of magnitude too low and the consequently mis-estimated RAB multiple.

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[1] CEPA, May 2022, EV/RAB multiples, Report for the AER.

More direct evidence is available

The ENA March 2022 submission[2] notes that there is no need to seek to disaggregate RAB multiples in relation to the recent Spark and AusNet transactions to inform the adequacy of the AER's current allowed return on equity. This is because the independent expert reports for both transactions provide direct estimates (based on detailed analysis) of the required return on equity. Both of the independent experts concluded that the return on equity required by market investors is materially higher than the AER's current regulatory allowance. This is spelled out in Section 12.1 of the ENA submission.

Conclusions drawn from the CEPA disaggregation model

The CEPA report is based on a financial model that has been produced for the purpose of disaggregating the enterprise value into its component pieces.

In the remainder of this note, we explain that we have used the CEPA financial model and made four simple changes to the input assumptions used by CEPA. We consider these changes to be more realistic and plausible, and more consistent with the available evidence, than the figures adopted by CEPA.

The changes we have made to the CEPA inputs are summarised in **Table 1** below.

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[2] ENA, March 2022, Rate of return instrument review: Response to AER's final omnibus and information papers.

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Table 1: Proposed alternative to CEPA model assumptions

Item	CEPA assumption	Proposed alternative
Value of unregulated assets	Applies a multiple of 1-3 to current unregulated revenues. No regard to substantial future investment program. Mid-point estimate is $370 million.	Independent expert report contains detailed modelling of proposed future investment program. Independent expert mid-point estimate is $3,150 million.
Tax benefits arising from sale transaction	Zero.	Independent expert valuation of benefits from step-up in tax asset base arising from the sale transaction.
Terminal RAB multiple.	Assumes aggregate RAB multiple reduces over time to 1.1. No reason provided.	Assume that aggregate RAB multiple remains constant over time.
New investment in regulated assets.	Zero. Implication is that the value of regulated assets asymptotes to 0 over 50 years.	Conservative estimate of 4%. Still does not keep up with depreciation. Real value of assets declines slowly over time.

Source: CEPA report, Frontier Economics assumptions.

CEPA's model can be used to disaggregate the enterprise value into its component pieces. One can then remove the identifiable items that are not related to the present value of regulatory allowances. The idea is that the resulting RAB multiple then provides some indication of the adequacy of the AER's regulatory allowance.

We make the four changes set out in **Table 1** above to the CEPA model. We then use the CEPA model to disaggregate the enterprise value into its component pieces and we remove the identifiable items that are not related to the present value of regulatory allowances.

The resulting RAB multiple for AusNet is 0.87.[3]

We note that an estimate less than 1 implies that the AER's regulatory allowance is less than the return that investors require.

We also note that this conclusion is entirely consistent with the allowed return on equity being less than what market investors require.

However, our view is that the best evidence of the adequacy of the AER's allowed return is the direct estimates of the required return on equity in independent expert valuation reports. That

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[3] We have used figures from the AusNet transaction in our analysis – because more detailed information is available for that transaction. We note that the aggregated RAB multiples, and the independent expert estimates of the required return on equity, are similar across the Spark and AusNet transactions.

direct evidence is more informative and more reliable than the inferences that can be drawn from attempts to disaggregate the enterprise value into its component pieces.

Stage 1: Remove unregulated assets

As noted above, the RAB multiple is generally defined as:

$$RAB\ multiple = \frac{Enterprise\ value}{RAB}.$$

Of course, this figure is meaningless to the extent that unregulated assets are included in the numerator, but not the denominator. Consequently, the first, and most obvious, step when computing RAB multiples is to remove the value of unregulated assets from the enterprise value.

CEPA (p. 13) makes this point in defining the RAB multiple as:

$$RAB\ multiple\ (regulated\ only) = \frac{Enterprise\ value\ (total) - Enterprise\ value\ (unregulated)}{RAB}.$$

In relation to AusNet, CEPA identifies two components of value from unregulated investments:

a. The present value of future revenue from the Development and Future Networks (DFN) business, with a mid-point estimate of $370 million; and

b. The present value of future revenue from other unregulated investments, with a mid-point estimate of $600 million.

Thus, after controlling for CEPA's estimate of the value of unregulated assets, we have:

$$RAB\ multiple\ (regulated\ only) = \frac{18,119 - (370 + 600)}{9,870} = \frac{17,149}{9,870} = 1.74.$$

The 1.74 figure appears near the bottom of the table on p. 27 of the CEPA report.

At this point it is important to note that there is a very material difference between CEPA's estimate of the present value of the DFN business and the corresponding estimate provided by Grant Samuel in its independent expert report in relation to the recent AusNet transaction.

Whereas CEPA estimate the value of the DFN business at $370 million (mid-point estimate), Grant Samuel adopts an estimate of $3,150 million (mid-point estimate). That is, the Grant Samuel estimate is more than 8 times higher than the CEPA estimate.

The reason for such a colossal difference between these estimates is that:

a. The CEPA estimate is produced by applying a multiple of 2 (mid-point estimate) to current revenues from the DFN business. This does not reflect the material growth forecasted for that business; whereas

b. The Grant Samuel independent expert report notes the important role of the DFN business within the AusNet portfolio:

> *Development & Future Networks is an integral component of AusNet's broader long term strategy of capitalising on the energy transition and providing the infrastructure*

> *required to deliver on the increasing penetration of electricity as an energy source across Australia.* [4]

c. The Grant Samuel independent expert report also notes the substantial investment and fast growth of that business:

> *capital expenditure is generally around or in excess of 100% of EBITDA and is almost exclusively growth capital expenditure.* [5]

such that:

> *the short term earnings outlook is not necessarily reflective of Development & Future Networks' longer term prospects.* [6]

d. This leads Grant Samuel to perform detailed DCF modelling of seven different scenarios for the DFN business and to conservatively adopt a valuation range towards the bottom end of those valuation estimates, as summarised in **Figure 1** below.

Figure 1: Grant Samuel estimate of value of DFN business
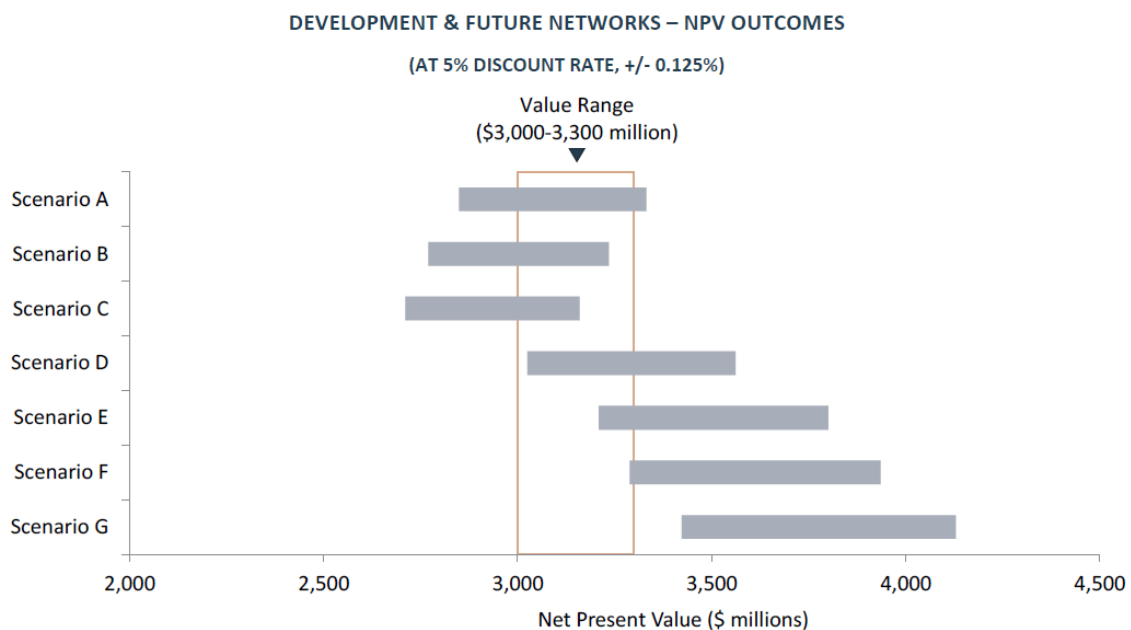
Source: Grant Samuel independent expert report, p. 80.

e. Moreover, the Grant Samuel independent expert report (p. 27) notes that the DFN business <u>currently</u> holds:

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[4] Grant Samuel independent expert report, p. 48.

[5] Grant Samuel independent expert report, p. 50.

[6] Grant Samuel independent expert report, p. 50.

      i.   A lessor receivable of $318.9 million in relation to unregulated customer connection assets; and

     ii.   A license receivable of $161.9 million in relation to the Victorian Desalination Plant.

         The value of these assets, already recorded at market value in AusNet's accounts under AASB16, is already materially higher than the CEPA estimate of total value.

We also note that the Grant Samuel independent expert report was completed in accordance with legislation and ASIC guidelines.

For all of the reasons set out above, we conclude that the Grant Samuel estimate of the DFN business should be preferred.

If one adopts the independent expert estimate of the value of the DFN business, the RAB multiple reduces as follows:

$$RAB\ multiple\ (regulated\ only) = \frac{18,119 - (3,150 + 600)}{9,870} = \frac{13,919}{9,870} = 1.41.$$

We consider this to be the appropriate starting point figure.

Stage 2: Remove 5 identified components of enterprise value

CEPA then identifies five additional items that must be removed from the numerator (enterprise value) before any meaningful use can be made of the RAB multiple:

1. Trailing average cost of debt above current spot rate – the value differential between the trailing average allowance for the return on debt and the actual cost of debt borne by a new owner that has raised debt finance at the prevailing rate. This differential persists for a maximum of 10 years, at which point the new owner is assumed to be replicating the trailing average approach to debt.

    CEPA's base-case estimate for this item is $331 million;

2. Out-performance against cost of debt – the value created by being able to raise ongoing debt finance at a rate below the regulatory allowance.

    CEPA's base-case estimate for this item is $627 million;

3. Incentive schemes.

    CEPA's base-case estimate for this item is $1,016 million, being the sum of the value of incentives available under current determinations ($161 million) and the estimated value of future incentives ($855 million);

4. OPEX outperformance – the value created by cost savings relative to the regulatory allowance.

    CEPA's base-case estimate for this item is $1,776 million; and

5. Tax savings – the value created from arrangements that result in tax paid being less than the regulatory allowance for corporate tax.

    CEPA's base-case analysis assumes that there is no tax advantage available to AusNet – either now or in the future. Rather, the additional revenues due to items 1 to 4 above will result in

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additional tax being paid, which has a present value of $274 million. These additional taxes offset part of the value of items 1 to 4 above.

Table 2 below shows that these adjustments – made using CEPA's mid-point base-case estimates – reduce the RAB multiple to 1.06.

This table sets out figures using the CEPA model and making only one change – replacing the CEPA estimate of the value of the DFN business with the independent expert estimate of that same business.

Table 2: RAB multiple using CEPA estimates but for independent expert valuation of DFN assets

Item	Amount ($ millions)	
Enterprise value (regulated only)		13,919
Less adjustments		
Trailing average differential	331	
Return on debt outperformance	627	
Current incentives (revenue adjustments)	161	
Future incentives	855	
OPEX outperformance	1,776	
Tax effects	-274	3,475
Enterprise value (after adjustments)		10,444
RAB		9,869
RAB multiple (after adjustments)		1.06

Source: CEPA – Inference model.xlsx, replacing enterprise value in cell K18 on the Summary – AST tab and making no other changes.

The CEPA report contains a figure designed to show how the five items set out above might bridge part of the gap between the estimated enterprise value and the RAB. That figure is reproduced as **Figure 2** below. The CEPA figure begins with an enterprise value of $17,173 million – based on an implausibly low estimate of the value of the DFN business. CEPA concludes that there is a 'gap' of unexplained value amounting to $3,818 million.

It is important to note that this figure from the CEPA report assumes zero new investment in regulated assets – not even the replacement of existing regulated assets. In this regard, CEPA (p. 20) notes that "no capex program is assumed after the current regulatory period comes to an end." We show below that even a very conservative assumption about capex materially explains the 'gap.'
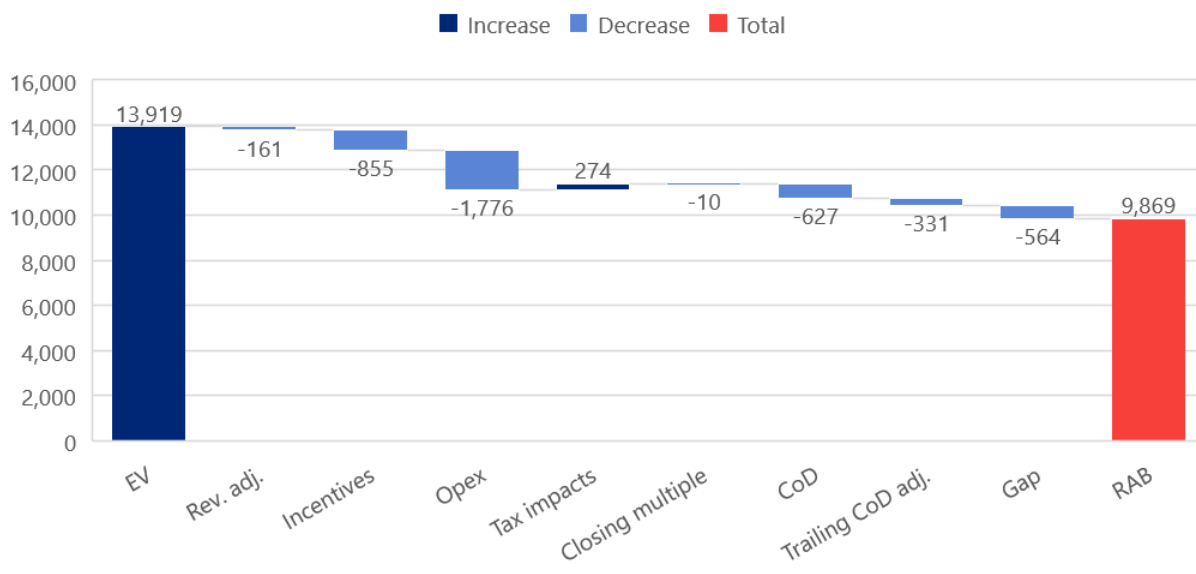
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Figure 2: CEPA estimates of components of enterprise value
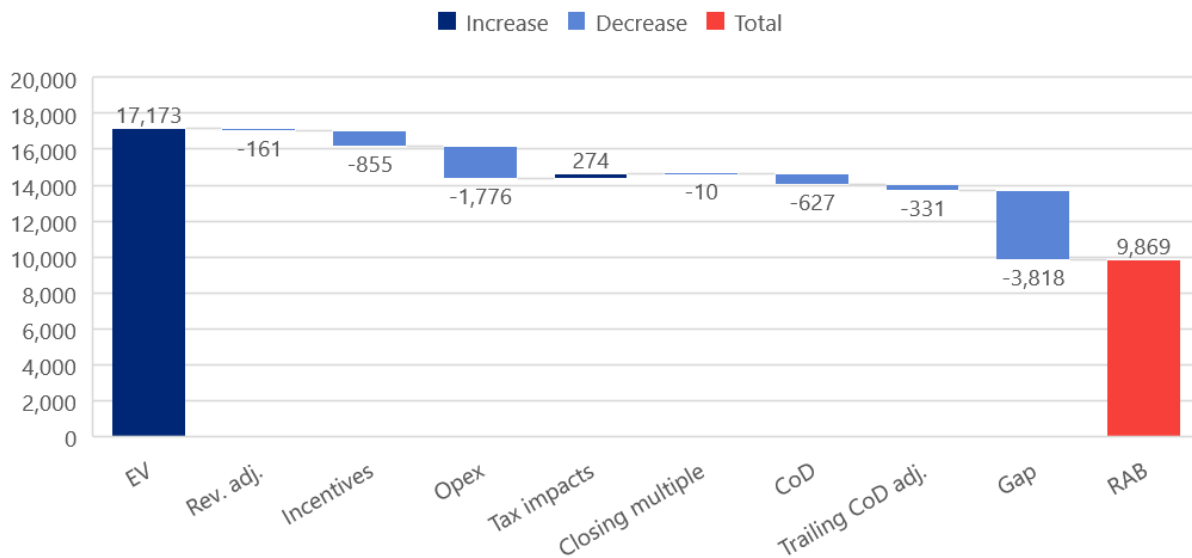
Source: CEPA – Inference model.xlsx, Summary AST tab, created by entering 0 for Net CAPEX in Row 11 of Control tab. See Figure 4, p.20 of CEPA report.

We have re-produced **Figure 2** using the models attached to the CEPA report and making a single change – using the independent expert estimate of the value of the DFN business in place of the CEPA estimate. This results in a smaller starting RAB, as illustrated in **Figure 3** below.

Figure 3: Components of enterprise value using independent expert estimate of DFN business

Source: CEPA – Inference model.xlsx, Summary AST tab, created by entering 0 for Net CAPEX in Row 11 of Control tab.

Figure 3 shows that the 'gap' between the enterprise value and RAB is largely explained by the five items identified, and estimated, by CEPA. The resulting 'gap' is only about 6% of the RAB, resulting in a RAB multiple of 1.06 as in **Table 2** above.

Stage 3: Final adjustments

CEPA also identify two other items that are relevant to the calculation of the RAB multiple in their model:

1. **The terminal RAB multiple.** CEPA's model generates annual estimates for the next 54 years, after which a terminal value is adopted. That terminal value is computed by multiplying the estimated RAB by an assumed RAB multiple.

   CEPA adopts a terminal RAB multiple of 1.1 in its base case model.

2. **RAB growth.** New investment in capital projects within the regulated part of the business can have a positive NPV, arising from the five sources above applying to new assets in the same way as to existing assets.

   CEPA's base case model assumes zero capital investment in the regulated assets of the business.

Our analysis thus far makes only one change to the CEPA base case model – replacing the CEPA estimate of the value of the DFN business with the independent expert estimate.

In our view, there are three other changes that would be more reasonable than the base case assumptions adopted by CEPA:

1. CEPA's base case analysis assumes that there are no tax benefits associated with the AusNet transaction. However, CEPA notes that the independent expert report that was produced in relation to that transaction adopted a 'step-up' in the tax base.[7] This 'step-up' is clearly a source of value that is a component of the transaction price. Consequently, CEPA have provided for such a step-up in their model. We have inserted the independent expert estimates of the value of this step-up into the relevant cells in the CEPA model.[8]

2. CEPA's base case analysis assumes a terminal RAB multiple of 1.1. CEPA does not explain the origin or the rationale for that figure. By contrast, we note above that the five items set out above produce a current RAB multiple of 1.41. That is, the value of incentive payments, OPEX outperformance, and so on currently result in the enterprise value being 41% higher than the RAB. By adopting a terminal RAB multiple of only 1.1, CEPA is essentially assuming that, although these items are currently a source of significant value, they will not be a source of significant value in the future. No rationale is provided for such an assumption. In our view, a more reasonable assumption would be to adopt a terminal RAB multiple in line with the current observed multiple.

3. CEPA's base case analysis assumes zero new investment in the regulated part of the business. This results in the real value of the asset base asymptoting to zero over the next 50 years. For

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[7] CEPA report, p. 22.

[8] Row 36 on the Controls sheet of the CEPA – Inference Model.xlsx spreadsheet model.

example, under this assumption, the real value of the AusNet distribution business falls from over $5 billion today to less than $220 million 54 years hence. Such an assumption is clearly unreasonable. We instead adopt a very conservative assumption of 4% net CAPEX as a percentage of RAB.[9] Even at this level of CAPEX, the real value of the RAB falls over time. That is, our conservative assumption of 4% CAPEX is not quite sufficient to offset depreciation and maintain the current value of the regulated assets.

At this stage, we have made a total of four changes to the input assumptions adopted by CEPA – being the four items summarised in **Table 1** above.

When these adjustments are made to the CEPA model, the result is a RAB multiple of 0.87, as shown in **Table 3** below. That is, after making the adjustments that are summarised in **Table 1**, the RAB multiple is less than 1. This is consistent with the AER's allowed return on equity being less than the return that market investors require.

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[9] This figure is adopted for illustrative purposes. We have deliberately selected a conservatively low figure such that new investment is insufficient even to maintain the real value of the network.

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Table 3: RAB multiple using CEPA estimates but for independent expert valuation of DFN assets and tax step-up, terminal RAB multiple in line with current multiple, and CAPEX investment rate of 4%

Item	Amount ($ millions)	
Enterprise value (regulated only)		13,919
Less adjustments		
Trailing average differential	331	
Return on debt outperformance	1,214	
Current incentives (revenue adjustments)	161	
Future incentives	1,080	
OPEX outperformance	1,776	
Tax effects	-114	
Closing RAB multiple	879	5,327
Enterprise value (after adjustments)		8,592
RAB		9,869
RAB multiple (after adjustments)		0.87

Source: CEPA – Inference model.xlsx, using independent expert estimate of value of tax step-up, terminal RAB multiple of 1.41, and CAPEX investment rate of 4%.

SPARK Infrastructure

The CEPA report appears to contain some fundamental errors in relation to SPARK Infrastructure. For example, the table on p. 25 indicates that the RAB is $6.251 billion, whereas figure 4.4 indicates that it is $17.149 billion.[10] Thus, there is apparently an error in which the total value of all businesses is used in some calculations, while Spark's proportionate share is (inconsistently) used in other calculations.

Moreover, in valuing SPARK's unregulated assets, CEPA states that:

> *We have not attempted to value the development pipeline of Spark Renewables due to the uncertainty around some of the projects.[11]*

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[10] For AusNet, those two figures coincide within rounding error.

[11] CEPA, p. 14.

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However, CEPA <u>does</u> value that pipeline of projects – at 0. Thus, CEPA's calculation of enterprise value would be overstated by the extent to which the market value of SPARK reflects any value for these projects.

In relation to unregulated revenues within each portfolio company (SAPN, VPN, and Transgrid), CEPA again applies multiples of 1 and 3 times historical earnings. This is contrary to clear evidence of the strong growth that has been forecasted for unregulated revenues. For example, the SPARK Infrastructure Scheme Booklet states that:

> *The increasing push for renewable energy generation in Australia is set to drive growth in Spark Infrastructure's unregulated businesses, Beon Energy Solutions (which is wholly-owned by Victoria Power Networks), Enerven (which is wholly-owned by SA Power Networks) and Lumea (which is wholly-owned by TransGrid).[12]*

In this regard, the KPMG independent expert report notes the need to have regard to:

> *opportunities for growth in terms of unregulated revenue streams, both within the portfolio and for Spark Infrastructure itself, particularly through participation in the rapidly changing mix in power sources as the industry transitions from traditional sources towards renewables.[13]*

The Grant Samuel independent expert report for AusNet separately identified the value of unregulated assets (the DFN business). This highlighted the very substantial difference between the Grant Samuel estimate (which reflected anticipated growth) and the CEPA estimate (which did not).

The KPMG independent expert report for SPARK does not separately identify the value of unregulated assets. However, we do note that CEPA has adopted the same approach as it applied to AusNet. Consequently, it would be unsafe to rely on the CEPA estimates of the value of unregulated assets.

For all of the reasons set out above, our view is that CEPA's analysis of SPARK Infrastructure should be disregarded entirely.

Other errors, inconsistencies and uncertainties

Our analysis of the CEPA report and modelling has also identified a number of other errors inconsistencies and uncertainties that highlight the unreliability of such an attempt to disaggregate RAB multiples. For example:

● CEPA's analysis of total debt includes bank debt facilities for SPARK but apparently inadvertently omits bank debt facilities for AusNet;[14]

● CEPA appears to have assumed that all debt relates to the regulated entity, whereas a portion of that debt is likely to have been used to fund unregulated activities;

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[12] SPARK Infrastructure Scheme Booklet, p. 41.

[13] KPMG Independent Expert Report, p. 8.

[14] Row 101 of the Enterprise Value tab of the CEPA model.

- CEPA's analysis relies heavily on the assumption that incentive payments continue in the future according to the historical average rate (from 2014). However, CEPA's figure 4.8 shows that there is considerable variability in past incentive payments (even after averaging over 7 entities) and that the most recent incentive payments are above the long-run mean. It is unclear what assumptions about incentive payments might have been adopted by the winning bidders; and

- CEPA's analysis relies heavily on the assumption that OPEX outperformance continues in the future according to the historical average rate (from 2006). However, CEPA's figure 4.9 shows that there is considerable variability in past OPEX outperformance (even after averaging over 7 entities) and that the most recent OPEX outperformance above the long-run mean. It is unclear what assumptions about OPEX outperformance might have been adopted by the winning bidders.

All of these examples further highlight the unreliability of such an attempt to disaggregate RAB multiples.

Implications for the current RoRI process

We reiterate our view that a reliable disaggregation of the RAB multiple is an impossible task. Any disaggregated RAB multiple is simply a reflection of the large number of assumptions that are required.

For example, we note that the CEPA model, with the four changes to input assumptions set out in **Table 1** produces a disaggregated RAB multiple of 0.87.

We also reiterate our view that there is no need to seek to disaggregate RAB multiples in relation to the recent Spark and AusNet transactions to inform the adequacy of the AER's current allowed return on equity. This is because the independent expert reports for both transactions provide direct estimates (based on detailed analysis) of the required return on equity.

The implications for the current RoRI process are either that:

a. The AER will conclude that reliable disaggregation of the RAB multiple is an impossible task, such that RAB multiples have no role; or

b. The AER will conclude that disaggregated RAB multiples do have a role to play in the RORI process, in which case the draft decision will explain:

   i. The precise role of disaggregated RAB multiples in the RoRI process – including the role of RAB multiples vis a vis the direct evidence on required returns in recent independent expert valuation reports; and

   ii. Whether the AER agrees that the proposed inputs in **Table 1** are more plausible and consistent with the available evidence.

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