# Wilson Cook & Co

Engineering and Management Consultants Advisers and Valuers

Reply to:Auckland OfficeOur ref:1111Email:jeffrey.wilson@wilsoncook.co.nz

2 May, 2011

Mr Warwick Anderson General Manager, Network Regulation North Branch The Australian Energy Regulator Marcus Clarke Street CANBERRA ACT 2601

Dear Mr Anderson,

## RE: REVIEW OF EXPENDITURE OF QUEENSLAND & SOUTH AUSTRALIAN GAS DISTRIBUTORS: ADDITIONAL REPORT IN RELATION TO ENVESTRA LTD (QUEENSLAND)

In response to your instructions, we have reviewed the revised proposals submitted to the AER in March 2011 by Envestra Ltd in relation to capital and operating expenditure for its Queensland gas distribution network in the five-year periods ending FY 2011 and FY 2016 and have pleasure in submitting this additional report.

# 1 Requested Scope of Review

The requested scope of this further review was to assist the AER by considering any new information submitted by Envestra in support of its disagreement with certain of the AER's draft decisions. The issues on which the AER requested further and updated advice from us relate solely to the advice in our Final Report to the AER, dated 17 December 2010.

#### Capital Expenditure: Contingency Allowances

We were asked to review pp. pp. 5-7 of attachment 7-7 to Envestra's draft decision response and attachment 7-8 (Parsons Brinckerhoff's report) which set out why Envestra disagrees with the removal of contingency allowances from parts of its proposed capital expenditure forecast. (In its revised proposal, Envestra and its consultant assert that various cost items considered likely to arise in its capital expenditure programmes were not included in its base cost estimates and therefore the inclusion of a contingency allowance in relation to them was justified.)

## Operating Expenditure Related to Capital Expenditure – Leak Repair Savings

We were asked to review pp. 45-46 of attachment 6-9 to Envestra's draft decision response, which sets out why Envestra considers the reduction made in the AER's draft decision was incorrectly calculated by us. (This matter relates to Envestra's business case no. Q60.)

## Operating Expenditure - Base-Year Efficiency Adjustment Factor

We were asked to review pp. 1-23 of Attachment 6-9 to Envestra's draft decision response, which sets out why Envestra disagrees with the application of an efficiency adjustment factor to its

#### **Registered Office**

Wilson Cook & Co Limited Level 2, Fidelity House 81 Carlton Gore Road PO Box 2296 Auckland 1140 W www.wilsoncook.co.nz Auckland 8 Harapaki Road Meadowbank Auckland 1072 T +64 (9) 578 0770 M +64 (21) 645 521 E info@wilsoncook.co.nz proposed base year. (We were asked in particular to have regard to Envestra's argument that our view (and the AER's) that comparative analyses of productivity and cost benchmarking were inappropriate, given Envestra's network characteristics and capitalisation policies.)

We were further asked to review, in relation to this matter: attachment 6-4A to Envestra's draft decision response (Economic Insights' report) and attachment 5-8A (Marksman Consulting's report)

In relation to the application of the base-year efficiency adjustment factor, we were asked to review p.46 of attachment 6-9 to Envestra's draft decision response, in which Envestra claims that the base-year efficiency adjustment factor was applied incorrectly by us and by the AER.

We were further asked to review attachment 6-6 to Envestra's draft decision response in which Envestra sets out what it considers the correct application of the efficiency adjustment factor.

In responding to these operating expenditure matters, we were asked to have regard, if relevant, to Envestra's revised base-year operating expenditure, which now accounts for a complete year of actual data and we were referred to p.44 of attachment 6-9 to Envestra's draft decision response and to attachment 6-7A to Envestra's draft decision response in this respect.

## 2 General Matters

#### Our Approach to the Review

Our general approach to this reassessment was to reconsider the validity of the statements made in our Final Report in light of the additional information received.

#### Matters Not Reviewed

The review was limited to the context of our instructions – namely, to report on matters affecting or potentially affecting the adjustments to Envestra's expenditure that we recommended in our Final Report.

We were neither required to consider, nor did we receive, any submissions from stakeholders other than Envestra

## Consultation

Our terms of reference did not require us to consult with Envestra or to seek any additional information needed and there was not sufficient time available to enter into a dialogue, in addition to which we considered it reasonable to rely on Envestra's submissions as presented to the AER.

We were to present our draft report to the AER by 21 April 2011 and the scope of this report reflects that timetable.

#### This Report to be Read in Conjunction with Final Report

This report should be read in conjunction with our Final Report.

## **Opinions Expressed in Final Report**

For the avoidance of doubt, we confirm that the opinions expressed in our Final Report remain unchanged unless specifically modified in this report.

#### Limitation

Statements made in our Final Report and in this report are limited to the particular matters stated. No implied extension of our text, implied conclusion or opinion, or quotation taken in isolation from our text as a whole, should be attributed to us or be given any weight by the AER or any other authority considering the findings of our reports.

## No Interpretation of Law or Rules Intended

For the further avoidance of doubt, we emphasise that no statement made in our reports should be taken as an interpretation of the applicable Law or the Rules, as none is intended.  $^{1}$ 

# 3 Review

# 3.1 Capital Expenditure (Contingency Allowances)

Envestra disagrees with the removal of contingency allowances from parts of its proposed capital expenditure forecast, in accordance with the recommendations in our Final Report. In its revised proposal, it and its consultant assert that various cost items considered likely to arise in its capital expenditure programmes were not included in its base cost estimates and therefore the inclusion of a contingency allowance in relation to them was justified.

## Envestra's Argument

In Attachment 7-7, Envestra argues that we misconstrued the contingency provisions in its forecasts, adding that the majority of such sums relate to un-costed items. It argues that the long time horizon of its forecasts mean that, for many projects, detailed design has not been undertaken and therefore such projects exclude the cost of activities or materials expected to be required but which, individually, are minor and do not justify close assessment at this stage. Attachment 7-7 p. 6 states, "The application of contingency by Envestra has reflected this gap between incomplete and complete project definition, rather than an amount to simply cater for cost over-runs or uncertainties".

Envestra give the example of the initial estimate for an augmentation project for which the route selection was based on the shortest route distance on a network map but where, after detailed design, the length was increased to avoid other utility services or environmentally sensitive obstacles.

## Parsons Brinkerhoff's Findings

Parsons Brinckerhoff (PB) was engaged by Envestra to undertake an independent review of matters relating to Envestra's application of contingencies in its cost estimates. PB notes in its review, "Envestra states that projects are allocated a contingency amount to account for uncertainties in the project scope or execution, noting further that the amount of contingency is determined from a matrix based on the Association for the Advancement of Cost Engineering's International Recommended Practice 17R-97 – Cost Estimate Classification System TCM Framework 7.3 – Cost Estimating and Budgeting." PB goes on to say, "... the estimates used in Envestra's access arrangement submission employ baseline cost estimates developed from the partially complete project definitions available at the time of estimating. As the project definitions are only partially complete, Envestra has added a percentage contingency to its baseline estimates to account for specific cost items that will arise, but which are not yet quantifiable due to the incomplete nature of the project definitions. The particular percentage contingency employed in this process is established from the matrix after assessing the level of completeness of each project definition. We also understand that the intention of this process is to 'close the gap' (as it were) between the baseline estimates derived from incomplete project definitions, and the baseline estimates that would be derived if completed project definitions were available."

On pp. 5-6 of its review, PB identifies 13 aspects in relation to which a contingency is expected to make provision for costs not fully identified and which include such things as co-ordination with other utility underground services, dealing with constraints on working hours, traffic

<sup>&</sup>lt;sup>1</sup> Section 2.1 of the Final Report makes it clear that we did not attempt to interpret the Rules (although we stated our interpretation of the terms *prudence*, *efficiency* and *good industry practice*, as they were not defined in our terms of reference).

management, dealing with environmental or cultural heritage issues, modifications to the design, etc.

PB goes on to say, "In PB's opinion, these are typical cost items that frequently arise in utility estimates, particularly in works planned for congested urban and CBD environments. As such, PB would anticipate many (if not all) of these specific cost items to be included in detailed estimates based on completed project definitions, or accounted for through provisional amounts in estimates based on less detailed project definitions." It adds, "Having considered the completeness of the project definitions supporting Envestra's estimates, as well as the range of specific cost items allowed for in the contingency, it is apparent to PB that this contingency amount actually represents an identifiable set of specific cost items that while not explicitly itemised within each estimate, are implicit within the contingency percentage."

However, PB adds a caution, stating on p.6, "However, after examining the specific cost items allowed for in the contingency amount, PB is not completely satisfied that all of the items identified are fully provisional in nature, and do not contain some contingent characteristics. For example, while it is likely that Envestra will incur additional costs to accommodate environmental issues, the extent of these additional costs are implicitly an unknown portion of the total contingency amount, and hence it is difficult to assess whether the amount included is reasonably the expected cost, or includes an allowance for more (or less) than the expected cost. Similarly, re-routing mains to improve security of supply could be seen as somewhat speculative in nature, and without specific demonstration of the likelihood of incurring such additional costs, this component of the contingency could at least in part be cast as a contingent amount."

PB notes that even at the "Extremely High" level of project definition, Envestra's costing matrix allocates a 5% contingency to the project estimates. PB then concludes that this percentage of "true" contingency may exist in lesser-defined projects and hence in circumstances where Envestra has applied a 20% contingency, the provisional component of this contingency may be in the range of 15% - 20%.

#### Envestra's Revised Proposal

In apparent recognition of PB's findings – in particular, PB's view that up to 25% of the contingent amount may relate to 'contingent risk', Envestra appears to have revised its capital expenditure budgets, reducing the included contingency by 25% in all cases.

#### Our Assessment

We have considered this assertion in light of the general principles relating to contingencies and risk, as set out in section 4.7 of our Final Report.

We find no argument by Envestra or PB that the principles we espoused in that section are incorrect. To the contrary, we considered that PB's views generally tended to support our contention that whilst a contingency allowance may need to be called upon in some instances, such allowances are unlikely to be called upon generally, or to their full extent; and to argue that they would is to say, in essence, that the business concerned is unable to estimate its costs accurately or that it does not wish any risk of cost overruns to remain.

Envestra's argument that the contingency sums relate to the insufficient definition of the works does not counter our argument either, as we deal specifically with that point in our Final Report in the text quoted in the preceding paragraph.

We further note that neither Envestra nor PB have acknowledged that the cost estimates are generally based on average costs of pipe-laying per kilometre or suchlike and that such rates by definition reflect the average of the many different situations that are encountered when the work is undertaken. It is not clear, therefore, that the contingency sums are for entirely "un-costed" items or activities.

PB has noted that Envestra's contingency application matrix includes a 5% contingency for "highly detailed" project scopes and that this cannot be considered a provisional sum for un-

costed items. However, PB then assumes that any additional contingency amount is a proxy for un-costed items. We consider that conclusion speculative and likely to be wrong, as it is axiomatic that the mix of provision for risk and for un-costed items will vary from one project to another and from projects in an early stage of development to projects in a later stage of development.

Similarly, Envestra's proposal to reduce the contingency sum by 25% in each case is speculative and likely to be wrong as well.

We come back to the point we made in our Final Report and quoted above: whilst a contingency allowance may need to be called upon in some instances, such allowances are unlikely to be called upon generally, or to their full extent; and to argue that they would is to say, in essence, that the business concerned is unable to estimate its costs accurately or that it does not wish any risk of cost overruns to remain".

We therefore reject Envestra's argument and retain the view expressed in our Final Report in relation to the need to remove contingency allowances.

# 3.2 Operating Expenditure (Leak Repair Savings)

Envestra proposed originally to undertake a significant mains replacement programme and, rightly, identified an accompanying saving in operating expenditure attributable to a reduction in the number of leak repairs forecast in the next period.

We recommended in our Final Report that the mains replacement programme be reduced and we therefore recommended that the accompanying saving identified by Envestra be reduced as well.

Envestra has argued that the leak repair savings should be based on the reduced length of mains to be replaced. This argument is based on the assumption that the number of leaks from cast iron and unprotected steel mains would be at a similar rate per kilometre throughout its network. We do not agree with that argument, as Envestra's gas leakage statistics show that 83% of gas leakage is occurring in the Ipswich area and only 17% in the Brisbane area and it is the Brisbane area in respect of which we proposed a reduction in the extent of mains replacement work.

We therefore concluded that the number of leak repairs should be forecast by area in proportion to the recorded leakage and recommended our adjustment to the leak repair savings accordingly.

No new information has been provided to cause us to change this view.

We note that Envestra has accepted the recommended reduction in the mains replacement programme in the Brisbane area and has not argued for its re-instatement to the original level proposed.

# 3.3 Operating Expenditure (Base-Year Efficiency Adjustment Factor)

## Scope of Review

We were asked to review pp. 1-23 of Attachment 6-9 to Envestra's draft decision response, which sets out why Envestra disagrees with the application of an efficiency adjustment factor to its proposed base year. (We were asked in particular to have regard to Envestra's argument that our view (and the AER's) that comparative analyses of productivity and cost benchmarking were inappropriate, given Envestra's network characteristics and capitalisation policies.)

We were further asked to review, in relation to this matter: attachment 6-4A to Envestra's draft decision response (Economic Insights' report) and attachment 5-8A (Marksman Consulting's report)

In relation to the application of the base-year efficiency adjustment factor, we were asked to review p.46 of attachment 6-9 to Envestra's draft decision response, in which Envestra claims that the base-year efficiency adjustment factor was applied incorrectly by us and by the AER.

We were further asked to review attachment 6-6 to Envestra's draft decision response in which Envestra sets out what it considers the correct application of the efficiency adjustment factor.

In responding to these operating expenditure matters, we were asked to have regard, if relevant, to Envestra's revised base-year operating expenditure, which now accounts for a complete year of actual data and we were referred to p.44 of attachment 6-9 to Envestra's draft decision response and to attachment 6-7A to Envestra's draft decision response in this respect.

## Justification for Efficiency Adjustment Factor

Envestra's operating expenditure in the next period is derived using the base-year roll-forward methodology. Thus, in determining an efficient and prudent level of operating expenditure for the next period, it is essential that the base year chosen can be shown to be an efficient level of expenditure.

We concluded in our Final Report that Envestra's base-year operating expenditure was not efficient, being relatively high in terms of expenditure per km of pipe and per customer, and accordingly we recommended the application of a compounding efficiency adjustment factor of 2.5% p.a. We understand that the AER accepted this recommendation.

Envestra considers that the magnitude of the reduction in operating expenditure in the draft decision is unreasonable.

(We understand that in addition to adopting our proposed efficiency adjustment factor, the AER, in its draft decision, applied to Envestra's operating expenditure certain labour cost escalation factors that incorporate a significant productivity improvement factor. If so, this will have had the effect of reducing Envestra's allowable operating expenditure in the next period to a level below that which we envisaged when proposing our adjustment factor. Our comments in this report relate only to our own recommendations as expressed in our Final Report; and those recommendations (which related to base-year relativity with the industry) were made with the intention of determining a reasonable level of operating expenditure for the business over the next period. If the AER intends to achieve a result that is similar to our recommendations, then any other productivity improvement factors that have been applied, directly or indirectly, would need to be taken into account and our efficiency adjustment factor may need to be amended as a result.)

## Historical Performance against Regulatory Benchmarks

Envestra claims that its base-year operating expenditure should be considered efficient if it has outperformed the regulatory benchmarks set in prior decisions and it states that it has done so.

#### Our Comment

We are concerned only with the efficiency of the base-year level nominated in Envestra's calculations for the next period and did not review the basis on which prior period regulatory allowances were set or whether they were assessed appropriately for efficiency at the time.

#### Reliance on High-Level Benchmarking

Envestra, supported by a further report from Economic Insights, claims that regulatory allowances should not be set having regard only to high-level benchmarking, as such benchmarking is no more than indicative.

#### Our Comment

It is acknowledged that benchmarking has limitations and thus, whilst broad comparisons of the expenditure of businesses may be made, various factors complicate the comparisons and require the exercise of considerable judgement when interpreting the results.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> These factors include differences in the type of network, the extent of mains of different types and pressure, growth rates, customer and load densities, asset ages and condition, load mix, geographic coverage and other factors including service targets.

It is also acknowledged that any comparison of a particular business with others implicitly assumes that the other businesses are efficient and the services provided are comparable in nature and quality.<sup>3</sup>

Nevertheless, there may be reasons why it is considered necessary to carry out a comparison of the business's operating expenditure and non-system capital expenditure with that of a selected comparative group. <sup>4</sup>

(In addition, as a general principle, we hold the view that whilst each individual project or programme may be justified when considered in isolation, it is still necessary that the aggregated expenditure projection of a business be reasonable. The aggregation of estimates for individual projects and programmes without adequate consideration of their impact in total, or of cost savings in other parts of the business, generally does not lead to an efficient level of expenditure. <sup>5</sup>)

In the present case, the data analysed by us showed that Envestra's operating expenditure was the highest of all the gas businesses considered in our comparison using several measures and, on most measures, by a substantial amount.  $^{6}$ 

Envestra claims that we failed to take account of differences in customer density, energy density and scale but we note in reply that we placed most weight on expenditure per kilometre of pipe and expenditure per customer as, in our experience, operating expenditure is most influenced by those two factors; and, used together, they inherently take into account differences in customer density. Energy density is not taken into account but our experience suggests that throughput does not have a major impact on operating expenditure in this type of business; and whilst scale may have some impact, it is in our view a second-order effect.

We looked at reasons for the outlying nature of Envestra's performance and, in doing so, we examined the comparative performance of Envestra and APT Allgas in further detail, as these businesses are of similar size in terms of customers and pipe length and they operate in substantially the same geographic area.

Additionally, some businesses may fully out-source their operational and maintenance activities whilst others carry out the work in-house or use a mix of both policies.

Other adjustments that may need to be made before drawing conclusions include: a check that the period reviewed was typical of expenditure patterns in each business; whether the same asset or expenditure categories have been included in all cases; whether any exchange rate or other adjustments are required before comparisons are made with off-shore businesses and whether there are any differences in accounting policies (some businesses may allocate a greater percentage of their corporate and network support costs to maintenance and capital activities whilst others report them separately, resulting in differing levels of allocation between capital expenditure and operating expenditure).

Mandatory licence conditions, if any, may also have cost impacts that may not apply in other states. Finally, there may be differences in balance dates and regulatory periods that make data hard to compare.

Some businesses own non-system assets such as computers and motor vehicles whilst other businesses lease these assets leading to an increase in operating expenditure and a reduction in capital expenditure. Different approaches lead to different cost structures.

<sup>&</sup>lt;sup>3</sup> This may be impossible to confirm, if the reviewer has not had the opportunity to examine all the businesses cited in a particular comparison in depth.

<sup>&</sup>lt;sup>4</sup> "Top-down" assessments are generally restricted to operating expenditure and non-system capital expenditure.

<sup>&</sup>lt;sup>5</sup> Amongst other reasons, this is because the individual components interact, or ought to do so.

<sup>&</sup>lt;sup>6</sup> On an expenditure-per-kilometre basis, the business with costs next highest to Envestra's had costs that were 76% of Envestra's level and the average of all businesses was 56% of Envestra's level. On an expenditure-per-customer basis, the business with costs next highest to Envestra's had costs that were 75% of Envestra's level and the average of all businesses was 54% of Envestra's level.

Having done so, we were still not satisfied that Envestra's base-year level operating expenditure represented an efficient level and accordingly we proposed an efficiency adjustment factor for the next period.

We consider our adjustment necessary and sufficient but we do note that the resulting reduction (of 16% by the end of the next period) will result in an equivalent (2009) base-year expenditure for Envestra that is still above the next-highest business in each of the two key benchmark measures that we considered.

We further consider that this margin could be construed as an allowance to take account of the inherent limitations of high-level benchmarking – limitations that we have acknowledged earlier in this report.

#### Economic Insights' Second Report

Envestra claims that we misinterpreted the conclusions in Economic Insights' original report.

#### Our Comment

This claim appears unwarranted. We noted the salient points from that report and drew the conclusion – rightly, we believe – that the productivity of Envestra's Queensland network operation has been deteriorating and did not compare favourably with the other networks considered although the report notes the Queensland network is small by comparison to the others compared and has lower customer and energy densities. Whilst the network is small, we noted that Envestra claims that its outsourcing arrangement with the APA Group provides economies of scale that offset the disadvantages of having a smaller network. It should also enjoy small, further, benefits from owning and operating three gas networks.

This view relied on Economic Insights' conclusions principally in relation to the trend of total productivity performance, which was stated in its original report to be deteriorating.

A **revised report** from Economic Insights submitted as part of Envestra's response to the draft decision has recalculated Envestra's total productivity performance by including network marketing expenses over the period of the study. The reason given for this is that marketing expenses **were** included for **some** businesses in Economic Insights' (specifically, the three Victorian businesses and one South Australian business) but not for others and not for Envestra's Queensland business. The revised analysis (which includes marketing expenses for all businesses) concludes that Envestra's total productivity factor improved by 0.7% p.a. over the last 12 years and operating expenditure productivity grew 2.3% p.a.<sup>7</sup>

However, it is not clear to us that marketing expenses, with their discretionary element, are a valid ingredient to include in the comparison; and, in addition, it is of concern to us that the inclusion or exclusion of this line item, alone, brings about such a significant change in the reported result.

#### Marksman's Reports

Envestra claims that we misinterpreted the conclusions in the original Marksman report, as that report found that Envestra's combined capital-plus-operating expenditure was historically commensurate with APT Allgas'. Envestra argues that the combined expenditure figure is a more appropriate measure, as capitalisation policies (and decisions made in respect of capital and operating expenditure trade-offs) can affect both capital and operating expenditure.

Marksman has now provided a further report that gives its opinion as to how we and the AER have interpreted its original report. The conclusions of this second report are as follows:

Both the AER and Wilson Cook have misinterpreted the Marksman report conclusion that "Envestra Queensland's **Capex and Opex** has historically been commensurate with that of Allgas" [emphasis added]. The intent of this conclusion was that the expenditures of the two distributors were commensurate when considering Capex and Opex together. This conclusion

<sup>&</sup>lt;sup>7</sup> See p. 6 of Economic Insights' revised (2011) report.

reflected consideration of both Capex and Opex and included combined Capex and Opex measures.

Both Wilson Cook and the AER have made an inappropriate use of the Marksman report, in that they have focussed on the Opex measures only and have not given consideration to the Capex measures. Based on only part of the picture, the AER and Wilson Cook have gone on to conclude that Envestra Queensland is inefficient.

The only way that the AER (and Wilson Cook) could conclude that Envestra Queensland was inefficient, was if it performed poorly across most Opex measures and across most Capex measures, which is not the case.

#### Our Comment

We accept Marksman's clarification that the conclusions in its September 2010 report related to the combined capital-plus-operating expenditure and, to that extent, the statement on p.43 of our Final Report that "we do not agree in respect of operating expenditure that the conclusions of the Marksman Report are valid" should have more correctly been have read, "In respect of operating expenditure benchmarks, the information in the Marksman Report shows that the performance of Envestra and APT Allgas has not been commensurate."

However, the remainder of that section of our Final Report and our subsequent analysis made it clear that we undertook our **own** analysis (using Marksman's data, not its analysis) and that our conclusions in relation to operating expenditure were thus based on Marksman's **data** and not on anything else in its report.

Turning to the core issue, we do **not** agree with Envestra or Marksman that a combined total of operating-plus-capital expenditure is the most appropriate measure to use for benchmarking purposes (and have consistently maintained this position in the past), as is evident from our general comments on benchmarking earlier in this report.

We reiterate that capital expenditure may be greatly different from period to period and from business to business, depending on growth rates, network age, network condition and other factors and is **not** readily benchmarked with any confidence. (This view is illustrated by a further examination of Marksman's proposed combination of Envestra's expenditure, to which we will return later in this report.)

Naturally, capital expenditure decisions will have some impact on operating expenditure, as will capitalisation policies, but in our experience, these impacts are of a second order of magnitude and are unlikely to account for the outlying nature of Envestra's operating expenditure as reported by us.

We therefore **reject** Envestra's criticism of our analysis in this regard.

#### Validity of Comparisons

Envestra claims that we made inappropriate comparisons with APT Allgas, as Envestra and APT Allgas allocate costs to operating and capital expenditure differently.

#### Our Comment

In its response to the draft decision, Envestra and its consultants make various claims that Envestra and APT Allgas allocate costs to operating and capital differently but no evidence has been provided by Envestra or by anyone else identifying the differences or the resulting financial impacts.

We found that Envestra and APT Allgas have similar numbers of customers but Envestra has 20% fewer kilometres of mains, fewer industrial and commercial customers and 46% less gas throughput. Envestra's customer density is 27% higher and its energy density is 38% lower. The businesses operate in substantially the same geographic area and have a similar proportion of cast iron and unprotected steel mains. Based on these network characteristics, we would expect Envestra's cost structure to be lower than APT Allgas' both in operating cost and in long-term average capital-related costs such as depreciation and return on capital.

Figure 1 shows the regulatory allowances and actual operating expenditure for the present period and the regulatory allowances proposed in the draft decisions for the next period for both businesses. All data in the figure (and in Figure 2) are taken from the AER's draft decision. The regulatory allowances that would result without the AER's base-year efficiency adjustments are also shown.

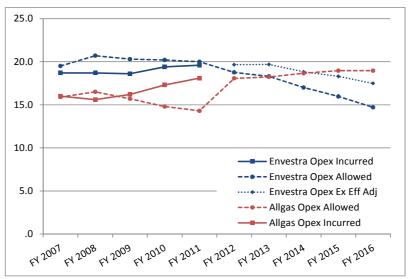


Figure 1: Envestra's and APT Allgas' Operating Expenditure (\$ FY 2011 m)

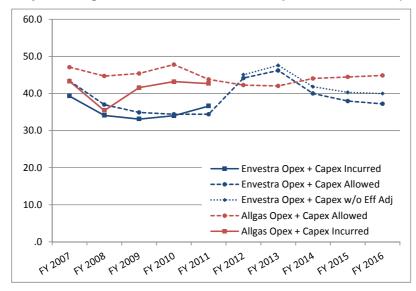
The figure shows that Envestra's operating expenditure is \$2.9 m higher than APT Allgas' in the base year, FY 2010, but that the impact of the draft decision is that Envestra's operating expenditure is \$4.3 m lower than APT Allgas' at the end of the next period.

If the efficiency adjustment were removed, Envestra's operating expenditure would be \$1.5 m lower than APT Allgas' at the end of the next period.

Illustration of Weakness of Marksman's "Combined" Expenditure Assessment Method

Although we do not consider it valid, Figure 2 shows the same comparison, using the "combined operating-plus-capital expenditure" assessment method advocated by Marksman and Envestra.

Figure 2: Analysis Using Marksman's "Combined" Expenditure Method (\$ FY 2011 m)



This analysis shows that Envestra's operating-plus-capital expenditure is \$8.8m lower than APT Allgas' in the base year, FY 2010, but that the position reverses during the next period then reverses again and that the impact of the draft decision is that the expenditure is \$7.7 m lower

than APT Allgas' at the end of the next period. If the efficiency adjustment were removed, Envestra's combined expenditure would be \$4.9 m lower at the end of the next period.

Several points are clear from this analysis.

- (a) Envestra's position is made to appear more favourable when this "combined" method of analysis is used at least, at the beginning and end of the period.
- (b) Reversals in the relative positions of the businesses occur twice in the period.
- (c) The reversals (which are attributable mainly to capital expenditure on mains replacement and are of a fixed duration) have no relevance to an assessment of operating expenditure, and underscore the variability and inappropriateness of using "combined" expenditure capital and operating to assess the efficiency of operating expenditure alone.

In short, the effects exhibited in Figure 2 rather prove our point that Marksman's "combined" expenditure assessment (and any benchmarking of the capital expenditure of different businesses) is likely to be invalid.

In summary, therefore, our view remains that it is operating expenditure alone that ought to be benchmarked – inclusive, of course, of savings arising from trade-offs that are due, in turn, to efficient capital expenditure investment decisions.

#### **Offsetting Savings**

Envestra claims that no allowance has been made for efficiencies that it expects to achieve, before making the efficiency adjustment. Specifically, it notes that we should have taken the savings it identified from the mains replacement programme into account before fixing our efficiency adjustment factor.

#### Our Comment

We agree with Envestra's on this point and have adjusted our proposed efficiency adjustment factor below on this ground.

#### Further Claim and Our Comment

Envestra further argued that the AER ought to have taken its proposed labour cost escalator modifications into account as well before applying the efficiency adjustment factor; and, to the extent that they (the modifications) incorporate productivity improvement factors, that view appears to be correct (although we have not examined it) and so we draw the matter to the AER's attention for its further consideration.

#### Conclusion

Considering these arguments, we conclude that our efficiency adjustment factor (which for the avoidance of doubt was derived to determine a level of base-year operating expenditure that is, in our view, prudent and efficient without further modification) should be adjusted to take account of the operating expenditure efficiencies arising from the mains replacement programme.

#### Application of Efficiency Adjustment Factor

Envestra has argued that we incorrectly applied the efficiency adjustment factor by applying the compounding percentage adjustment each year to the base-year total, rather than to the level in the preceding year.

#### **Our Comment**

We agree that compounding percentage adjustments of the type proposed are usually applied in the manner Envestra describes but, in this case, the key outcome that we seek is the progressive application of an adjustment over the next period sufficient to bring the base level of expenditure to an efficient level at the **end** of the period; and Envestra's proposal would not achieve that outcome.

In our revised recommendation set out below, we therefore use a methodology that first sets the end-point target, then achieves it by applying a straight-line path rather than a compounding adjustment over the period.

#### Impact of Envestra's Revised Base-Year Figures

We understand that Envestra's regulatory accounts for FY 2010 have now been finalised and that they show that its actual expenditure in the base year was \$0.46 m or 2.5% below that forecast in its original proposal. Accordingly, we consider it appropriate to deduct this amount from the target efficiency improvement to be achieved over the next period.

## Modified Efficiency Adjustment Factor

Having considered the information provided by Envestra and its consultants and the factors discussed above, we conclude as follows.

- a) We remain of the view that the base-year operating expenditure proposed by Envestra does not represent an efficient level and that adjustment is required.
- b) Taking into account the reduced expenditure level reported for FY 2010, we recommend a base-level expenditure reduction target of 12.5%, to be achieved by the end of the next period and that this be achieved in equal percentage increments over the period (we refer here to a percentage rather than to a monetary amount, as escalation will occur over the period).
- c) Efficiency improvements identified as separate non-base-year savings should be offset against our recommended efficiency adjustment.

For illustrative purposes (and we emphasise that the calculation is illustrative only), we have provided an updated efficiency adjustment calculation in Table 1 below, based on the data in our Final Report. Due to changes that have been proposed by the AER in the input escalation rates and considering also Envestra's representations in relation to them, we have not attempted to recalculate the adjustment on the revised level of base costs proposed for the next period.

YE 30 June	2012	2013	2014	2015	2016	Total
Recommended percentage adjustment	2.5%	5.0%	7.5%	10.0%	12.5%	
Total expenditure to be adjusted a/	17.8	18.1	18.5	18.8	19.1	
Resulting efficiency adjustment	0.4	0.9	1.4	1.9	2.4	7.0
Offsetting efficiency improvemts b/	(0.0)	(0.4)	(0.8)	(1.2)	(1.6)	(3.9)
- Revised efficiency adjustment	0.4	0.5	0.6	0.7	0.8	3.1

Table 1: Illustration of Modified Recommended Efficiency Adjustment (\$ FY 2010 m)

a/ Operations and maintenance, administartion and general and FRC costs.

b/ Leak repair savings arising as a result of the mains replacement programme.

We further draw your attention to our understanding that in addition to adopting our proposed efficiency adjustment factor, the AER, in its draft decision, applied to Envestra's operating expenditure certain labour cost escalation factors that incorporate a significant productivity improvement factor. If so, this will have had the effect of reducing Envestra's allowable operating expenditure in the next period to a level below that which we envisaged when proposing our adjustment factor. Our comments in this report relate only to our own recommendations as expressed in our Final Report; and those recommendations (which related to base-year relativity with the industry) were made with the intention of determining a reasonable level of operating expenditure for the business over the next period. If the AER intends to achieve a result that is similar to our recommendations, then any other productivity improvement factors that have been applied, directly or indirectly, would need to be taken into account and our efficiency adjustment factor may need to be amended as a result.

# 4 Conditions Accompanying Our Opinion

## Disclosure

Wilson Cook & Co Limited has prepared this additional report in accordance with the instructions of its client on the basis that all data and information that may affect its conclusions have been made available to it. No responsibility is accepted if full disclosure has not been made. No responsibility is accepted for any consequential error or defect in our conclusions resulting from any error, omission or inaccuracy in the data or information supplied directly or indirectly.

## Disclaimer

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## Non-Publication

With the exception of its publication by the AER in relation to its review of Envestra's expenditure proposals, neither the whole nor any part of this report may be included in any published document, circular or statement or published in any way without our prior written approval of the form and context in which it may appear.

Yours faithfully

# Wilson Cook & Co Limited

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