# Wilson Cook & Co

Engineering and Management Consultants Advisers and Valuers

Reply to:Auckland OfficeOur ref:0902Email:jeffrey.wilson@wilsoncook.co.nz

31 March, 2009

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

Dear Mr Buckley,

# *RE: REVIEW OF PROPOSED EXPENDITURE OF ACT & NSW ELECTRICITY DNSPS: COUNTRY ENERGY'S SUBMISSIONS OF JANUARY AND FEBRUARY 2009*

In response to your instructions, we have reviewed various matters in Country Energy's submissions to the AER of January and February 2009 in relation to its forecast operating and capital expenditure in the next regulatory period, FY 2010 to FY 2014, and submit our report.

# 1 Scope of Review

The requested scope of the review was to:

- (a) review and provide technical advice on Country Energy's submissions of January and February 2009 comprising a revised regulatory proposal and supporting documents;
- (b) provide technical advice on specific issues raised in Country Energy's submission;
- (c) consider any new information provided by Country Energy and advise of any revisions needed in the recommendations made by us in our Final Report to the AER of 21 November 2008 (Final Report);
- (d) provide details of any proposed revisions to Country Energy's levels of opex and capex as a result of any changes in the recommendations;
- (e) identify any new information that has led to the revision of our previous recommendations (or, if no revisions are proposed, why Country Energy's submissions and new information do not lead to revised recommendations); and
- (f) have regard to stakeholder submissions (which were expected by 16 February 2009) raised in relation to the issues to be reviewed.

The matters referred to in (b) above related to Country Energy's responses to the benchmarking of its non-system IT capex (section 5 of its submission); double counting associated with non-system land and buildings (section 5.3 of its submission); the escalation of vegetation

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 management costs for growth in the asset base (section 4.4 of its submission); and the costs related to compliance with the decision in *Sheather vs. Country Energy* – in particular, whether the proposed expenditure in relation to compliance is prudent and efficient (section 4.5 of its submission).

# Other Matters

We were also asked to consider the impact of Country Energy's revised peak demand forecast on its capex requirements. However, we were not able to do so adequately in the time available and thus did not attempt it.<sup>1</sup>

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

We were to present our draft report to the AER by 27 February 2009 and we consulted the AER before the work began to clarify what it was practical to achieve in the limited time available for the review. The scope of this report reflects the conclusions so reached.

# 2 Matters Not Reported On

The review was limited to the context of our instructions – namely, to report on matters affecting or potentially affecting the adjustments to Country Energy's expenditure that we recommended in volumes 1 and 2 of our Final Report.

# 3 Reassessment of Non-System IT Capex

Country Energy has argued in its submission of January 2009 to the AER that its non-system IT capex should not have been reduced in the AER's draft determination. It claims amongst other things that the reasons given for the reduction lacked clarity and were not appropriately supported. It further claims that high-level benchmarking should not have been applied to determine efficient levels of IT expenditure. It provided new information in and with its submission, which it claims supports its arguments.

We have reviewed our findings in light of Country Energy's submission, re-considering the reasons for the reduction, noting Country Energy's further arguments and considering the new information supplied. We conclude, and recommend to the AER for its consideration, that a reduction of \$37 m should be made to the forecast expenditure for the next period in this expenditure category in place of the reduction recommended in our Final Report.

Our reasons are given below.

# Factors Considered in 2008 Review

We recommended in our Final Report a reduction of \$66 m in Country Energy's non-system IT capex over the next regulatory period out of a total proposed expenditure of \$263 m in that expenditure category. That opinion was reached after taking into consideration the large increase on historical expenditure, lack of financial justification for individual projects and high level of expenditure relative to the industry norm.<sup>2</sup>

In forming our opinion, we considered that Country Energy had not provided sufficient supporting information to satisfy us that the investments were justified financially.

<sup>&</sup>lt;sup>1</sup> This is not to say that *prima facie* a reduction in capex should not be made in the present economic and financial circumstances; only that we are not able to review the changes to the depth required to present anything other than a superficial observation as demand forecasts go to the heart of the capex forecasting process.

<sup>&</sup>lt;sup>2</sup> See pp. 30-31 of our Final Report.

We were concerned (although we did not say so in our report) that our ability to review the expenditure proposals under this expenditure category was limited by the nature of the material received from Country Energy, much of which was at a conceptual level with only "broad brush" cost estimates, some expressed in a wide range. <sup>3</sup>

We noted (but did not say so in our report) that several projects were combined "network-andretail" projects with their costs allocated to the two business units. Whilst that in itself was to be expected, it did limit our ability to evaluate the efficiency of the proposed expenditure, especially when considered in combination with the preceding point just made.

We recognised that it is not possible to have all projects defined in advance for the full regulatory period but still expected that a business embarking on a major IT programme of the type proposed would normally have a succession of projects at various stages of preparation or advancement. However, that did not appear to be the case here, although we did not say so in our report.

We formed the impression that the business, in essence, intended to replace most systems during the next period and we doubted (but did not say so in our report) whether it would be able to do so or that it would, in the event, choose to do so fully.

This concern was amplified by passages in the additional material received in 2009. They noted that the business had made considerable IT investments during FY 2005 and FY 2006 in a "virtual operations service centre" system after the amalgamation of its constituent companies and that, because the investment had not been accompanied by the requisite cultural change (and possibly for other reasons), the new systems had not been accepted by the staff. Thus, the investment had not delivered its promised benefits.

A comprehensive study of Country Energy's IT plans was beyond the scope of our review in 2008 and would not have been possible, anyway, given the content of the material available. Thus, faced with the concerns just expressed and considering ourselves unable to endorse the full expenditure as efficient or prudent, we considered that our only option was to rely on IT benchmarking for the calculation of a reasonable expenditure amount.

As explained in our Final Report, our benchmarking suggested that the proposed expenditure was substantially greater than that of other DNSPs on the measures chosen, both in terms of non-system capex in total and non-system IT capex alone. <sup>4</sup> We thus proposed the adjustment to the AER; the AER accepted our recommendation and Country Energy have submitted new information in response.

#### 2009 Submissions

Country Energy provided new information on its proposed non-system IT capex in its January and February 2009 submission and response to the AER. The new information, a significant amount of which appeared to have been prepared since our 2008 review, enabled us to make a more detailed assessment of non-system IT capex at a project level.

The information, which was comprehensive, confirmed that the expenditure projections for the new systems were based on high-level (*viz.* "broad brush") cost estimates, based in turn on consultants' estimates or submissions from vendors.

There appeared to be no evidence of detailed scoping for the implementation of the projects, many of which are at still at a conceptual stage.

<sup>&</sup>lt;sup>3</sup> The preliminary nature of the cost estimates was illustrated to us during a confidential presentation on information and communication technology, made to Wilson Cook & Co and staff of the AER on 3 July 2008. Indicated ranges of cost of up to plus-or-minus 25% were evident and the costs were described as "order of magnitude" estimates.

<sup>&</sup>lt;sup>4</sup> See our Final Report, figures 8.1 and 8.2.

#### Reduction in Proposed Expenditure

The proposed expenditure in the next period has been reduced by \$7 m by Country Energy to \$256 m and its phasing over the period has been altered. Country Energy did not explain in its submission why the amount and phasing had been changed but it advised the AER subsequently that it had removed allowances for "un-scoped" projects in the later years of the period.

We noted again that the estimates had been prepared for combined "retail-and-network" business systems with the joint costs allocated to the two businesses.<sup>5</sup>

#### "Bottom-Up" Analysis

The new information received enabled us to prepare a "bottom-up" analysis of non-system IT capex whereas, based on the original information, that was not possible.

#### Budget for Enhancement and Customisation of Systems

The more detailed project analyses now provided show that increased expenditure is proposed on enhancing existing or new systems as well as on installing new systems. For example, it is proposed to invest \$33.3 m<sup>6</sup> in a new "enterprise resource planning" (ERP) system (which includes a new customer information system (CIS) for the network business) and \$56.5 m on a new asset management system over the next period. At the same time, it is proposed to spend, on enhancements and improvements to existing systems, \$21 m on asset management modules, \$21 m on CIS modules and \$16.3 m on ERP enhancements, an average of \$12 m p.a. This compares to the forecast expenditure in these categories in FY 2009 of \$4 m. These are clearly provisional sums, as they have been applied at the rate of around \$4 m p.a. in the first year for each module and inflated in subsequent years.

The point we wish to make in respect of the examples just cited is that we doubt it would be prudent or efficient to increase enhancement expenditure to such levels at a time when such an intense investment in new systems is also planned.

We consider, instead, that expenditure on existing systems would or ought to be minimised, once a decision has been made to replace the systems, to avoid stranding the assets or diverting scarce resources from implementation of the new systems.

We also note in relation to the example cited that budgeted expenditure for new systems already includes provision for customisation where needed, implying that **the need for enhancement and improvement should be minimal following the introduction of the new systems.** 

We thus consider that the expenditure forecast for enhancements and improvements may be overstated. To determine a reasonable amount, we took the view that there is no proven justification for an increase in expenditure on these items to a level above that budgeted for FY 2009. The difference between the proposed expenditure for the next period and expenditure at the FY 2009 level is \$38 m in nominal dollars for the business as a whole (retail plus network). Applying the network allocation factor – see footnote 5 – and converting the amount to year 2009 dollars leads to an **estimated level of overstatement in the network business forecast of around \$27 m.** 

#### Upgrading of Major Systems

Estimates for the upgrading of major systems appear to be at a very preliminary level, based in most instances on vendor estimates. In addition, the estimate for the asset management system appears to include an opex item as it forecasts \$5 m in nominal dollars in year 5 for a support and maintenance contract (the underlying assumption is stated as "support contract value is for a

<sup>&</sup>lt;sup>5</sup> A proportion of 78.4% is applied to derive the capex applied to the network business.

<sup>&</sup>lt;sup>6</sup> The project costs quoted here are in nominal dollars and are for the retail and network businesses together. However, the IT expenditure in Country's Energy's submission to the AER includes only the network-related component.

period of five years at \$1m per year."). <sup>7</sup> We consider an adjustment should be made to remove this amount (\$4.5m in year 2009 dollars) from the capex forecast.

Also included is an allowance of \$2.8 m for organisational change management. It is not clear what this relates to but the assumption is stated as being "based on other projects of a similar size" and, later, "There is very little confidence that this allowance will reflect the amount of effort required as there has not been a detailed assessment of business requirements." After consideration, we accepted this amount as a capex item on the ground that it was a cost of bringing a new asset into use.

#### Financial Justification

We consider that **in order to show that expenditure is efficient; the business should have demonstrated that there is justification, financially, for undertaking the expenditure.** We found little or no evidence that it had done so in the material presented to us originally or in the new information.

We noted statements that investments will improve productivity and reduce risk but little or no quantification of what these benefits might mean in financial terms.<sup>8</sup>

(As an observation, IT expenditure proposals would be enhanced by the addition of robust financial analysis that as well as clarifying the need for the investment and confirming its place in the broader development goals of the business, also confirms by analysis that the least-cost solution has been adopted and that the internal rate of return expected justifies the investment. That type of analysis, which is considered essential by international lending agencies, would assist reviewers in forming views on expenditure in the future.)

#### Organisational Capability to Absorb the New Systems

As already mentioned, we were also considered as to whether the organisation would be able to implement such a comprehensive suite of new systems effectively within the period.

We noted that all the analyses presented to us has focused on the features of the software and hardware systems involved and that little analysis appeared to have been made of the organisation's ability to absorb such a high degree of IT system change in a short period – particularly at a time when the organisation is also projecting large increases in its system expenditure that will place its internal resources under pressure.

We have already noted that Country Energy has experienced recent difficulty in achieving IT changes, reporting that its IT system implementation had run ahead of the cultural change required to achieve its benefits. Such issues are not uncommon when implementing IT system changes in organisations and IT systems implementation frequently fails for these and related reasons – where, in short, an organisation has not addressed the implementation issues adequately.

# We thus remain concerned that Country Energy has not demonstrated in its submissions that it will be able to implement the scale of IT change proposed over the next period.

#### Summary

In summary, our opinion is that **the level of expenditure proposed is above a prudent and efficient level** for the following reasons.

(a) We consider that it is overstated due to allowing for large increases in the enhancement of old systems when new systems are proposed and due to allowing for the customisation of new systems in the early stages of their life.

<sup>&</sup>lt;sup>7</sup> See p. 53 of "Analysis and Recommendations for an Asset Management Information System", a report by Logica to Country Energy.

<sup>&</sup>lt;sup>8</sup> The only exception was in one of the submissions made by a supplier for a new ERP system, where we noted that the supplier had made an initial high-level assessment of one-off and ongoing annual benefits from introduction of the new system.

- (b) At least one project estimate appears to include an opex item.
- (c) We doubt the ability of the business to implement, absorb and realise the benefits of all the proposed projects effectively in the period.

**Consequently, we have identified two adjustments that in our opinion should be made to the estimates**: the removal of increased enhancement expenditure of \$27 m and the removal of an opex item of \$5 m, amounting to a total reduction in the projected expenditure of \$32 m.

We note that Country Energy has reduced its forecast expenditure by \$7 m in its submission to \$256 m and we conclude, based on our analysis, that the reduced non-system IT capex forecast for the next period should be reduced by a further \$32 m to \$224 m.

#### Test of Reasonableness: "Top-Down" Analysis

Country Energy argued in its January 2009 submission that use of benchmarking as a basis for applying adjustments to its IT capex was inappropriate. We have already made the point in the preceding text that we resorted to benchmarking as a determinant in this case (Country Energy's non-system IT capex) only in the absence of sufficient information to carry out a better analysis. With the completion of that analysis, made possible by the new information provided, the benchmarking is reduced to the level of a test of reasonableness.

#### Removal of Optical Fibre Investment from Analysis

Country Energy claimed in its January 2009 submission that its "fibre-to-zone [substation]" project, which entails replacing copper circuits to some zone substations with optical fibre, could be considered system capex and that it should have been removed from the IT capex benchmarking. The expenditure involved is \$28 m. We accept this point and have adjusted our benchmarking as shown in the figures below, using the same methodology as in our final Report.



The change has the effect of bringing Country Energy closer to the other DNSPs in the comparison but still shows its expenditure as being above the industry norm on a "non-system IT capex per size" basis, suggesting that the level of expenditure proposed by the business is too high.

The benchmarking does not indicate the relative level conclusively but is sufficient to support our opinion, expressed above, that a reduction would be appropriate.

The reduction we have now proposed is not determined by benchmarking but by the preceding analysis set out in this review.  $^{9}$ 

<sup>&</sup>lt;sup>9</sup> The difference between the quantum of the reduction now proposed and that proposed in our Final Report is \$33 m. Coincidentally, this is similar to the amount removed from the benchmarking analysis by the treatment of optical fibre costs as a system capex item.

# 4 Capex for Non-System Land and Buildings

In our Final Report, we recommended a reduction of \$21 m in Country Energy's capex for nonsystem land and buildings over the next period out of a total proposed expenditure of \$107 m in this expenditure category. We reasoned that Country Energy had included an element of double counting in its estimates, which were the sum of a detailed list of works and a calculated estimate of the extra building space required for an expanded workforce. We considered that the double accounting arose as the detailed list contained additional buildings and some additions to create extra space. The adjustment was calculated by reducing the expenditure for extra resources by a half.

Country Energy has now identified projects that are included in its "business as usual" programme to support business growth but not to the extent of the \$21 m reduction made by us. Based on its analysis, which we have reviewed, it has included, in its revised forecast, a non-system land and buildings capex reduction of 27.4 % or \$11.4 m.

We consider that **the identified double counting has been investigated satisfactorily by Country Energy and that the revised estimate is reasonable and should be accepted in place of the reduction proposed in our Final Report.** 

# 5 Escalation of Vegetation Management Costs

In our final Report, we recommended a reduction of \$30 m in Country Energy's opex for vegetation management over the next period out of a total proposed expenditure of \$565 m. We reasoned that it was not appropriate to apply an asset growth escalator to vegetation management, as it was unlikely that the quantum of work in this area would be driven by the quantum of growth-related capex being undertaken during the period.

In response to the draft determination, Country Energy argued that the asset growth escalator should not have been removed from any particular individual category, as it has been applied at a global level to all opex. However, we could see no reason why that should be so, if there was reason to remove it from a particular category.

It also claimed that the adjustment implied that vegetation management was not necessary on new lines and it claimed that all newly constructed lines would incur at least one, possibly two, vegetation clearing cycles during the next period. We considered that any additional costs relating to new lines constructed in the period should be able to be accommodated within the substantial overall increase in expenditure proposed for vegetation management. Our reasoning was based on the understanding that, in essence, a completely new approach was being taken to vegetation management (involving a much more aggressive clearing of existing line routes); a work programme had been established for that activity over the next period; the cost of clearing any new line routes established in the period would be capitalised as part of the related construction cost; not all new lines built over the period would require further clearing during the period; and maintenance clearing for new lines are likely to involve substantially less work during the period than the average for the network as a whole.

We therefore retained the view that it is not appropriate to apply the asset growth escalator to vegetation management, at least in the next period.

# 6 Proposed Opex for Reduction of Aviation Hazard

Country Energy's submission proposes that certain costs arising from the decision in *Sheather vs. Country Energy* be treated as a pass-through but the AER, in its draft determination, is understood to have taken a contrary view. We were asked by the AER to express a view on the efficiency of the cost estimates provided by Country Energy for the related work (which involves fitting markers to certain lines or carrying out other work to reduce the hazard to low-flying aircraft).

We understand that, to date, Country Energy has determined that it will investigate lines with spans in excess of 750 metres and it says that 1,124 such spans have been identified with lengths of up to 1,600 metres. It says that its database does not identify the heights above ground level of these spans. However, it says that it has identified new technology that will enable it to determine the heights a well as the topography in the surrounding area. The length, height and surrounding topography would then be used to determine the degree of hazard. The data would be further refined, following a survey of the spans during routine asset inspections.

Country Energy says it would then consider risk mitigation actions including but not limited to accepting the risk, placing a limited number of markers on the lines, relocating the lines or taking other measures.

An indicative cost estimate has been developed and we have been asked to comment on it.

Whilst Country Energy's approach to the matter appears reasonable, we are not able to comment on the efficiency or prudence of the estimated cost as we consider it (the cost) indeterminate at present, given that the requisite survey has not been carried out, the scope and nature of the work involved is unknown and the specialised nature of the work makes it difficult to estimate.

#### Expensing of Costs vs. Capitalisation

We note for the AER's guidance that the costs are to be expensed, not capitalised. We consider that that would be appropriate if new assets are not created by the work – as is likely to be the case in most instances.  $^{10}$ 

# 7 Independence

Wilson Cook & Co Limited and its reviewers are all independent of Country Energy and the AER, other than in the context of providing the AER with professional advice on expenditure matters from time to time.

Whilst the AER's staff provided the requisite data for this review and whilst our findings were discussed with the AER on the conclusion of our draft report, we are satisfied that the comments made by the AER have not influenced our opinion improperly but served only to ensure that it addressed the issues sufficiently fully for its purposes.

# 8 Conditions Accompanying Our Opinion

#### Assessment Not an Assessment of Condition, Safety or Risk

Notwithstanding any other statements in this review, this review is not intended to be and does not purport to be an assessment of the condition, safety or risk of or associated with the DNSP's assets and nothing in this report shall be taken to convey any such undertaking on our part to any party whatsoever.

#### Final Report Remains Unchanged

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

#### Disclosure

Wilson Cook & Co Limited has prepared this 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.

<sup>&</sup>lt;sup>10</sup> The modification of existing assets does not necessarily create a new asset or an asset with a longer life than the original.

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#### Non-Publication

With the exception of its publication by the AER, in relation to its review of the DNSPs' 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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