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Australian Pipeline Trust

Airport Central Tower

Level 5, 241 O'Riordan Street

Mascot NSW 2020

Attention: Mr Robert McMaster – Commercial Manager

Dear Rob,

RE: ACCC FINAL DECISION

MOOMBA SYDNEY PIPELINE

I have reviewed those parts of the ACCC Final Decision on the Access Arrangement for the Moomba to Sydney Pipeline that relate to the work undertaken by Venton and Associates in developing an optimised design and capital cost estimate for the pipeline network (in particular, pages 41 and 42).

There remain in that decision a number of matters, including those that relate to the rejection of the contingency allowance, that give me great concern about the appreciation of the Commission of the methodology used in project cost estimation.

As stated by Venton on May 12, 2003, the contingency forms part of the capital cost estimate for the optimised pipeline, and for it to be removed from the capital base seriously degrades the integrity of the estimate, and in my opinion, the ORC process.

Contingency

The estimate was developed by a professional estimator (Mr Derek Butler, Aust-Wide Estimating Pty Ltd). Mr Butler has extensive experience in the transmission pipeline industry, and in particular with the development of initial estimates and comparison of them with the final built cost. Mr Butler undertakes work for construction contractors as well as engineers and owners, providing broad and practical knowledge on transmission pipeline capital cost estimation.

The Final Decision refers to a review of the estimate undertaken by Kinhill that considers the Venton estimate *reasonable although on the high side of an acceptable range*. I have not been able to locate a copy of this estimate for separate review, but am not surprised of the Kinhill view because:

1. I understand that, at the time of the Kinhill cost estimate review Kinhill, unlike Mr Butler, had no direct experience with design, construction or construction management of a transmission pipeline for a number of years. Presumably Kinhill's review therefore was based either on first principles, or on evidence gleaned from published information. There is concern with the reliability of either approach because in the absence of design detail, the relatively simple appearance of a transmission pipeline often results in inadequate allowance being made for many cost items not evident in a simple pipeline and its associated facilities.
2. My experience is that cost estimates developed by engineering companies often understate the real cost. This is generally because engineering approach focuses on quantifying physical items (equipment, pipe etc), but in the absence of appropriate experience with implementation costs, almost always causes them to underestimate the items that are difficult to quantify without detailed work. A particular example is the inadequate allowance for subsidiary components, together with construction overhead and profit.

In view of this, the Kinhill opinion that the Venton estimates were *reasonable* is appropriate.

Their opinion that the Venton estimates were at the *high end of the acceptable range* should be viewed against a background of the relative current experience in transmission pipeline project costs.

The estimating methodology used in developing the Venton estimates used a "best estimate" approach for each item of the estimate with the understanding that the estimate would include a contingency to provide an allowance for omissions, rather than build "fat" into each of the cost items.

On review of the Venton report, I acknowledge that the reason for and the treatment of the contingency could have been better described and justified.

No special comment was made because a contingency allowance was considered as part of a capital cost estimate, and it was not considered necessary to elaborate on the magnitude or reason for it.

Reason for the Contingency

The ACCC decision (Page 42) states that *a firm that is planning to construct a new asset may well include an allowance for contingency that could increase the cost of construction. However this does not mean that those contingencies will occur, or that those costs will be incurred*.

It is clear from this statement that the ACCC considers the contingency as an allowance for project risk, or an allowance to establish a *not to exceed* cost that might be used by the company directors in approving the project.

While that opinion may apply to certain allowances, it is incorrect when it is applied to the estimate developed by Venton.

The Venton estimate expects that the money in the contingency cost category will be spent, based on its experience. The money is allocated against a contingency item because at the level of detail at which the estimate was undertaken the estimator in his experience, knows that there are a multiple of real cost items that are not included in the major component costs.

If each of these were known (as a result of considerable design and development effort) then the amounts in each of the cost categories would be increased to incorporate the missing or inadequately estimated items.

Because the estimate was a relatively high level one, the industry accepted practice is for these known but not identified items to be allowed for and included in an item industry often calls a contingency (but which would be better referred to as an allowance for omissions).

If the project estimate was to be put to the company's board a separate assessment is normally made of over-run risk and a separate allowance made to develop a most probable and a maximum to complete cost that would allow the board to make a decision on the financing and management of the project.

The Venton estimate did not make any allowance for over-run risk.

Magnitude of Contingency

We advised in our letter of May 12, 2003 that if a detailed reliability analysis were to be undertaken of each component of the estimate, the allowance may be reduced below the 10% stated.

The reason for this would be related to the relatively high proportion of the cost associated with supply of the line pipe. A reduction in the contingency for this item would be in part compensated by increases in the allowance applied to other components of the estimate, about which there was limited knowledge at the time of the estimate.

At the time of the estimate it was considered that a 10% allowance was a reasonable *average* if applied to the whole cost. Venton's letter of May 12 indicated that a detailed reliability analysis might reduce the contingency to 7.5%, but that would certainly not reduce it to 0%.

Government and Landowner/Landholder/Land Claimant Cost

The ACCC suggests (page 42) that because the estimate was based on a brownfields development using the existing easement, the estimate is overstated for this item (and for its inclusion in the contingency sum).

Venton disputes this for the following reasons:

- While the easement exists there have been a great many changes that have occurred along the length of the pipeline easement since 1974 when the route was selected, and it is most likely that parts of the route would be considered unsuitable for a new pipeline, or that for cultural or environmental reasons would not be approved for construction of a new pipeline, whether the easement exists or not. Each of four transmission pipeline projects with which Venton has been associated in recent years, and for which an easement was provided, required significant additional expenditure to refine the route to accommodate landowner needs, and to resolve construction issues that had either changed, or that had not properly considered the environmental, land use or other constraints on construction.

  It is incorrect to consider that because an easement exists it will remove cost impacts associated with redevelopment of a pipeline on it.

- Similarly many of the easement grantors have over the past 25+ years changed their land use practices, their land management practices and closer to Sydney, urban

encroachment has and is changing land that was broad rural into land that is now used for residential purposes.

- Subdivisions have taken place along the pipeline route, increasing the number of landowners who will require specific access negotiation and compensation.
- Since 1974, cultural heritage issues have become an important part of project development, and require detailed consideration and management through the construction project, with associated costs. The estimate did recognise that legislative changes had reduced the effort required to gain approvals through the Native Title process – but while this did reduce the approval process (the granting of the easement) it did not change, and probably increased the effort required during the development and construction process. For example, construction of the Eastern Gas Pipeline required continuous employment of cultural monitors through each phase of the route refinement and excavation activity – this required the employment, training and management of multiple cultural monitors from the communities crossed by the pipeline.
- The cost for compensating landholders and landowners for disturbance, loss of production, damage and other factors relating to the construction of a pipeline across land is increasing with each pipeline project, partly because of increased land and crop values, and partly because of the cost of increased expectations of landowners. This opinion is supported by compensation costs in recent projects.

For these reasons Venton considers that the decision made in the ACCC's Draft Decision and reaffirmed in the Final Decision to reduce the estimated capital cost of the optimised pipeline network by removing the contingency (the allowance for estimate omissions) is not correct.

Sincerely,
VENTON AND ASSOCIATES PTY LTD

Philip Venton