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10th March 2006

Mr Graeme Hunt
President – Iron Ore,
Carbon Steel Materials
BHP Billiton Limited
GPO Box 86A
MELBOURNE VICTORIA 3001

Dear Mr Hunt,

Application by FMG for Declaration of Service
Response to Report of G13 & Associates Pty Ltd and APR Pty Ltd. (G13)
Dated 26th February 2006

The National Competition Council (NCC) engaged consultants G13, to provide the Council with advice to assist it in its consideration of the submitted material. The G13 consultants report is available on the NCC website for downloading and review. The Council is now providing interested parties with an opportunity to consider this report, and seeks any additional comments on matters canvassed in that report by close of business on the 10th March 2006.

This letter is in response to your request to respond to this NCC request for additional comments on the consultants report.

TSG Consulting (TSG) is a technical consulting firm that specialises in quantitative decision support analysis by undertaking capacity analysis and performance analysis of complex interacting systems. The use of dynamic simulation modelling techniques allows TSG to develop capacity solutions and to test the performance of these solutions, all aimed at allowing clear business decisions to be supported.

From our technical consulting experiences at applying these techniques over many years and for many clients, TSG would like to make the following comments on some of the matters canvassed in the G13 report.

1 Lack of Data

The Disclaimer on the G13 report states:-

> *"In contrast to G13 normal practice, data, analyses and conclusions have not been formulated or tested with the benefit of on-site observation and dialogue with railway personnel."*

In the absence of access to data and on-site observation, the G13 report reflects a lack of understanding of the complexity of BHPBIO operations and hence the simplifying assumptions that are made in the analysis and conclusions are misleading and may lead to invalid results and conclusions.

An example of the implication that this underestimation of the complexity of the supply chain issue can be found in section 4.1.3 of the G13 submission where it is stated;

> *"Further more, G13 does not endorse BHP's method insofar as BHP evaluates railway capacity by reference inter alia to base port capacity. This would be a relevant consideration when assessing the capacity of BHP's iron ore supply chain. It is not, however, relevant in the context of possible use of the railway by FMG so long as FMG does not wish to use the BHP port."*

G13 have failed to realise that FMG port does not have its own shipping channel, and that the shared shipping channel has a significant influence on BHP's port capacity. By G13's own admission, the impact that FMG operations will have on the shipping channel (and hence BHP's port capacity) will have an associated impact on the production potential of the railway.

2 Analysis Assumptions

The narrative section 4.1.1 describes in detail the factors that determine capacity, however these factors are not included in the analysis in sections 4.3.1 and 4.3.2. In other words, the analysis is inconsistent with the narrative description of the factors that determine capacity. A non-technical reader of this report may not be aware of this discontinuity between the narrative section and the analysis section.

3 Modelling Process

In the last paragraph of Section 4.1.1, the report states:-

> *"In this context, it is necessary to estimate capacity by a sequential but iterative analysis progressing from simple to complex, viz:*
> *• Deductive reasoning by analogy with other situations[26];*
> *• Static model quantification and sensitivity analysis[27]; and*
> *• Inductive dynamic modelling to simulate "reality"[28].*
> *[28] e.g. as used by BHP (ref Attachment D (3)). G13 would note that dynamic modelling is inherently complex and detailed and, in consequence, generally unsuited to strategic and business analysis."*

BHPB Iron ore's vertically integrated supply chain, is a complex interacting system that is subjected to a highly dynamic demand function and considerable variability imposed on all the key components that derive the total system performance.

TSG strongly disagrees with dynamic modelling being "*generally unsuited to strategic and business analysis*". In fact, the situation is quite the contrary, as the level of detail of the analysis must be commensurate with the consequences of the decisions being made. Dynamic modelling is commonly used by major corporations for strategic and business analysis. BHPBilliton Iron Ore, in particular, has for many years relied on dynamic modelling in making decisions about major investments in expanding its infrastructure.

The G13 report uses a simplistic and as noted above inappropriate analytical technique (static analysis). Accordingly, TSG has not reviewed the assumptions used in the modelling sections as it believes any results will be flawed and invalid.

4 Conclusions Drawn

TSG is concerned at the apparent inconsistencies between the model results tabled and the conclusions drawn in the submission. Attachment A shows a single track case predicting 160Mtpa and a double track case at 210Mtpa. However the report conclusions state that the single track capacity is 210Mtpa. There is no explanation as to how the single track capacity number of 210Mtpa was determined. A non-technical reader of this report may not be aware of this discontinuity between the analysis section and the conclusions drawn.

TSG Consulting is cognisant of the limited data and time that G13 had to undertake this study, however the above comments on the matters canvassed in the report should be brought to the NCC's attention so that the appropriate weighting is applied to this independent expert consultants report.

Yours sincerely

Rodney Hoare
General Manager – TSG Consulting