

26 August 2008

Mr Russell Dumas  
Director – Gas and Rail Access  
Economic Regulation Authority  
Level 6, Governor Stirling Tower  
197 St Georges Terrace  
Perth WA 6000

Dear Mr Dumas

**The Pilbara Infrastructure Pty Ltd – Segregation Arrangements, Train Management Guidelines and Train Path Policy**

I refer to the invitation for Public Submissions in respect of the above matters.

Yilgarn Infrastructure Limited has no direct involvement in the activities of the Pilbara Infrastructure Pty Ltd. However, the decisions made by the Economic Regulation Authority will provide a precedent for future matters relating to railway infrastructure in Western Australia.

In December 2005 Yilgarn provided a submission to the National Competition Council entitled "A case for avoiding vertically integrated rail infrastructure in "greenfield" mining regions". Several of the points made in the submission may be relevant and of interest to the development of the regulatory environment for railway infrastructure. For this reason we have attached a copy for your information.

We would appreciate if Yilgarn Infrastructure Limited could be noted as an interested party in these matters and kept informed of developments as they occur, including provision of any associated material.

Please do not hesitate to contact me on 0414 408 868 if you require any further information.

Yours sincerely

Derek Bone  
Executive Director  
Yilgarn Infrastructure Limited

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**THE LINDEN GROUP PTY LIMITED**  
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**on behalf of Yilgarn Infrastructure Limited**  
(ACN 115 050 452)

**SUBMISSION TO THE NATIONAL COMPETITION COUNCIL**

**A CASE FOR AVOIDING VERTICALLY INTEGRATED RAIL INFRASTRUCTURE  
IN "GREENFIELD" MINING REGIONS**

# THE LINDEN GROUP PTY LIMITED

## SUBMISSION TO THE NATIONAL COMPETITION COUNCIL

### A CASE FOR AVOIDING VERTICALLY INTEGRATED RAIL INFRASTRUCTURE IN "GREENFIELD" MINING REGIONS

#### 1 Introduction. About Us and About this Submission

- 1.1 This submission is made by The Linden Group Pty Limited. Linden is consulting to a company that proposes to provide specialist and independent railway and port infrastructure to the mining industry within Western Australia and elsewhere throughout the Commonwealth.
- 1.2 Linden has advised clients on major project and infrastructure developments in Western Australia, Australia and Asia.
- 1.3 We and our client have been keen observers of the Application by Fortescue Metals for declaration of a service provided by the Mount Newman Railway Line. This has culminated in the Draft Recommendation published by the Council in November 2005.
- 1.4 The Council's application of Part IIIA of the Trade Practices Act in this case, and its discussion of the issues arising from vertical integration of rail services in mining areas is of interest and importance to our client as a proposed *independent owner/operator* of open-access, multi-user railway and port infrastructure. Our client is independent because its proposed businesses would not be vertically integrated with the business of ore extraction and marketing.
- 1.5 The arguments raised by both competing sides in the Fortescue Metals Application, the Council's discussion of the issues and indeed the Draft Recommendation itself provide a compelling case study. It demonstrates the overwhelming advantages of ensuring that, especially in "greenfield" mining regions, transport infrastructure be made available on an open-access, multi-user basis to all potential competitors by a specialist and independently owned and operated supplier. It demonstrates the clear need to avoid vertical integration of ore extraction business with the rail and port infrastructure needed to get the ore to market.
- 1.6 We make this submission conscious of the fact that we do not speak to the outcome of the particular application made by Fortescue Metals. This submission is made in light of the Council's role as an adviser to governments in relation to infrastructure access regimes and competition issues. We note that one of the Council's core functions as described in its Corporate Plan 2004-2006 is to provide recommendations and to assist governments to develop effective access regimes (see page 6, of the Plan, "Key Program 2: Provision of recommendations to governments on access to infrastructure").
- 1.7 It is our hope that the Council will use this submission in its development of policy recommendations promoting the principles of independently owned and operated infrastructure in the context of "greenfield" scenarios to the

governments it is charged with assisting. Throughout this submission we refer to the Fortescue Metals Draft Recommendation because it is such a relevant case study. Please note that accordingly, and unless stated otherwise, paragraph references in this submission are to paragraphs within the Council's Draft Recommendation.

- 1.8 Our submissions are not confined to iron ore mining – we consider the principles we address are equally applicable to other resources and their extraction industries. Neither are our submissions relevant only to railway infrastructure – we consider the following to be equally relevant to access to port facilities as well.

## **2 Greenfields versus Brownfield Mining Regions**

- 2.1 We submit that the principles concerning infrastructure access are fundamentally different in:
- (a) Mining regions that are already populated by functioning ore extraction businesses and perhaps serviced by existing railway and port infrastructure ("brownfield" regions, such as the Pilbara region the subject of the Fortescue Metals Application); and
  - (b) Mining regions that are not so populated but which are the subject of exploration and prospecting by a multiplicity of so-called "junior explorers" or regions in which there may be limited operating extraction businesses of so-called "junior miners" but which are not serviced by existing rail and port infrastructure ("greenfield" regions).
- 2.2 In summary, we submit that the Fortescue Metals Application demonstrates the desirability, *in greenfield regions*, of independently owned and operated rail and port infrastructure. We submit that, in greenfield regions, vertical integration of rail/port infrastructure with ore extraction and marketing businesses is undesirable as an infrastructure access regime.
- 2.3 The Council's Draft Recommendation focuses on:
- (a) Competition in upstream and downstream markets;
  - (b) The potentially uneconomic nature of vertically integrated rail and port infrastructure;
  - (c) Effective Access regimes;
  - (d) Health and safety issues; and
  - (e) Other matters of public interest, including environmental issues.

It is our submission that, *in greenfield mining regions*, on all of the foregoing criteria, independently owned and operated rail and port infrastructure leads to more desirable outcomes than would a vertically integrated ownership structure.

### **3 The Natural Monopoly Tendencies of Rail Infrastructure**

3.1 It is now widely acknowledged that rail infrastructure tends to result in so-called "natural monopoly". The Council has described this phenomenon of natural monopoly in its Guide to the National Access Regime, Part B, at page 41:

*"Natural monopoly characteristics are common to significant infrastructure facilities, where substantial fixed costs and low operating costs may combine to generate economies of scale and scope over the range of reasonably foreseeable demand. Generally, under these conditions, one facility can supply the entire range of demand more cheaply than two or more facilities can ... This makes it economically efficient for only one facility to service the entire foreseeable range of demand; in other words the development of another facility to provide the service would amount to a wasteful use of society's resources."*

3.2 The development of rail (and port) infrastructure is also characterised by:

- (a) high barriers to entry, both in terms of dollar cost, time and obtaining governmental and regulatory approvals;
- (b) "sunk" and fixed costs;
- (c) diminishing marginal costs over the relevant range of output until capacity of the railway is reached.

The analysis of the Council in the Draft Recommendation (at paragraph 6.82) is as follows:

*"Railway lines are commonly identified as having natural monopoly characteristics (Hilmer 1993, p240). This is because the costs of constructing and operating a railway line are largely sunk and fixed, while the variable costs of increasing output are relatively low. Therefore, the marginal cost of transporting an additional tonne of freight tends to decline until the capacity of a railway is reached. The presence of sunk costs also means that incremental or gradual entry – a common form of entry in other industries – is not feasible in rail services. Instead, investment tends to accrue in substantial "lumps" of sunk costs."*

### **4 Undesirable Consequences of Natural Monopoly Tendencies of Rail (and Port) Infrastructure**

4.1 We submit that the natural monopoly tendencies of rail (and port) infrastructure have the following undesirable effects:

- (a) It promotes vertical integration of rail services with extraction, processing and port distribution operated as a single optimised facility. This precludes the easy and economic accommodation of new users. The problems of vertical integration are noted below;
- (b) It promotes a concentration of ownership of the infrastructure and thus also in upstream and downstream dependent businesses by only those

few, large firms that have existing extraction operations and/or the resources to build and control their own infrastructure;

- (c) It makes entry into the market for extraction of ore difficult for the junior explorers and junior miners, thus restricting new supply, retarding competition and leading to higher prices that will be detrimental in the long term to the development of the Australian economy. This may lead to many junior explorers and junior miners not being able to fully exploit their operations or not pursuing their extraction operations at all. This in turn may lead to worthwhile ore deposits being "stranded", as argued by the Western Australian Government in its submissions to the Council, and as noted by the Council at paragraph 11.8 of the Draft Recommendation.
- (d) The difficulty, delay and cost of obtaining access to infrastructure from incumbent owners and competitors (even given the procedures available under Part IIIA of the Trade Practices Act) is a recurring theme in the Fortescue Metals Application. We discuss this further at clause 6.2(d) of this submission, below.

## 5 The Problems of Vertical Integration of Rail Services and Extraction Operations

- 5.1 The problems created by vertical integration in brownfield mining regions are compellingly revealed by the debate and the Council's analysis in its Draft Recommendations in the Fortescue Metals Application. We submit that the Council's draft findings and the arguments raised by *both* sides lead to the conclusion that, where the opportunity arises in a greenfield mining region, vertically integrated rail and port operations should be discouraged in favour of independently owned and operated infrastructure.
- 5.2 We consider that the debate itself and the Council's analysis on all major issues both support this conclusion. A brief overview is as follows:
  - (a) **Competition** – The Council has found that "*there are not sufficient efficiencies in vertical integration of track services and haulage services to conclude that vertical integration is inevitable*" (at paragraph 7.94). The Council has also found (at paragraph 7.212) that competition in at least two markets, namely the market for mining tenements and the market for rail haulage services itself, would be enhanced by declaring the Mt Newman railway service. Put another way, the vertically integrated ownership of the railway diminishes competition in those markets, thus necessitating an access declaration. The Council has emphasised the barriers to entry faced by junior explorers, and the likelihood that, without access to the incumbent rail service their ore deposits may be uneconomic to exploit. We observe that in (other) greenfield mining regions there may be additional upstream and downstream markets that would be retarded by vertical integration.
  - (b) **Economic Efficiency** – The very purpose of the forced access regime in Part IIIA of the Trade Practices Act is based on a recognition of the fact that vertically integrated infrastructure creates economic

inefficiencies, especially if new entrants to a market are forced to duplicate the infrastructure.

In our submission, however, even if access is granted to new entrants under that regime, it remains likely that inefficiencies will occur. This is because the owner operators of the vertically integrated operation have an economic incentive to optimise the operation around their own needs and have not had to consider the accommodation of a potential competitor to use part of its facility. In response to the Fortescue Metals Application, BHPBIO had argued that a shared facility would involve inefficiencies and diseconomies of scope. BHPBIO identified several diseconomies of allowing access to its infrastructure including:

- Direct, second operator costs – the costs and inefficiencies of accommodating a third party user;
- Rail optimisation costs;
- Distortion of investment incentives and decisions;
- The costs of responding to the new regulatory regime;
- Additional physical and personnel resources to manage scheduling of trains;
- Increased risks and insurance costs from interaction between several train operators;
- Credit risks in dealing with third party operators;
- Inefficiencies arising from not achieving the right balance between port stockpile capacity and rail sprint capacity;
- Conflicting priorities in the practical operation of the rail sub-system (e.g. the incumbent wanting flexibility of scheduling whilst the third party wanting certainty of scheduling);

We note that the Council concluded (at paragraph 6.194) that any diseconomies of scope would not outweigh the cost savings from granting access - but at the same time it is important to note that that the Council has *not* suggested that the problems raised by BHPBIO are not real or do not exist, but simply that the problems do not outweigh the benefits of granting access.

- (c) **Health and Safety** – In its submission BHPBIO argued that safety would be compromised by a shared railway. The Council found (at paragraph 9.10) that such concerns could be dealt with in the terms of access that are finally adopted (assuming a declaration is made) whether by agreement or forced arbitration. We consider that there are legitimate safety concerns irrespective of the terms of access that may result. Those concerns arise not from the fact that the railway will be shared but from the fact that it is operated by a party whose primary

interest in establishing the railway was getting its own ore to market – not the provision of optimal multi-user railway services. This can be contrasted with the position of an independent and specialist railway operator, as to which, see below.

- (d) **Effective Access Regime** – We submit that the forced access regime of Part IIIA of the Trade Practices Act it is at best an imperfect (albeit necessary) treatment for a series of maladies caused by historical vertical integration of infrastructure ownership and control.

The following matters may not have given the Council cause to decline to recommend a declaration, yet they are nonetheless matters which support our primary proposition – that *in greenfield regions* vertical integration of rail and port infrastructure with extraction, processing and marketing business is to be avoided:

- (i) At paragraph 8 of its first submission, Fortescue Metals details its frustrations and delays in attempting to negotiate with the incumbent owner of the railway before it made the application for a declaration under Part IIIA of the Trade Practices Act.
- (ii) Fortescue Metals noted (at paragraph 5.4) in its first submission that owners of vertically integrated infrastructure may deliberately seek to frustrate the operation of Part IIIA of the Trade Practices Act. It quoted the commentary of the Trade Practices Law Journal on the *Hammersley Iron* case, where it was stated that:  
  
*"Owners of vertically integrated assets may artificially arrange their operations to ensure that their infrastructure somehow forms part of their production process. Consequently they may avoid having to grant access to third parties under the declaration process in Part IIIA."*
- (iii) The Application itself has involved significant private and public cost, and (from the perspective of the market entrant, Fortescue Metals) delay. The process is not yet concluded - there are several further stages and avenues of appeal - and further time and resources will be consumed;
- (iv) While Fortescue Metals may well be successful in obtaining a declaration, there will inevitably be a protracted and expensive negotiation with the railway owners over the terms of access. This as an inevitable result of forcing the owner of an important asset to share it with a competitor.
- (v) The outcome of access negotiations will almost inevitably be a compromise with which neither Fortescue Metals nor the incumbent owners will be content;
- (vi) The Council noted (at paragraph 6.149) BHPBIO's submissions concerning the disputes likely to be generated over access to



and coordination of the railway service. The Council also noted BHPBIO's forecast of the substantial costs involved in negotiations and contracting and the consequent loss of revenue to it. BHPBIO also argued (as noted at paragraph 6.146) that that the probable need to upgrade the railway to increase its capacity (if access is granted to Fortescue Metals) will "*almost inevitably result in disputes as to the level of investment required*". Indeed (at paragraph 12.10), the Council refers to a statement by an officer of Fortescue Metals in the Asian Wall Street Journal to the effect that even if access was given to Fortescue Metals immediately "*the torturous [sic] negotiations which would take place after that would still see shareholders much better off building their own railway*".

- (vii) The arguments made by BHPBIO point to the problems inherent in forcing the owner of infrastructure to share it with a competitor. While the very purpose of Part IIIA of the Trade Practices Act is to force such access, forced access is not ideal for either party. BHPBIO's stated concerns for operational and scheduling efficiency and fairness, control issues and safety factors (while not considered by the Council to justify denying a declaration recommendation) are no doubt real enough for BHPBIO. We anticipate that Fortescue Metals would be no less concerned that these issues will surface once sharing of the railway commences, albeit that overall in the circumstances access is critical to it.
- (viii) If access to incumbent rail infrastructure is not available to other, would-be competitors such as Fortescue Metals (i.e. if a declaration is declined), they would be forced to take one of several less socially desirable courses of action:
  - to sell their tenements to the incumbents (thus tending to increase the concentration of ownership and reduce competition);
  - to indulge in the wasteful duplication of the infrastructure, to the economic detriment of society and the environment; or
  - to abandon the deposit, possibly "stranding" it.
- (e) **Other Public Interest Matters** – The Council's conclusions on this criterion (see paragraph 11.35) are that granting access will:
  - (i) benefit the promotion of competition in upstream markets for tenements and rail haulage services;
  - (ii) bring the economic and environmental benefits of avoiding the unnecessary duplication of rail infrastructure; and
  - (iii) not have a negative impact on the overall performance of the iron ore industry.

Again, in our view, this finding supports our primary proposition – namely that vertical integration of infrastructure is to be avoided in favour of independent suppliers in greenfield mining regions. The arguments for giving access to one market entrant by way of forced access apply all the more strongly in a scenario where access to all potential entrants is open and fair.

## 6 The Solution – The Alternative to Vertical Integration in Greenfield Mining Regions

- 6.1 We submit that the corollary of all of the foregoing submissions is that in *greenfield* mining regions, vertically integrated rail and port infrastructure should be carefully avoided in favour of independently owned and operated rail and port infrastructure. In *brownfield* mining regions, such as the Pilbara, vertical integration may already be an historical fact of the landscape, but there is every reason not to allow that to occur again, in greenfield regions.
- 6.2 The corollary arguments in favour of independently owned and operated infrastructure in greenfield mining regions are (addressing each of the major issues discussed in the Draft Recommendation) as follows:
- (a) **Competition** – We submit that independent rail and port infrastructure available to all upstream operations on a fair and open basis will avoid the bottleneck problems and will reduce the infrastructure access barriers to entry for junior explorers and junior miners inherent in a vertically integrated operation and market. An independent owner/operator would have the incentive to embrace an open-access system for its infrastructure because this would expand its revenue base and reduce the unit operating costs for all users. This will in turn enhance competition and help to prevent the concentration of mining ownership interests in the greenfield region.
  - (b) **Economic Efficiency** – We submit that the presence of an independent owner and operator of rail and port infrastructure will prevent the wasteful duplication of that infrastructure, since there will be no pressure on mining ventures to build (and keep to themselves) their own facilities. In other words, an independent infrastructure will, by providing open-access, achieve the outcomes sought to be achieved by the forced access regime in the Trade Practices Act, but in a more comprehensive (by providing access to all) and cohesive (by avoiding the problems of forced access) manner.

Further, we submit that a specialist and independent owner and operator of such infrastructure is much more likely to be able to provide the infrastructure at a reduced cost, thus tending to push down the "landed" cost of the resource ore itself. In turn, this may help make the ore supplied by the region price-competitive with ore supplied from other regions or countries. This may help Australia open up or expand its export markets for resources. Alternatively, cost savings could be applied by mining ventures to improving the efficiency of the existing mines or in further prospecting and exploration.

An independent owner and operator may achieve such cost savings and efficiencies by having access to a wider customer base, by using up-to-date technology or intellectual property or innovations of its own devising or simply by having more experience and specialist knowledge. It may also be able to find less costly sources of the business inputs which it needs to construct and operate a railway (and port), than those available to non-specialists. Problems of using inconsistent above-rail technology such as rolling stock and locomotives would be avoided.

The other side of this coin is that the mining operations themselves would be left able to focus on their core business (such as operation of a mine), rather than having to divert capital and other resources to the provision of rail (and port) infrastructure – a business in which they may not have expertise. This may help to make the mining operations themselves more economically efficient.

- (c) **Health and Safety** – We submit that a specialist independent provider of rail and port infrastructure is more likely to supply a service that is safe for its user customers and its own personnel alike. Such a provider would be interested in the supply of quality rail services for their own sake and not just as an adjunct to a mining operation. Such a provider is more likely to have specialist expertise in:
- (i) below rail design and construction;
  - (ii) above rail design and construction;
  - (iii) train scheduling and operational management;
  - (iv) the application of safety technology and procedures itself; and
  - (v) maintenance of the foregoing.

We consider it likely that the deployment of such expertise will inevitably lead to a better safety record in the operation of the infrastructure. Also, an independent operator would not be distracted by a primary concern to get its own ore to market or by disputes with competitors who may have been given forced access under Part IIIA of the Trade Practices Act. This will also tend to produce better safety outcomes.

- (d) **Effective Access Regime** – An open-access facility available to all on a fair and equal basis must achieve the most effective access regime available. We concede that much depends on the terms of access, the price of access, the location of the railway lines and their proximity to the tenement holders and the mines themselves, but that is no less a problem if vertically integrated infrastructure is permitted. We submit that an independent operator has an incentive to and will be more likely to provide access on a basis that serves the needs of the greatest number of tenement holders and the greatest volume of ore, than an

operator whose infrastructure is vertically integrated with its own mining operations.

Although we accept the access regime in Part IIIA of the Trade Practices Act as a socially necessary means of avoiding uneconomic duplication of infrastructure and providing rail access to new entrants to the mining industry *in brownfield mining regions*, it is a "cure" to a problem that is best prevented in the first place *in greenfield mining regions*.

- (e) **Other Public Interest Matters** – We submit that an independent rail and port infrastructure is most likely to deliver the same benefits as a declaration that the Council identifies in its Draft Recommendation, but in much greater measure. The rails and port services will be made available to all ventures within the greenfield region, not just those who have the resources, time, funds and stomach for an application under Part IIIA of the Trade Practices Act – and who are fortunate enough to succeed.

The likely increase in competition (see above) will mean that it is less likely that mineral deposits will be abandoned by junior explorers and become "stranded". The greater likelihood of exploitation of such deposits will mean greater economic activity, investment and employment within the region.

## 7 Conclusion

- 7.1 In brownfield mining regions vertical integration of mining interests and rail and port infrastructure may be historical fact, but it is in our submission far from ideal because it inhibits the expansion of new suppliers to the market.
- 7.2 The forced access regime in Part IIIA of the Trade Practices Act is intrusive on the incumbent owner, whose property rights and investment in expensive infrastructure are interfered with by the state on behalf, no less, of a competitor. It is understandable that incumbent owners of infrastructure will resist access declarations with all their might, make access negotiations following declaration onerous and difficult, or even, as noted above, deliberately organise their affairs so as to avoid an access declaration.
- 7.3 From the perspective of the market entrant, having to deal with a competitor as a supplier of essential services is also far from ideal, and the forced access regime is an imperfect instrument – lengthy, costly and uncertain.
- 7.4 We submit that in greenfield mining regions there are many significant advantages to be gained by avoiding vertical integration and encouraging a model by which rail and port infrastructure is provided to all users on an open-access basis by an independent owner/operator.

7.5 We request that the Council take this submission into account in formulating its recommendations to governments in assisting them to develop effective access regimes for infrastructure and in assisting them in matters of competition reform.

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The Linden Group Pty Limited  
Dr John Saunders, Chairman

1 December 2005