Attention: Director, Infrastructure Projects
Major Projects Assessment,
Department of Planning and Infrastructure,
GPO Box 39, SYDNEY, NSW 2001.

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Date: 5th April 2012

Submission to North West Rail Link, Application SSI-5100

Dear Sir/Madam,

I am neutral to the proposed $9 billion spending to provide a 23 km rail network for 300,000 residents. It is a much delayed and needed infrastructure. I think the spending of $30,000 per resident is not cost effective or energy efficient, it does not provide any solution to the transportation of freight and it will be a continual drain on the government resources to maintain and run it.

I would like to bring to your attention a more cost effective and energy efficient method of transportation. It will transport passengers and freight in magnetically levitated capsules inside evacuated tubes of 1.5 meter diameter. The elimination of air drag and rolling resistance allows most of the energy spent during acceleration to be recovered when decelerating. Passengers and freight are routed directly to their destination without interruption. This system is fully automated, demand driven, runs 24/7 and does not use timetable. The capsules will be waiting for passengers, not passengers waiting for capsules.

The calculations are published at http://www.ioserver.com/et3.html. It allows you to perform optimization, sensitivity analysis and shows the results graphically for different scenarios. Select "Sydney North West Metro" to see the calculations for a network serving North West Sydney. I estimate that it will cost $900 million dollars for a 48 km network that can handle more than 300,000 passenger trips per workday and 680 million ton-km of freight per year. The loading and unloading facilities for freight are not including in this costing. It will generate revenue of $80 million per year for the government and use about $3 million worth of electricity per year.

At a cruising speed of 203 km/h, the trip time for a 25 km journey is less than 10 minutes and cost $3.29. It uses 1/20th of the energy and emits 1/18th of CO2 of the most efficient car. Other benefits are reduction in traffic congestion, air pollution, road fatalities, health cost, traffic noise and transport land use.

With the $9 billion, you can build a 720km network that will handle 3 million passenger trips per workday.

Yours Sincerely,

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Australia

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