

Joint Expert Report to the Land Court of Queensland

Adani Mining Pty Ltd v Land Services of Coast & Country & Anor

Introduction

This joint report has been prepared by Dr J Fahrer on behalf of the Applicant, Adani Mining Pty Ltd and Mr R Campbell on behalf of the First Respondent, Land Services of Coast and Country Inc (together, the Experts), in accordance with the orders made by the Land Court of Queensland on 20 October 2014.

A copy of the Experts' curricula vitae, setting out their qualifications and experience, is attached to this report as Annexure A.

Prior to the preparation of the joint report, on 28 November 2014, the First Respondent delivered a notice containing a list of the specific issues in respect of which it is proposed to seek agreement. An amended notice of issues was delivered on 2 December 2014 (Preliminary Issues).

This joint report sets out the areas of agreement and disagreement of the Experts in relation to the issues in respect of energy markets and financial analysis.

Expert witness declarations

The Experts acknowledge that they have read and understood relevant extracts of the Land Court Rules 2010 (Qld) and the Uniform Civil Procedure Rules 1999 (Qld). The Experts acknowledge that they have an overriding duty to assist the Court and have discharged that duty. The Experts have not received any instructions to accept, adopt or reject any particular opinion in preparing this joint report.

The Experts confirm that:

- (a) the factual matters stated in this report are, as far as we are aware, true;
- (b) we have made all the enquiries that we consider appropriate;
- (c) the opinions in this report are genuinely held by the Experts; and
- (d) the report contains references to all matters that we consider are significant.

Our views on the issues are set out in Table 1, below.

Table 1 **Adani issues**

| Land Court of Queensland: Notice of issues | Issue description | Agree, disagree or no comment |
|---|---|---|
| Economic assessment | | |
| 103 (a) | The economic assessment methodology relied upon in the Environmental Impact Statement documents is deficient, in particular it does not compare the costs and benefits of the project, so it cannot assist in the weighting and balancing of the relevant matters to be considered by an approval authority when exercising its statutory power to determine a project application. | Agree – there is no cost benefit analysis (CBA). |
| 103 (b) | The economic assessment methodology relied upon in the Environmental Impact Statement documents is deficient, in particular it does not provide any insight into the financial viability, economic efficiency or wider social implications of the project. | Agree – a CBA should provide insight into economic efficiency of the project, potentially some understanding of financial viability and take into account social and environmental impacts where possible. |
| 103 (c) | The economic assessment methodology relied upon in the Environmental Impact Statement documents is deficient, in particular it does not estimate royalties or any other fiscal benefits to the state. | Agree – |
| 103 (d) | The economic assessment methodology relied upon in the Environmental Impact Statement documents is deficient, in particular it does not include consideration of subsidies and other fiscal costs of the project may impose on the state. | Agree –. |

| Land Court of Queensland: Notice of issues | Issue description | Agree, disagree or no comment |
|---|--|--|
| 103 (e) | The economic assessment methodology relied upon in the Environmental Impact Statement documents is deficient, in particular it does not consider any non-market impacts such as social or environmental matters. | Agree – a CBA should include non-market impacts and social environmental matters where possible. |
| 104 | The Input/Output model upon which the economic assessment is based estimates the impact of the project on economic output (gross state product and gross regional product) and level of employment. | Agree |
| 105 (a) | Input/Output modelling has significant recognised shortcomings: it does not take account of the fact that there are limited productive resources in the economy, effectively assuming unlimited resources such as skilled labour, land, water etc. | Agree JF notes: a computable general equilibrium (CGE) model will overcome this shortcoming. |
| 105 (b) | Input/Output modelling has significant recognised shortcomings: it ignores the opportunity costs associated with using resources for one project rather than another. | Agree – JF notes: a CGE model will overcome this shortcoming. |
| 105 (c) | Input/Output modelling has significant recognised shortcomings: it assumes fixed prices, meaning regardless of the project's impact on input markets, no prices change or substitution between goods and services occurs. | Agree – JF notes: a CGE model will overcome this shortcoming. |
| 106 | As a result of the above shortcomings, Input/Output modelling is likely to have significantly over-estimated the economic benefit of the project. | Agree – JF notes: it is likely to have overestimated the employment benefits, however it is unclear to what extent output and income impacts are overestimated. A CGE model will provide a more accurate estimate of output and income impacts. |
| 107 (a) (b) (c) (d) | In addition to the above shortcomings of Input/Output modelling generally, its application in the economic assessment raises a number of additional problems. | Agree – JF notes: these problems are not insurmountable especially under CGE analysis |
| 108 (a) | Other deficiencies include: the economic assessment does not consider the impact of royalty deductions including any royalty ramp up period agreed with the Queensland Government pursuant to the Galilee Basin Strategy. | Agree – agree that the assessment does not include consideration of these policies. This is not a criticism of the assessment, however, as it was written before the Galilee Basin Strategy was launched. The purpose of the economic assessment was to assess the project as it stood not to evaluate the government policy of the day or speculate about how policy may change in the future. |
| 108 (b) | Other deficiencies include: the economic assessment does not consider the implications for the Queensland community of subsidies to the project under any Infrastructure Enabling Agreement. | Agree – agree that the assessment does not include consideration of these policies. This is not a criticism of the assessment, however, as it was written before the Infrastructure Enabling Agreement was announced. The purpose of the economic assessment was to assess the project as it stood not to evaluate the government policy of the day or speculate about how policy may change in the future. |

J Fahrer

Jerome Fahrer

A handwritten signature in purple ink, appearing to read "Roderick Campbell", with a stylized flourish at the end.

Roderick Campbell

19 December 2014

Annexure A Curricula Vitae

Jerome Gregory Fahrer

Personal

Born: 14 March 1960, Sydney Australia

Nationalities: Australian, French

Residential Address: 6 Hector Street
Brighton
Victoria 3186

Employment

Director, ACIL Allen Consulting (until April 2013, Allen Consulting Group), January 1995 – currently

In this role I provide economics and public policy advice to corporates and governments, in the areas of competition policy and litigation, regulation, project and industry evaluation, program evaluation and economic policy. I have led around 300 major consulting projects (details available on request).

j.fahrer@acilallen.com.au

www.acilallen.com.au

Member: Essential Services Commission of Victoria Appeal Panel

Member: Board of Directors, Alzheimer's Australia (Victoria)

Previously: Member, Tasmanian Government Expert Panel reviewing the electricity supply industry (2010-2012)

Principal Fellow (Associate Professor) Melbourne Business School, 2006-2011

Economist, Reserve Bank of Australia (January 1982 – December 1994): macroeconomic research, analysis and forecasting.

Education

B.Com (Hons) UNSW, 1981, first class honours, major in economics and econometrics

MPA Princeton University, 1987

MA Princeton University 1987

PhD Princeton University 1989

Dissertation: Three Essays on Comparative Macroeconomics

Adviser: Professor Ben Bernanke

Academic Honours and Awards

Woodrow Wilson Fellowship, Princeton University, 1985–1989

Olin Foundation Research Fellowship, Princeton University, 1988

Readers Digest Prize for Excellence in Teaching, Princeton University, 1988

Brinds Ltd Prize for Best Performance in Third Year Economics, UNSW 1980

Independent expert/litigation support engagements

- Adani Coal in relation to the proceedings in the Queensland Land Court, regarding the proposed Carmichael coal and rail project (ongoing).
- The Australian Government on challenges to its tobacco plain packaging legislation and regulations (ongoing)
- Ashton Coal in relation to the proceedings commenced by Hunter Environment Lobby Inc in the NSW Land and Environment Court Matter No. 11154 of 2012 (2013).
- A major chemicals manufacturer on the economics of the transportation and disposal of hazardous waste (2012)
- Betfair, in its dispute with Racing NSW on the discriminatory and protectionist characteristics of racing fields fees (2010)
- Sony Music and Universal Music on the economics of the digital music industry (2009)
- AGL, in its dispute with Origin on the wholesale price of natural gas (2009)
- Two large manufacturers on damages arising from the Visy Amcor packaging cartel (2007, 2008)
- Donaldson Coal on the proposed vessel queue management system at the Port of Newcastle (2007)
- Wilson Transformer Company on damage estimation from price fixing in the electrical transformer industry (2006)
- Reserve Bank of Australia (designation of EFTPOS system) (2005)
- A large wine company on changing supply and demand conditions in the wine industry (contract dispute) (2005)
- NEMMCO on compensation for Directed Parties under the National Electricity Rules (2005 – 2010)
- NEMMCO on competition in system restart ancillary services (2005)
- NEMMCO on the structure of Participant Fees (2002, 2005, 2006)
- Gerrard Signode on interpretation and application of 'internationally competitive' pricing (contract dispute) (2005)
- A major energy utility on the trade practices implications of the sale of the Dampier to Bunbury Natural Gas Pipeline (2004)
- A large gas producer on how gas prices affect electricity costs and prices (contract negotiations) (2005)
- A large gas producer on the competitiveness of South Australian gas in the national electricity (contract negotiations) (2004)
- AMP Henderson for its Airports Fund Prospectus (2001)

Publications

Academic Journals

"Broadband in Australia: Present and Future", The Melbourne Review, Vol 2(2) November 2006

"Public Hospital Costs in Two Australian States", (with Justin G. Fung and Ian R. Harper), Australian Economic Review, Vol.33, No.2, June 2000

"Leader or Also Ran? Australia's Competitive Position in Asia Pacific Regional Financial Markets" (with V FitzGerald), forthcoming, Journal of Applied Finance and Investment Special Supplement, 1997

"Capital Constraints and Employment" (with John Simon), Australian Economic Review, 1st Quarter, 1995

"The Unemployment-Vacancy Relationship in Australia", (with Andrew Pease) Australian Economic Review, 4th Quarter, 1993.

"Some Tests of Competition in the Australian Housing Loan Market", (with Thomas Rohling), Australian Economic Papers, December 1994

"Financial Deregulation and the Monetary Transmission Mechanism", (with Thomas Rohling), Australian Economic Review, 1st quarter, 1992, reprinted in Peter Stemp and Judith Milne-Pott (ed), Australian Readings in Monetary and Financial Economics., Longman, Melbourne, 1996.

Books and Conference Volumes

"International Trade and the Australian labour market", (with Andrew Pease) in P Lowe and J Dwyer (eds), The International Integration of the Australian Economy, Reserve Bank of Australia, 1994

"Major Influences on the Australian Dollar Exchange Rate", (with Adrian Blundell-Wignall and Alexandra Heath), in a Blundell-Wignall (ed), The Exchange Rate, International Trade and the Balance of Payments, Reserve Bank of Australia, 1993

"Is Pitchford Right? Current Account Adjustment, Exchange Rate Dynamics and Macroeconomic Policy" in M Johnson, P Kriesler and A Owen, (eds) Contemporary Issues in Australian Economics, MacMillan, Melbourne, 1991

"Some Macroeconomic Implications of Wage Indexation: A Survey", published in V E Argy and J W Neville (eds) Inflation and Unemployment: Theory, Experience and Policy Making, George Allen and Unwin, London, 1985 (with J Carmichael and J Hawkins)

Reserve Bank of Australia Research Discussion Papers

"Wage dispersion and Labour Market Institutions: A Cross-Country Study", June 1994, (with Michael Coelli and Holly Lindsay)

"Capital constraints and Employment", June 1994, (with John Simon)

"The Unemployment-Vacancy Relationship in Australia", (with Andrew Pease) June 1993,

"The Evolution of Employment and Unemployment in Australia", (with Alexandra Heath), December 1992

"Indicators of Inflationary Pressure", (with Michael Coelli), July 1992

"Some Tests of Competition in the Australian Housing Loan Market", (with Thomas Rohling), February 1992

"Inflation in Australia: Causes, Inertia and Policy ", (with Justin Myatt), July 1991

"An Empirical Model of Australian Interest Rates, Exchange Rates and Monetary Policy (with Lynne-Ellen Shori), November 1990

"Financial Deregulation and the Monetary Transmission Mechanism", (with Thomas Rohling), November 1990.

"Wage Contracts, Sticky Prices and Exchange Rate Volatility: Evidence from Nine Industrial Countries", November 1990

"Is Pitchford Right? Current Account Adjustment, Exchange Rate Dynamics and Macroeconomic Policy", May 1990

"Optimal Wage Indexation, Monetary Policy and the Exchange Rate Regime", December 1989

"Modelling Recent Developments in Australian Asset Markets: Some Preliminary Results", (with R Rankin), August 1984

"The Equations of the RBA82 Model of the Australian Economy", (with R Rankin and J Taylor), August 1984

Book Reviews

A Wood, "North South Trade Employment and Inequality", in Agenda, Vol2(3), 1995

C DeNeubourg (ed) "The Art of Full Employment", in Economic Analysis and Policy, September 1993

R Barro, "Macroeconomic Policy", in Economic Analysis and Policy, March 1992

J Pitchford, "Australia's Foreign Debt: Myths and Realities", in Economic Papers, September 1990

Other

Various articles in the Australian Financial Review on economic policy

Referee for papers submitted to:

The Economic Record

The Australian Economic Review

Open Economies Review

The Journal of Macroeconomics

Invited Seminar Presentations

Princeton University, University of New South Wales, University of Sydney, Macquarie University, University of Melbourne, LaTrobe University, Victoria University of Wellington, Auckland University, Waikato University

Conference Presentations

5th World Econometric Congress, Barcelona, 1990; Australian Conference of Economists 1984, 1990, 1991, 1992, 1993, 1995, 1997; Australasian Meetings of the Econometric Society, 1991, 1993; Melbourne Money and Finance Conference 1996, Law Society of Australia Trade Practices Workshop 2006.

Other Professional Activities

Council Member, Economic Society of Australia (Victorian Branch) 1995–98 and 2013

Member, Law Society of Australia Competition and Consumer Committee, 2011-present

Honorary Treasurer, Economic Society of Australia, 1997–2000

Council Member and Vice President, Economic Society of Australia (NSW Branch) 1990-1994.

Member, American Economic Association.

Roderick E. S. Campbell

Email: roderick@ecolarge.com
Post: 62 Patterson St, Middle Park, Victoria, 3206
Phone: 0438-503-249
D.O.B.: March 21st, 1978

Employment

Research Director (Nov 2014 - ongoing)

August 2013 -

Economist (Aug 2013 – Nov 2014)

Present

The Australia Institute

*Australia's most influential progressive think-tank,
based in Canberra*

The Australia Institute researches a wide range of political and economic issues, including public finance and fiscal policy, equity and the environment. I was appointed Research Director in November 2014 and am responsible for coordinating the Institute's team of six researchers in addition to my own research, which focuses on the economics of the coal industry.

Recent highlights:

- Expert witness appearances – I have appeared twice in the NSW Land and Environment court called by the Environmental Defenders Office NSW (EDO). My appearances required:
 - Thorough understanding of non-market valuation and environmental economic literature
 - Strong background in economics of climate change
 - Strong public speaking skills
- Article published in *Australian Environmental Review* on the economics of environmental offsets.
- Multiple reports on the Australian coal industry, with media appearances on TV, radio and print.

Director and Economist

2008 – Present

Economists at Large (www.ecolarge.com all reports available on website)

Melbourne-based network of "economists without borders" providing consulting services to NGOs, development agencies and community-based organisations. Current projects and past achievements include

Assessment of Victorian brown coal export potential. I was the main author of an assessment of the financial and economic viability of proposals to export brown coal from the Latrobe Valley, which required

- Understanding of commodity markets for different ranks of coal, gas and related commodities
- Understanding of carbon pricing
- Knowledge of minerals exploration and mining regulation

Economics of hunting in Africa. I have authored several influential reports on hunting tourism and the species conservation in Africa:

- *Horn of Contention* – economics of trade in rhino horns and the potential conservation implications of trade liberalisation.
- *The \$200 million question* – assessment of the value of trophy hunting to African economies and communities.
- *Mane assumptions* – critique of hunting industry sponsored research on the value of lion safaris to east African conservation

and economies.

Evaluation of livestock-focussed disaster recovery packages.

Ongoing project for World Society for Protection of Animals and their Livestock in Disasters project, requiring

- Experience in bioeconomic modelling
- Understanding of the economic and agronomic role of livestock in developing countries
- Knowledge of economic literature relating to disaster recovery

Freelance development consultant **2007 - 2008**

Including projects with WWF, European Commission, ACIAR

- Model of environmental service values in the Mekong Basin. Required a thorough understanding of environmental service valuation and benefit transfer protocols
- Financial modelling and project evaluation of EC-funded Sustainable Rattan Harvest Project in Laos, Cambodia and Vietnam. Included fieldwork in project areas and financial data analysis

Transport coordinator **Jul-Sep 2008**

Lenovo (computer manufacturer)

At the Beijing Olympics I managed transport for the Lenovo corporate hospitality programme.

- Coordinated a pool of 15 vehicles and 26 staff, in Chinese (Mandarin).
- Recruitment and training for Chinese drivers working with corporate guests.
- Negotiated purchase and hire of equipment and represented Lenovo in meetings with transport companies and the Beijing Organising Committee of the Olympic Games (BOCOG).

Media analyst **2006-2007**

Cubit Media Research

Cubit provides media analysis services to clients in IT, telecommunications, government and others.

- Monitored multiple media sources, managed databases and produced client-specific reports
- Worked with native speaking analysts to develop services for Chinese and Japanese media projects
- Production of reports for clients using SQL/Access, Excel and Word.

Australian Youth Ambassador for Development **2005 - 2006**

Australian Centre for International Agricultural Research (ACIAR)

Agricultural development program in China, as an AusAID Youth Ambassador and independent consultant

- Established and coordinated an on-farm research programme. 20 farmers hosted experiments by ACIAR researchers in two contrasting field areas in Eastern Gansu Province.
- Conducted survey of farming practices and farmer attitudes

towards tillage research, including survey development, data collection and presentation of results for communities and academic staff

Education

University of Melbourne **1996-2002**
B.Commerce (Economics) & B.Arts (Honours Economic Geography)

My honours thesis addressed payment for environmental service schemes in China, specifically the "Grain for Green" soil erosion control policy. Data collected during a field trip to Shaanxi Province.

Kyoto University **2001**
Economics exchange

I took three subjects for local students, environmental economics, Japanese economy and organisational behaviour, all taught in Japanese.

Other information and interests

Languages: Chinese, Japanese, Portuguese, basic Lao, basic Spanish.

Licences: Driving (car), boat (recreational), first aid level 2

Memberships: Economic Society of Australia, Young Economists Network Victoria, Asialink

Other interests: Kiteboarding, crosswords and music.

Referees

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| Dr Denniss Executive Director The Institute rd@tai.org.au Tel. (02) 6206 8700 | Richard Francis Grey Founder and director Economists at Large francis@ecolarge.com Tel. (03) 9005 0154 | Prof William Bellotti ACIAR project manager University of Western Sydney w.bellotti@uws.edu.au Tel. (02) 4570 1730 |
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