

Economic case studies

Case studies

Many projects undertaken by ACIL Tasman are instrumental in supporting policy and strategy decisions made by government and industry. Below are some projects ACIL Tasman has undertaken to assist decision making for government and in different industry sectors.

Agribusiness | Defence | Energy and resources | Environment and climate change | Geospatial | Government and public policy | Indigenous Development | Infrastructure | Transport | Competition trade | Water | Economic modelling | Research and development

Agribusiness

Analysing the impact of GM canola moratoria

ACIL Tasman was commissioned by the Victorian Department of Primary industries in 2007 to analyse the economic impact of the GM canola moratorium from 2004 to 2008, and to analyse the impacts of two future policy options:

- an indefinite continuation of the current moratorium
- allowing the moratorium to expire at the end of February 2008.

The results of this analysis provide detailed cost-benefit estimates for the GM Canola Review Panel, chaired by Sir Gustav Nossal, for its deliberations on the policy options available to the Victorian Government in preparation for the expiry of the GM canola moratorium in early 2008. This economic analysis was conducted during August and September 2007. The results are presented in three broad parts:

- an assessment of the impact of the Victorian moratorium between 2004 and 2008
- the costs and benefits of continuing the moratorium until 2016
- the costs and benefits of allowing the moratorium to expire in February 2008.

The analysis has found that the likelihood that a significant and sustained increase in the price Victorian farmers would receive for their canola if the moratorium were extended was remote. By comparison, the cost of forgoing the herbicide management technology available with the current OGTR licensed GM canola varieties would be substantial. In February 2008 the Victorian Government lifted the ban on the commercial planting of OGTR approved GM canola varieties.

For further information and references to our latest reports, please contact ACIL Tasman.

Development of a wheat marketing model

ACIL Tasman was commissioned by the Australian Grain Export Association in 2006 to prepare a wheat marketing model for the Australian Wheat Industry. The model addressed three questions concerning key stakeholders in the wheat industry:

- how are the interests of growers going to be looked after?
- how will the interests and the reputation of the Australian wheat industry as a whole be protected and enhanced?
- how will the competitiveness of the Australian wheat industry be improved?

The paper also demonstrated how a contestable market would avoid the flaws of the existing wheat marketing arrangements that were exposed by the Oil for Food inquiry. Similarly, the paper demonstrated how existing organisations, and the introduction of one new body, would provide the necessary structure for increasing net returns to growers, while enhancing quality standards, and the reputation of Australian wheat.

This report was released in November 2007 and the current wheat marketing arrangements, introduced in Wheat Export Marketing Bill 2008 bare many similarities with what was proposed in this paper.

For further information and references to our latest reports, please contact ACIL Tasman.

Analysis of agribusiness entry study

ACIL Tasman was commissioned by Kazanah NB, a major Malaysian investment company, to undertake a detailed analysis of the company's agribusiness entry strategy (in three stages - retail, manufacturing and supply chain management) into Malaysia. The study had several components, including:

- a thorough analysis of food retail and consumption trends in Malaysia, the region and broad global trends
- supply chain analysis and design, comprising three sections:
 - an overview and analysis of global supply chain research
 - methods of supply chain coordination through contracts
 - an outline of key success factors
- the development of a series of case studies detailing how relevant successful (and not so successful) supply chains have been designed and implemented by other companies:
- a supply chain design for a selected product
- an overview of cooperative structure alternatives
- an overview of the development of agricultural capital markets.

The final stage of this project was the preparation of a comprehensive business plan for Khazanah NB to establish an agribusiness investment. The business plan had to meet to key criteria; the investment had to make a commercially acceptable rate of return and affect change in Malaysian agriculture and fresh produce supply chains. Khazanah NB has now fully implemented all of the main elements of the business plan.

For further information and references to our latest reports, please contact ACIL Tasman.

Information review on GM canola

ACIL Tasman, in partnership with Innovation Dynamics, was commissioned by the Department of Agriculture, Fisheries and Forestry in 2007 to conduct a comprehensive review of the information available on genetically modified (GM) canola. The report presented some of the principles of the main arguments for and against the commercial release of GM canola, and investigated the views of the best available literature on the topic. It became a valuable resource for parties involved in the debate about commercialisation of the technology. The report considered several important issues:

The regulatory environment for canola, both in Australia and internationally.

- consumer issues associated with market acceptance of GM products in Australia and internationally
- the role of canola in the Australian cropping system and the impact (including benefits and costs) of introducing GM canola
- likely implications of the introduction of GM canola for other Australian agricultural products
- legal liability issues surrounding the product.

For further information and references to our latest reports, please contact ACIL Tasman.

Defence

The economic impacts of the BUSHRANGER Project - The economic contribution of the BUSHRANGER Protected Mobility Vehicle Project to Australia, Victoria and Bendigo

ACIL Tasman was commissioned by Thales Australia to analyse the economic contribution made by the construction and support of Defence's Bushmaster vehicles in Australia. The project also analysed the potential contribution of a

future project to construct light protected vehicles under Phase 4 of Project OVERLANDER in Australia.

In undertaking this analysis ACIL Tasman conducted a survey of the Australian suppliers providing both goods and services, as well as through life support (TLS), to the Bushmaster vehicles. The voluntary survey achieved a 68 per cent response rate and these respondents accounted for nearly 96 per cent of the total annual spend by Thales Australia's Bushmaster vehicle domestic suppliers.

Overall, the survey results provided strong indicators that Bushmaster involvement had been beneficial to most suppliers in several ways:

- it improved their ability to support Defence into the future
- it led to technology transfers and/or implementation of new products and practices
- it improved their future ability to export
- it led to sustainable increase in productivity.

Survey analysis while important can only provide a partial indicator of a major project's impact on the economy. Thus to complement this analysis ACIL Tasman's computable general equilibrium (CGE) model Tasman Global was used to estimate the economy wide impacts of Defence's decision to source the Bushmasters from an Australian supplier (and conduct TLS onshore) rather than purchase a similar vehicle at a similar cost from overseas. The modelling was undertaken using a database developed by ACIL Tasman which separately identified the Bendigo region, the rest of Victoria, and the rest of Australia. As a result, the impact of the program could be assessed for the Bendigo region, Victoria as a whole and Australia as a whole.

The CGE modelling demonstrated that the production of Bushmaster vehicles and their TLS in Australia had a significant positive impact employment as well as on Bendigo's Gross Regional Product (GRP), Victoria's Gross State Product (GSP), and Australia's Gross Domestic Product (GDP) and Gross National Product (GNP). For example, compared to not having Bushmaster vehicles manufactured and supported in Australia between 2002 and 2016, the modelling found that:

- in Bendigo the stream of real GRP would be \$572 million (2008 dollars) higher and on average an additional 561 FTE jobs would be created each year, peaking at 913 FTE jobs in 2010
- in the Rest of Victoria (excluding Bendigo) the stream of GSP would be \$453 million (2008 dollars) higher and on average an additional 166 FTE jobs would be created each year, peaking at 238 FTE jobs in 2010
- in Australia (as a whole) the stream of GDP would be \$1,132 million (2008 dollars) higher (with GNP \$1,314 million higher) and on average an additional 650 FTE jobs would be created each year, peaking at 1,023 FTE jobs in 2010.

In 2008 the Australian Government launched an acquisition program to replace the Army's current fleet of light vehicles with a Protected Mobility Vehicle - Light (PMV-L) category of mine and blast protected vehicles. In 2009 no firm decision had been made on the source of the supply. CGE modelling was undertaken to assess the likely impact of constructing these vehicles in Australia rather than the Defence importing essentially the same vehicle from a foreign supplier. This modelling indicated a positive impact for Australia over the construction period 2012 to 2016. For example:

- in Bendigo the stream of real GRP would be \$199 million (2008 dollars) higher and on average an additional 488 FTE jobs would be created each year, peaking at 574 FTE jobs in 2014
- in the Rest of Victoria (excluding Bendigo) the stream of GSP would be \$33 million (2008 dollars) higher and on average an additional 82 FTE jobs would be created each year, peaking at 96 FTE jobs in 2014
- in Australia (as a whole) the stream of GDP would be \$261 million (2008 dollars) higher (with GNP 327 million higher) and on average an additional 523 FTE jobs would be created each year, peaking at 614 FTE jobs in 2014.

A copy of the report prepared by ACIL Tasman for Thales Australia can be found [here](#).

Energy and resources

Audit of petroleum import infrastructure

ACIL Tasman was commissioned by the Department of Resources, Energy and Tourism to undertake an audit of petroleum import infrastructure, which was released by the Minister in May 2009. It is a comprehensive audit of the infrastructure and terminals importing petroleum products into Australia. It documents the bottlenecks and plans for new investment in import infrastructure around Australia. It discusses policy issues arising out of the situation.

For further information, please contact Alan Smart at ACIL Tasman on +61 2 6103 8201. A copy of the report can be found [here](#).

Review of Australia's liquid fuels vulnerability assessment

The review of Australia's liquid fuels vulnerability was commissioned as part of the Commonwealth Government's arrangements for periodically reporting on the potential for interruptions to supplies of liquid fuels in Australia. The report reviews the outlook for global oil supplies, and the role of domestic refineries and imports in determining the risk of an interruption. It concludes that the risk of a major disruption in the period 2020 is low. However it notes that because of the adoption of higher fuel standards, the possibility of interruptions to refinery produced petroleum products is higher. The diversity of Australia's supplies and the emergence of new investment in refineries in Asia protect Australia from major disruptions over the period.

For further information, please contact Alan Smart at ACIL Tasman on +61 2 6103 8201. A copy of the report can be found [here](#).

Impact assessment of the PNG gas pipeline

In 2007-08, ACIL Tasman conducted an assessment for Exxon Mobil of the direct and indirect impacts of the proposed Papua New Guinea (PNG) LNG project on the PNG economy. The study addressed two aspects of potential economic impact:

Measurement of direct impacts of the project in terms of capital investment, ongoing operational expenditure, employment, production value and cash flows to the PNG government and landowners in the form of taxation payments, equity participation, royalties and other payments

Measurement of indirect impacts of the project through multiplier and productivity effects (e.g. investment in physical assets such as roads and airports or social assets such as education and health services).

Modelling of the economy-wide impacts was undertaken in conjunction with the University of Queensland School of Economics using a computable general equilibrium model of the PNG economy.

For further information, please contact Paul Balfe at ACIL Tasman on +61 7 3009 8700 find the report [here](#).

Modelling of power generation prices in selected regions

ACIL Tasman prepared models of power station economics for conventional and renewable energy technologies of the Commonwealth Treasury. The economics was undertaken on a global basis and provided input into the modelling undertaken by Treasury for the development of the proposed emissions trading scheme.

For further information please contact ACIL Tasman. The report can be found [here](#).

Economics of the short term trading market for natural gas

ACIL Tasman provided analytical assistance to a gas industry working group with respect to economic efficiency aspects of a Short Term Trading Market for natural gas (STTM) during the development phase of the market. The inputs assisted the working group during its participation in a government-industry working group under the Gas Market Leaders' Group of the Ministerial Council on Energy.

For more information contact Alan Smart in Canberra on +61 2 6103 8201.

Strategic review of economic opportunities for natural gas in Tasmania

ACIL Tasman undertook a review of industry opportunities from the introduction of natural gas in Tasmania for the Department of Economic Development. The work involved reviewing the potential economic competitiveness of industries that could utilise natural gas and developed recommendations on strategies that would facilitate their development.

For more information, contact Alan Smart in Canberra on +61 2 6103 8201.

Environment and climate change

Modelling greenhouse gas emissions from stationary energy resources

In 2011, the Department of Climate Change and Energy Efficiency (DCCEE) commissioned ACIL Tasman to model greenhouse gas emissions from stationary energy sources to 2029-30 as part of the Commonwealth Government's emissions projections exercise. ACIL Tasman's modelling examined two major sources of greenhouse gas emissions in the stationary energy sector:

- direct combustion emissions, resulting from the direct combustion of fuels to provide energy for a range of residential, commercial and industrial purposes
- electricity generation emissions.

To meet DCCEE's requirements, ACIL Tasman used four primary models:

- Tasman Global, a computable general equilibrium (CGE) model that can examine sectoral and regional activity and energy demand (amongst other things) in the Australian and international economies
- PowerMark LT, which models long-term dispatch, investment and emissions trends in Australia's key electricity markets
- RECMARK, which models the response of Australia's key electricity markets to the Commonwealth Government's Large-scale Renewable Energy Target policy
- GasMark Global, which models demand and supply in the Australian gas market, including linkages to the international gas market through liquefied natural gas (LNG) exports.

ACIL Tasman's modelling involved a baseline scenario capturing the effect of existing and announced government abatement measures, a 'business-as-usual' scenario excluding the effect of these measures, and eight sensitivities. The modelling did not include the effect of a carbon price.

The baseline scenario results indicated a clear trend of growing emissions over the projection period. The modelling suggested particularly strong growth in direct combustion emissions from LNG and alumina production. In total, direct combustion emissions were projected to increase from 90 Mt CO₂-e in 2007-08 to 158 Mt CO₂-e in 2029-30 in the baseline scenario. The modelling also suggested that increasing penetration of renewable generation sources under the Large-scale Renewable Energy Target and significant electricity savings from demand-side (i.e. energy efficiency) measures substantially flatten emissions growth from that sector over the first decade of the projection. Electricity sector emissions were projected to only grow from 204 Mt CO₂-e in 2007-08 to 216 Mt CO₂-e in 2019-20 (a compound annual growth rate of just 0.53%). However, ongoing growth in electricity demand sees electricity emissions grow strongly in the period from 2020 to 2030, reaching 273 Mt CO₂-e by 2029-30.

ACIL Tasman's projections suggest that total stationary energy emissions will increase from 294 Mt CO₂-e in 2007-08 to 431 Mt CO₂-e in 2029-30.

A copy of the report can be found [here](#).

Small-scale technology certificates data modelling

In 2011, the Office of the Renewable Energy Regulator (ORER) commissioned ACIL Tasman to update its March 2011 estimate of creation of Small-scale Technology Certificates (STCs) under the Commonwealth Government's Small-scale Renewable Energy Scheme (SRES).

The analysis was intended to assist the ORER to publish an updated non-binding estimate of the rate of likely STC creation in 2011, 2012 and 2013. This in turn would inform STC creators and purchasers of potential trends in this market in the future.

The updated analysis was necessary in light of a range of important changes in the STC market, driven in particular by trends in the uptake of solar photovoltaic systems. These changes include the Commonwealth Government's 5 May decision to reduce the 'Solar Credits multiplier' from 5 to 3 as of 1 July 2011, and ongoing reductions in photovoltaic system costs.

In order to forecast the future take up of STCs ACIL Tasman analysed historic and future financial returns to installers of photovoltaic systems.

This analysis focused on changes to:

- government policies that financially support uptake of photovoltaic systems

- electricity retail tariffs
- photovoltaic system costs.

A survey of photovoltaic system suppliers was undertaken to assess the potential impact on STC creation rates of transitional arrangements associated with the reduction in the Solar Credits multiplier from five to three from 1 July 2011.

In total, the projection results suggest both extremely elevated rates of STC creation in 2011 (largely reflecting outcomes over the first half of the year), and substantially reduced rates through 2012 and 2013 for all states.

A copy of the report can be found [here](#).

Geospatial information

Review of the value of spatial information in Australia

ACIL Tasman undertook a review of the value of spatial information in Australia for the CRC for Spatial Information and the Australian Spatial Information Business Association in 2007.

The review analysed the application of spatial information in 22 sectors of the Australian economy and estimated the contribution to the national economy using ACIL Tasman's Computable General Equilibrium model Tasman Global.

For further information, please contact Alan Smart at ACIL Tasman on +61 2 6103 8201. A copy of the report can be found [here](#).

The Value of Spatial Information for Tasmania- An assessment of the value of increased investment in spatial information for the Tasmanian economy

In 2011, ACIL Tasman was commissioned by the Tasmanian Department of Premier and Cabinet to estimate the value of increased investment in spatial information for the Tasmanian economy. ACIL Tasman teamed with Lester Franks and ConsultingWhere to undertake this work that was initiated by the Tasmanian Spatial Information Council (TASSIC) and subsequently conducted in association with development of a business case for further government investment in spatial information. .

ACIL Tasman's Computable General Equilibrium model, Tasman Global, was used to estimate the impacts that spatial information induced productivity enhancements have had on the Tasmanian and Australian economies. The modelling found that, in 2011, the use and re-use of spatial information is estimated to have added \$104 million in productivity-related benefits to the Tasmanian economy. This value is the result of increasing adoption of modern spatial information technologies over the period 1995-2011, and is equivalent to around 0.45 per cent of Gross State Product in 2010.

The study also developed several case studies for a range of Tasmanian industries to illustrate the potential benefits of spatial technology. For example, the case study on the water management and natural resource management sector found that using spatial information to assist planning and management could feasibly deliver value in the order of \$1 million per year from a one per cent improvement in the efficiency of water resources management. Another case study on the health and human services sector found that spatial information could improve the efficiency of delivery of health and human services by up to 1.5 per cent by 2020..

A copy of this report can be found [here](#).

Value of spatial information in New Zealand

ACIL Tasman reviewed the value of spatial information in New Zealand in 2009. The report was commissioned by Land Information New Zealand, the Department of Conservation and the Ministry of Economic Development. The report used ACIL Tasman's Computed General Equilibrium model Tasman Global and the results of 10 case studies to estimate the value of spatial information in New Zealand. The report has been used to inform policy development in New Zealand for development of spatial information infrastructure and access to data.

For further information, please contact Alan Smart at ACIL Tasman on +61 2 6103 8201. A copy of the report can be found [here](#).

Government and public policy

Cost Benefit Analysis of Proposed Reforms to National Legal Profession Regulation

ACIL Tasman was commissioned by the Federal Attorney-General's Department to undertake a cost benefit analysis of

proposed reforms to the regulations governing the Legal Profession in Australia. The aim of the study was to inform COAG's decision making in relation to proposed uniform national regulations of the legal profession to replace the different regulatory approaches currently used in each state and territory.

Using data collected from a survey of state and territory stakeholders, ACIL Tasman's cost benefit analysis estimated that, discounted over 10 years, the present value of the costs and benefits of the proposed reforms were \$31.5 million and \$163.5 million respectively. ACIL Tasman also conducted Monte Carlo simulations as part of our sensitivity analysis of these results.

The wider economic impacts of the proposed reforms on the Australian economy were also estimated using Computable General Equilibrium modelling with our in-house CGE model Tasman Global. Such modelling allows us to take into account how the proposed reforms to the legal services sector flow through to the broader Australian economy.

The results of ACIL Tasman's modelling of the proposed reforms showed an increase in Australian real GDP of about \$23.6 million in the first year of implementation, increasing to just over \$25 million a year by the fourth year. These projected benefits are driven by the estimated productivity improvements in the legal sector of the Australian economy.

For further information, please contact ACIL Tasman.

An economic review of the Enterprise Based Productivity Places Program - A review of the economic basis of EBPPP and enterprise experiences so far

In October 2009, ACIL Tasman was commissioned to undertake an economic analysis of the first 12 months of the Enterprise Based Productivity Places Program (EBPPP) and the role of the Industry Skills Councils (ISCs) in coordinating the program.

The ISCs commissioned the work to obtain advice on the economic principles underpinning the program, as well as its role in helping the Australian Government achieve workforce policies.

ACIL Tasman used a three step approach to undertake the study, including:

-assessing the economic principles of the EBPPP and any broad training and workforce development alternatives

-analysing EBPPP statistics from 1 July 2010 to 30 June 2011 on:

- Enterprises participating in the EBPPP and their employees undertaking training
- Specific Qualifications and the costs of different training
- The value of contributions to training from both enterprises and the government

-preparing a series of 11 detailed case studies of organisations that have participated in, or contributed to, the EBPPP.

ACIL Tasman's study found evidence that the program substantially corrects some of the systematic labour market failures. It was found that EBPPP allows enterprises to negotiate specific training based on their individual operations, business models, processes and activities. This has meant that, under the program, enterprises have been able to align strategy, skills development and the attainment of nationally recognised qualifications.

ACIL Tasman also found that the delivery of a program as flexible and enterprise-centred as the EBPPP is only possible because of the involvement of the ISCs as expert, trusted intermediaries.

A copy of this report can be found [here](#).

Economic appraisals of major hospital developments

ACIL Tasman has been engaged by NSW Health Infrastructure since late 2008 to assist in the economic appraisal of

major capital projects in accordance with NSW Treasury Guidelines and NSW Health's Interim Guidelines for Economic Appraisal of Capital Projects. Economic appraisal is a core component of the Business Case development in accordance with NSW Treasury's requirements. A number of economic appraisals for major hospital development have been conducted with particular focus on option development and valuation of net health benefits.

For further information and references to our latest reports, please contact ACIL Tasman.

Indigenous development

ACIL Tasman's work in Indigenous business development ranges from regional economic assessments to determine markets for potential businesses to feasibility studies and business planning for specific businesses.

Regional economic assessments

Regional economic assessments have included:

- assessing the opportunities for transition of Community Development Employment Project (CDEP) programs to viable businesses in various communities in the Thamarrurr, Barkly and Borroloola regions of the Northern Territory.
- assessing business development and employment opportunities in the Maningrida region in Arnhem Land across a wide range of industries including manufacturing, extractive industries, tourism, accommodation, community services, land and sea management, and carbon management.
- for the Remote Enterprise Centre, developing economic snapshots of remote and very remote centres with growth prospects in Australia, including assessment of growth drivers.

Feasibility studies

Feasibility and business planning studies for Indigenous businesses have included:

- Maningrida - mechanical workshop
- Dundee Beach - accommodation
- Peppimenarti - mechanical workshop, commercial ranger activities and corporate structure
- Wadeye - cleaning service, mechanical workshop and freight and transport business
- Katherine - public transport
- Nhulunbuy / Yirrkala - construction
- Broome - marine services to the petroleum and mining industries
- Darwin - construction component business
- Maningrida - Indigenous ranger college
- Tiwi Islands - sea ranger college
- Perth - petroleum industry software.

Infrastructure

Economic impact of Canberra Airport 2010 to 2030

ACIL Tasman was commissioned by Canberra Airport Group to undertake an analysis of the current economic contribution of Canberra Airport to Canberra and the surrounding region, as well as its contribution in 20 years' time. The purpose of the study was to assess the impacts of Canberra Airport and produce a report that would provide a source document for Canberra Airport to utilise in its planning and community outreach, as well as a report that complements the Canberra Airport 2009 Master Plan.

The study covered:

- a baseline assessment of current economic impacts of Canberra Airport in 2010

- an assessment of wider economic and social benefits
- an assessment of the economic impacts of the new "AirVolution" terminal project
- an assessment of the economic impacts of Canberra Airport becoming an overnight freight hub and the potential impact of a curfew
- an assessment of the economic impacts of Canberra Airport in 203
- Canberra Airport's potential role as Sydney's second airport.

Data for the study was obtained from Canberra Airport, a survey of airport tenants, and from published sources and overseas studies. The current direct and indirect contribution of Canberra Airport (including its tenants) was assessed with input-output analysis. To assess the Airport's future contribution, ACIL Tasman used its computable general equilibrium model, TasmanGlobal.

The impacts estimated from the modelling were supplemented by analysis of the impacts that aviation (and hence airports) have on the wider economy and community.

ACIL Tasman's analysis concluded that the Airport currently generated or enabled 12,496 full time employees (comprising 9,780 direct FTEs and 2,716 indirect FTEs) and contributed \$1.34 billion to gross regional product.

For 2030, under the 'high' scenario, it was estimated that the Airport would generate 23,600 jobs and total value added is projected to be \$2.63 billion. At the national level, the airport is forecasted to contribute \$3.19 billion to Australia's gross domestic product.

A copy of the report can be found [here](#).

MCA Vision 2020 Infrastructure project

This major study, conducted by ACIL Tasman and released in May 2009 by the Minerals Council of Australia, examined minerals and energy production in 21 resources regions around Australia (MCA) and by region, identified current infrastructure gaps, developed detailed growth scenarios and identified future infrastructure needs, including ports, rail, roads, energy, water, telecommunications and community infrastructure.

For further information, contact ACIL Tasman's Canberra Director, John Soderbaum on +61 2 6103 8200. The report is available at the MCA website.

Development of a whole of government 10 year infrastructure plan

ACIL Tasman, in partnership with Evan & Peck Pty Ltd, has assisted the Northern Territory Government to develop a whole of government infrastructure plan for the Territory. The strategy covers all built infrastructure that is the responsibility of NTG and includes a roads strategy, a transport strategy, strategies for other key classes of infrastructure as well as scope for periodic reviews and updates. Supporting studies included an assessment of best practice in infrastructure planning and delivery

For further information, contact ACIL Tasman's WA & NT Manager, Mark Chatfield.

Social analysis and policy

ACIL Tasman regularly applies economic analysis techniques to assessing social conditions in Australia's regions and the interaction of regional economies with communities. Examples of such studies are:

- Rio Tinto Pilbara economic and social studies (2006 and 2008). ACIL Tasman has conducted two major studies in the Pilbara to characterise the Pilbara economy and the role of Rio Tinto in it, the impact of expansion and contraction of Pilbara towns, and the impact of major iron ore expansion on towns. These studies combined detailed demographic analysis and assessment of the micro-economies of towns and the interaction of the two.
- design of a comprehensive family and children's service and facility in Maningrida in the Northern Territory, with the study involving demographic analysis, extensive community consultation, assessment of social needs and planning of services.

Transport

Assessment of rail access regimes

In 2008, ACIL Tasman assisted Hancock Prospecting with its representations on the access regimes to apply to the rail operations of The Pilbara Infrastructure Pty Ltd (TPI). The project served several purposes:

To assist Hancock Prospecting interpret the Railways (Access) Code 2000 and how it interacts with the agreement between TPI and the State and with the Railways (Access) Act 1998.

To consider how the interests of Hancock Prospecting would be affected.

Subsequent advice considered different aspects of TPI's proposals for access, discussing the issues and preparing responses to regulatory consultation papers on: segregation arrangements, train path policy and train management guidelines; costing principles and over-overpayment rules; and the proposed cost of capital.

For further information and references to the latest reports, please contact ACIL Tasman.

Economic assessment of the north-south rail corridor

In 2005-06, ACIL Tasman conducted a major study of the Melbourne-Sydney-Brisbane corridor in conjunction with Ernst & Young and Hyder. ACIL Tasman undertook several tasks, including:

- in-depth interviews with major main freight firms and customers, using the results in a logit model to forecast changes in market share resulting from improved reliability and capacity made possible by infrastructure upgrades
- forecasting the total market (by commodity and origin-destination pair, including regional freight) over 25 years and the modal shares under alternative options for upgrading rail infrastructure
- analysing passenger demand on the NSW Central Coast route where passenger and freight trains compete for access
- assessing alternative rail access charge policies
- assisting with economic evaluations.

ACIL Tasman is now assisting with the Melbourne-Brisbane Inland Rail Alignment Study for the Australian Rail Track Corporation, in conjunction with PricewaterhouseCoopers, Parsons Brinckerhoff and Halcrow.

ACIL Tasman's tasks include:

- an additional survey and logit demand modelling
- detailed analysis of regional freight, grain and coal
- interaction with the other firms on potential costs, transit time and reliability, as inputs to analysis of access prices and to the economic evaluation.

For further information and references to our latest reports, please contact ACIL Tasman.

Policy review of WA intrastate aviation

ACIL Tasman reviewed intrastate aviation policies for the WA Department of Transport. It analysed traffic levels; interviewed airlines, mining companies, shires and other stakeholders; assessed the particular needs of fly-in-fly-out services; and considered appropriate regulatory and competition policies for busier and less busy routes.

For further information and references to our latest reports, please contact ACIL Tasman.

Competition policy and industry regulation

Trade practices and competition assessments

ACIL Tasman provided a submission in response to the Government's discussion paper on creeping acquisitions. This submission raised concerns that the anti-competitive detriment the Government was seeking to address through a prohibition on creeping acquisitions had been either poorly articulated or ill-defined. This submission covered the following material:

- the theoretical case for mergers law and the operation of mergers law in Australia
- problems arising from an overemphasis on market concentration for the competition assessment of mergers

- the nature of possible anti-competitive detriments arising from creeping acquisitions
- review of the proposed remedies to address creeping acquisitions
- unintended consequences arising from an ill-conceived legislative provision to address creeping acquisitions.

For further information and references to our latest reports, please contact ACIL Tasman.

Regulatory assessments

ACIL Tasman has prepared several submissions to the Reserve Bank of Australia's review of reforms to payments system regulation on behalf of American Express.

In August 2007 ACIL Tasman prepared a submission to the 2007-08 review of the reform of Australia's payments system conducted by the Reserve Bank of Australia on behalf of American Express Australia Limited. The submission focussed on the following:

- the effect of the interchange fee reforms on financial institutions (interchange fee reforms)
- the characteristics of payment systems that have given rise to public policy concerns, particularly over interchange fees (characteristics of payment systems)
- resource costs and substitution issues for payment cards (resource costs and substitution issues)
- access arrangements and scheme rules in payment systems (access arrangements and scheme rules)
- regulation of other payment systems
- self-regulation.

For further information and references to the latest reports, please contact ACIL Tasman.

In June 2008 ACIL Tasman prepared a submission in response to the Reserve Bank of Australia's Reform of Australia's Payments System: Preliminary Conclusions of the 2007/08 Review, which focused on the following:

- the competitive forces acting on interchange fees
- the effect on welfare from the regulation of the payments system Competitive position of the three-party schemes
- the no-surcharge standard Options regarding interchange fees.

For further information and references to this submission, please contact ACIL Tasman.

Regulatory impact statements

ACIL Tasman has completed several Regulatory Impact Statements (RIS) for the Department of Infrastructure, Transport, Regional Development and Local Government and its predecessor on a number of aviation security related projects. Examples of RIS include:

- in August 2008, the implementation of a set of performance standards for airport workers with a security responsibility known as the Aviation Security Training Program. This involved providing policy analysis and cost estimates on the regulatory impact of new aviation security training arrangements. On this occasion, the RIS was accepted by the OBPR without any revision being required.
- in October 2007, the proposed aviation security training framework. This involved providing policy analysis and cost estimates on the regulatory impact of new aviation security training arrangements as well as consultation with relevant stakeholders.
- in 2006, airside security arrangements. This involved providing policy analysis, cost estimates and on the regulatory impact for proposed airport (airside) security regulations as well as consultation with relevant stakeholders.

ACIL Tasman has also undertaken RIS for Victorian Government agencies, including:

- Victorian Department of Infrastructure. Prepared a RIS for the proposed Transport (Conduct) (Amendment) Regulations 2008, which underpin the statutory powers of inspectors employed by private train companies. The legal changes for this RIS were complex, and our analysis shed light on a policy issue that the client addressed.

- Victorian Workcover Authority. Prepared a RIS in 2000 for the renewal and amendment of the Victorian Accident Compensation Regulations (2000) and advised the authority on issues arising out of public consultation on the RIS.
- in March 2001 ACIL Tasman completed a review of the effectiveness of the New Zealand regulatory impact statement regime. This required the assessment of the extent of compliance with the RIS regime and the design of the RIS regime as well as the development and assessment of potential reform options to assist the regime achieve its objectives.

For further information, please contact ACIL Tasman.

Water resources

Water and electricity

ACIL Tasman prepared a report for the National Water Commission's waterlines series. The report was released in 2009 and explores the use of water in the electricity sector and the implications of water scarcity for the sector. The report illustrates the relationship between water use efficiency and sent-out efficiency in thermal power stations, and explores the implications for greater water use efficiency and emissions of greenhouse gases. It shows that dry cooling technologies result in lower sent-out efficiency and consequently increased emissions.

For further information and references to our latest reports, please contact ACIL Tasman.

Economic impact assessments, economic modelling and economic analysis

Assessing the economic impact of legislative reforms to OH&S in NSW

In 2006, ACIL Tasman undertook an economic impact assessment for Workcover NSW on the economic impact of OH&S legislative reforms. The study considered the impact of the reforms that came into effect in 2001 and changes to the electrical testing and tagging requirements in 2006. The assessment used:

- econometric modelling to identify if there was a link between the reforms and the observed reduction in workplace injury and disease
- micro-economic analysis to estimate the direct and indirect cost savings those workers (who would have otherwise been injured), their employers and the community enjoy as a result of the reform induced reduction in injury and disease
- general equilibrium modelling to assess the economic impacts of the 2001 and the proposed 2006 reforms.

For further information and references to this latest research, please contact ACIL Tasman.

Development and application of a real options impact valuation framework for research and development

ACIL Tasman conducted extensive studies of the impacts of CSIRO Flagships and other research activities in 2006. A real options impact valuation framework was used to value the research undertaken by CSIRO's Water for a Healthy Country, Preventative Health and Light Metals Flagships as well as a number of other areas of CSIRO research including robotic mining and the commercialisation of a novel polymer. Reports on these studies can be found [here](#).

ACIL Tasman has since conducted studies using similar methodologies for successful bids for National Collaborative Research Infrastructure funding, for the proposed Square Kilometre Array radio telescope, and for The University of Western Australia to assess the value of its R&D, teaching and learning and community engagement activities.

For more information contact ACIL Tasman.

Research and development

Secretariat to the Council of Rural R&D Corporations' Chairs

Since 2006, ACIL Tasman has teamed with Cox Inall Communications to provide Secretariat services to the Council of Rural R&D Corporations' Chairs (CRRDCC). ACIL Tasman provides multi-faceted support to the CRRDCC:

- policy advice and coordination, including maintaining relationships with government departments and ministerial officials
- evaluating performance
- project management for daily operations and regular meetings.

A key piece of work for ACIL Tasman over the life of the contract has been the development of an evaluation framework to estimate the returns to the investments in rural R&D undertaken by the rural R&D corporations. This groundbreaking framework estimated 'minimum' returns from a selection of flagship R&D investment projects, while also demonstrating considerable returns from a group of randomly selected projects. Results of the evaluation were released in December 2006. For further information, please contact Alan Smart at ACIL Tasman on +61 2 6103 8201.

Assessment of the impact and value of CSIRO research projects

In 2006, CSIRO commissioned ACIL Tasman to develop and implement a framework to assess and describe the impact and value of certain CSIRO research. ACIL Tasman developed and implemented an options framework, which essentially linked a number of existing valuation approaches and allowed them to be used to contribute to a coherent assessment of value that was grounded in contemporary economic theory. The overarching function of the options approach is to:

- recognise as a unifying concept the fact that all these research initiatives deliver value by expanding available options; and
- then invite a probing of the nature of the expanded options and the pathways through which these provide value.

ACIL Tasman examined and reported on the following CSIRO initiatives:

- three of the national research flagships
- preventative health
- water for a healthy country
- light metals.
- the Australian Animal Health Laboratory
- fisheries resource management; specifically in relation to advice on management of the southern and eastern scalefish and shark fishery
- Cotton Breeding & Decision Support Program
- robotic mining technology development
- commercialisation of PolyNovo, a novel polymer technology with applications in the health sector.

For further information and references to this research, please contact ACIL Tasman.