

House of Representatives Standing Committee

on

Primary Industries and Regional Services

Inquiry into

Infrastructure and the Development

of

Australia's Regional Areas

Submission by

The Australian Council For Infrastructure Development

May 1999

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Executive Summary

The Australian Council for Infrastructure Development (AusCID), with 63 members, is the principal industry association representing the interests of companies and organisations owning, operating, building, financing, designing and otherwise providing advisory services to private investment in Australian public infrastructure.

During 1997 and 1998, AusCID managed the Institutional Investor Information Service, otherwise known as IIS (*Triple I...S*). This project, a cooperative arrangement between the Commonwealth Government, several State and Territory Governments and the private sector through AusCID, sought to build more effective information bridges between regional and rural project proponents and institutional investors. IIS ran 18 regional workshops over 20 months and identified 68 projects which were subjected to analysis for suitability for private investment.

Subsidised concept review and assessment mechanisms were installed to assist proponents advance their projects to *investor ready* status at which point investors would be informed via an Internet-driven Project Register. None of the 68 projects advanced to *investor ready* status, for reasons set out in the submission. IIS was quite successful in educating proponents about the technical and research requirements of investors in relation to infrastructure.

Key policy issues affecting the ability of the private sector to invest in regional and rural infrastructure opportunities include the rate of implementation of the National Competition

Policy (NCP), the need to shift bureaucratic culture away from a “public vs private” paradigm towards a public-private-partnership (PPP) model which can lead to better results.

Tax policy is another area which appears to be locked into the historic paradigm of public delivery. The Review of Business Taxation (RBT) has addressed some issues, notably the limitations posed by section 51AD of the Taxation Act, and appears to be fostering a public-private consensus that ridding the system of that limiting provision is an important step towards accelerating private participation in public infrastructure delivery.

AusCID also advocates a strong national infrastructure coordination role for the Commonwealth Government, not only in support of the 1995 EPAC recommendations, but also in light of the serious cross-border economic impacts of recent infrastructure failures – Queensland power, Sydney water and Victorian gas.

AusCID offers the following recommendations for consideration by the Committee, in light of its experience, to assist in defining new structures and processes which will enhance infrastructure delivery to Australian regions and rural areas:

1. Press on with implementation of National Competition Policy, recognising that the world is changing and that Australia must efficiently make its way in that world, and use NCP dividends to States as a more direct instrument to effect change at that level, with emphasis on structural reform, competitive neutrality and full pricing;
2. Address the non-tax elements of the EPAC recommendations of 1995 and establish a coordinating role for the Commonwealth to address standards, information acquisition and sharing, planning and delivery gaps, cost-benefit analysis.
3. Consider novel means to reduce front-end costs for smaller regional and rural infrastructure opportunities to facilitate the introduction of private investment. These might include:
 - Increase project value thresholds even further (say, \$20m) than is currently the case before competitive tendering is invoked, instead using panels of accredited companies;
 - Promote co-funding by government and private sector parties. This will require abolition of S.51AD of the Taxation Act and use of grants or ‘shadow’ payments;

- Revisit the original design (not delivered) specifications for the AIDC as the basis for a revolving infrastructure investment fund for ‘orphan’ projects, operated by outsourcing to the private sector and charged with a regional and rural emphasis for smaller projects requiring, say, no more than 30% “ultra-patient” equity or debt. When invested projects become commercial, this equity or debt to be recovered and used to recapitalise the fund;
 - Review the role of tax or grant-based infrastructure incentive schemes and establish design criteria to avoid earlier excesses while delivering benefits to a wider range of projects.
4. Craft a modern tax culture which recognises and encourages the emerging Public-Private-Partnership approach to infrastructure provision as the appropriate paradigm for the 21st century.

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and the
Development of Australia's Regional Areas

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Introduction

AusCID is the principal industry association representing the interests of companies and organisations owning, operating, building, financing, designing and otherwise providing advisory services to private investment in Australian public infrastructure.

The Council formed in 1993 and currently has 63 members, of whom 22 are Full Members (directly or indirectly own equity in Australian infrastructure) and 37 are Associate Members (support private infrastructure development). Details are set out in Appendix A.

In 1995, AusCID was introduced by one of its members to discussions within the (then) Commonwealth Department of Transport and Regional Development in relation to a project designed to improve contacts and understanding between regional infrastructure project proponents and representatives of institutional investors, and other sources of capital, principally based in major cities. Further definition of this project and its objectives led to an invitation to AusCID to manage what became known as the Institutional Investor Information Service.

This submission addresses a number of the Inquiry's terms of reference by setting out AusCID's observations on the development process for regional and rural infrastructure, the respective roles of public and private sectors, related opportunities and hurdles as well as lessons learned and suggestions identified as part of the IIIS experience.

It also outlines unrealised development opportunities which, following appropriate reforms, would enhance economic development and quality of life in regional and rural Australia.

Before moving to these points, however, AusCID considers it important to comment on some related issues which are part of the socio-political dynamic affecting change in the Australian economy.

National Competition Policy

Imperfect implementation of the NCP, particularly delayed application to many aspects of the water industry is a matter of concern to this Council. Allied with the failure of successive governments in a number of jurisdictions to effect consolidation reform at local government level and at the level of water QANGOS, there remains a significant disincentive for the private sector to consider opportunities for investment in upgrading existing regional and rural water facilities. This represents a major delayed opportunity to reinvest in and improve the performance (technical and economic) of regional and rural water.

In NSW alone, in 1994 there were regional and rural water projects to a value of \$1.5 billion (requiring a subsidy of \$850 million) awaiting funding by government. By 1999 this has reduced to \$1.2 billion (requiring a subsidy of \$700 million). These figures include, for example, some 140 “small town” projects all of which are under \$5 million.

Traditional delivery mechanisms prevail in the water sector – ownership, funding, design and construction by public entities. With ongoing pressure on government budgets, there is no remedy in sight to accelerate the rate of investment or re-investment unless private capital and innovation is harnessed.

Similar conclusions can be asserted about irrigation and waste water opportunities. At the technical level alone, much of Australia’s irrigation system is over 60 years old and loses upwards of 30% to 40% of its volume through evaporation in open channels, seepage or outmoded practices. Re-investment in modern irrigation, following completion of the necessary reform processes, including appropriate pricing, would increase the availability of water with benefits not only to agriculture but also to environmental flows in rivers.

Public vs Private OR Public-Private Partnerships

The current decade has seen a paradigm shift in the means by which public infrastructure is financed and delivered. From a small base in the late 1980's, there is now some \$70 billion of privately owned public infrastructure in Australia, just from privatisations, and another \$15 billion of private investment in new projects. The first category ranges from power stations and distribution networks to ports, airports, rail freight and gas transmission and distribution systems. The second includes water plants, toll roads, rail, gas pipelines, power plants, prisons and hospitals.

Although initially catalysed for 'second-best' reasons, namely the inability of governments to fund from budgets needed investment in new infrastructure, and their unwillingness to borrow or raise taxes, there is now increasing awareness of the 'first-best' reasons – more efficient, innovative and timely delivery of projects by the private sector.

Earlier antagonisms within project delivery bureaucracies, driven largely by 'turf protection', are beginning to fade and there appears to be increasing recognition by both politicians and officials that there will be no turning back.

Thus the current choice of "public" or "private" delivery of infrastructure will hopefully give way to "public-private partnerships" with genuinely cooperative, not adversarial, roles adopted by participants from each sector. Australia's demographic and geographic constraints do not allow much leeway for waste, inefficiency and misplaced investment in the delivery of public infrastructure.

That is not to say, however, that the going is now smooth for the private sector. Many hurdles remain and, until these are removed, considerable potential for higher sustainable investment in Australia's infrastructure stock, including that in regional and rural areas, and the collateral investment and job creation, will go untapped.

Taxation

The most significant hurdle which is constraining increased private investment in public infrastructure is section 51AD of the Australian Taxation Act. This provision was introduced in 1983 to prevent tax exempt parties (eg, State and Territory Governments) from entering into arrangements with tax paying parties (private sector) for the ownership and delivery of services (eg, infrastructure) in such a way that the Federal tax revenues reduced. Typically

there are leasing arrangements under which companies may receive tax deductions and transfer the benefit of those deductions as lower costs to the public sector client.

AusCID put its case for reform of S.51AD to the Government late in 1998 and to the Review of Business Taxation (RBT). There now appears to be an emerging consensus that this provision is outdated. How it will be modified must await the Government's response to the RBT.

An appropriate remedy for S.51AD could open the way for increased private funding of infrastructure, including regional and rural infrastructure, by permitting for the first time in Australian the use of "shadow tolling" whereby governments, not end-users, pay infrastructure providers for the service and base their payments on measured use of the service. Thus a rural bridge could be upgraded and payments based on measuring numbers and type of vehicles using the bridge. Patronage risk can thus be shared by public and private parties through agreed payment formulae. This payment mechanism can be applied to other types of infrastructure – roads, rail, public buildings, prisons, hospitals, schools, water facilities, waste management. It can also be a hybrid, involving some user charges, such as combining water rates with a co-payment from government.

AusCID notes that there is considerable unrealised regional and rural infrastructure opportunity in relation to rail, road and bridge upgrading as part of achieving neutrality between road and rail to gain more efficient land transport outcomes. Regional and rural water also represents an area of significant potential, possibly measured in billions of dollars as is transport. Structural reform and S.51AD, respectively, are the greatest constraints limiting private sector investment in these areas.

Another tax-based hurdle is the recent attack in proposed D.243 (in Taxation Laws Amendment Bill No. 5 of 1999) on the use of limited recourse debt in project financing. This form of financing is used widely in the minerals and petroleum and gas sectors as well as by infrastructure projects. Although some redrafting of the initial provisions of D.243 have remedied inelegantly the problem areas of the Bill, the private sector remains concerned that this provision signals the beginnings of a wider tax-based attack on the use of limited recourse debt for major projects.

The policy underlying D.243 appears to destroy the neutrality currently implied by the tax system for asset purchases using equity, corporate debt and limited or non-recourse debt. If successfully implemented at a later date, this will dramatically increase the cost of major project financing.

As recommended below, AusCID considers that there is a clear role for incentive schemes for regional and rural infrastructure if private investment is to play a part. The *Infrastructure Borrowings* scheme of the former Labor Government was poorly designed and resulted in arguably aggressive structuring of financial arrangements, such that likely benefits would have exceeded its cost to the Government had it not been shut down. The replacement *Infrastructure Borrowings Tax Offset* scheme amounts to throwing out the baby with the bath water. It is too limited (land transport infrastructure only), bureaucratic in operation, under-funded (\$75 million per year for 5 years), complex to comply with and, in the end, insufficiently transparent. If national governments are serious about regional and rural infrastructure adequacy and a role for private investment in achieving this, the gap between economic and financeable reality will need plugging via a workable and sustainable tax-driven or grants-driven incentive scheme.

National Infrastructure Coordination

EPAC in 1995 made a number of recommendations covering non-tax aspects of infrastructure planning, coordination and cost-benefit analysis. AusCID submits that these recommendations be revisited and, where still relevant, implemented. In particular the cross-border, if not national, economic consequences of regional infrastructure failure are evident – witness recent problems due to Queensland power outages, Sydney’s water crisis and Victoria’s gas disaster. Further, there is an absence of consistent project analysis and suitable benchmarks such that Australian governments cannot readily determine whether, say, \$100 million of public funding would produce more benefit in upgrading one major rail link or by upgrading 30-40 rural airstrips to all-weather medium-jet capability to open new areas to tourism.

If infrastructure planning and delivery is increasingly left to market forces to determine, the Australia of 2050 is more likely to be largely a series of semi-linked coastal conurbations along the east and south-east coast and in the south-west. Is this in the national interest, socially, economically or environmentally?

The status quo, with the Commonwealth increasingly withdrawing from any role in infrastructure, other than tax policy and a handful of major projects, is quite unsatisfactory. As steward of the national economy, it needs to steer the States and Territories towards better coordinated infrastructure delivery. In particular there is a clear need to identify strategic gaps and weak links leading to policy settings designed, where necessary, to encourage further private investment in remedies. As stated above, timely and consistent implementation of the National Competition Policy, with more balanced regulation, would go far in achieving this. While an enhanced Commonwealth role may be no more than exhortation through the COAG process, this would be a welcome boost.

IIIS – Background

The Institutional Investor Information Service (IIIS) was initiated as a public-private partnership involving the Commonwealth Government, participating State and Territory Governments and the private sector with the specific aim of enhancing economic growth in regional and rural Australia by facilitating greater private investment in public economic and social infrastructure.

It was based on the view that many worthwhile project ideas went unnoticed or foundered through lack of access to capital. Further, sources of capital were city-based and appeared not to understand the needs of regional and rural Australia. AusCID entered into a two-year contract in January 1997 to manager the IIIS project.

Working through a Steering Committee, programs and services were developed and implemented, reviewed and revised from experience, to deliver the IIIS objective more effectively. Membership of the Steering Committee comprised representatives of participating States and Territories and industry groups associated with investment activities. Details are set out in Appendix B.

Primarily, the initiatives were directed at building an information bridge between project proponents in the regions and institutional investors who are principally city-based.

Managed by AusCID, a program was established which included the following:

- Establishment of a subsidised *Concept Review*, designed to provide project proponents with limited expert assessment at an early stage of infrastructure project identification;
- Formation of an *Expert Panel* with members drawn from the finance and advisory sector to provide subsidised advisory services to project proponents ;
- Preparation of *Assessment Guidelines* by the Expert Panel as a basis for systematic preparation of project proposals by proponents;

- Establishment of a subsidised *Assessment Service* through which members of the Expert Panel can formally assess project proposals against the Assessment Guidelines and market requirements for private infrastructure investment to determine whether projects are *Investor Ready*, that is, having sufficient positive characteristics to merit development of a full feasibility analysis and further due diligence by a prospective investor;
- Presentation of *Regional Workshops*, to explain to project sponsors and proponents the information requirements of institutional investors and their needs in terms of project analysis and presentation;
- *Seminars* aimed at institutional investors to inform them of investment opportunities identified in the regional workshops; and
- An Internet-based *Project Register* to provide ready access to information on and contacts for investor ready projects.

IIIS - Experience

Neither the Concept Review nor the Assessment Service was applied by any project proponent and consequently, the *Project Register* currently displays no *investor ready* projects. AusCID has formed the view that reluctance to use the services was based on proponents' assumption that it is primarily the responsibility of governments to fund the development of infrastructure and that they should not need to contribute 'hurt money' to that process.

That the *Project Register* displays no *investor ready* projects also raises some questions:

- Are there any quality infrastructure project proposals in regional and rural Australia?
- How may these projects be identified?
- What needs to be done to advance these projects?

The activities undertaken by the IIIS sought to address these questions. Project identification relied mainly on access to local and regional business and community networks. The *IIIS Regional Workshops* played a key role in bringing regional infrastructure project proponents and institutional investors together to review the quality of project proposals and to advise on steps for furthering them.

While this objective was achieved, experience showed:

- Some States had difficulty in identifying infrastructure projects in their regions;

- There was indifferent quality among the projects presented;
- A number of projects did not meet the private investment definition of 'infrastructure'.

In all, 18 out of 20 planned workshops took place at which 68 projects in various stages of development emerged. The workshop shortfall occurred largely due to delays in identifying additional suitable projects and, more recently, the decision by the Steering Committee to amend the focus of future workshops to provide a greater educational emphasis.

A consideration in the low level of development of sighted project proposals was the limited commercial skills of regional proponents. A training program aimed at addressing critical issues such as financial modelling, business planning and marketing strategies was endorsed by the IIS Steering Committee and has been recommended for delivery in 1999.

To address the issue of project identification and to assist agencies to determine current infrastructure quality in their regions and identify future needs the Steering Committee agreed to carry out, a *Pilot Regional Infrastructure Stocktake*.

The Stocktake Pilot was conducted in six regions in participating states and the ACT to determine:

- existing infrastructure assets;
- gain insights on infrastructure needs in the short to medium term; and
- perceived bottlenecks to economic development posed by infrastructure.

Observations from the Pilot included the following:

- further development of the questionnaire used in the Pilot was required, with more focus on economic development and infrastructure constraints to growth;
- the capacity to undertake the stocktake varied among regions; and
- it appeared that the potential pool of projects was not exhausted by the stocktake, suggesting that more technical resources are needed to assist future stocktake processes.

To facilitate private funding of projects, IIS published a *Project Directory* containing information on major private sector infrastructure projects and privatisations which had been or were currently being developed in Australia. The *Project Directory* is intended as a useful guide for project proponents and developers on the source of investment funding and

important areas of advice and assistance on development of infrastructure projects. A copy is attached at Appendix E.

Towards the end of 1998, a *Review of Workshop Projects* was undertaken to:

- determine the status of the 68 projects presented at the workshops;
- assess the impact of the workshops on project development; and
- identify obstacles in project development.

IIS experience indicated that what, at first, was perceived as market imperfection in terms of inadequate information may not be the critical issue for regional and rural infrastructure development involving private investment. Investors appeared to be better informed about project opportunities than earlier believed.

What was apparent was a lack of understanding by proponents of investment requirements. This critical issue, as mentioned above, prompted re-design of workshops, incorporating a training focus in improving proponents' skills in the development and presentation of infrastructure project proposals.

IIS also conducted two seminars in Melbourne and Sydney to tap into financial markets and determine views about private investment in smaller infrastructure projects generally. In particular, it was seen as helpful to test the widely held view that there is adequate funding, particularly in superannuation funds, looking for suitable project opportunities.

IIS-Conclusions

1. Regional markets often lack critical mass

The generation of robust revenue streams is arguable the biggest challenge in terms of attracting institutional investment to regional and rural projects.

Financiers are constant in their search for market growth for a particular source of infrastructure services. However regional and rural markets often lack critical mass and are too 'thin' – regional projects have difficulty in demonstrating that there is sufficient ongoing demand. Indeed population decline in parts of rural Australia pose an additional element of market risk which private investors may be disinclined to accept. Consolidation into regional

centres may offer a growth element and they may attract some private investment, depending on size and sector of activity.

Proponents need to continually consider how revenue streams can be generated to assist their projects. Industry associations and governments need to be mindful that firms tender to cluster in areas where the hard and soft infrastructure exists thus providing a clue to policy makers about fostering the conditions which will promote critical mass.

2. Preponderance of social benefit in regional and rural infrastructure projects

Some 26 of the projects (almost 40% of the total) displayed a degree of social or environmental benefit – that is, aspects of the projects would confer benefits on the community which the investor could not on-charge. This leads to wariness among private sector investors – why should they pay the community's way and carry additional risk?

A good example is the backlog of regional and rural water projects. Health and environmental benefits will result from better waste water and potable water plant investment. However, user charges may not provide the revenue streams required to give a private investor the returns needed. Operating subsidies or capital grants may be required to meet the value of the social benefit to reduce the cost to the investor to that of the economic benefit.

Workshops considered the notion of 'cocktail' funding (ie. pooling funds from different programs), together with the need for sponsors (often local government authorities), to be more adept at identifying the respective public/private mix of benefits from a project. However to do this requires a good understanding of the myriad of government programs and how to access them.

3. The relevance of politics

Institutional investors are wary of some regional and rural projects because they have a tendency to become a political football, particularly in marginal electorates. Apart from raising doubts both in the electorate and the investment community as to the intrinsic worth of a project, this highly political approach cuts across the efforts of the investment community to convince project proponents to spend money on feasibility studies, market analysis and the like. The weak state of local government finances is a constraint in this regard.

Institutional investors emphasised the need for local government and regional development bodies to be active in undertaking feasibility studies and infrastructure audits, and in dealing with local political issues (eg. planning approvals). Institutional investors are wary of committing to seriously evaluate proposals if the local groundwork has not been completed. However some are willing to offer early advice on how a project might be structured.

1. The Orphan Syndrome

The term “Orphan Projects” emerged from the IIS process as a description of rural and regional projects which fall between economic and financial viability. These projects, often quite small (IIS saw several attractive projects valued at <\$2 million), have diminished chances of development as governments seem reluctant to commit budget funds to projects which appear capable of private investment while inadequate returns or unacceptable risk factors associated with the projects make them unattractive to investors.

AusCID submits that orphan projects will increasingly be passed over unless new ways are implemented through which projects of this type can be developed using private funding, public funding or, more likely, an effective mix of both.

There is adequate evidence from the finance sector that infrastructure projects of less than \$20 million in size are much less likely to attract institutional investors, unless they can be bundled into bigger accumulations to create financial economy of scale. Some of the smaller water treatment, airport and tourism infrastructure projects put to the IIS workshops offered quite good rates of return. However, front-end transaction costs associated with structuring and tendering will often add excessively to total costs of smaller projects, rendering them unfinanceable. Until these hurdles are lowered, the smaller projects will maintain their orphan status.

For non-infrastructure projects, the problem appears less acute. Nevertheless, the provision of venture capital and banking finance to smaller non-infrastructure projects would be enhanced by better project documentation.

2. Interdependence of Projects

Given the high level of interdependence between regional and rural projects, a helicopter view is useful in seeing how various pieces of infrastructure and business projects can

coalesce. An example is around Bunbury in the South West of Western Australia, where the economics of a container facility at the port of Bunbury, the expansion of Kemerton Industrial Park, the construction of the Kemerton gas-fired power station, and the advancement of a number of resource value-adding projects is dependent on each progressing.

Government agencies without a facility to look at issues in spatial context cannot fully recognise the interdependence between projects. However institutional investors appreciate the link, because infrastructure projects are funded by revenue streams (not by balance sheets) and are long-term – this means that investors think about ‘what affects what’ in terms of growing their customer base. Some of the foreign power and water utilities that have recently entered the Australian market have an impressive grasp of regional growth dynamics, and the marketing and commercial links back into Europe and the US. These organisations are thus an interesting new source of potential equity for outsourced infrastructure services to energy-intensive regional projects – paper plants, milk factories, smelters, refineries etc.

3. The Need to Understand Risk

The IIS workshops illustrated why many regional (and urban) projects hit the proverbial ‘brick wall’. The discussion on each project within the workshops was framed around the risk assessments which investors make. There are four broad categories:

- **Construction risk** – the risks associated with design, cost overruns and construction delays can be substantial for capital-intensive infrastructure projects. There is evidence that these risks have diminished in recent years as a result of industry reforms implemented following various Royal Commissions and inquiries.
- **Operating risk** – these stem from shortfalls in production and/or service, and in relation to managing staff, maintenance etc. It is difficult to quantify these risks – they may only become apparent once the project is fully operational.
- **Revenue/Demand risk** – this is a fundamental issue. It concerns the need to ensure the existence of strong and consistent revenue flows – the long-term economic decline in some regions make investors distinctly uneasy.
- **Policy and Regulatory risk** – includes risks relating to taxation policy and administration, planning and environmental approvals and the administration of

competition policy (eg. aviation, water and network pricing). Despite the trend towards the privatisation of infrastructure assets in favour of market-driven price setting, regulatory risk is emerging as a key challenge to private infrastructure due to the intrusive and consumer-oriented role of government in this area.

The above types of risk feed into the pricing of debt for projects and thus reduce net cash flow. There are also the qualitative aspects. The ‘gut feel’ of investors – in terms of political, social and environmental factors working against a project – can consign good cash flow projections to the rubbish bin. This is an area where governments do not fully appreciate the impact of their decisions (or lack of them) can have on investor confidence.

Project proponents – many of whom are local government bodies – do not fully appreciate these ‘risk’ elements. They need to think on a broader scale, in order to link agendas and address issues on a more concerted basis. The IIS workshops assisted in giving proponents a better feel for the risk elements facing investors, and hence which issues to resolve and in what sequence.

1. Thinking Outside the Square

There is clear evidence of regional project proponents needing to think outside the square – relatively small impediments are closing down people’s thinking much too early. The workshops highlighted examples where projects stall due to the misreading of signals/feedback from government agencies, loss of corporate memory due to the transfer of one person, inability to galvanise the interests of benefiting companies etc. The more successful proponents seem to be persistent, flexible and more adept at using project champions to tackle these problems. They tend to network better and think outside the square.

Emerging Practice

While much of the foregoing part of this submission has dwelt on the hurdles associated with regional and rural infrastructure development, there is emerging good news which is demonstrated particularly in the role of the private sector in regional and rural water projects. The following case studies exemplify the emerging paradigm.

CASE STUDY 1:

HOW VICTORIA AND QUEENSLAND HAVE USED THE PRIVATE SECTOR TO SET NEW STANDARDS IN WATER INFRASTRUCTURE, SAVE MILLIONS AND IMPROVE PUBLIC HEALTH.

1. Introduction

Australia's three most populous States are dealing with regional water infrastructure problems in very different ways.

Victoria: has an accelerated program using private sector finance , technology and expertise and is saving tens of millions of dollars by using the Build-Own-Operate-Transfer (BOOT) method on small and large projects.

Queensland: is using the private sector to design, build and operate (DBO) new treatment plants whilst continuing to use Government finance.

New South Wales: has largely retained the traditional system of constructing facilities designed according to Government specifications but with growing use of 'design and construct' (D&C). Private sector financing (ie BOOT) has been successfully used, but only in Sydney.

The case studies which follow demonstrate how Victoria and Queensland have used the private sector to full advantage and are upgrading water infrastructure for the lowest cost, with the latest technology and maximum improvement in public health factors.

2. Background

In 1997 the Victorian Government released a list of over 300 water projects valued at \$1 billion which were needed to bring country areas up to acceptable standards. At the same time, the number of water authorities was reduced from 120 to 15, financial incentives were made available, an 18% reduction in water rates was legislated and it was mandatory to seriously look at BOOT delivery using private sector finance for all projects over \$5 million.

An important factor was also the requirements of the National Competition Council and the approach taken was consistent with these demands.

Since then, five major BOOT projects have been implemented with capital value of \$165m and a further \$65m invested on a D&C basis. Savings of 20-30% have been achieved on the first two projects at Coliban Water and this case study briefly explains how this was done.

It is interesting to compare the situation in NSW where the 'backlog' list in country areas was \$1.5 billion in 1994 and reliance placed on local and State funding. No BOOT projects have been done and the backlog is currently estimated at \$1.2 billion with approximately 200 projects awaiting financial approval.

3. The Coliban Water Experience

As in almost all of rural Australia, the lack of adequate water treatment in regional Victoria had become a major political, environmental and health issue in the early 1990's. Various attempts by the Federal Government to provide funding (eg, toxic algae 'hotspots' program) had been frustrated by Australia's State-based project implementation structure.

Reform of the water industry was on the agenda through the COAG initiatives and in 1997 the Victorian Government finalised a package for the 15 new non-metropolitan urban (NMU) authorities which required that:

- Drinking water meets WHO standards by 2000
- Effluent from sewage plants meet EPA standards by 2001
- Towns over 500 people to have sewerage services
- \$410m made available to assist NMU's
- Water rates reduced by 18%
- Projects over \$5m to be benchmarked for possible BOOT delivery

The Board and management of Coliban Water with active assistance for the Victoria Department of Treasury and Finance decided that the best course of action was to implement a series of private sector partnerships, which would achieve the most efficient method of project delivery. For capital projects, it was decided that investment could best be handled by the BOOT method, and in a departure from accepted practice decided that smaller (less than \$20m) projects could also be 'booted' provide very disciplined procedures were followed including:

- defined outcomes stated in tender documents
- tender assessment criteria published and including non-financial measures
- benchmark cost for 'traditional' delivery to be yardstick for cost assessment
- no restrictions on technology or design as contractor takes performance risk
- maximising innovation in all areas including finance
- maximising risk transfer
- reducing administration and legal costs
- penalties for non-performance
- tough guarantees to ensure customer service

- revised tender procedures including consultation with leading contractors at early stage

Results

Coliban Water has finalised contracts for its first BOOT being the Castlemaine waste water project which was benchmarked at \$20m capital cost and \$60m NPV over 25 years. By fully utilising the capabilities of the private sector savings of over \$12m have been achieved or 20% of the total cost.

In the second project (Aqua 2000), contracts are about to be signed for new drinking water treatment plants at Bendigo, Castlemaine and Kyneton. While contracts are yet to be finalised similar savings of over 20% have also been achieved.

As well as reduced costs, Coliban Water have found there are other advantages in working in true partnership with the private sector:

- new technology – water for the citizens of Bendigo will be cleaned by the latest membrane filtration process, removing giardia and cryptosporidium parasites which caused so many problems in Sydney during 1998. This technology simply would not have been introduced unless with BOOT or DBO methods.
- Problems of ‘traditional’ methods such as delays and cost overruns are minimised.
- Plants are designed to last as the builder has to operate the facility for 25 years.
- Most risk is transferred to private sector with substantial penalties for breaches. At Coliban, one innovation is to put the onus for public health risk on the new owner and operator of the plant.

CASE STUDY 2:

ILLAWARRA AND WORONORA WATER FILTRATION PLANT

Project Summary

The Illawarra and Woronora water filtration plants provide high quality drinking water for more than half a million residents of Southern Sydney. Sydney Water determined that the plants, along with plants at Prospect and Macarthur were required in order to improve the

quality of water it supplied to its customers. As with the plants at Prospect and Macarthur, the plants were delivered using a design, build, finance, operate (DBFO) process. The concession period for the plants is 25 years.

Illawarra Plant

The Illawarra plant service the area between Stanwell Park and Gerringong, providing water to a population of approximately 350, 000. The plant also enables industry access to raw bulk water.

Located at Kembla Grange, the plant consists of a number of component including:

- A 1.7 km tunnel from the Avon Dam;
- Two hydro-electric power stations with a combined capacity of 6.7 megawatts, the major one driven by raw water to the water filtration plant, and a second one driven by raw water consumed by industrial customers.
- A 5 megawatt clear water pumping station.

The Illawarra plant can treat 210 megalitres per day with provision to expand to 310 megalitres per day.

Woronora Plant

The Woronora plant provides water for the Sutherland Shire and Helensburgh, which have a combined population of approximately 200, 000. Located at Woronora Dam, it treats 160 megalitres per day with provision for expansion to 220 megalitres.

Need for Project

Prior to the development of the plants, water treatment consisted of chlorination, fluoridation and pH correction. As Sydney's catchments are pristine and the natural water quality is high, the water being supplied to consumers usually met National Health and Medical Research Council guidelines. However, on certain occasions such as prolonged storms, water quality would fall outside the guidelines. The plants, which provide water filtration plus additional chemical treatment have been developed so the required water quality can be achieved under the full range of climatic conditions.

Contractual Structure

Sydney Water entered into a contract with a consortium, Wyuna Water, to design, build, finance and operate the two plants. The consortium comprised CGE, AIDC Ltd (now acquired by Babcock and Brown) and Concrete Constructions.

Wyuna Water contracted with CGE to undertake the operation of both the plants and contracted with a joint venture between Concrete Constructions and Kinhill for the design and construction. Working as part of the joint venture with Concrete Constructions, Kinhill was responsible for the design, technical management and commissioning of the two plants.

Advantages for Sydney Water and its Customers

The consortium developed a number of initiatives that enabled cost savings in the treated cost of water. The prime example was the inclusion of two power stations at the Illawarra plant. Not part of the original project brief, the power stations enable a saving on operating costs of several million dollars per year. As the generating capacity of the power stations exceeds the treatment plant electricity requirement, they also allow for the export of 'green' power.

Further power savings were achieved by the filtration technology used, which controls flow rates so that a constant flow rate is achieved from all filters.

The DBFO development process provided Sydney Water with significant cashflow benefits over other forms of delivery. The two projects were undertaken in conjunction with two other water treatment projects, Macarthur and Prospect. The combined value of all the plants was approximately \$600 million. As all plants were required at the same time, had Sydney Water developed them, it would have had to increase its capital expenditure budget by approximately 100% or significantly reduce its expenditure on other planned works, neither of which would have been practical. The DBFO option however, enabled the projects to be delivered with minimal impact on Sydney Water's cashflow.

Using a D&C Sub-contract within the DBFO contract also had a number of advantage, particularly in relation to the length of time for construction. Despite Sydney Water making a number of changes during the design and construction process, both plants were commissioned with twenty two months of approval to proceed. This was less than the target

timeframe, enabling water to be provided to Sydney Water customers earlier than had been planned.

Conclusions and Recommendations

Timing and resource constraints regrettably do not permit AusCID to present more detail to the Committee on optimal outcomes for future infrastructure delivery.

Infrastructure services, per se, are not great sources of direct employment, except during the construction phase. They do, however, provide a foundation for further productive investment which might involve greater job creation opportunities. AusCID does not consider it feasible to generalise on this point because the emerging truism is that jobs will increasingly come from the services sector, not from commodity-based sectors, the traditional strength of the Australian bush.

‘Nation-building’ projects, while attractive concepts, risk being white elephants if not solidly backed by private capital which is the ultimate test of willingness to take risk. Governments are not good at assessing or allocating risk.

The issue goes beyond economics and clearly touches on questions of national interest and direction, as well as environmental constraints.

AusCID’s experience during 1997 and 1998 as manager of the IIS project convinced many of its members that regional and rural infrastructure delivery must be accepted by governments as one of their core functions until such time as they are prepared to reform ownership and delivery agencies to promote best practice efficiency outcomes, can sanction efficient, timely, consistent and transparent processes to attract private investment and fund in parallel with private investors where externalities require it.

AusCID offers the following recommendations for consideration by the Committee, in light of this experience, to assist in defining new structures and processes which will enhance infrastructure delivery to Australian regions and rural areas:

1. Press on with implementation of National Competition Policy, recognising that the world is changing and that Australia must efficiently make its way in that world, and use NCP

dividends to States as a more direct instrument to effect change at that level, with emphasis on structural reform, competitive neutrality and full pricing;

2. Address the non-tax elements of the EPAC recommendations of 1995 and establish a coordinating role for the Commonwealth to address standards, information acquisition and sharing, planning and delivery gaps, cost-benefit analysis.
3. Consider novel means to reduce front-end costs for smaller regional and rural infrastructure opportunities to facilitate the introduction of private investment. These might include:
 - Increase project value thresholds even further (say, \$20m) than is currently the case before competitive tendering is invoked, instead using panels of accredited companies;
 - Promote co-funding by government and private sector parties. This will require abolition of S.51AD of the Taxation Act and use of grants or ‘shadow’ payments;
 - Revisit the original design (not delivered) specifications for the AIDC as the basis for a revolving infrastructure investment fund for ‘orphan’ projects, operated by outsourcing to the private sector and charged with a regional and rural emphasis for smaller projects requiring, say, no more than 30% “ultra-patient” equity or debt. When invested projects become commercial, this equity or debt to be recovered and used to recapitalise the fund;
 - Review the role of tax or grant-based infrastructure incentive schemes and establish design criteria to avoid earlier excesses while delivering benefits to a wider range of projects.
4. Craft a modern tax culture which recognises and encourages the emerging Public-Private-Partnership approach to infrastructure provision as the appropriate paradigm for the 21st century.

AusCID would be pleased to meet with the Committee to give further evidence through a public hearing and to be questioned about the comments and recommendations made in this submission.

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