Department of Sustainability and Environment

Infrastructure investments by State governments: more success than failure

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Peter Harris Secretary, Department of Sustainability & Environment



Introduction

- Four main elements
- The value in PPPs, pioneered by States
- The common factors in successful projects (including some examples)
- The nature of risk
- What we should do next, while infrastructure is still hot



History of PPPs in Victoria

- **1980s**: achieve off-balance sheet finance (minimal risk transferred)
- **1990s**: private sector funding to replace public sector (poor macro economic position, plus the crowding out argument)
- **2000**: *Partnerships Victoria* policy introduced:
 - a framework for integrating private investment into public infrastructure choices
 - Essential aim of achieving value for money in the public interest (PSC)
 - No presumption that the private sector is more efficient
 - Focus on whole of life costing
 - Optimal, rather than maximum, risk transfer to the private sector



PPPs: Successes and Challenges

- Continuous learning by firms and government (advisers too) on risk transfer
- Document suite increasingly standardised
- 18 Partnerships Victoria Projects to date; \$5.8 billion in capex
- Four further projects in the market worth over \$4 billion Desalination Project, Biosciences Research Centre, Ararat Prison, Peninsula Link
- GFC has altered private liquidity for large scale PPPs; in particular, ability of constructors/operators to take balance sheet risk
- But PPP model remains sound



Royal Children's Hospital









Partnerships Victoria in Schools Project





Eastlink

- Includes 17 major interchanges
- Additional 6kms of non-toll feeder roads
- 84 bridges and 3 railway crossings
- Ringwood and Dandenong South Bypasses
- 2,000,000m2 pavement





Allen Consulting Group / The University of Melbourne (2007)

TOTAL COST OF TRADITIONAL & PPP PROJECTS (\$M)

		Expect- ed Cost	Net Cost Over -run	Final Cost	% Cost Over- run
Full Period:	Traditional	3,082.0	1,087.6	4,169.6	35.3%
Original Approval – Final	PPP	4,484.4	519.3	5,003.7	11.6%
Stage 3:	Traditional	4,532.6	672.5	5,205.1	14.8%
Contract - Final	PPP	4,946.1	57.6	5,003.7	1.2%



Australian National PPP Forum Benchmarking Study (source: Duffield 2008)

Cost over-runs: Traditional and PPP projects relative to anticipated cost at the start of the period under consideration (based on averages)

	Full Period	Stage 1	Stage 2	Stage 3
No. of Observations	40	45	43	40
A. Traditional Projects	52.0%	38.2%	19.7%	18.0%
B. PPP Projects	23.8%	22.2%	7.8%	4.3%
Difference (A - B)	28.2%	16.0%	11.9%	13.7%



Channel Deepening

- Deepening Port Phillip Bay at select locations to ensure new, larger ships can use the port more efficiently
- \$969 million project
- 80 percent complete and on track for completion of capital dredging works by the end of August
- \$2 billion to the national economy over the next 30 years
- 2,000 jobs during construction
- Environmental studies informed project planning





The nature of risk - climate change driving infrastructure investments

- Post 96/97 a clear step change occurred in rainfall and inflows across Western and Central Victoria.
- Major threat to western plains agriculture, imminent collapse of urban water sources in Ballarat and Bendigo, growing impact on Melbourne.
- Rapid response:
 - First, Wimmera Mallee Pipeline project (2003)
 - Second, Goldfields superpipe (2006)
 - Third, Sugarloaf pipe *across the Divide* (2007)
 - Fourth, Victorian water grid ('from where it is to where it is needed') also 2007.



Water security under uncertainty





Wimmera Mallee Pipeline Works Trenching East of Charlton





Wimmera Mallee Pipeline

- \$668 million investment by Victorian and Commonwealth Governments to secure Western Victoria's future environment and rural communities.
- Servicing 36 towns and domestic and stock customers across 2 million hectares.
- Replacing 17,500 km of open earthen channels with 8,880 km of reticulated water.
- Returning 83,000 ML to the environment.
- Supply systems 1, 2, 3 & 7 practical completion achieved.
- Supply systems3, 4 and 6 expected completion by end of 2009.



Wimmera Mallee Pipeline Works Birchip





Goldfields Superpipe

- Rapid response to stepped climate change across Central Victoria.
- High level (Stage 4) water restrictions in Ballarat and Bendigo.
- Inability to access water from other water sources.
- \$278 million investment with substantial contributions from Victorian and Commonwealth Governments.
- Delivery per annum of up to:
 - 18 GL to Ballarat
 - 20 GL to Bendigo
- Construction commenced Feb 2007, effective completion May 2008.
- Delivered on time and within budget.



Supply, Drought & Climate Change Victorian Murray inflows 1990 - 2055



Northern Victoria Irrigation Renewal Project

- NVIRP: the \$2 billion Foodbowl renewal project, to replace, rationalise, line and meter effectively the largest irrigation district in Australia.
- Assets are generally 60-90 years old, clay-lined open channels
- Efficient in operating cost (eg gravity-fed over 160,000 sq km) except for massive water losses
- Commenced in 2008.
- Plan-as-you-go, due to urgency. Complex involves major social change (eg size and number of irrigated farms, demographics, cyclical nature of dairy industry).
- As a result has been criticised by the State Auditor General.



Inflows into water storages have been at record lows





Desalination Plant

3 Components: Desalination Plantinitial capacity of 150 GL pa with the ability to expand to 200 GL pa **Transfer Pipeline** – 85 km pipeline to Cardinia Reservoir **Power Supply** – connect plant to electricity grid (underground preferred)





Approvals Process Points

•	Water Plan announced		June 07
•	PPP decision		Sep 07
•	Project Information Office opened		Sep 07
•	EES Referral submitted		Nov 07
•	EPBC Referral submitted		Dec 07
•	Full EES Required		Dec 07
•	C'WIth accredits EES for EPBC		Feb 08
•	EOI Released		June 08
•	EES and EPA Works Approval exhibited		Aug 08
•	EES and WAA exhibition closed	Sep 08	
•	Shortlist to two and issue RFP		Sep 08
•	EES Inquiry Hearing		Oct/Nov
•	EES Inquiry Report		Dec 08
•	EES Assessment Announced		Jan 09
•	EPA Works Approval Issued		Mar 09
•	Commonwealth EPBC Approval		Mar 09
•	RFP Bids Closed		Mar 09



08

Approvals = Good Planning

- Utilising existing legislative (no special Act)
- All normal approvals obtained
- EES, EPBC, EPA Works Approval completed early
- Experienced delivery team
- Careful planning and scheduling
- High level of Coordination and communication with approving agencies



Project Timelines



Conclusions

- Infrastructure spending is hot. Partially due to economic conditions, partially due to demand.
- Feast then famine investment is again in prospect.
- Infrastructure investment should be a matter of meeting *continuous* (risk-adjusted) demand.
- Where delay or major cost-overrun becomes common, funders become nervous and can choke off support.
- To avoid this, regardless of whether funding is public or private, project discipline is needed.
- Drawing on PPP 'pre-market' approaches should occur regardless of funding source.





- All projects should be subject to a detailed **feasibility study** as a prequalification.
- Check-list: Objectives, investment rationale, scope, approvals timeframe, initial environmental assessment, cost range, risk analysis, construction time-frame, bcr, delivery options, threats and mitigators.
- After pre-qualifying, **statement of context**: where does the project fit into the wider sector or location planning need?
- **Planning approvals** should be met rather than avoided (eg 'too big not to proceed') to force a focus on assessing and meeting non-financial risks.
- Even where funding is from public sources, an RFP-equivalent document should be prepared with the objective of quantifying as far as possible all relevant project risks.

