

PROCUREMENT AND RISK SHARING

Case Study

DEVELOPMENT OF THE 'COMPETITIVE TOC' ALLIANCE – A CLIENT INITIATIVE

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INTRODUCTION

Many will be aware that the Alliance concept was first significantly used in Australia (in terms of broader industry recognition) in the Western Australian oil and gas sector, with two notably successful Alliances being the East Spar development and the Wandoo Platform.

Of relevance to a particular theme of this paper, it is noted that the Alliance concept was introduced through the private sector. This contrasts with the introduction of partnering, which is usually attributed in origin to the US Army Corps of Engineers; and was widely promoted in its initial introduction to Australia by the Queensland Main Roads Department (who have more recently also been a significant user of Alliance formats).

The Alliance approach to project delivery, since it is fundamentally just about a different approach to targeting outcome and sharing risk, can be and has been applied to a wide variety of project types – from highly risky major capital infrastructure projects to relatively mundane term services contracts.

When introduced to Australia, and as still widely applied, the Alliance contract model was of a form that is now commonly known as the 'Pure' Alliance. This model has been widely reported and analysed, with papers by Jim Ross of Project Controls International amongst the most widely circulated.

In more recent times, particularly in public sector applications, two specific variants of the Alliance model have been implemented which have some significant differences to the 'Pure Alliance' model; and it is considered that these variants may offer a number of owners a project delivery instrument that is more suited to their particular situations. These two variants are:

- the 'Project Alliance'; and
- the 'Competitive TOC Alliance'.

In each case, all the key elements of the project delivery phase are very much the same as a 'Pure Alliance', including the key risk allocations and the project management structures. Indeed, in risk allocation, the 'Project Alliance' and 'Competitive TOC Alliance' models have more in common with the 'Pure Alliance' model than, for example, such well known Alliance variants as the National Museum of Australia project. These similarities distinguish the 'Project Alliance' and 'Competitive TOC Alliance' variants from other delivery processes that, whilst they have been described in headline documentation as Alliances, in reality have had as little similarity with the key principles of an Alliance as has the C21 Partnering Agreement (the latter, of course, standing on its own merit).

The principals of Southern Pacific Alliance Network ('SPAN') developed the 'Project Alliance' model in 2000 for the particular circumstances applying in local government use of Alliances, although the model has much wider applications. Subsequently, the same group released the first known Australian application of a Competitive TOC Alliance in mid 2001 – as part of the \$50M Bega Valley Sewerage Project in southern NSW; and have since facilitated or commenced work on another three 'project' applications and one 'program' application of the 'Competitive TOC Alliance' variant.

This paper:

- explores the reasons for the development of both the 'Project Alliance' and 'Competitive TOC Alliance' models by the authors;
- examines broader criteria for considering which project situations may be best suited to 'Pure', 'Project' and 'Competitive TOC' Alliance models; and
- provides an outline of the current structure and implementation of the 'Competitive TOC' Alliance model as practiced by SPAN.

DEVELOPMENT OF THE 'PROJECT ALLIANCE' MODEL

ALLIANCING IN THE PUBLIC SECTOR

Shortly after the Wandoo and East Spar project successes, the first (apparent) appearance of Alliance contracting was for the maintenance services outsourcing contracts by Western Australia's Water Corporation, in 1994. These relatively large service contracts (circa \$15M pa) seemed to industry observers to be using the Alliance model to achieve several objectives other than those normally associated with the performance improvement objectives of Alliances; not the least of which was ensuring that the services were only partially 'let go'; as the Alliance model used left a Water Corporation executive with a final say on all disputes, and had all assets captured in a Special Purpose company that could readily be taken over by Water Corporation in the event of any breakdown in the service relationship. Nonetheless, Water Corporation has subsequently become somewhat of a champion of Alliancing, with the success of the Woodman Point Alliance widely promoted; and, notably, the second known application of a Competitive TOC Alliance model.

Subsequent public sector applications included all major infrastructure sectors: water, rail and road. The Queensland Main Roads Department, as might be expected from its early championing of Partnering, became an early and consistent user of Alliances; on a range of projects with widely ranging objectives. Notably, all the implementing agencies were large State agencies or GBEs. Accordingly, none were constrained by detailed tendering regulations such as those that typically apply to local governments.

ALLIANCING IN LOCAL GOVERNMENT– THE GENESIS OF THE 'PROJECT ALLIANCE'

In early 2000, Maroochy Water Services – a business unit of Maroochy Shire Council – approached the authors for advice on the most appropriate delivery model for the proposed construction of a sewage treatment plant upgrade. When it was identified that the project required a high degree of integration between operators, designers and construction managers, an Alliance was suggested. Assessments of the potential applicability identified some particular issues that concerned the Council:

- that the participation by the Council under a normal 'Pure Alliance' model, e.g. as the 'owner participant', would cause the entire project to be captured by the tendering requirements of the Local Government Act and thereby losing the inherent flexibility provided by contractor procurement processes expected under a 'design and construct' project scope; and

- that the Council team, working with the usual very limited resources available to a local government engineering business, could contribute operations skills and experience but little else to a potential integrated project team.

Of course, the procurement issues arising from the Local Government Act had not been an issue for the corporatised GBEs, and obviously were not an issue for private companies, in applying the Alliance delivery model.

In addition, the relatively small size of the project meant that project-specific PI insurance was not available; and the usual 'no-sue' provisions of an Alliance would leave the Council exposed to post-completion design error risks in a manner that it was not usually exposed to, yet were typically a reasonably significant source of risk for a water business (in accepting externally designed and constructed treatment plant infrastructure).

As the Maroochy project was the first known local government application of Alliancing, the advisory team sought to develop tailored solutions to the identified issues, against a very limited budget.

The solution developed was the first generation of the 'Project Alliance' model, which has subsequently been refined over a number of other local government applications.

KEY FEATURES OF THE 'PROJECT ALLIANCE' MODEL.

Key features of this model are the establishment of a relationship between the Council and the 'Alliance Contractor' where:

- Council contracts for the delivery of the 'works' by the Alliance Contractor
- The Alliance Contractor is free to run an optimised procurement system unfettered by the constraints under which Council would normally operate
- Council offers limited resources (usually with operations and maintenance knowledge) for integration into the alliance teams
- The Alliance Contractor agrees to a management structure and process that incorporates Council staff on a part-time or full-time basis
- The Alliance Contractor owes the normal responsibilities of delivering the works to Council hence the normal indemnity insurance is accessed.
- The Alliance Agreement is structured to deliver the same outcomes as a 'Pure' Alliance in areas such as:
 - Risk / Rewards
 - Quality Pools and Key Performance Indicators
 - Limitations on Liability
 - A 'Best For Project' focus
 - Relationship management
 - Issue resolution
 - High performance team development

OTHER APPLICATIONS FOR 'PROJECT ALLIANCES'

With the relatively recent collapse of the insurance market and the unavailability or lack of affordability of project specific Professional Indemnity insurance, the Project Alliance Model has potentially wider appeal. Points of attraction for the 'Project Alliance' Model are:

- Access to post-Alliance, Professional Indemnity insurance coverage; and
- The ability to enter into alliances despite the owner having limited resources to deploy into any prospective alliance team structure.

DEVELOPMENT OF THE 'COMPETITIVE TOC ALLIANCE' MODEL

Both the 'Pure Alliance' and 'Project Alliance' models select a single contractor team on a 'best for project' principle. At project commencement under these models, the team, including the owner's personnel, work together in a collaborative/alliance culture environment to develop the concept design for the project and to estimate the cost at completion of the project; and this cost is commonly termed the Target Outturn Cost (TOC).

CONTRASTING THE ALLIANCE MODEL IN THE PRIVATE AND PUBLIC SECTORS

As noted in the introduction, the (widely recognised) introduction of the 'Pure Alliance' model into Australia was through the Western Australian oil and gas sector – with early leading examples including the Wandoo Platform and the East Spar project. This 'route' to the Australian market reflected the initiation of Alliances through supply chain review in the Cost Reduction In the New Era ('CRINE') project within the North Sea oil and gas industry.

PRIVATE SECTOR PROJECTS – PRICE TENSION

The private sector nature of these key reference projects was, in the authors' view, a critical factor in the successful application of the Alliance project delivery model; and the relevance of this factor becomes particularly apparent when contrasted with some of the concerns expressed about Alliance project outcomes in some public sector projects.

In the private sector context, after selection of the preferred 'best for project' team the development of the Target Outturn Cost ('TOC') is invariably in the context of a business case development. That is, the Alliance was being charged with bringing a project in within the budgets necessary to achieve the business case hurdles for the project – *"don't get the costs and risks down to under the business hurdles, and the project simply won't proceed"*.

Alliance teams in this context are incentivated to achieve stretch outcomes (through the application of innovation, 'best for project' decision making, and a highly integrated team focus) in developing the TOC. Clearly, a key driver for achievement of highly competitive outcomes in the TOC development phase was the very real risk that the owner would not proceed with the project unless the identified corporate business case hurdles were met. The East Spar project is an excellent example of this principle in application, with the Alliance successfully delivering considerable innovation in order to surpass the hurdles.

PUBLIC SECTORS PROJECTS – PRICE TENSION

This 'business case driver' can be compared with the usual situation in public sector applications where the project is almost always certain to proceed. An example of a public sector project where the TOC significantly exceeded the owner's estimates but the project still proceeded (simply by way of example and without comment as to the inherent validity of either estimate) is the Port of Brisbane Motorway; where the TOC was nearly double the owner's pre-tender estimates. It is difficult to imagine that any private sector investment project would have sustained that type of cost increase and still proceeded.

However, it could be more broadly argued that, in the situation where a single team is developing the TOC estimate and is without a challenging business case hurdle to pass, the driving force that characterised the success of the early oil and gas Alliances has invariably not been present. The TOC development phase is simply establishing what the price will be: there is little doubt that the project will proceed. Readers could ask themselves a question to test this hypothesis: *how many public sector Alliances have been canned because the TOC was too high?* In such circumstances, and giving some deserved respect to the underlying

commercial incentive of private contractors, where can confidence be placed that a genuinely challenging or commercially competitive TOC has been achieved?

THE INDEPENDENT ESTIMATOR AND THE PRICE

Of course, the use of the independent estimator is a tool to provide some confidence to the owner that the TOC is reflective of current market practice. However, there are examples known to the authors where the ability of the independent estimator to argue a case for a reduced TOC has been curtailed, for any number of reasons, only to see the savings that were argued for almost immediately materialise after project implementation. In reality, can independent estimators really drive every productivity estimate, every parameter, and every rate to current market practices? The question then is – is the independent estimator mechanism not being properly used, or is it simply not effective?

The difficulty in arguing the case for the effectiveness of the Alliance application in public sector projects is that there have been project outcomes that have resulted in relatively large project savings against the TOC – e.g. Port of Brisbane Motorway and Awoonga Dam. In the context of the points made above, one should not be surprised that doubts are raised in public sector senior management about whether Alliances are really delivering value – whether the TOC was ever a price that genuinely reflected the kind of competitive pressure meant to be reflected in an Alliance TOC. For advocates of Alliancing there is a real threat that broader adoption by the public sector is at risk.

APPLICATION OF THE 'COMPETITIVE TOC ALLIANCE' MODEL

The matters raised above were important considerations for the clients deciding on their Project Delivery Strategy for the following projects:

- Merrimac Wastewater Treatment Plant Upgrade Project, for Gold Coast Water
- Beenleigh-Merrimac-Pimpama Wastewater Network Augmentation Program Alliance for Gold Coast Water
- Maroochydore Sewage Treatment Plant, for Maroochy Shire Council, and
- Wetalla Wastewater Treatment Plant Upgrading, for Toowoomba City Council

In each case the client organisation has decided to use a Competitive TOC Alliance, facilitated by SPAN. All of these projects use a single client project manager and single, common client team to support each of the two tenderers.

The first known Competitive TOC Alliance development (developed by SPAN for the Bega Valley Sewerage Project) was not in response to issues raised above, but rather a situation where an overall competitive tender process for a \$50M capex project faced particular constraints with a part of the project needed to address the inherent uncertainty of environmental approval processes in NSW. These constraints seemed ideally suited to an Alliance; as that could avoid losing the potential innovation offered by scheme proponents but nonetheless circumvent the very high risks of the approval process. As a very sensitive public context for the project necessitated a competitive tender process, the Competitive TOC process was developed, with the strong relationship contracting elements from the Alliance then committed across all elements of the project. Despite significant doubts amongst some industry respondents, the concept was embraced by leading tenderers and is now being successfully implemented.

The Competitive TOC Alliance approach was subsequently implemented for the Subiaco STP upgrade by Western Australia's Water Corporation (SRDC were the facilitators), and then for the Burnett Dam by Burnett Water (Evans & Peck were the facilitators), both using either a client project manager or client team for each of the two tenderers. As noted previously, the SPAN team is now facilitating a further four 'Competitive TOC Alliances'.

STRUCTURING A 'COMPETITIVE TOC ALLIANCE'

CLIENT TEAMS FOR THE 'COMPETITIVE TOC ALLIANCE' MODEL

Client teams are required in the 'Competitive TOC Alliance' to support the proponents with information, knowledge and ideas throughout the TOC development period; although not quite to the same extent that they support a 'Pure Alliance' or Project Alliance' TOC development phase. An initial reaction may be to appoint separate client project managers or teams to support each proponent in order to respond to the high workload; however experience indicates that the single client team is a fairer and less costly option.

The single client team enables 'apples to apples' comparisons between the proponent teams and proposals as well as ensuring that the same information, ideas and knowledge are made available to both proponents. This puts significant demands on the time of the relevant client team staff. However, despite this much increased workload on client staff, the number of public sector clients embracing this model is increasing. This suggests that the competitive element is seen to more than outweigh any disadvantage.

OUTLINE OF A 'COMPETITIVE TOC ALLIANCE' MODEL

The 'Competitive TOC Alliance' used by SPAN can be viewed as three phases. The first phase involves the Expression of Interest (EOI) that has all the usual features of a 'Pure Alliance' or a 'Project Alliance' project initiation.

Two proponents are then appointed to undertake the second phase, the Competitive TOC Development phase, in conjunction with the Client's Project Team. This phase involves four parallel processes:

- Concept Design development,
- TOC development,
- team relationship development; and
- agreement of commercial terms.

At the end of this phase each proponent submits the Concept Design and associated TOC as well as a signed Project Alliance Agreement. The proponent with the 'best value' offer (based on price and non-price criteria) is appointed as the Alliance Contractor.

The Alliance Contractor, including the assigned Client team members, then commences the third Phase, an Alliance to deliver the project or program, that has all the usual features of a 'Project Alliance'.