

The Effectiveness of Alternative Financing and Procurement in Managing Infrastructure Project Risks

Public Sector Project Risks

The delivery of large, complex public infrastructure projects includes significant risks for owners, designers, and builders.

Altus Group is a multi-discipline advisory firm and the leading authority on infrastructure project cost and schedule planning, control and management. Infrastructure project risk assessment is a fundamental part of what we do for clients across Canada and internationally.

We have over 50 years of experience estimating costs during project planning and tracking costs through construction projects in Ontario and throughout Canada on all manner of project delivery methods. These methods range from Design-Bid-Build, where the owner manages and retains the vast majority of risks, to Design-Build-Finance-Maintain contracts, where the vast majority of risks are transferred to the private sector.

While there is limited available data that reliably tracks the occurrence and impact of such risks, they can be reasonably estimated using professional experience and judgment. In order to fully and properly evaluate both the viability and outcome of a project, the associated potential risks must be identified and considered. Failing to consider the impact of risk on a project would lead to an incomplete assessment.

Altus Group has been engaged by Infrastructure Ontario to provide them and their Board of Directors with our professional advice on the magnitude and likelihood of risks associated with traditional delivery of large complex public projects compared to more modern delivery techniques, such as Alternative Financing and Procurement (AFP), which includes an element of private project financing.

AFP Reduces and Transfers Risks

The application of sound project management principles is a critical component to successful project delivery through either traditional or other modern approaches, such as AFP. However, these principles need to be combined with an appropriate approach and contractual structure that clearly and effectively allocates the project risks to the party best capable of managing them. In our view, this is the fundamental benefit of the AFP model.

When compared to traditional delivery methods, the application of AFP principles and approaches often results in an overall reduction in project risks, and their resulting impact on the public sector. There are several reasons for this:

First, the AFP approach tends to encourage better upfront project planning. This is a helpful byproduct of engaging private finance which introduces additional oversight and a rigorous, objective project assessment.

Second, by grouping design, construction and operating risks under a single entity, the AFP approach reduces overall risks through an integrated, efficient approach to achieving the optimal project solution over the lifetime of the asset.

Third, the AFP approach transfers the major design, construction and facility lifecycle risks away from the Government to the private sector, in cases where the private sector is better positioned to manage project-specific risks.

Risks transferred through AFP would include (but are not limited to): cost escalation, construction defects, and unexpected maintenance/lifecycle requirements, which can be significant in the context of a large, complex public project.

Under traditional delivery these risks often result in significant delays and cost overruns at additional expense to the public sector. A sampling of recent traditional delivery projects, based on publicly available information include:

- Sony Centre for Performing Arts – cost increase;
- Sudbury Regional Hospital – cost increase and schedule overrun;
- St. Clair LRT – cost increase;
- Spadina Subway Extension – behind schedule.

Infrastructure Ontario's Alternative Financing and Procurement Track Record

IO has effectively employed AFP to deliver the Province's largest and most complex projects over the last 10 years, bringing to market a total of 76 AFP projects with a capital value of approximately \$39 billion. As of March 31, 2014, 37 of these projects have reached Substantial Completion, with an approximate capital value of \$10 billion.

Our review of these 37 projects having reached Substantial Completion, have found that 97% have been successfully delivered within the IO managed budgets, and 72% have achieved Substantial Completion within one month of the scheduled Substantial Completion date.

In our view this success is the result of the effective application of the AFP modern project delivery techniques, combined with sound project management practices applied by IO.