Methods to Ensure Transparency, Accountability, and Performance on Large-Scale Infrastructure Projects: Project Owner Advisors

The first part of this white paper considers how project owners – the entity that retains ownership of an infrastructure project – use independent advisors to ensure transparency and delivery assurance for large-scale projects. The second part of the paper recommends independent project controls for public-private partnerships. The paper concludes with best practices for owners interested in hiring an advisor.

Large-scale, technically complex infrastructure projects often increase project owners' responsibilities for oversight. For government entities, managing schedule and cost are particularly important because of the need to be accountable and transparent to its constituents. Project owners must institute best practices to address potential risks preemptively and use independent parties to verify issues and set a baseline for negotiation. The project owner can then minimize the impact that disputes may have on a project's budget while maintaining healthy relationships between all parties. To facilitate this process, North American owners historically have relied on some form of an independent advisor. Here, we define the differences between fairness monitors, independent engineers, project controls, and owner's representatives.

Fairness Monitors

A fairness monitor is an independent third party whose role is to observe part or all of a procurement process and provide related feedback on fairness issues to proposers, public officials, the project owner, and, if necessary, the media. Fairness monitors are only engaged during the procurement phase, with the sole objective of providing an unbiased and impartial opinion on the fairness of the observed procurement process.

A fair and open procurement process attracts more competitors, generating more competitive price proposals or best value proposals in return. Public procurements needing elected officials' sign-off on contract awards face significant risks if registered protests challenge the validity of the open and public process. While public procurement is bound by regulation, it may be difficult for an owner to assure its constituents that the contract was awarded fairly, even if proposers have clear protest and resolution processes in place. A fairness monitor avoids or mitigates potential protests about the transparency and accountability of the procurement process.

Owners hire fairness monitors to verify the transparency and accountability of the procurement process, but this role has only been used to date in the Canadian infrastructure market. Despite the owner's role in engaging the fairness monitor, the fairness monitor serves the transaction, not just the owner. While a fairness monitor does not alleviate or obviate the owner's responsibilities, it provides an additional layer of independent monitoring that can protect the owner from protests that may hinder contract award. The fairness monitor's presence can encourage market competition by eliminating the fear that a procurement was meant for a particular supplier or contractor.

The contract for a fairness monitor will often dictate what the monitor should oversee – such as the evaluation process or shortlist procedure. The challenge for owners is to establish a contract and environment where the fairness monitor can perform an unbiased audit and report out on its findings without owner interference.

Independent Engineer

On some Canadian and U.S. projects, an Independent Engineer ("IE") is responsible for verifying the timely completion of scope and quality of the built product. Generally, the IE is hired jointly by the owner and the contractor to ensure that work is completed on time, but there are instances where the cost is borne solely by the owner or the contractor.. The IE is focused on both the timely completion of the scope of work and the quality of work per the owner's drawings and specifications without regard to cost of the work.

An IE typically looks at the quality of the work performed by a contractor and then verifies compliance with the drawings and specifications to the owner. The owner's acceptance of the work depends on the IE's findings. An IE evaluates completed work at the tail end of the construction project but before occupancy and commissioning dates. The results of the IE's work may be used to managedisputes, claims, change orders filed by the contractor, and to compel the owner to pay the contractor for its performance.

During the project contract negotiations, owners and contractors should ensure that the IE's contract includes a well-defined scope of work. The owner should consider: the timing of IE review, the specificity of the IE's written findings, the permitted use of IE findings, and the authority of the IE, if any, to act as an arbiter in the dispute process. Advisors with an overly broad mandate give an opportunity for advisors to frequently engage, resulting in an outsized degree of power – often at the expense of the contractor. Some owners give an IE a very broad mandate thinking that this alleviates oversight responsibilities for the owner. But, excessive interference by an advisor usually results in protracted disputes. The challenge for the owner and contractor is to clearly define the IE's scope. The goal is to avoid having the scope, timing, or use of IE's services result in a dispute between the owner and the contractor.

Dispute Resolution Board

Another way owners can control and manage a contractor's progress on work is to proactively avoid or manage disputes between the owner and the contractor via use of a Dispute Review Board ("DRB"). The DRB process and the DRB members are either stipulated in the

Owner/Contractor agreement, or the contract can provide for the parties to mutually agree to establish a process and/or select the DRB members. A DRB is "a board of impartial professionals formed at the beginning of the project to follow construction progress, encourage dispute avoidance, and assist in the resolution of disputes for the duration of the project."[1] A DRB is paid jointly by the contractor and the owner to ensure that the DRB serves the project only. The cost for a DRB is estimated to be less than 0.5% of the contract value.[2]

The variety of structural models for DRBs are differentiated by "their primary role within a project (dispute avoidance or resolution, or both), the number of DRB members (one or three), the duration of the DRB (standing or ad hoc), and the nature of the rules or procedures under which the DRB operates."[3] Owners generally select the characteristics of the DRB structure based on the project'sor owner's individual needs. A helpful resource that covers the decision process for a DRB structure is documented in The Dispute Resolution Board Foundation's DRB guidebook.[4]

DRBs do not perform a forensic analysis to find fault, nor does the entity oversee performance. Instead, by meeting with the project stakeholders regularly, the DRB provides an independent voice to help an owner and contractor work through potential and realized disputes as they arise. This contemporaneous dispute resolution process avoids the negative impacts to project delivery and budget that often occur with managing disputes on the back-end of the project. The DRB is comprisedof industry experts, and the project contract should explain the DRB structure, its administrativefunctions, and the process by which disputes will be resolved. Like the IE, the members of a DRBwork on behalf of the project, not the owner or contractor.

Project Controls

Some projects are sufficiently complex in scale and/or scope to warrant independent project controls. An independent program controls partner monitors schedule, cost, and risk. This form of advisor facilitates the owner's understanding of where the contractor currently sits in the design and construction process. Project controls firms can be engaged at a variety of points by an owner. A project controls firm may be engaged pre-contract award to establish a baseline or conceptual schedule by which to validate proposers' approaches. An owner may also hire a project controls firm during design to ensure that plans are feasible and meet the owner's schedule. More often than not, however, an owner will engage a project controls firm during construction to ensure that schedule and cost control expectations are met.

Project controls advisors can produce data that offer an unbiased understanding of the project's status. This data can be used to find ways to accelerate the schedule, or contain or save costs, or identify risks that need a proactive remedy. The data derived from project controls firms can be

[1] "What is a DB", The Dispute Resolution Board Foundation: https://www.drb.org/what-is-a-db
[2] Hunt, Robert. "Dispute Resolution Boards": http://www.roberthuntbarrister.com/Dispute.pdf
[3] Ibid.
[4] https://www.drb.org/dispute-board-manual

used to penalize or incentivize the contractor, depending on how the construction contract is structured. Project controls data can also be used to help the owner influence the contractor to correct course, well before contractor termination or default becomes a point of discussion. The project controls firm is not empowered to take corrective action; instead, project controls give owners the data necessary to make decisions on the contractor's performance and evaluate alternative paths forward.

Project controls firms may be engaged by either the owner or the contractor, with each having a specific objective in mind, or they may both retain project control consultants. An owner with a large-scale project or program either outsources project controls to an independent firm or establishes an internal organization to control schedule, cost, and risk. The owner uses project controls to determine whether the contractor is meeting contract expectations. On the other hand, a contractor hires a project controls firm to ensure delivery (or to compensate for a lack of internal capability) by keeping the contractor on track. In both situations, the project controls firm works for the owner or the contractor in the project, not the project itself. When the owner contracts with a project controlsfirm, the owner defines the project's key performance indicators and other schedule, cost, and risk metrics, that the project controls firm would use to evaluate delivery and performance. Theowner then shares those metrics during the procurement phase and while negotiating a contractwith the contractor so that the contractor fully understands how their performance will be measured.

Owner's Representative

Like project controls firms, an owner's representative is engaged on large-scale infrastructure projects where an owner does not have enough in-house capacity to ensure that its interests are represented in all phases of the project. Owner's representatives often act as anextension or augmentation of staff, functioning across the entire delivery process from the planning phase to commissioning. An owner's representative typically represents a higher cost for professional services, compared to other methods, because the term of the engagement is longer and the representative augments the owner's staff. This effectively transfers the costs ofdelivery from the owner's operating budget to a capitalized expenditure. Roughly speaking, owner's representative services are one percent of the total construction value.

Owner's representatives have specialized knowledge and experience, enabling them to effectively coordinate the actions of architects, designers, engineers, lenders, general contractors, subcontractors, end-users, and government authorities to meet the needs of the project owner. The scope of work for an owner's representative can include tasks such as feasibility studies, procurement support, due diligence, construction document reviews, estimating, construction management, scheduling, overseeing cost management, quality control, commissioning, and closing out projects. Owner's representatives may also play a role in securing permitting and entitlements, assuming a role more akin to a project manager role, depending on the project's and/or owner's needs.

The involvement of owner's representatives is not limited to passive performance monitoring. Rather,owner's representatives set up the Project (or Program, in the case of a capital program engagement) Management Office. The PMO manages schedule impacts, institutes cost controls, and mitigates other risks throughout the project delivery process. In the procurement process, for instance, the owner's representative would act similarly to a fairness monitor in that the owner's representative helps the owner structure the procurement to ensure that it is compliant with all regulations. Unlike the fairness monitor, however, the owner's representative has a fiduciary responsibility to the owner instead of to the project. During design and construction, the owner's representative helps the owner manage the project according to the project controls principles established during the concept phase and then monitors the performance of the contractor.

Project Controls for Public-Private Partnerships

The type of advisor needed for a complex, public construction project changes when the contracting method – and subsequently the level of oversight - changes. There are many forms of contracting methods, but here we focus on a public-private partnership (P3) in which private financing is used for a complex, large-scale public works project. The inclusion of private financing substantially changes how government owners may engage an independent advisor to ensure transparency, monitor performance, and manage potential disputes.

P3s with a financing component means that the private party (usually a consortium of investors, design-build joint venture, and operator) uses private financing vehicles to pay for the design and construction of the infrastructure asset. The private party gets reimbursed by the owner based on performance (a monthly fee, also known as an availability payment) or directly via user fees (such as tolls or transit fares) over the term of the contract. A P3s use of private financing adds another stakeholder to a construction project: lenders.

Lenders are keen to make sure that the contractor performs its duties so that lenders get repaid on time. If the private party does not meet construction deadlines or operating standards, the owner will either give a lower monthly or milestone paymentor user fees will drop. If thecontractor is not paid due to poor performance, the private party cannot repay its lenders. A P3with private financing adds a third-party invested in contractor performance, with the ability to levy liquidated damages or other penalties when the contractor does not perform. Contractors, as a result, are very motivated to perform to meet owners'/users' requirements.

There is a misconception, however, that a P3 with private financing means that owner does not perform oversight and performance management because lenders can financially penalize a contractor for non-performance. In practice, owners need to ensure that the transaction is transparent to stakeholders by performing oversight of the contractor. Owners need to carefully assess their internal capacity to monitor and oversee the P3 and identify the appropriate advisor and structure needed to assure timely and cost-effective delivery.

After discussing the various forms of independent advisors for large-scale projects, there is an opportunity for an independent project controls entity to play a role in a P3. Lenders, the owner, and the private party all require an accurate and agreed upon view of the project's status. A project controls firm, whose services are a capital cost of the project rather than a burden of any particular stakeholder, can provide the external, objective assurance that the contractor is performing its duties according to the contract requriements.

The P3 project agreement could incorporate the cost of the project controls entity within the total project capital cost, which is accepted as a capital cost by rating agencies and lenders. This entity would then produce the project controls data on schedule, cost, risk, and performance that both the owner and lenders need to assess performance. The independent nature of the project controls entity, like a fairness monitor, means that constituents are assured the project is being delivered as promised. The project controls firm also helps an owner with limited in- house capacity to monitor the contractor's performance over time. Finally, the entity produces the data needed for a dispute resolution board to be effective. A project controls firm is perfectlysituated to serve as an advocate for the project rather than the interests of a specific stakeholder.

Considerations for Owners

1. **Is an independent advisor worth the cost?**

   An owner needs to consider if it has the internal capacity to manage the oversight responsibilities. In the instance of large-scale or multiple projects, the cost of an independent external advisor may be justified, as it may be too costly (or onerous) to perform the task from within the organization. The owner should also consider what cost may be incurred – politically, monetarily, or otherwise – if internal oversight is challenged or not done well. In this case, an external advisor may provide the additional layer of assurance an owner needs to provide its stakeholders.

   The owner needs to determine at what point in the project delivery lifecycle is help needed, where will resistance likely be encountered, and at what point in the project's lifecycle will disputes or protests threaten to cancel the project or dramatically increase the planned budget, scope of work, or schedule.

2. **Does the complexity of the program mean that there will be multiple contractors working in parallel?**

   The complexity of a program often dictates how many interfaces with different contracts an owner must manage over a long period of time, and especially so if design and construction occur concurrently. While work is underway across different contracts and contractors, an owner is often the only common thread. An owner needs to consider what it is contractually obligated to provide contractors, such as site access or data, schedule review and feedback, coordination among separate work packages, and any obligations to its various contractors. An independent projectcontrols firm or owner's representative can manage the interface and coordination lift and can be designed to augment existing capabilities.

3. **Does the advisor have a clear mandate?**

   Owners sometimes turn to a project advisor as a reaction to a previous project failure. An owner sees cost overruns, delayed schedule, or misallocated risk and then perceives the failure as a function of underperformance in managing oversight expectations during the implementation phase. That may be true, however, owners should be cautious in giving any advisor too much oversight authority, because an advisor with too much authority can improperly insert itself – often times at the expense of both the owner andthe contractor – at a myriad of points throughout project delivery.

   Establishing clear contractual boundaries defining the timing of the advisor's review use of its findings, and authority to arbitrate in a dispute proceeding serves to reduce the unintended carryforward-impact of prior failures.

4. **Does an advisor replace my due diligence duties? If so, to what degree?**

   An owner is not absolved of all project responsibility irrespective of whether it retains an independent advisor. An owner must realistically assess its own abilities and priorities and then incorporate those assessments into the contract for construction and the contract with an independent advisor so as to help the owner manage its performance monitoring and oversight responsibilities.

5. **Will hiring the right advisor avoid change orders?**

   Change orders exist on even the best projects. As possible disputes arise, the owner's advisor should intervene early to bring parties together to address issues at the business table instead of a legal arena. If all parties are working with collectively agreed upon accurate data and metrics for performance, it is easier to compel all parties to agree to a resolution. Owners should consider building a "single source of truth" for project controls data and should structure the scope of the advisor's work such that data, metrics, and dashboarding provide the information needed to efficiently address change orders. In the instance of a P3, a project controls advisor that directly serves the project (meaning the cost for the advisor is baked into the overall project costs and therefore paid by the project itself not the owner directly or contactor) is better incentivized to assemble data that provides the most accurate view of the project's status. Additionally, project controls data on schedule and cost performance is more accepted by both contractor and the owner when the advisor has a relationship to the project rather than a client.

Aegis Owner's Representative Services

Aegis Owner's Representative Services lifts the burden of construction planning and project oversight from project owners, offering a level of delivery assurance and accountability to meet project and stakeholder expectations.

Tina Millán, PMP, AICP
Director
tmillan@consultaegis.com
786.831.3026

Cait Ghoshal
Assistant Director
cghoshal@consultaegis.com
603.801.9557