

P3 CONCESSION AGREEMENTS - RISKS AND REWARDS

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I. The Importance of Coordinating the Key Contracts Required for a P3 Project

A P3 project involves a number of important contracts which must interface and coordinate with one another if a P3 project is to proceed smoothly from inception to completion. A graphic example of these contracts and how the parties involved contractually relate to one another can be found at the end of this paper. In a typical P3 project, a number of related agreements will be required as follows:

1. Concession Agreement - Under the Concession Agreement, the public sector client grants a concession to a private sector Project Company for a predetermined period, which is known as the concession period. The Concession Agreement usually will also refer to the legal system applicable to the project, including the environmental obligations of the Project Company. The terms of the concession will require to satisfy the requirements of all of the project participants, including the project Lenders.
2. Offtake Purchase Agreement - The Offtake Purchase Agreement secures the project payment cash flow. It obliges the Offtake Purchaser to procure a certain amount of project output or pay for an amount of project service, whether or not it is used, over a given time. The Offtake Purchase Agreement may provide sanctions if the Project Company fails to deliver output as promised, particularly if the construction of the project is not finished within the time for completion or does not perform as required when completed. The Offtake Purchaser will typically look for a guaranteed long-term output from the project. An Offtake Purchase Agreement is unnecessary for some projects, such as hospitals, tunnels, roadways and bridges, where no physical offtake is produced. It is often the Client of the concession who will pay the Project Company for use of the project. In such instances, the Offtake Purchase Agreement may be one and the same with the Concession Agreement.

3. Input Supply Agreement - The Input Supply Agreement obliges an Input Supplier to deliver to the Project Company a specified quantity of input necessary to the operation of the project, at a certain level of quality. This agreement allocates market risk involved in the price and availability of the input. The Input Supply Agreement will only be required where some supply of input is necessary for operation of the facility. In certain projects, required service will be effectively an offtake, rather than an input. An example would be waste water treatment projects where the Project Company would subcontract for the removal and disposal of sludge, or in hospital projects for the removal of medical waste. The latter type of agreement would require many of the same conditions and would raise similar issues as would otherwise be found in Input Supply Agreements.
4. Construction Contract - The construction aspect of a P3 project is generally governed by a turnkey Construction Contract, sometimes also known as an EPC (engineering procurement and construction) contract. Typically, Lenders, who are seeking certainty, require a Construction Contract that establishes a fixed lump-sum price and a set time for completion, and places the majority (and in some cases substantially all) of the construction risk on the Construction Contractor.
5. Financing Agreement - The Financing Agreement contains the terms and conditions pursuant to which the Lenders agree to lend funds to the Project Company. The Lenders for the project may include commercial banks, export credit agencies, bondholders and multilateral and bilateral lending institutions such as the IFC. This relationship is important in a P3 context as the Lenders will generally be responsible for financing a substantial portion of the project. As a result, Lenders will often have a substantial influence on the drafting of the other agreements involved in the P3 project in order to ensure that the project is financially viable.
6. Operation And Maintenance Agreement - The Project Company will wish to ensure proper operation of the work during the concession period, and will therefore enter into an Operation And Maintenance Agreement with an Operator of the facility. The Operator's obligations should cover those set out in the Concession Agreement, the

Offtake Purchase Agreement, and those required to ensure continued and efficient operation of the project.

7. Shareholders' Agreement - The Shareholders' Agreement governs the relationship among the Shareholders within the Project Company. The Shareholders' Agreement will cover topics such as the business of the Project Company, conditions precedent to its creation, the issue of new shares, the transfer of shares, the allocation of project costs and the management of the Project Company, including decision-making and voting. Such an agreement will often also include a non-competition clause, providing that the Shareholders may not enter into activities directly or indirectly in competition with the Project Company.

The obligations of the Project Company and the tasks it must perform under the Concession Agreement will be allocated to a series of other third party participants. The Project Company will want the project participants to undertake the Project Company's obligations set out in the Concession Agreement and the Offtake Purchase Agreement, as well as local law and any other obligations the Project Company is not equipped to bear. The Lenders will always seek maximum divestment of the Project Company's obligations to the other project participants.

Project risk sharing and task sharing between the Project Company and the third party project participants referred to above will result in areas of interface, where the project participants must act in a coordinated manner. It is for this reason that the key P3 contracts referred to above must be coordinated so as to maximize the smooth interface between the obligations of the Project Company with the other project participants. In order to ensure that the contracts are prepared to maximize the appropriate interfacing of relationships and obligations, each of the non-Concession Agreement contracts should be reviewed in the context of the Project Company's obligations to the Client, and as to how best to delegate responsibilities and risk from the Project Company to the other project participants. A project may involve risk interfaces, and a sharing of risk between project participants which may involve an interface in the management of the risk. Each interface between the different project participants carrying out their project obligations involves a risk, either that the interface will not occur smoothly or that the work

packages will not interface properly. In order to reduce the possibility that these events will occur, it is essential that the Project Company understands all of the risks inherent in the Concession Agreement and in the Offtake Purchase Agreement so that it can delegate those same responsibilities to others such as the Construction Contractor under the Construction Contract or the Operator under the Operation And Maintenance Agreement.

Some examples of interfaces/coordination necessary between the P3 contracts typically include the following:

1. Technology Interfaces - Technology interfaces may include anything from materials employed to electrical requirements for construction or construction methods. Interfaces between technologies in P3 projects are normally allocated to the Construction Contractor, assuming a full turnkey Construction Contract. There may be a necessity to coordinate with the Offtake Purchase Agreement where, for example, the Construction Contractor must build infrastructure to connect with the Offtake Purchaser's facilities.
2. Methodology Interfaces - Commercial diversity may result in the Project Company engaging a Construction Contractor, Operator and Input Supplier, each with potentially diverse approaches to carrying out the project.
3. Public Sector Client Interfaces - The interfaces between the Client and the Project Company will usually be defined in the Concession Agreement. Obviously, the Project Company will wish to place most of the risk of these interfaces on the project participants.
4. Interfaces between Construction Contractor and Operator - During the period between completion of different sections of the project, the interfaces between the Construction Contractor and the Operator will be compounded, since on one section of the work, the Construction Contractor will be carrying out commissioning and testing while another section will have been completed and will be in the hands of the Operator, resulting in two project participants with responsibilities for the site at the same time. Tasks will

require to be undertaken for the whole of the work, and shared between the Construction Contractor and the Operator. These overlaps in responsibility will have to be dealt with and foreseen with appropriate provisions in their contracts with the Project Company.

Similarly, at the end of the construction phase, the Construction Contractor may be required to provide training for the Operator. These are relatively straightforward issues, but should be provided for early on in the contract documentation in order to avoid disputes at later stages.

In addition, performance testing may also need to be carried out. The Operator will need to review the Construction Contractor's activities to ensure that the operation of the work is not impeded. The Operator and the Construction Contractor are likely to be involved in extensive interfaces during takeover of the project and during the defects liability period. These periods represent the transfer of responsibility for the site and the work from the Construction Contractor to the Operator. This period will therefore involve shared tasks, responsibilities and management between the Construction Contractor and the Operator, all of which will require to be properly dealt with in their respective contracts with the Project Company.

5. Interfaces between the Operator and the Offtake Purchaser - The Operator will liaise with the Offtake Purchaser throughout the operation of the project to identify the amount of output needed by the Offtake Purchaser, any additional services required by the Offtake Purchaser and any other element of operation that the Offtake Purchaser wishes to control. Obviously, this should also be provided for in their respective contracts.

6. Interfaces between the Operator and the Input Supplier - The Input Supplier will also liaise with the Operator throughout the concession period, although not as extensively as will the Offtake Purchaser. The interfaces between the Operator and the Input Supplier will relate primarily to the delivery of input, how much is needed, when delivery should be made and whether the service provided by the Input Supplier is consistent with the Input Supply Agreement. Again, all of these requirements should be foreseen and

coordinated within the contracts between the Input Supplier, the Operator and the Project Company.

7. Shareholders' Interfaces - The Shareholders of the Project Company may have multiple roles in the project, including sponsor, investor, lender, manager and project participant. Interfaces between Shareholders will generally be managed through a Shareholders' Agreement. Within the Shareholders' Agreement, it is possible to establish an efficient management model which will allow the Project Company to make timely and decisive decisions during the course of the project.

II. What To Do Before Issuing Calls for P3 Request For Expressions Of Interest, Request For Qualifications and Request For Proposals

The RFEI, RFQ and RFP documentation are also essential to P3 project organization. A P3 project is very preparation intensive, requiring careful analysis and negotiation before the project contracts are awarded and performed. The most time-consuming elements include negotiating documentation and structuring the project financing.

At the initial stages of the project, appropriate specialists' advice should be obtained from legal, insurance and financial advisors, as well as from technical and operational experts and parties experienced in project operation.

Typically, feasibility reviews will be undertaken in the early bid process for the project to assess project feasibility, availability of financing and profitability. They should be performed roughly in parallel, although each project will have different requirements.

Once the need for a P3 type of project structure is identified, typically the Client will sit down with his engineering department and legal advisors and devise a Request For Expressions Of Interest, whereby interested parties to act as the Project Company/Concessionaire will be invited to indicate their interest in becoming involved on the project. The criteria for interested parties will be spelled out in the RFEI. The RFEI may also stipulate that the Expressions Of Interest received will be broken down and graded according to listed criteria, such that a number of

potential Concessionaires will be short-listed, from which list a Request For Qualifications will be issued.

Sometimes the short-listing of the potential project Concessionaires will take place after both the RFEI and the RFQ have been completed. At that point, a Request For Proposals can be issued to the pre-qualified Proponents.

The RFP will typically contain a tendering procedure, giving the various criteria for success for potential Proponents, and typically stipulating a weighting factor for various criteria of expertise and technical ability which the Proponents will be required to demonstrate, indicating previous experience and projects of similar nature, technical expertise, references from other clients, etc. The RFP typically contains a list of all of the tendering procedures and decision-making standards which the Client will employ in making its final selection as to the successful Proponent. In most cases, the Client will not provide for any payment to the Proponents for preparing their Proposals. As a result, the Proponents must take the cost of failed previous P3 Proposal efforts into account in formulating their proposed costs to act as Project Concessionaire.

Typically, the RFP will also indicate that the Proponent will be rated, with the Client choosing to begin negotiations with that Proponent closest to the required criteria, failing which the Client may deal with the next most favourable Proponent, and proceeding until a Concession Agreement is finally negotiated and agreed to with the successful Proponent who will become the Project Company.

Before issuing calls for the RFEI, RFQ and the RFP, it is essential that the Client meet with all of its technical, financial, legal, insurance and other advisors to ascertain the nature of the project, the risks inherent in its formulation, design and construction, its financial viability, as well as the basis for choosing amongst the array of potential Proponents who would be best qualified to produce the project as meeting the needs of the Client.

III. Making the Concession Agreement a Part of the RFP

Since the Concession Agreement between the Client and the Project Company will form the basis of the Project Company's panoply of obligations to the Client, it is essential that the most important components of the Concession Agreement be fleshed-out early so that the Client can be made to verbalize its functional, financial, budgetary, scheduling and performance-related requirements, including risk allocation factors, that will be required of the successful Proponent. In performing this function, the Client should then consider making the Concession Agreement a part of the RFP issued to the pre-qualified short-list of Proponents. In this way, the Proponents will be informed at the outset that the Concession Agreement attached to the RFP will form the general basis of the final Concession Agreement to be agreed to with the Client when the successful Proponent is named. This procedure will cause Proponents who do not intend to execute a Concession Agreement giving the Client its required needs on the project to fall by the wayside. Those Proponents proceeding and submitting Proposals in response to the RFP will then be obliged to proceed with negotiation of the basic Concession Agreement as enclosed in the RFP documentation, as their bids will be required to indicate their agreement to be bound by the basic form of Concession Agreement attached to the RFP package.

IV. Key Terms and Conditions of the Concession Agreement

The Concession Agreement between the Client and the Project Company sets out the general project obligations which will require to be passed through to the various other project participants. In a typical Concession Agreement, the Client grants a concession to a Project Company over what would otherwise be a public sector project, for a given period, during which the Project Company must build and operate the facility. The Concession Agreement allows the Client to allocate project risk to the Project Company. The Client will identify those risks which it is prepared to bear. It will allocate the remaining risks to the Project Company. The Client may also wish to define, to some extent, the sharing of risk among the project participants through the Concession Agreement. In certain cases, the Client may attach to the Concession Agreement drafts of other project contracts, such as the Construction Contract, Operation And

Maintenance Contract, Offtake Purchase Contract and Input Supply Contract. In this way, the Client may ensure that the terms that it wants to include are properly set out and form part of the concession itself. Typically, the Project Company Shareholders will attempt to resist this attempt on the part of the Client to set the contractual goalposts, as it interferes with their commercial relationships with the other project participants.

P3 projects will rarely involve all of the agreements referred to above. Typically, during the term of a concession, the primary interests of the Client will generally be as follows:

1. Completion Date - The Client's need for the infrastructure represented by the project in question is generally immediate, often as much for political as practical reasons. Further, the Client may be procuring other infrastructure or other investments closely related to the completion of the project, such as the building of roads or public housing in proximity to the work. Therefore, the success and revenue generation of several projects may be at risk where completion is not achieved by the identified completion date.
2. Performance of the Project - Since the Client needs to receive sufficient output from the project for the duration of the concession to meet its needs as well as to ensure a project which performs in accordance with its requirements at the end of the concession period, the Client will want to establish performance standards and requirements. The Client's requirements will cover issues such as output, consumption, efficiency of operation, maintenance, needs and cost, life cycle, quality of the output generated and cost of operation.
3. Maintenance Regime - The concession period is often when the project will have depreciated both in value and in operating capacity by the time the transfer back to the Client has arrived, where such a transfer has been built into the Concession Agreement. In order to mitigate the detrimental effect of operation on the project during the concession period, the Client will want to ensure that the maintenance regime implemented by the Project Company during the concession is sufficient, given the nature of the work involved.

Some of the key terms and conditions of the Concession Agreement include the following:

1. Guarantees - The Client may require guarantees from the Project Company or from the Shareholders/Sponsors associated with the Project Company, primarily where the Client has transferred to the Project Company existing infrastructure or other assets.
2. Non-Competition - The Client may supply the Project Company with some form of monopoly over the service to be provided. The Project Company may obtain from the Client an undertaking to ensure that no other licence to perform the concession service or some related service will be given to a third party within a specific area or otherwise in competition with the Project Company during the concession period.
3. Taxation - The Concession Agreement may specify a maximum amount of taxes, fees, levies, duties, royalties or other charges which may be imposed on the Project Company. This maximum may be calculated per unit of production, as a total or annual amount or based on the total revenues after costs, debt servicing or other such operation costs.
4. Compensation Events - Where an event, such as a risk assumed by the Client under the Concession Agreement, results in some financial burden on the Project Company, the Client may be required to compensate the Project Company for any cost, damages or loss incurred. This can be done either by a cash payment directly to the Project Company or by the Client extending the concession period or increasing the level of tolls or tariffs allowed under the Concession Agreement. Such a provision is known as a “financial balance clause.”
5. Compensation on Termination - The Client will generally provide the Project Company with a payment in the event of termination of the Concession Agreement for the Client’s default or due to extended force majeure conditions. This payment is intended to compensate the Project Company for the project assets, which on termination will generally revert to the Client upon payment of this amount, and for loss of project income. The amount of the payment will generally equal the total amount due to the

Lenders, plus equity invested, plus the net present value of the forecast return on equity, generally calculated by reference to the financial model for the project.

It is also possible that the Client may be willing to compensate the Project Company where the Concession Agreement is terminated because of the Project Company's default. In such instances, the payment is normally limited to the outstanding amounts due to the Lenders, subject to certain reductions such as excluding any penalties charged to the Project Company.

6. Design, Construction and Technical Requirements - The project will often be part of a larger development scheme or may need to be able to interface with existing infrastructure. As a result, the Client will want to define design and construction obligations in the Concession Agreement. Technical specifications will set out in some detail the technical requirements of the Client for the project. The Client will need to ensure that the project meets quality and life cycle requirements. One way of doing so is to specify the key materials and equipment to be used in the work, or to set out the basic design for the project. However, the Client will not wish to relieve the Project Company of any of its design responsibilities, and will therefore want to avoid taking over any of the design responsibility. In addition, the Client will want the Project Company to undertake the risk for any errors, defects or shortcomings in Client-provided designs.

7. Modification of Technical Requirements - The Client will typically not wish to see its technical requirements for the project modified by the Construction Contractor or the Project Company, without its consent. Some provision for their modification without the Client's consent may be made where the changes are necessary for the safety and integrity of the project, an improvement of the project where there is no need for additional compensation of the Project Company or owing to changes in the Offtake Purchase Agreement. The latter will depend on the relationship between the Offtake Purchaser and the Client.

In addition, the Client will want the right to change the technical requirements of the project. This may prove to be a substantial difficulty for the Project Company as assessing the impact of any change on the project can be extremely difficult, if it is even possible. The Project Company will then require to protect its own interests in the Concession Agreement by requiring that any such changes should not materially decrease performance of the project, increase the cost of the project (either in construction or operation/maintenance) or cause the construction or operation of the project to breach any environmental requirements.

The Project Company will want compensation from the Client for any Client-instigated changes that affect the project, such as delay in completion, increased costs or decreased performance. It should be noted, however, that the actual or long-term effect of any such change is very difficult to quantify accurately at the time the change is made. This is particularly true of the increased cost of maintenance of the work and wear and tear.

8. Time for Completion and the Project Program - Given the importance of time in any large infrastructure project, the Construction Contractor will be required to complete the work in accordance with the project schedule. The schedule will take into consideration the needs of the Client for a completed project within a given period. The Client may also impose on the Project Company penalties in the form of liquidated damages where the construction is not completed by the agreed date. The completion date will only be extended for specific reasons set out in the Concession Agreement. These will generally involve breaches by the Client or events falling within the Client's risks.

9. Method of Operation - The Client will want to ensure that the Project Company runs the project in a manner consistent with proper maintenance of the equipment, applicable environmental standards, the requirements of the Offtake Purchaser and the Input Supplier, if any, the regulations of government authorities, legal requirements and any other constraints necessary to ensure the proper and continued operation of the project. Unless the Client is also the regulatory authority, it may be difficult to control the actions

of the Project Company directly, and the Client must therefore establish the standards by which the project must be operated in the Concession Agreement.

10. Maintenance Manuals, Records and As-Built Drawings - The Project Company will maintain certain records, manuals and as-built drawings, many originally prepared by the Construction Contractor and required by the turnkey Construction Contract. The maintaining and updating of such documentation is of particular importance for the Client if the project is to be transferred at the end of the concession period. The Client will want to have access to specific records and documents to educate its personnel about the operation and maintenance of the work and to ensure that the work is being maintained by the Project Company to standards sufficient for the Client's needs.
11. Update of Project Technology - In order to ensure the transfer of know-how and technology to the Client, the Concession Agreement may require the Project Company to acquire any technical innovations which become available during the concession period or which are developed by the Operator, either during the operation of the project or otherwise, and then transfer such technology to the Client at the end of the concession period. Where the technology originates from a third party, this obligation may be limited by the Project Company's ability to obtain the technology at commercially reasonable rates.
12. Training - A P3 project can provide the Client with an important transfer of technology and know-how. Therefore, the Client may want to mandate the maximum possible interaction between the Project Company and local partners or the Client's personnel in order to ensure the proper transfer of such know-how.

During the period preceding transfer to the Client, a training regime will often be implemented where the Project Company will train the Client's personnel in the operation and maintenance of the project. This may involve the Operator employing certain of the Client's personnel for a time or the Client hiring certain of the Operator's personnel to work on the project after the transfer has taken place.

13. Approval, Appointment and Replacement - The Client will want to ensure that the project participants are experienced and reputable parties to large infrastructure projects. The Client may prefer to provide appointment criteria, such as international repute and experience adequate for participation, or it may want an approval power over the identity of the project participants and their replacements. The Project Company, on the other hand, will not want to give up control over the management of its operations, nor will the Lenders want to lose control over the identity of the project participants.
14. Granting the Concession - The procedure for the actual grant of the concession to the Project Company is often included in the Concession Agreement. The concession may be linked to enabling or issuing legislation. Therefore, the law should be reviewed to ensure the power of the Client to grant the concession. Further, legislative or constitutional acts may be necessary in order to validate the concession in certain cases.
15. Concession Fees - The Project Company may be required to pay concession fees for the privilege of obtaining a concession. Such fees will generally be payable to the Client before the commencement and possibly periodically during the concession period. The amount of the fees will provide the Client with some early cash flow for its obligations in the early period of the project, and will also provide the Project Company with the added incentive to continue and complete the project.
16. Independent Expert - An independent expert may be appointed by the Client and/or the Lenders to ascertain whether the project is being performed in accordance with the project requirements. The independent expert will need to be given a right of access to the site and the operation of the project. This may involve occasional visits to the site, or a discretionary right of access to any and all parts of the site at any time. The expert may also be allowed to perform tests, inspect the project or review the documentation and records kept for the project. The access of the experts should be limited to that necessary to carry out its role, given that the expert may be an impediment to the construction or operation of the project.

17. Restrictions on Transfer of Shares in the Project Company - Because of the importance of the identity of the Shareholders of the Project Company, owing to their financial and technical capacity, the Client may want to place certain restrictions on the transfer or change of shareholding in the Project Company. The Client may want a right of approval over the identity of any transferee, or to maintain some guarantee from the original Shareholders. These restrictions will normally apply during the construction phase, and may apply during some portion of the operation phase of the project or indeed throughout the concession period.

18. Step-in and Continuous Operation Provisions - Where the Project Company breaches the Concession Agreement in such a way as to entitle the Client to terminate the Concession Agreement, and where the Client intends to act on its rights, the Lenders will want the right to step in to the Project Company's place, complete the project and avoid the termination of the Concession Agreement. The Concession Agreement will therefore typically grant the Lenders step-in rights. In the same way, the project is only of use to the Client when it operates. The Client may therefore want the right to continue operation of the project where it terminates the Concession Agreement. This is sometimes referred to as the right to continuous operation, as it allows the Client to ensure continuous operation of the project, even in the event of termination. The Client will often not undertake such operations, but rather pass such responsibilities on to some other party, such as the Offtake Purchaser.

19. Transfer or Re-Tender - At the end of the concession period, the Client will either put the project out for re-tender or it will require the Project Company to transfer the project assets to the Client. The process of re-tender will begin six months to a year before the end of the concession period, at which point the Client will obtain specified information from the Project Company. The Client will issue tender information to potential bidders and may want the Project Company's assistance in compiling information and generally assisting with the re-tendering process. This may be complicated where the Project Company itself intends to bid for the concession.

The Client may wish to take over the project at the end of the concession period. The issues involved in the transfer of the project will include the transfer of project assets, land rights, testing of the work, training of personnel and treatment of the shares in the Project Company.

The state of the project on re-tender or transfer back to the Client will need to be defined as exactly as possible. This may include testing and review by an independent expert. Failure to meet the requirements for transfer will result in sanctions, either in the form of liquidated damages for delay of transfer or possibly liquidated damages based upon the extent to which the project does not meet the transfer requirements. There may also be some bonus payment to the Project Company based upon residual value where the project, as transferred, exceeds the transfer requirements. This will provide the Project Company with an incentive to maintain and upgrade the project during and towards the end of the concession period.

The Client may wish to include some form of retention of payments to provide itself with some security in the event that the Project Company does not deliver the project in the state intended. This retention can either be made from funds due to the Project Company from the Client or possibly from payments made by the Offtake Purchaser.

V. Foreseeing Project Risks

As with construction contracts generally, in preparing the various forms of contract indigenous to a P3 project, it is incumbent on the parties and their legal counsel to foresee the most likely project risks for the project participants, and deal with these appropriately in the individual P3 contracts.

The assessment of which parties will be affected by a particular element of risk, and in what way, will be quite complicated and difficult to clarify since many project participants typically assume several project roles. For example, the turnkey Construction Contractor may also be one of the Shareholders of the Project Company and/or the Operator. In most projects, risk allocation factors such as the following will operate: market risk will be assumed by the Project

Company, design, construction and commissioning risk will be assumed by the Construction Contractor, and operation and maintenance-related risks will be assumed by the Operator.

The majority of any political risk and delays by authorities will generally be allocated to the Client through the Concession Agreement. Any residual risk will be borne, in the first instance, by the Project Company, which will frequently attempt to transfer this risk to the Client. The project Lenders, positioned as they are behind the Project Company, will want to limit their assumption of any risk, but will generally be unable to displace all of it. Provisions that deal with risk allocation may be drafted so as to mirror the language of the Concession Agreement and other agreements. This will generally have to take account of considerations such as identical language for force majeure and extensions of time (for example, for the Project Company under the Concession Agreement and the turnkey Construction Contractor). Such mirror-image language reduces the scope for ambiguity and gaps between the various agreements. In order for this arrangement to function effectively, the governing law and dispute resolution clauses will require to be identical. For example, to save time and money, and to avoid the risk of conflicting decisions, the Client may wish to try to find a way of involving the Construction Contractor in dispute resolution proceedings with the Client or otherwise to oblige the Construction Contractor to accept findings made in such proceedings.

A practical solution to such difficulties is to include “if and when” language in the turnkey Construction Contract, for example, stating that the Construction Contractor is entitled to extensions of time under certain circumstances, if and when such extensions are granted to the Project Company under the Concession Agreement. Few projects appear to actually implement such arrangements. The Project Company may also wish to see an overriding provision in the turnkey Construction Contract such that the Construction Contractor is under an obligation to perform so that the Project Company is not in breach of its obligations in the Concession Agreement and other project agreements.

Completion risks, containing elements of design, construction and commissioning risk as well as other residual risk, will be a factor for all of the principle project participants. A certain number

of them will typically bear the greatest level of such risk, in particular, the Construction Contractor, but even an Offtake Purchaser may end up bearing some of the completion risk.

The allocation of risk for Lenders is further affected by the recourse that is open to them with regard to the financing of the project. The financing may be recourse or non-recourse or limited recourse. Recourse financing provides the Lenders with full recourse to the assets of the Shareholders or other project participants in the event of default on repayment of the loan by the Project Company. Non-recourse financing limits the Lenders' recourse to the assets of the project at hand. Limited recourse financing provides the Lenders with recourse to the assets of the Shareholders up to a limited maximum amount and over a limited period of time.

In a limited recourse financing, the period of recourse may be limited to the period until completion of the work which will generally be defined in the Construction Contract and will be evidenced by the issue of a certificate or the passing of specified tests. It may be limited to the period in which certain financial ratios are achieved or to the period until the work is up and running, for example, subsequent to a period of performance at a certain level and over a certain period of time. In the event of certain breaches of a covenant or representation by the Project Company or its Shareholders (often limited to intentional breaches), such limitations may no longer operate.

P3 projects are typically financed primarily on a limited or non-recourse basis with the cash flow generated by the project and the project assets constituting the principle project security. Therefore, project Lenders and consequently other project participants in such projects have become particularly sensitive to the need to identify and allocate project risks at a very early stage of the development of a project. Although the Construction Contractor assumes much of the risk during the construction phase, the construction phase is the most critical stage for the Lenders as in non-recourse financing they only have recourse to the project assets and as such, the Lenders take on proportionally greater risk.

VI. Employing Democratic and Practical Principles in Allocating Contract Risk

The usual adage that risk should be allocated to the party best able to manage it also applies to the contracts employed in a P3 project. However, in employing this self-evident maxim, it is important to appreciate that principles of equity and fairness should also apply in allocating risk. In other words, simply allocating risk to the “weaker” party who is less likely to present a strong bargaining position in the negotiation of a P3 contract, risks an unnecessary escalation in the cost of the project as the so-called “weaker” parties will perceive the various project risks as being onerous and will build such risks into their cost projections for delivering services, performing work or for operating and maintaining a project facility.

Unequal or overwhelmingly one-sided contracts, throwing the major risk on to the Project Company under the Concession Agreement, can result in a later breakdown of relationships during the course of the P3 project, rather than making for a smooth cooperative process throughout the term of the project. This will ultimately translate into acrimony, claims and difficulty in achieving an overall successful project as one party or the other in the P3 grouping perceives that it is being taken advantage of and that it has signed a less than fortuitous contract.

Some of the principles used in allocating contract risks include the following:

Political risk - The Client generally carries the greater burden of the political risk. The risk of events related to governmental issues which might have an impact on the project are usually borne by the Client. If the Client is an arm of government, provincial or federal, the political risk which the Client is willing to bear will normally include acts of its own authority or acts of government which might otherwise, as between private companies, be treated as force majeure. For this reason, the Client should be prepared to protect the Project Company from any acts or omissions of its own authority, of local governments or of administrative authorities.

Completion Risk - The completion risk is generally wholly allocated to the Project Company, except for any delay caused by the Client or a Client-related risk. In certain

circumstances, the Client may be convinced to share a portion of the risk. For example, as a general rule, the Project Company will be required to take the risk associated with the project site which will be passed through to the Construction Contractor. However, if the cost of certain aspects of site risk is disproportionate, and the Client can be persuaded of this, the Client may also be willing to take certain risks which are specific to the site. The Client may be best placed to identify certain risks involved with the ground conditions which might be discovered during construction.

Operation Risk - The Client will bear the part of the operation risk relating to the responsibilities it is taking on in the project. For example, in certain cases, the operation of the project may be based on the characteristics of existing infrastructure or the ability to connect to such infrastructure, as in the construction of a water treatment plant which treats water provided by the Client and delivers it to an existing water system. In such event, where the Client maintains responsibility for the existing infrastructure, the Client may bear the risk of availability of water or the proper functioning of the existing infrastructure. Without sufficient water and offtake, the plant will not operate, tests cannot be performed and commissioning cannot occur.

Further, where other facilities are necessary for operation, such as transportation by national roads, bridges or tunnels, use of national railways, utilities connected to the site providing electricity, water, gas or other fuel, obtaining and maintaining licences and consents, or the operation and maintenance of any associated facility which falls within the public domain, any such risk might be allocated to the Client as it can generally manage such risks most efficiently.

Permits and Licences - The Construction Contractor and the Operator will need to go to the Client, or to some other related authority, to make requests for permits and licences to do the work necessary to carry out the project. These permissions will range from construction permits to operating licences. The permits will need to be renewed regularly, requiring further interfaces with the Client, or some government agency, throughout the period of construction and operation of the work. The Project Company

will also need to coordinate with the Client or with some other related authority to maintain and renew these permits and licences.

Transfer and Re-tendering - As stated earlier, an important event for the Client occurs at the end of the concession period. At that time, the project will either transfer back to the Client or the Client will relet the project to the same or a new Project Company. The Client will want to ensure that transfer occurs properly and with the appropriate amount of assistance by the Client's personnel. During this period, the Project Company may be required to train and otherwise prepare the Client's personnel to manage the operation of the project. The Client will want to make sure that the project has been appropriately maintained and managed during the period immediately preceding the transfer of the project. Where the Client intends to re-tender at the end of the concession period, the Project Company may be required to provide information and assist generally in the process of re-tendering. This may include providing accounting for the project, details on project assets, employment records, life cycle projections and information on existing subcontracts.

VII. Risk Sharing and Risk Bearing

The successful P3 project must incorporate a financial structure and security package that will ultimately satisfy both the Lenders and the Shareholders, while maintaining commercial flexibility and profitability of the Project Company. The successful project will also benefit from workable, commercially viable and cost-effective risk-sharing. Given the differing interests and objectives of the parties involved, effective risk allocation will be an essential part of the drafting of the project documents and an integral part of the project's success.

Risk is the probability of an event occurring and the consequences of its occurrence. The event in question which needs to be considered in the context of the project will generally have a negative effect on the project, either increasing cost, delaying completion, reducing performance or possibly rendering the project itself impractical. Risk cannot be ignored, but should be managed as efficiently as possible at the time of entering into the P3 contract. By the same

token, project risks must be managed in a reasonable manner. As stated earlier, improper or inequitable risk allocation will result in unnecessary increases in project cost. Several principles are useful in the analysis of the management of risk. A party to a contract should generally bear a risk where:

- (a) the risk is within the party's control;
- (b) the party can transfer the risk (for example, by insurance), and it is most economically beneficial to deal with the risk in this fashion;
- (c) the preponderant economic benefit of controlling the risk lies with the party in question;
- (d) to place the risk upon the party in question is in the interests of efficiency, including planning, incentive and innovative efficiency;
- (e) if the risk eventuates, the loss falls on the party in the first instance and it is not practicable or there is no reason under the above principles to cause expense and uncertainty by attempting to transfer the loss to another.

The above view of risk management/allocation can be broken down into three questions:

- (a) Who can manage the risk most cheaply, efficiently and easily?
- (b) Who benefits most from its management?
- (c) Who has the greatest incentive to manage it?

As also stated earlier in this paper, risk tends to be allocated on the basis of commercial and negotiating strength. The stronger party will allocate risk that it does not want to bear to the weaker party. This scenario does not necessarily provide the most effective and efficient risk management. Improperly allocated risk will have an impact on the entire project and may affect

the stronger party as well as the weaker. Allocation of risk to the party best able to manage it efficiently, inexpensively and easily will generally result in a more successful and profitable project and will benefit each of the parties involved.

VIII. Risk and Financing

Financing for a P3 project is provided by lending institutions who are generally not in the business of construction or operation of such projects. Lenders will not be in a position and therefore will not want to take many of the risks commonly associated with such projects. In order to avoid bearing project risk, the Lenders will insist in the context of their review of the project documents, that as far as possible, project risks are allocated to the project participants, such as the Construction Contractor and the Operator, and away from the Project Company, their debtor. The project participants will charge higher fees for bearing such project risks, which will be included in the contract price, increasing the financial exposure for the Lenders. However, such increased sums will represent value for money for the Lenders, since the project participants are better placed to manage such risks and the Lenders will be able to evaluate their exposure and cost-out the risk.

IX. Allocation of Risk Generally

In most conventionally financed projects, it is accepted that certain risks, such as market risk, political risks and completion risk, will be allocated by the Client to the Project Company in relation to the role that the Project Company plays in the project. For bearing such risks, the Project Company is compensated by return on its investment.

In a project-financed P3 project, financing is obtained primarily through the Lenders, rather than the investment or liability of the Shareholders. The Project Company, as a special purpose vehicle, must avoid taking on risks which the Lenders are not prepared to assume. The Lenders will be compensated for their financing of the project in the form of a rate of interest appropriate to lending and will not benefit from project revenues which are higher than forecast. Residual risk will be borne in the first instance by the Project Company and therefore by the Lenders. The

Lenders will attempt to limit their assumption of project risk by allocating to the project participants' risk placed on the Project Company through the Concession Agreement.

Ascertaining which parties will be affected by a particular element of risk can be quite complicated since the project participants may assume several project roles. For example, the Construction Contractor may also be one of the Shareholders and/or the Operator.

The effort to transfer all project risk to the project participants is known as "back-to-back risk allocation." The Concession Agreement will define what risk the Client will take. All other project risk is borne by the Project Company. The other project documents will transfer the risk allocated to the Project Company by the Concession Agreement back-to-back to the other project participants. Complete back-to-back risk allocation will result in transfer of all project risk assumed by the Project Company to the other project participants. Rarely will a P3 project achieve complete back-to-back risk allocation.

X. General Theory of Risk Allocation for Specific Risks

The following are certain project risks encountered in a typical P3 project. These risks are generally allocated among the project participants based upon a number of considerations. Considering risks in isolation is unsatisfactory and does not provide a complete view of project requirements. The nature of the project participants and the project itself will have a fundamental impact on the risks encountered and their allocation. The following risk allocation issues should be viewed generally, as each project must be considered as a unique allocation situation.

- (a) Development Risk - The development phase involves the preparation of the project before financial closing, including Requests For Expressions Of Interest, Requests For Qualifications and Requests For Proposals. Given the nature of a P3 project, its complexity and the length of negotiations, risk during the development phase can be considerable. Usually, a large proportion of the development phase of a P3 project is carried out by the Project Company before

the Lenders or some of the other project participants become involved. At this stage, the Project Company, and more particularly, the Sponsors, will bear the majority of the development risk.

- (b) Completion Risk - The construction phase involves the most costly project risk. The nature of P3 projects is such that an incomplete project will have little value. Therefore, both the Client and the Lenders will have a significant interest in ensuring that the work is completed in accordance with the project specifications. Completion risk includes construction and testing and commissioning of the project. This risk is then allocated to the Construction Contractor by the Project Company. These risks include construction risks which will generally be allocated to the Construction Contractor, as it is the Construction Contractor who designs and builds the project. The requirements for the project should be defined very specifically and completely in the Construction Contract based upon the requirements and specifications of the Concession Agreement. Any gap or inconsistency may defeat the back-to-back allocation of risk and leave additional risk with the Project Company.

Commissioning is another risk that the Construction Contractor must deal with. This can be done by satisfying certain tests and inspections in order to ensure compliance with the project specifications. The responsibility for commissioning the project is generally allocated to the Construction Contractor. The commissioning may be carried out in part, or verified, by the Operator and possibly by an independent expert engineer, but the responsibility for successful completion of commissioning will remain primarily with the Construction Contractor.

Time for completion is also of great importance to the Project Company, the Client and to the Offtake Purchaser. The Project Company will want to commence operation of the project as soon possible in order to earn maximum revenue and improve return on investment. As construction and commissioning risks are placed on the Construction Contractor, so too will be the risk of timely completion. If the Construction Contractor fails to complete the work on time, sanctions will be imposed to reflect the losses the Project Company will incur, which may

include debt servicing requirements, Input Supply Agreement penalties, Offtake Purchase Agreement penalties and Concession Agreement penalties.

Cost increases are another risk that require to be dealt with or allocated. As this risk is basic to the interests of the Lenders, the risk of cost increase allocated to the Project Company will be passed very carefully on to the project participants, as far as possible, and away from the Project Company. Some of the factors which might influence cost increases include currency risk, inflation, taxes, input price increases, construction cost increases, operation cost increases, cost of spare and replacement parts, decrease in output prices and the risk of cost overruns. All of these will require to be allocated to the parties best able to carry the risk or will ultimately be allocated by the “stronger” parties and placed upon the shoulders of the “weaker” project participants.

Performance Risk - In order for the project to maintain sufficient revenue to satisfy debt servicing and to provide a return for the Shareholders, the project must perform to specified levels. Therefore, performance requirements are provided in the Concession Agreement and in the Offtake Purchase Agreement which are then passed on to the project participants, in particular, to the Construction Contractor and to the Operator. Some of these performance risks will include risk related to design and construction, operation, input supply and offtake purchaser infrastructure.

Operation Risk - The operation of the project involves certain risks of operation, performance and maintenance. Generally, this risk is shared by the Operator and the Project Company after takeover of the project from the Construction Contractor until the end of the concession period.

Market Risk - There are a number of primary market risks which are likely to be encountered in a P3 project. The Lenders will not want to bear market risk in relation to the project, and will therefore require that the contractual structure of the project allocate market risk away from the Project Company and to the project participants. Some of these market risks include output price and input cost risks.

Environmental Risk - Although environmental risk is a performance risk, it deserves some special consideration. Environmental risk has become a far more central consideration over recent years. Developers will wish to consider carefully possible changes in environmental laws and the potential consequential effects on the project. The primary aspects of a P3 project relevant to environmental risk are building the project, including the design and construction of the work, the maintenance and operation of the project and the quality of input provided. The performance requirements linked with environmental issues will be defined both by existing applicable law, the requirements of the Client and any requirement imposed by lending agencies.

An environmental impact assessment and statement will generally be required before a major project can be let by the successful Project Company. This assessment will identify and help to allocate environmental risk. Environmental risk will generally be allocated between the Client and the Project Company and then passed by the Project Company to the Construction Contractor, the Operator and the Input Supplier. Allocating the responsibility between these entities for such risk may not be straightforward. The cause of environmental damage may be difficult to identify and the potential level of damage is such that project participants will not wish to bear such risk.

XI. Mitigating Risk Through the Use of Bonding And/Or Insurance

Various forms of construction bonding and insurance are available to provide additional security for the performance of the various project participants. The Project Company and the project Lenders must be comfortable that the project participants are able to assume their project obligations as set out in their individual contracts, in order to ensure the financial viability of the project. The Project Company and the Lenders will need to review the credit risk of the various project participants. Where the Project Company or the Lenders are not comfortable with the credit risk of a project participant, various methods are available to the Lenders in order to enhance a party's credit, including obtaining bonds and guarantees from that party.

The most important credit risk relates to the project payment flow, either from the Client or from the Offtake Purchaser. If this party is a bad credit risk, the Project Company or the Lenders may require a guarantee from the government or from some other credit-worthy third party, letters of credit, an escrow arrangement over the entity's income or a combination of same.

Otherwise, when dealing with the risks of performance by the Construction Contractor, the Project Company will typically look to construction bonding as a method of securing appropriate performance. A construction bond is a three-party arrangement between the Project Company, the Construction Contractor and the bonding company in which the bonding company agrees to indemnify the Project Company should the Construction Contractor fail to fulfil its obligations.

Typically, the obligations of the Construction Contractor to the Project Company to perform would be guaranteed through the requirement for the Contractor to supply a Performance Bond. This bond, typically written for 50% of the contract price or 100% of the contract price set out in the Construction Contract, guarantees that the Construction Contractor will promptly and faithfully perform the Construction Contract in strict accordance with its terms and specifications. Performance Bonds minimize the financial risk to the Project Company, both during construction and during the maintenance period thereafter. Prudent Construction Contractors will also reduce their risk by requiring their subcontractors and suppliers to provide Performance and Labour and Material Payment Bonds.

Labour and Material Payment Bonds are usually issued in conjunction with Performance Bonds and for the same amount. The standard form of L & M Payment Bond guarantees that the Construction Contractor will pay his direct subcontractors and suppliers for labour and materials employed in the Construction Contract as it is these parties who are potential claimants under the Bond, not the Project Company.

Construction Bonds are preferable to cash deposits or Letters of Credit issued by banks or other financial agencies to guarantee the obligations of the Construction Contractor because they do not tie up the Construction Contractor's working capital or bank line of credit. Project Companies normally hold the bid security until the contract is awarded and the performance

security is provided. If a cash deposit is used as performance security, it may be held by the Project Company during both the construction and maintenance period. This can add substantially to the Construction Contractor's financing costs and make him less competitive than those using construction Bonds.

In North America, bonding is a highly specialized facet of the insurance industry. Only about 20 insurance companies in Canada write a significant volume of constructions bonds. These companies carry on most of their business through insurance brokers with departments that specialize in bonding. Contractors who may require bonding should establish an account with such a broker at the time they commence business to ensure that bonds can be obtained when they are needed as security on P3 projects.

It is important for the Project Company to realize that it is possible to prejudice its right under a construction Bond in a claim against the Construction Contractor. Such bonds cannot be cancelled by the Construction Contractor or by the bonding company. They can only be cancelled by the Project Company or at law. This is a major advantage to Project Companies on P3 projects. Bonding companies may be relieved of their obligations by the provisions of common law if the Construction Contract has been materially changed without their knowledge. Project Companies must obtain the consent of the Bonding company when materially increasing or decreasing the contract price, knowingly paying the Construction Contractor for work not performed or otherwise providing him with financial assistance in anticipation of recovering such amount from the Bonding company, making material changes in the location or nature of the contract work, making material changes in the completion time, making material changes with regard to payment such as variations in the holdback which might present a major deviation from the intent of the original contract. In summary, the Bonding company must be notified by the Project Company and must consent to any change other than minor changes that are usual to Construction Contracts.