

Chapter 16

Project Finance

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From its earliest modern-day roots dating to the first half of the twentieth century,³ the form of limited recourse financing that has become known as “project financing” has grown to a multi-billion dollar worldwide industry, with the capacity to attract vast amounts of capital for infrastructure development. In an early example of the form in the 1930s, a state or local government in the United States would issue tax-exempt bonds on behalf of a private business to attract industry, and lend the proceeds to the private business to be used solely to develop an industrial facility in the locality. The loans would be secured by the industrial facility assets. The government bonds would be secured by and payable solely from the proceeds of payments made by the private party in repayment of such loans, and would not have recourse to the full faith and credit of the governmental issuer.

The fundamental principles of a project finance transaction have not changed significantly over the years. Project financing, however, has shown itself to be a highly versatile technique, adaptable to a broad and constantly growing array of applications, including some of the largest and most capital intensive infrastructure developments in the world. These transactions appear across a wide range of diverse industries, and reach locations in every region of the globe.

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2. This chapter was prepared in the spring of 2006 and reflects practice and matters that were extant at that time.
 3. Precursors to modern-day project financing techniques have actually been traced back to various points in history, including as far back as Greek and Roman times. Present-day project financing practices, however, are more tangibly rooted in the innovations of twentieth century bankers and lawyers.

Today, project financing of development is found in virtually every country, and may be the most common structure for infrastructure finance in the world. Project financings are used to finance:

- Ports, airports, roads, bridges, rail lines, and other transportation infrastructure
- Energy infrastructure facilities, such as electricity generating facilities, transmission lines, drilling platforms, oil and gas field development, LNG liquefaction and regasification facilities, gas pipelines, gas storage facilities, pump storage facilities, and other energy-related plant and equipment
- Telecommunications systems, including fiber-optic cable lines, cellular systems and similar systems
- Petrochemical plants, water desalination facilities, pulp and paper facilities, steel mills, and other industrial facilities producing commodities for sale
- Sports arenas, stadiums, hotels, commercial and residential buildings, warehouses, and industrial parks

Virtually any industry requiring major capital investment in plant and equipment to produce a large quantity of products or services for sale can be the subject of a project financing.

The worldwide proliferation of project finance may be traced to its adaptability, as well as its conceptual underpinnings, which provide the basis for insulating a project and its investors from the risks of the surrounding business and regulatory environment. Experience has shown, however, that even the perfect financing structure cannot fully insulate a project from all potential future risks. Every project is developed and exists in the context of a broader economic and political environment, and is vulnerable to events that can undermine its aims, even in the face of perfectly crafted contracts, airtight regulatory permits, and a system of laws that supports the enforceability of contracts. For example, however well structured, a transaction may ultimately be undone by transient local forces if the costs of operation become excessive in relation to a reasonable price for the output in the local economy, unless there is a creditworthy buyer indifferent to the local economy (such as an offshore purchaser with a market for its product). In other words, in practice, political and market forces can trump even the best crafted contractual obligations.

These risks exist everywhere, to be sure, including in the United States and other industrialized nations. They can be particularly potent, however, in emerging markets, where the local economies may be more fragile, currencies more volatile, governments less stable, and legal regimes less robust. Such issues take on a distinct signifi-

cance in the project financing context, where the financed assets generally consist of tangible infrastructure equipment that, once installed, cannot economically be moved.

Notwithstanding these factors, project financing remains a common source of capital in such markets because, unlike developed and industrialized nations, many emerging market economies lack the funds or borrowing power to implement large-scale infrastructure projects, and have to rely on relatively expensive offshore private capital in order to pursue development.

In sum, project financing continues to be an attractive alternative for infrastructure development in emerging markets notwithstanding its risks and commensurate costs. This is because (1) a project finance structure is relatively robust in its protection of the equity investors and Lenders, and (2) it is possible for the local government to overcome political opposition if it can forge a consensus that the project is worth the high cost, either because its output (such as electricity) is essential, or because its existence supports employment and the local economy. And if the government continues to provide a stable investment environment for foreign debt and equity capital, project financed development projects can be secure and profitable sources of returns, even for the relatively risk-averse project Sponsor.

§ 16:2 Project Finance Structure and Key Participants

From modest-sized inside-the-fence cogeneration facilities to multi-billion-dollar gas pipeline systems that cross international borders, all project financings are based on the credit of project assets that produce income. A key feature is that the project assets are not directly owned by the Sponsors of the project. Rather, they are owned by an entity (typically, a special purpose entity) whose only assets are the tangible production assets and related intangible assets, such as contracts relating to the development, construction, completion and operation of the production assets.

Financing for the project is provided to this special purpose project Owner, secured by the tangible production assets and related intangible assets, with limited or no recourse to the credit of the project Sponsors. Thus, the credit base for the financing is the capability of the project to produce revenue sufficient to pay:

- operating and maintenance costs of the project assets,
- scheduled debt service on borrowings (on market terms), the proceeds of which are used to build and operate the project assets, and

- a return on equity at rates sufficient to attract investment in the project assets.

The project's ownership structure, contractual undertakings, governmental permits and concessions, and financing terms must all be designed to assure that the anticipated income stream will be both reliably forthcoming and sufficient. The principle challenge in any project financing is to anticipate all of the risks that could potentially affect the income stream during the life of the project, and devise strategies to protect the project from the adverse impact of those risks. When projects fail, it is typically because certain risks either were not identified or, if identified, could not be or simply were not adequately addressed.

Volumes have been published on this subject and therefore it is not possible to provide in one chapter a comprehensive guide to international project financing. The authors of this chapter have the more modest aim of acquainting the reader with the basic objectives and structure of a typical project, identifying the types of risks a project may confront, and providing insight into how those risks can be addressed in the context of an international project financing.

§ 16:2.1 Project Parties

One distinguishing feature of a project financing transaction is the large number of participants needed to achieve financial close and commercial operation. This is no accident: as noted above, since the project is not financed on the credit of its Sponsors, but rather on the revenue-generating capability of the project itself, structuring a project financing involves a painstaking process of identifying all of the circumstances and events that could subject the project revenues to risk, and then making sure these risks are addressed by parties that have the capability of mitigating them or their effects on the project. Project financing is, in part, an exercise in risk allocation, with the aim being to allocate each identifiable risk to the party optimally situated to mitigate or absorb it.

Every project faces certain typical risks—such as casualty losses, late arrival of critical equipment, unavailability of spare parts, change in laws and tax regulations, and currency devaluations, to identify just a few—and certain risks not previously encountered. Market practices have developed among Lenders as to how the conventional risks can be addressed. Financial reserves or other protective devices can be used to address risks that are otherwise not covered in a particular project.

Generally, risks that the project Lenders will not permit to be borne by the project Owner must be contractually allocated to third parties—either government instrumentalities or private parties—

whose activities, experience and creditworthiness uniquely enable them to manage such risks. This results in a multiplicity of parties, each of which has a particular role in the implementation of a project financing transaction. Figure 16-1, which provides an overview of a typical project finance contract structure, offers a graphic illustration of this point.

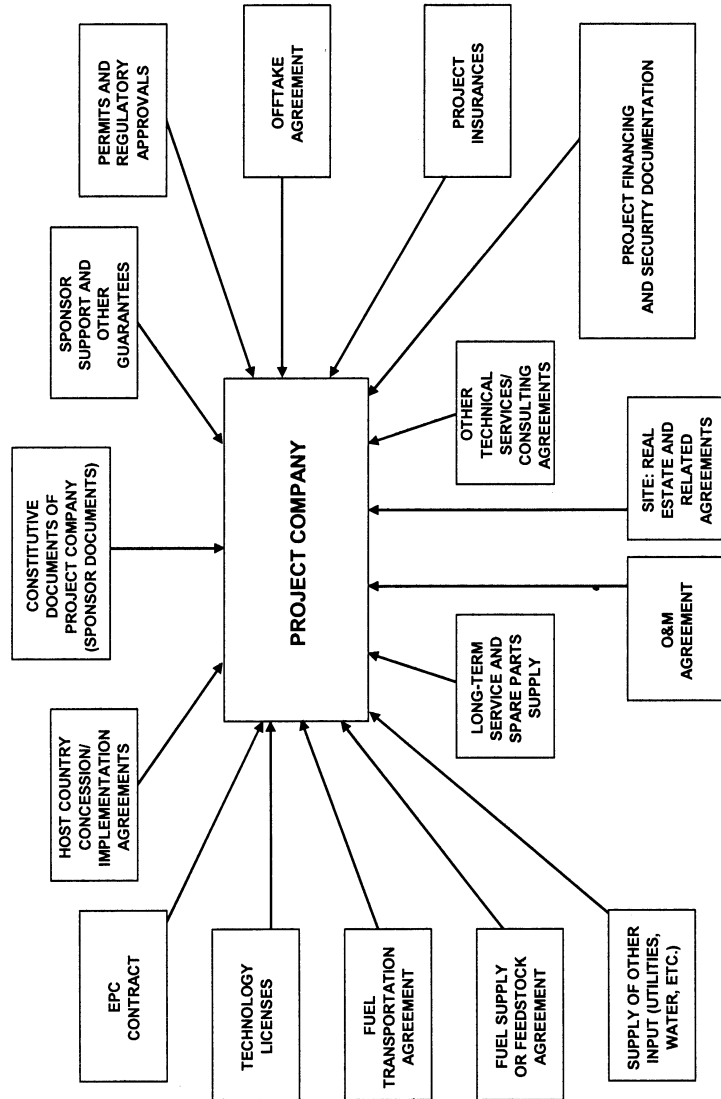
Managing the requirements and expectations of these various constituencies is one of the major challenges confronting the project lawyer. The roles of these parties will be further discussed in the later portions of this chapter, but it is useful to describe briefly each of the common parties to a project financing in order for the reader to grasp how these parties and their roles fit together in a well-structured project.

Figure 16-1 identifies the range of agreements involved in a standard project finance transaction. For simplicity, we have assumed that each contract will be entered by a single counterparty. It should be understood, however, that many of these roles are frequently filled by multiple parties. For example, the project Owner may be a partnership with multiple partners, each of which is a special purpose entity (such as a limited liability company) that is in turn owned by one of the project Sponsors. Or the turnkey Engineering, Procurement, and Construction (EPC) Contractor may in fact be two parties, one to provide onshore services and the other to provide offshore procurement, in order to minimize the effect of local taxes.

The parties in a project financing can be rationally divided into two basic groups—parties that provide the debt funding, and parties that provide the security, contractual and other assurances that form the basis upon which the Lenders will extend debt financing for the project. Unlike equity Owners, Lenders do not have expectations of “upside” gains—their returns are limited to the spread on their loans. Thus, Lenders, bondholders, monoline insurers, and letter of credit issuers must take care to ascertain that their “downside” risk is covered sufficiently to allow them to conclude that the risks they are taking are commensurate with their limited return.

This section briefly describes the parties identified in Figure 16-1, their contractual or other relationship with the project, and (in the case of parties other than the financing parties) the risks they may be expected to undertake to provide the necessary protection of the project’s revenue stream.

Figure 16-1
Example of a Project Finance Contract Structure



[A] Project Owner

As illustrated in Figure 16-1, the project Owner is the central party in a project financing. The Owner is generally either a corporation, a limited liability company or a partnership whose partners consist of corporations or limited liability companies. In choosing the form of organization, the Sponsors' key objective is limited liability. It is generally critical to the Sponsors that they not be liable for the debts or other obligations or liabilities of the Owner. Accounting treatment and tax efficiency are likewise very important in the selection of organizational structure. Tax treatment is a particularly important issue in international projects, where the Owner and the project assets may be in one taxing jurisdiction, and the Sponsors (the owners of the equity interests in the Owner) may be in one or more other taxing jurisdictions.

The Owner is the party that constructs, owns and operates the production asset. It is the holder of the governmental concession (if any), and all permits, governmental approvals and other clearances pertaining to the development, construction, ownership, operation and financing of the project, and is the counterparty on all contracts with third parties, including the contracts for construction, operation and maintenance, feedstock, other supplies, and output sales, as well as the financing and security documents.

[B] Sponsors

The Sponsors are the holders of the equity in the Owner. Traditionally, the majority of the equity was owned by one or more creditworthy parties who were significant players in the relevant industry. For example, the majority equity Owner in an independent power generation project might be a significant independent power producer with a fleet of similar assets. More recently, private equity investors (including hedge funds) have been attracted by the relatively high returns and ratable income streams that project investments can produce, and have invested significant sums in projects. Finally, in international projects it is fairly typical for offshore investors to include in their Sponsor group a local partner whose local knowledge and understanding will be helpful in bringing the project to fruition.

Generally, the Sponsors have an equity contribution obligation to the Owner in a specified amount, which is reflected in an agreement with the project's Lenders. While sometimes funded in advance, this equity is more typically required to be contributed simultaneously and pro rata with the making of loans by the Lenders to construct the production asset, with the entire amount accelerated and required to be contributed immediately if the Lenders declare an event of default and accelerate the loans.

Notwithstanding that the Sponsors may not be legally obligated to pay the debts and liabilities of the Owner, the identity, experience, reputation and creditworthiness of the Sponsors is important to the Lenders. In some cases, where particular risks are not otherwise covered by parties involved in the project, the Sponsors may agree to accept such risks on a limited basis, for example, by undertaking to fund a reserve to cover the particular risk.

[C] Host Government

In a U.S. project, the government in the jurisdiction in which the project is located usually has no role in a project, other than the regulation and taxing of the project and the project's Owners and contractors. In an international project financing, however, and in particular in emerging markets, the host government plays a critical role in attracting foreign capital. A Concession Agreement or Implementation Agreement may be entered into by the government to provide assurance of continuity of political support, legal recourse, and tax treatment for the investment.

[D] EPC Contractor

An Engineering, Procurement, and Construction contract—or EPC Contract as it is commonly known—is generally a lump-sum turnkey contract in which the Contractor undertakes to design, procure all equipment for, and build the project to the specifications of the Owner for a fixed price, by a guaranteed completion date (secured by delay damages) and meeting specified performance standards as to output, reliability, and efficiency. The EPC Contractor is selected by the Owner, and must be sufficiently creditworthy to stand behind the completion guarantees and continued warranty of the plant. Indeed, the creditworthiness and experience of the EPC Contractor is critical to the willingness of the Lenders to finance the construction and completion of the project.

[E] O&M Contractor or Operator

Generally, the Owner employs an O&M (Operations and Maintenance) Contractor or Operator to operate and maintain the plant. One reason for the employment of an Operator (as opposed to the Owner operating the plant), is the general preference of Lenders to have a third party to whom they can look to recover damages (at least to a limited extent) if the plant is not operated properly. This also enables the Lenders to monitor and ensure that the operating costs remain within the parameters assumed in the project's economic model.

[F] Fuel/Feedstock Supplier

In order to achieve a predictable and secure revenue stream that will adequately cover debt repayment after payment of operating costs, it is critical to control the main elements of operating costs. As would be expected, chief among these is the cost of fuel and feedstock. In addition to the commodity cost, there may also likely be transportation cost to bring the fuel or feedstock to the plant.

Generally, the Owner contracts with the Fuel or Feedstock Supplier. In some cogeneration facilities, the fuel or feedstock may in part be supplied by an industrial host that also consumes all or part of the power and steam generated by the cogeneration facility. Thus, the cogeneration facility and the industrial host's facilities may be mutually interdependent. In addition, some projects are subject to tolling arrangements, under which the feedstock is supplied by the same party that will take the project's output. In such a case, the project Owner is using the project to provide the Offtaker with a service, that is, converting its feedstock into the offtake product (for example, converting natural gas supply into electrical energy).

[G] Long-Term Service and Spare Parts Provider

It is fairly common for the supplier of major plant equipment to enter into a long-term service contract, to supply spare parts, operational advice and supervision to a project Owner. Such a contract may have a number of beneficial effects for both the Owner and the supplier. For example, it may permit the supplier to provide a longer and more secure warranty than it could have provided if the plant were being serviced by other service providers in whom the supplier might not have as much confidence.

[H] Insurer

During construction, it is typical for construction period casualty and liability insurance to be carried by the EPC Contractor. Once construction is complete, and control of the plant is turned over to the Owner, the Owner's casualty and liability insurance becomes the primary coverage. The Lenders to the project are named as additional insureds and the Lenders' agent is named as loss payee. In addition, no changes may be made to the insurance policy without the Lenders' consent.

[I] Output Purchaser

As the source of the project's revenues, the output purchaser or Offtaker is the most critical party in a project financing. The duration and terms of its agreement to purchase output are central to the economics of the project, and its creditworthiness is often the

single most important determinant of the creditworthiness of the project. The role of the Offtaker, along with that of the EPC Contractor, Fuel Supplier and O&M Contractor is discussed in greater detail in section 16:4.

[J] Financing Parties

There are many varied parties that provide funding or extend other forms of credit to infrastructure projects. Among them are banks, institutional investors (such as pension plans or insurance companies), multilateral and bilateral institutions, export credit agencies, the World Bank and its constituents, bond funds, private equity funds, hedge funds, as well as credit enhancers such as monoline insurance companies and letter of credit issuers. Major international transactions typically have to access capital from a number of different sources, which complicates the financing arrangements significantly. The various categories of potential financing parties and their involvement in project finance transactions are described in more detail in section 16:3.

[K] Swap Providers

Traditionally, swap providers have provided interest rate protection in project financing transactions. Most common are interest rate hedges in which the variable rate obligation undertaken by the Owner is swapped for a fixed rate obligation, thereby locking in the interest cost to the project. Again, this technique is used to lock in the cost of the financing. While the locked rate will be higher than the prevailing variable rate, Lenders often insist that the Owner swap all or a majority of its debt to a fixed rate to provide the assurance of a known financing cost. In addition, swaps may be used in connection with project financings to provide an assured cost for commodity supply to the project.

Swap providers are often also part of the lending syndicate. The project's obligations to them are generally secured equally and ratably with the loans. Since breakage obligations to swap providers can be very large and unpredictable in amount because they are subject to market forces, a great deal of recent attention has been focused on the terms of the swaps and intercreditor issues between the swap providers and the Lenders.

With the multiplicity of parties in a project financing, it is easy to see why the documentation for such transactions is complex. Each party's obligations address a particular aspect of the project's development, construction and operation, and the obligations of all parties must fit together as seamlessly as possible. In addition, all of the rights of the Owner are subject to the security interest of the Lenders, who require the entry of each contractual third party into a

consent and recognition agreement that creates privity between the third parties and the Lenders, and confirms the obligations of the third parties to the Lenders in an event of default.

§ 16:3 Structuring an International Project

The structure of an international project will largely depend on the requirements of the host government. In emerging market countries, infrastructure development through the use of foreign capital is often part of an overall plan to improve or expand a particular sector. Thus, for example, the government might adopt an enterprise development system to expand its electric generation and transmission capability, permit foreign investors to own and operate the project for some time to recover their capital and achieve a reasonable return, and then provide for the project assets to be turned over to the government. This is the governmental objective that underlies concessions for BOT (build-operate-transfer), BOOT (build-own-operate-transfer), and similarly structured projects in emerging markets.

Other projects, such as those that seek to monetize natural resources or create jobs, are based on the host government's desire to increase foreign capital flowing into the country and improve the local economy. These projects are frequently based on concessions, and are supported by the development and sale of natural resources or products on the world markets using local assets and workforce to generate foreign currency. The concessions may have termination dates that limit the availability of the resource for development by the foreign investor. Or they may have a feature that permits the host government to succeed to ownership on a basis that requires the host government to provide the foreign investors with a sufficient return on their capital to make the initial investment attractive.⁴

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4. In designing the ownership structure and economics for any international project (whether for development of local infrastructure or for development of export products), project Sponsors must understand the markets, political environment, law, applicable regulatory regimes, tax system and a host of other factors that will affect the project during the period of use. The ability of the Sponsors to generate the necessary revenues to operate and maintain the project, pay its debt service and generate a sufficient return on investment is dependent on these surrounding circumstances. The learning curve for such projects is steep, and Sponsors are therefore incentivized to maximize their activity in a particular jurisdiction in order to make maximum use of this effort. However, Sponsors are reluctant to concentrate their portfolio of capital investments in a particular jurisdiction. The knowledgeable Sponsor will recognize that it is desirable to diversify country risk by spreading its international project investments among a number of jurisdictions.

Finally, over the past twenty years there has been an increasing focus on “public-private partnerships”—that is, project development structured with the participation of both host government and private capital support. For example, in a large dam project which has public benefits such as irrigation and environmental mitigation, the government might pay for and own the dam, while a private party might fund the construction and installation of power generation equipment which could be used by the private party to generate and sell electricity under a long-term Power Purchase Agreement for a term of years.

The financing of an international project can come from a variety of sources. There are multilateral agencies whose objective is to provide development financing in emerging markets. The World Bank has been an important source of such financing, both directly and through its investment arm, the International Finance Corporation (IFC). There are also regional multilateral Lenders that provide investment funds, such as the Inter-American Development Bank. In addition, many industrialized countries have export credit agencies whose objective is to encourage the use of equipment manufactured in their country by providing financing on favorable terms, or to assist in the development of markets for their country’s products.

In addition to these sources, private commercial banks all over the world are involved in providing credit to fund project development and construction on the basis of project financing structures. Long-term bond funding that includes U.S. investors may also be provided under a Rule 144A structure (as discussed in section 16:4.5[B]). Frequently, private capital will join with multilateral sources to provide the large amount of capital needed for a significant infrastructure development plan. In emerging markets in particular, because of the importance to the country of continuing access to multilateral sources of funding, the inclusion in the financing group of such sources increases the comfort level of the private Lenders as to the stability of their investment.

Typically, a project financing consists of construction loans provided under a credit agreement or an indenture, which is disbursed into a construction fund, against requisitions supported by invoices and other evidences of costs incurred. At completion, the financing typically converts to a longer term “term loan” structure, with a payment schedule that amortizes in accordance with the project’s pro forma financial statements, and provides a coverage cushion based on the project’s anticipated net cash flows.

The financing also typically includes letters of credit to cover guarantees to contract counterparties, such as major suppliers and purchasers of output, and funded reserves to cover anticipated costs such as routine and major maintenance, operating costs, and a debt

service reserve to provide a cushion against cash shortfalls. These reserve funds can also be provided through letters of credit that are permitted to be drawn down upon stated contingencies.

The financing is secured by all rights and property of the Owner, including the production assets, the real estate on which the asset is located and related rights such as easements, the governmental permits and approvals, all revenues from sale of the output of the plant, and all contractual rights of the Owner, including all of its rights under the Concession Agreement or Implementation Agreement with the host government (if any), the EPC Contract(s), all Offtake/Output Contracts, all Fuel/Feedstock Supply Contracts, the O&M Contract, and any and all other rights, contractual or otherwise, relating to the development, construction, ownership and operation of the plant.

It may be noted that project financing is very dependent on the security rights of the Lenders, and the enforceability of contractual rights. In many host jurisdictions, the forms of security are not as well developed as they are in the United States or other industrialized countries. Hence, in order to be more competitive in attracting foreign capital, many jurisdictions have been revising their laws, including, specifically, their laws relating to the perfection of security interests, enforceability of arbitral awards and insolvency. These improvements help to mitigate some of the risks associated with investment in international projects.

§ 16:4 Key Project Documentation

§ 16:4.1 Project Documents and Risk Allocation

This section will discuss several of the key project documents that are typically found in an international project financing. While space constraints limit detailed analysis, the discussion will identify the principal risks addressed in the typical project documentation, and the risk allocation methods employed to manage these risks. The actual risks confronted in any project are, of course, far more complex than can be summarized in any chapter or volume, and will vary based on the country or region, industry, technology, parties, site location, environmental condition, political climate, and a host of other factors.

The key project documents for most projects generally include the agreements that provide for the concession from the host government to develop a project; the acquisition of the rights to the project site; the design, engineering, and construction of the project; the throughput or delivery of the feedstock or fuel needed to produce the project's output; the purchase of the project's output providing for its income stream; the operation and maintenance of the

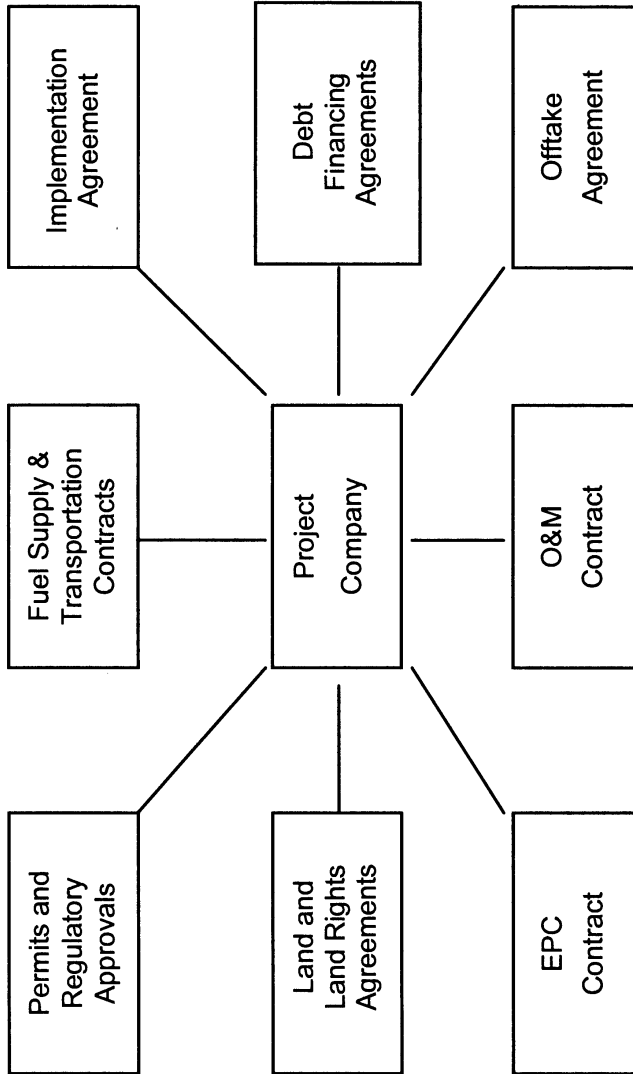
project; and the financing required to develop and construct the project. A typical project will also require many other project documents which are not addressed in this chapter. For example, a project may require joint venture or shareholder agreements (in the case of multiple Sponsors), interconnection agreements, transmission agreements, technology licensing agreements, long-term equipment service agreements, equipment supplier guarantees, and other utility supply agreements, just to mention a few.

Because the number of agreements required is directly proportional to the number of parties involved, the involvement of multiple Sponsors or parties playing multiple roles in the project will inevitably lead to a multiplicity of project agreements, and often side agreements between individual parties. These agreements will together comprise the set of collective rights and obligations of the project company. As noted, the full array of documents involved in any project will vary, often considerably, from project to project. The key agreements that are the focus of this section, however, are likely to be the principal documents required for any project. They collectively cover the major aspects of any project development. All of these documents for any type of infrastructure project are interrelated and must be carefully coordinated to allocate risks consistent with each party's intent. Figure 16-2 is an abbreviated version of the diagram in Figure 16-1, depicting only the key project documents mentioned in the previous paragraph.

The risks inherent in most projects may be characterized as being principally either commercial or political in nature. Commercial risks generally include construction phase risks and operating phase risks. The risk of environmental liability is present (in varying forms) during both the construction phase and the operation phase. Proper management of environmental risk is essential in any project. Environmental risks will be allocated in the Site Acquisition Agreement, the Engineering, Procurement and Construction Contract, the Operation and Maintenance Agreement and sometimes in the Offtake Agreement.

Political risks include the direct risks posed by the political climate, but can also extend to include both legal infrastructure and physical infrastructure risks. At an early stage of the development of an international project, the Sponsors may create a detailed risk matrix that will identify the key risks in a particular project, identify the major project agreements and describe how each project agreement allocates the particular risk. The risk matrix may also attempt to quantify roughly the probability of risk occurrence on a risk-by-risk basis, assess the impact of risk occurrence on the project, and identify the principal risk mitigating factors. Accounting for risk impact and probability early on will enable proper prioritization and planning.

Figure 16-2
Key Project Contractual Relationships



§ 16:4.2 Commercial Risk

As discussed, the commercial risks encountered in projects are primarily allocated contractually through the various project agreements.

[A] Construction Phase Risks

The principal construction phase risks encountered in an infrastructure project are the risks of cost overruns, completion delays, and the failure to satisfy required performance standards. These risks are allocated between the project company and the contractor in the EPC Contract and also, to a certain extent, between the project company and the Offtaker in the Offtake Agreement. The mechanisms for allocating risks in the EPC Contract and the Offtake Agreements are discussed later in this section.

[B] Operating Phase Risks

The operating phase risks include operating performance shortfalls, operating cost overruns, fuel risk (consisting of price, supply and transportation risk), and market risk (consisting of demand, price and inflation risk). These risks are principally allocated in the Fuel Supply or Feedstock Agreement, the O&M Agreement, and the Offtake Agreements, each of which is discussed in greater detail later in this section.

§ 16:4.3 Political Risks

Political risks are encountered in virtually every international project. While the specific political risks encountered will vary based on the project, the principal risks can be categorized as summarized briefly below. Political risks may be mitigated through the use of host country laws and regulations, and by including national, regional, and local participation in the project. The risks can also be managed through contractual protections and through political risk insurance.

[A] Principal Political Risks

The principal political risks for an international project are expropriation risk, regulatory risk, contract risk and currency risk. These risks are discussed in section 16:9 in the context of the unique risks that arise in international projects, but are summarized briefly below for purposes of this discussion. Expropriation risk includes the risk of an outright nationalization of project assets or rights or the equity ownership in the project company in a discriminatory or arbitrary manner or without just compensation.

In contrast, “creeping expropriation,” which is more common, can occur through a combination of taxes, fees or other charges used by the government to increase gradually the government’s share of the project’s profits.

Regulatory risks for a project arise as a result of lawful changes to the regulatory environment which make a project unprofitable or less profitable. This can occur in a number of ways, including, for example, restrictions on imports or exports and the imposition of foreign investment review procedures. Contract risk is the risk that the project agreements may be deemed unenforceable in the country or may be repudiated by a government-controlled counterparty to the project agreements. The risk of nonperformance by a contract counterparty may always be present, but this risk is greater when a governmental entity is the counterparty, and greater in a country without a developed legal system. For example, following a change in political power, the new government faced with agreements entered into by its predecessor may be motivated to repudiate a contract. A contract may also be effectively repudiated when a counterparty refuses to perform on the basis that the contract has been rendered commercially impracticable. The defense of impracticability is common in many countries and is often argued to mean the contract is no longer economically profitable to the counterparty.

Currency risk includes the risk of inconvertibility of the host country currency and the exchange risk encountered when the project’s revenues are denominated in a different currency than its debt and other project expenses. Currency risk also includes the risk that the project company will not be able to transfer currency out of the host country for debt payments and repatriation of equity capital. Restrictions on currency transfers can range from a limitation on amounts transferred to the need to obtain central bank approval prior to the transfer.

[B] Legal Infrastructure

In many regions of the world—particularly in emerging countries—the legal system presents a unique set of risks. Many countries place restrictions on foreign investment into their markets. For example, the company or foreign investment laws of some countries require that the majority interest in a domestic enterprise be held by a domestic party. Some countries have burdensome tax regimes which could include generally higher tax rates, filing fees, stamp taxes and duties. The absence of a developed body of regulatory and administrative laws, or a predictable and reliable jurisprudential system, can also be a common feature in emerging market countries. It presents particular problems with respect to project agree-

ments if those agreements are required to be governed by local law. Site acquisition agreements are generally always governed by local law, as are most agreements with governmental entities. While the financing agreements entered with the Lenders are typically not governed by local law, the security agreements generally are. When there is uncertainty as to whether a local security interest is enforceable and perfected, this can make financing difficult.

The risks of change in the legal or regulatory regime during the life of a project is, of course, greater the longer the life of the project. If a project's lifespan is anticipated to be twenty to thirty years in duration, it is likely the regulatory landscape will change. This is particularly evident when dealing with environmental issues. In countries with underdeveloped environmental standards, it is reasonable to conclude that such standards may become more exacting over the life of the project. This risk is often mitigated by the fact that many Sponsors will design a project to comply with the environmental standards of their home jurisdiction regardless of the less stringent requirements of the host country. In addition, project finance Lenders will generally require that the project satisfy World Bank guidelines for environmental liabilities when those guidelines are more strict than the local regulations.

[C] Physical Infrastructure

Physical infrastructure risk relates primarily to the difficulty in having free access to the infrastructure and other items necessary for construction and operation of the project. The supply of water, utilities and other necessary consumables can often be unpredictable with respect to both availability and pricing. Unless a project is located in an industrial area, there may be a lack of pipes, roads, ports and other transportation for completion and operation of the project and transportation of the output to the Offtaker. The ability to obtain such infrastructure on commercially reasonable terms must be accounted for at an early stage in the project's risk analysis.

[D] Managing Political Risks

In order to manage political risk, it is best to consider first the host country's perspective. An understanding of the host country's social, economic and political goals is a good place to begin analyzing political risk and how to manage it. To the extent a country is prone to radical political shifts, however, it can be difficult to determine these goals, as they often change dramatically when a new political party gains control of the government. Another means of managing political risk includes the use of government participation in the project. Host government participation can come, for example, in the form of performance undertakings to protect the project

against changes in law, expropriation and political force majeure. The use of an Implementation Agreement (or another similar form of undertaking) or the inclusion of a governmental entity as one of the major participants in the project can help manage political risks. In the latter case, it is predicated on the hope that the government will not take actions against its own interests. In a similar vein it is also beneficial to include local parties as participants in the project. Local parties can participate as co-Sponsors or by serving as sources or suppliers of equipment, spare parts, essential services, labor or even financing. While far from a panacea, local participation can reduce the likelihood that the project will be unexpectedly confronted by adverse political forces.

§ 16:4.4 Major Project Documents

As noted elsewhere in this chapter, all of the project documents are interrelated and must be negotiated with each of the other project documents in mind. The function of each of the key project documents—the Implementation Agreement, the Site Acquisition Agreements, the Engineering, Procurement and Construction Contract, the Offtake Agreement, the Fuel Supply Agreement and the Operation and Maintenance Agreement—and the means by which these project documents allocate project risk, is described below.

[A] Implementation Agreement

An Implementation Agreement can take many forms but is generally an agreement with a government agency or entity. The Implementation Agreement is used by a host government to encourage a capital intensive project to be built in the host country. It is the principal agreement through which most political risks will be managed. Not all projects will benefit from an Implementation Agreement or other direct governmental participation. If a country has a favorable investment climate or a history of successful foreign investment, then an Implementation Agreement may not be necessary. For example, if the government of Trinidad and Tobago desired to have a power project built, there might be no need for an Implementation (or similar) Agreement to support the local utility's power purchase obligations. On the other hand, a power project developed in Pakistan, where the investment climate lacks a similar history, would likely require an Implementation Agreement to attract desirable Sponsors and financing packages.

An Implementation Agreement will address many of the host country's political, regulatory, legal and financial risks. It will include performance undertakings by the host government with respect to issues such as the term of the project, change in laws, expropriation and political force majeure, foreign exchange avail-

ability and transfers, waivers of sovereign immunity, buyouts of the project company in certain events, local content requirements, and tariff, tax and other investment incentives.

The term of an Implementation Agreement should be at least as long as the related Offtake Agreement. For a power project, this can range from ten to thirty years. The term must be long enough to ensure complete debt repayment and a reasonable return on Sponsor equity. Ideally, an Implementation Agreement will remain in place for the life of the project. The Implementation Agreement may require a specific amount of local content for a project, including to meet project labor and equipment requirements. Usually one of the host government's goals, in addition to spurring investment, is to increase employment and train the local labor pool in higher skilled jobs, as well as to increase capital flow to local suppliers.

As noted previously, expropriation risks are particularly present in jurisdictions lacking a long history of private ownership of domestic resources or assets in industries generally owned and operated by a local government entity. When these risks are present, the Implementation Agreement should provide protection against the risk of the government taking or otherwise confiscating the project assets. The project Sponsor will ideally define "expropriation" very broadly to include "creeping expropriation" which, as discussed, can occur as a result of changes of law or losses of permits that will effectively prevent the project from operating at full capacity or generating anticipated profits. In the event of creeping expropriation, the project will not be expropriated as a result of the government taking the project over, but the effect of the creeping expropriation will eventually make the project commercially less viable. A remedy in the event of an expropriation may include a buyout of the project by the government in an amount sufficient for the project company to repay its financing obligations and provide for a return on the Sponsors' equity.

Project permits will be required from various national and local governmental entities. In order to facilitate the ability to procure essential permits, the Implementation Agreement may also include a covenant by the government counterparty to provide cooperation in the permitting process. This may be in the form of an obligation of the government counterparty to use its best (or all reasonable) efforts to assist the project company in obtaining all permits. Since the government counterparty is not the permitting agency in all cases, this will not guarantee success in obtaining all permits, but can still be beneficial to the project company.

An Implementation Agreement should also address the risks of foreign exchange availability. Since most projects are financed with international commercial bank loans or through capital markets, it

is important for the project company to have access to foreign exchange to repay the debt obligations, and for the project Sponsors to be able to repatriate their profits in foreign exchange. As discussed elsewhere, the issue of access to foreign exchange is particularly important for a project whose revenues are denominated in the host country's currency. In projects that generate product for export, foreign exchange is not as acute a concern because the revenues are often paid in foreign exchange directly into accounts located in international money centers (for example, New York or London). This, however, is not a complete protection against currency risk. For example, in 2003, Argentina required exports of certain natural resources (or products derived from natural resources such as propane), to be diverted to domestic needs and at a price inconsistent with the market price for such resources. Despite having long-term sales contracts that generated foreign exchange, projects in Argentina were required to divert their export sales to internal sales. This change ultimately impacted many projects in Argentina that had previously remained viable despite the Argentine financial crisis. It resulted in a limitation of exchange for debt repayment because the payments for the natural resources were made in Argentine pesos and the price paid for the propane was no longer market. Most, if not all, of the project financings in Argentina prior to the 2001 Argentine political crisis did not benefit from an Implementation Agreement because Argentine political risk was generally viewed as acceptable.

An Implementation Agreement will often provide investment incentives in the form of tax benefits and customs duty relief. Tax benefits are often in the form of a "tax holiday"—a negotiated period of time during which the project company is exempt from tax liability in the host country. A tax holiday is often considered necessary to make a project commercially viable, especially during the period in which the project company will have debt service obligations. A tax holiday is justifiable from a local perspective because of the benefits the host country will derive from attracting large infrastructure projects, such as the creation of local jobs and the provision of necessary equipment and services.

One of the key risks to consider in an international project is the risk of a change in law after the capital investment is made or the obligation to make the capital investment is incurred. The Implementation Agreement should address change of law risk. The Implementation Agreement may effectively "grandfather" the project so as not to subject it to a change in law that adversely affects the project. Or it may give the project company the benefit of a most favored nation provision, which will allow the project company to

take advantage of subsequent favorable changes in law or policy which would otherwise not be available to it.

It is also important to include in Implementation Agreements a specific waiver of sovereign immunity by the government counterparty to the Implementation Agreement. The lack of a sovereign immunity waiver can ultimately prevent the counterparty from enforcing the rights granted in the Implementation Agreement. Many countries, including the United States, have laws which provide that a foreign sovereign or an instrumentality of a foreign sovereign is immune from suit unless there is a statutory exception permitting such a suit. Waivers are often among the statutory exceptions to sovereign immunity, but waivers must strictly comply with the applicable law or otherwise they may not be enforceable.

[B] Site Acquisition Agreement

All infrastructure projects require a site for the project and easements or rights-of-way for access to and from the site. Rights to the site itself may be granted through the grant of fee title, the grant of a leasehold or easement estate, or a permit or other authorization from the government for government-owned land. A fee simple grant is ideal and easier to finance, but in some situations outright ownership of the site is not possible. In some countries, for example, a fee simple estate (or its equivalent) may not be granted to a private entity, or there may be restrictions on foreign ownership of land. In other situations, the Sponsors may be granted a lease or a permit to use the site for the project. If this is the case, the lease or permit for the site must be for a period no shorter than the useful life of the project. In addition, the leasehold interest must be mortgageable to the Lenders. If the project company is unable to assign collaterally its leasehold interest, the project will not be financeable.

It is also important to coordinate with local counsel to determine any preexisting rights to or restrictions over the project site. Many developing countries do not have real property title insurance. In the absence of title insurance, title risks can be mitigated by a review of the title report or survey map by an engineer, a physical inspection of the property, adequate representations and warranties in the site acquisition agreement and, finally, a title opinion from local counsel. Local counsel should also be able to advise as to title exceptions or encumbrances. Such encumbrances may include easements or other similar rights held by third parties, financial liens on the project site, covenants, conditions and restrictions that run with the real property. In addition, local counsel should advise as to preexisting rights with respect to the site, including rights as to which the project company may be deemed to have constructive knowl-

edge such as rights discernible from public title records or a site inspection.

Site acquisition is generally dealt with primarily through the use of local counsel. However, it is important not to rely solely on local counsel for this purpose. It is ultimately international project counsel that will have a full understanding of the project's overall requirements. This is particularly the case, as countless experiences have shown, with respect to tracking the rights-of-way needed for construction activities, as well as the transport of feedstock and product output to and from the project site.

One must also consider environmental risks in connection with site acquisition. The risk of preexisting environmental conditions on or impacting the site will be addressed in the site acquisition documentation. Preexisting conditions require an analysis of soil and groundwater contaminants (on the project site and its neighboring environs). It is also important to consider the risks posed by the presence of existing structures on the property, endangered species and historical, archeological and religious artifacts. A project Sponsor can mitigate certain of these risks by employing a competent environmental consultant, commissioning an environmental site assessment (especially to identify preexisting conditions), retaining local counsel to advise on environmental issues, and procuring an environmental indemnity for preexisting conditions at the site from the seller. Environmental issues have become an area of particular sensitivity to Sponsors and Lenders alike. As will be discussed in greater detail in the section 16:6, Lenders are increasingly applying more stringent World Bank or other applicable standards in situations where the local laws would otherwise have granted the project greater latitude.

[C] Engineering, Procurement, and Construction Contracts

The Engineering, Procurement, and Construction Contract (EPC Contract) is an agreement between the project company and an international EPC Contractor providing for the construction of a fully completed project on a turnkey and timely basis. It will require the EPC Contractor to deliver a plant which meets detailed specifications and performance criteria by a date certain. The EPC Contract will allocate to the EPC Contractor the full responsibility to provide for plant design and engineering, procure all equipment, machinery and parts required for plant construction, perform all construction activities required to build and erect the plant, and start up, commission, and test the plant against specified performance targets. The project company will want the EPC Contractor to provide all of these services on a turnkey basis for a fixed price. Although the EPC

Contractor will subcontract many of its responsibilities to other parties, the EPC Contract will provide that the EPC Contractor is the sole party responsible for the entire scope of services and work required to construct the project, and is accordingly the single party that will bear full liability for the same. To the extent there are warranty or performance issues due to the work of a subcontractor, the EPC Contract will make clear that the EPC Contractor must bear full responsibility for all the work and will not require the project company to make claims against the subcontractors.

[C][1] Mechanisms for Allocation of Risks

Since the goal of the EPC Contract is to provide a fully completed project on a timely basis, the EPC Contract will allocate certain price risks (including the risk of cost overruns), performance risk and delay risks to the EPC Contractor. The EPC Contract will use the following mechanisms to allocate and mitigate these risks:

- (i) structuring the EPC Contract as a fixed price lump-sum “turnkey” contract;
- (ii) contractually prohibiting scope of work increases without the use of change orders;
- (iii) establishing specific performance criteria and a date certain for completion;
- (iv) providing for liquidated damages for failure to meet schedule deadlines and performance criteria; and
- (v) providing for extended warranties covering the project equipment and materials.

[C][2] Lump-Sum Turnkey Contract; Selection of Contractor

When the EPC Contract is structured as a lump-sum turnkey contract, the EPC Contractor will assume the full risk of timely completion against guaranteed performance standards under a fixed price contract. In such a structure, the EPC Contractor will be responsible for all engineering, procurement and construction services and will assume the risks inherent in the design, construction, supply, installation, testing, pre-commissioning and commissioning of a project, including the risk of on-time completion and compliance with strict performance guarantees.

An EPC Contractor will be required to stand behind or guarantee the performance of all aspects of the plant, regardless of the source of any particular equipment or part, and bear full responsibility for the work of subcontractors and the cost of materials, construction and fabrication. The concept of an EPC Contractor standing behind the obligations of various third parties to provide the project compa-

ny with a fully completed, guaranteed and warranted project in a timely manner is referred to as a “wrap.” As a fixed price, date certain contract, the EPC Contract will permit increases in the contract price or extensions of the time for completion only through a detailed change order procedure. The benefits of a fully wrapped EPC Contract will come at a price to the project company in the form of premium pricing. A project may be constructed using an alternative contracting method, but these methods can make financing more difficult. A construction project that is not wrapped will likely require significant Sponsor support during the construction period, including Sponsor completion guarantees. The Sponsors may even be required to fund all construction work with their balance sheet and only pursue project financing after the project has been completed.

An alternative contracting structure is to construct the project based on a cost-plus contract or a variation thereof. This form of contract requires the project company to pay for all actual costs incurred by the contractor on a pass-through basis and also pay an agreed profit component. Although this form of contract will eliminate the built-in contingency premium of an EPC Contract, it allocates to the project company all construction overrun risks and could ultimately result in much higher overall costs. For example, assume the project has a large steel requirement. The price for steel is volatile and fluctuates greatly depending on market forces. The price can change dramatically between the period of contract award and the date the order is procured. In an EPC Contract, this price risk will be allocated to the EPC Contractor. In a cost-plus contract, the project company bears this risk.

In order for a wrapped EPC Contract to be of sufficient value, it is important that the EPC Contractor be an internationally recognized and experienced contractor, with an established name, proven reputation, experience in the technology used in the project, an understanding of the local markets, and the ability to use local labor. Most important, the EPC Contractor must be a creditworthy entity capable of financially assuming the liability associated with a project of significant size and magnitude.

[C][3] Scope of Work

The EPC Contract should have a detailed scope of work provision and accompanying schedules that specify complete design and engineering criteria and technical specifications for the project. The procurement obligations should be comprehensive and provide for the obligation to procure all materials and equipment, machinery, tools and consumables (for example, fuels, chemicals and utilities). The EPC Contract should also require the EPC Contractor to pro-

vide all of the qualified, experienced and licensed personnel that are required to complete the work. The procurement obligations should allocate to the EPC Contractor the risks of importation and transportation of all equipment and materials to the site.

The EPC Contractor's scope of work should also include a training program. The EPC Contractor will be required to train the project company's personnel and the project's Operators. The EPC Contractor will also be required to produce various documentation for the project company, including manuals, as-built diagrams for startup, operation, maintenance, quality control, safety procedures and training. The EPC Contract should carefully identify the permit requirements for the project and the party responsible for obtaining each permit. The project company and the EPC Contractor will each have obligations to procure certain permits. Typically, the Owner is responsible for obtaining permits pertaining to the right to build a certain type of plant meeting certain specifications on site, while the EPC Contractor is responsible for all permits pertaining to the construction itself and all construction related activities.

The project company will also have certain additional, though limited, obligations under the EPC Contract. Failure to comply with these obligations will generally be a defense to certain of the EPC Contractor's guarantees or give the EPC Contractor the right to a change order for an increase in the contract price or an extension in the construction schedule. These additional obligations will usually include the obligation to provide access to and the provision of a project site, including an area for construction, lay down areas, storage facilities, interconnection lines, temporary roads and parking. The project company will likely be required to procure fuel and certain utilities (water, sewer, telephone) in defined quantities. This will include fuel for startup, testing and commissioning the project.

[C][4] Performance Guarantees

An EPC Contract will establish strict performance targets, usually for project output, efficiency and reliability, which the project must meet in order to achieve completion. These performance guarantees are set at negotiated levels, and the procedures under which the plant is tested in order to determine whether the guaranties have been satisfied are likewise negotiated and expressly covered in the EPC Contract. When plant construction has reached a stage where the plant is deemed to have achieved mechanical completion, it will undergo a series of tests under the agreed procedures to determine compliance with the performance guarantees.

Usually (for power projects, for example), the performance guarantees (at least for output and efficiency) are two-tiered. The full contracted guarantees will be set as the higher tier, which the EPC

Contractor will aim to obtain in order to achieve final completion. A lower minimum guarantee level will also be established, the achievement of which will be an absolute requirement in order for the EPC Contractor to be able to deliver the plant to the project company. Upon achieving the minimum guarantee levels, the plant will be deemed to have achieved “substantial completion.” Upon substantial completion, the project company is typically permitted to take control of the plant and declare the plant commercially operable. Thereafter, the EPC Contractor may be required to continue to perform work or improvements on the plant, in order to achieve the higher contracted full performance guarantee levels. The failure to achieve the full guarantee levels can be remedied through the payment of specified liquidated damages.

[C][5] Liquidated Damages/Bonuses

The EPC Contractor’s principal obligation is to deliver a completed plant on time and in compliance with the specified performance guarantees. Timely completion and the achievement of the performance guarantees are usually enforced with the use of liquidated damages, and incentivized through the payment of bonuses. Liquidated damages for delay (Delay LDs) will typically be based on a specific amount payable per day for each day of delay in achieving substantial completion beyond the target date specified under the EPC Contract. The use of delay damages will usually only partially mitigate completion risks, however, because the EPC Contractor’s liability for delay liquidated damages will be subject to a cap. In addition, rarely can the delay damages be set at a level that keeps the project company whole with respect to costs or penalties incurred or revenues foregone during the period between the guaranteed substantial completion date and the actual substantial completion date. While the daily amount payable as liquidated damages is theoretically calculated to take into account additional interest during construction costs, liabilities under the offtake and fuel supply agreements, and lost revenue under the offtake agreement, Delay LDs (under present market conditions) are not typically set to recover all these costs. In practice, the Delay LDs are set at levels to incentivize the EPC Contractor to achieve completion as soon as possible. If the amount of the Delay LDs is too small, the EPC Contractor may be incentivized to mobilize labor to another project with more demanding liquidated damages. On the other hand, if the delay damages are so high that the EPC Contractor quickly hits the cap on liability, the EPC Contractor may determine that completion is not possible within the short time period and may elect simply to pay the maximum delay liquidated damages and divert personnel to another more profitable project.

In the event that, after final testing, the project does not satisfy the full performance guarantees, the EPC Contractor will be liable for performance liquidated damages (Performance LDs). The Performance LDs are amounts calculated based on the margin by which the project fails to satisfy the specified performance targets. These Performance LDs will also be subject to a cap. As mentioned, a typical EPC Contract will also have a minimum performance guarantee which must be satisfied by the EPC Contractor. The failure to achieve the minimum level cannot be cured or remedied by the payment of performance liquidated damages. In fact, the Performance LDs are only payable once the minimum performance guarantees are met (and substantial completion has been achieved), based on where plant performance (as tested) actually falls between the minimum performance standards and the higher contract full performance guarantees. Failure to achieve the minimum performance levels will subject the EPC Contractor to either unlimited liability (in some instances) or to liability up to the amount of the full EPC Contract Price (in most instances).

An EPC Contract may also use bonus payments to incentivize the EPC Contractor to complete the project early, or for exceeding the performance guarantees. If the Offtake Agreement permits the project to commence commercial operation early, then in addition to reducing the project company's interest during construction, early completion can allow the project company to begin generating revenue sooner. In such a situation, bonuses would be a fair incentive to offer the EPC Contractor. Likewise, the Offtake Agreement may provide for a capacity payment based on the contract capacity of the project. If the project tests at a contract capacity higher than the nameplate capacity, the project company would benefit from higher capacity payments and can, hence, offer a portion of this benefit as an incentive bonus to the EPC Contractor under the EPC Contract.

[C][6] Change Orders

A fixed price EPC Contract should only permit changes to the contract price through the use of change orders. Change orders should also be the only means by which the EPC Contractor is entitled to schedule extensions to achieve substantial completion, final completion or other earlier interim milestones. Change orders cover situations in which either

- (i) the project company requests changes in the EPC Contractor's scope of work,
- (ii) the EPC Contractor suggests changes in its scope of work, or

- (iii) the EPC Contractor is entitled to a price increase or schedule extension based on the terms of the EPC Contract.

Change orders requested by the project company are negotiable and generally require the agreement of the EPC Contractor, unless the EPC Contract allows for cost-plus based change orders. Change orders suggested by the EPC Contractor will be at the project company's discretion and also subject to the negotiation of an acceptable change order with the EPC Contractor. An EPC Contract will also identify a limited set of circumstances under which the EPC Contractor will be entitled to require the project company to issue a change order. These circumstances are usually limited to increases in contractor costs or extensions of time required as a result of changes in law, the project company's breach or default, the discovery of unusual and unforeseen site conditions, and certain force majeure events. From the project company's perspective, it is important that there be limits to the EPC Contractor's ability to request a price increase or an extension of time for completion, and that there be a clear procedure for making such claims. The EPC Contractor should be obligated to notify the project company within a short period after the EPC Contractor has notice or knowledge of a potential claim. Failure to make a timely claim should result in a waiver of the claim. Without procedural and timing limitations, the project company may receive a large claim for change orders at the end of construction that date back to the beginning of the project.

A critical issue related to change orders which the parties often fail to consider when negotiating the EPC Contract is the issue of which party owns the "float." As discussed, an EPC Contract will have a date certain for achieving substantial completion, which determines when Delay LDs begin accruing. To arrive at this date certain, the EPC Contract will have interim milestone dates by which key components of the project must be completed in order to reach completion or commercial operation by the date certain. These agreed interim milestone dates will be developed by the EPC Contractor and will have a built in time cushion to protect the EPC Contractor for unanticipated delays. This cushion is referred to as the "float." In simplified terms, if the EPC Contract only entitles the EPC Contractor to an extension of time because the underlying event giving rise to the delay would reasonably be expected ultimately to delay completion past the date certain, then the project company is considered to own the float. However, if the underlying event causing the delay would not reasonably be expected ultimately to result in a delay past the date certain, but nevertheless the EPC Contract entitles the EPC Contractor to a schedule extension, then the EPC Contractor is considered to own the float. For example, assume the EPC Contractor is entitled to a schedule extension as a

result of a force majeure event which prevents the EPC Contractor from accessing the project site for ten days, but, in actuality, this delay would not reasonably be expected to cause the EPC Contractor from achieving a particular key milestone. The delay would take ten days of float out of the EPC Contractor's internal schedule. If the EPC Contractor is entitled to a change order for a schedule extension as a result of this event, then the EPC Contractor is considered to own the float. If the EPC Contractor is not entitled to such a change order, then the project company is considered to own the float.

An EPC Contractor may be entitled to a change order as a result of unusual and unforeseeable site conditions which result in construction cost overruns and delays. Usually, the project company will try to allocate to the EPC Contractor the risk of all site conditions and will, accordingly, request representations of the EPC Contractor that it is familiar with the site's condition, topography, weather conditions and access. The project company should also seek a representation that the EPC Contractor has undertaken studies of surface and subsurface conditions as necessary. Quite often, however, an EPC Contractor may bid for a contract without the time or information necessary to perform detailed site work. If the EPC Contractor is given sufficient time to do a site inspection, then the EPC Contractor should largely accept the risk of site conditions. In the event there are unusual site risks which would not reasonably be detected from a reasonable site inspection, the project company will likely be required to bear this risk. Unusual site conditions include latent or concealed conditions, and unusual physical conditions that differ from those typically found in the area. Because Lenders are usually unwilling to accept site risks, especially risks related to environmental conditions, it is important that the risks of preexisting site conditions that cannot be allocated to the EPC Contractor under the EPC Contract be allocated to the counterparty under the site acquisition agreement.

[C][7] Payment Terms

The typical EPC Contract payment terms call for the payment of fixed-lump sum price in installments based on the milestone or progress payments. Milestone payments are conditioned on meeting certain project milestones, the achievement of which will usually require a certificate from an independent engineer confirming that the project milestones have, in fact, been satisfied. The payment terms will usually allow the project company to withhold as "retainage" a percentage of each payment due. The purpose of retainage is to provide the project company with economic leverage to ensure completion of the project, particularly in circumstances where the

EPC Contractor has failed to meet its performance guarantees. The retained funds may also be used to facilitate completion of the project by the existing contractor or a replacement contractor. The amount of retainage will vary, but generally will be in the range of 5% to 10% of each payment. The EPC Contract should be specific as to when the project company is permitted to apply the retainage amounts. For example, the project company should ordinarily be entitled to apply retainage to cure contract defaults, to complete unfinished construction, to offset amounts owed by the EPC Contractor (such as liquidated damages) and to pay any unpaid subcontractors. An EPC Contract will often permit the EPC Contractor to provide a bond or letter of credit in lieu of retainage. EPC Contractors usually take advantage of such a provision to increase cash flow and facilitate their payment obligations to subcontractors. An EPC Contractor will usually request that the amount of retainage be reduced after the project has achieved the substantial completion milestone (when the contractor would no longer be subject to Delay LDs). The rationale is that, at this point, the retainage amount may be much greater than the potential liability intended to be secured by such retainage. If the project company requires the EPC Contractor to pay for a bond or letter of credit in the full amount of the retainage, the costs for obtaining the bond will usually be passed through to the project company.

Another issue which often arises in connection with payments under an EPC Contract is whether the project company is entitled to withhold payments to the EPC Contractor in the event of a material breach. EPC Contractors will generally object to such a clause because these projects have relatively thin profit margins for EPC Contractors, such that any sizeable withheld payment may put the EPC Contractor into a liquidity squeeze and jeopardize its ability to pay its own subcontractors (who in turn may seek to put liens on the project if not paid). For this reason, the right to withhold payment gives the project company additional (but somewhat questionable) leverage in a dispute. If an EPC Contractor agrees to permit the project to withhold payments in the event of a material breach, it is important that the EPC Contractor include similar rights in its material subcontracts.

[C][8] Defaults and Remedies

The EPC Contract will have provisions defining the events that constitute a default and provide specific remedies for such defaults. The defaults will include customary defaults, such as breach of payment and performance obligations, breach of representations and warranties and bankruptcy-related defaults. The EPC Contractor's failure to reach substantial completion or commercial operation by

the guaranteed substantial completion date will also typically constitute a default. The project company's remedies should include the right to take possession of work in progress, the right to assume all contracts with subcontractors and the right to complete the construction in the event of a material breach of the EPC Contract. These rights are both customary and critical for the project company. If construction is already delayed, the inability to take possession without delay in an attempt to complete the project as soon as possible will have adverse ripple effects through the Offtake Agreement, the Fuel Supply Agreement and usually the financing agreements.

[C][9] Dispute Resolution

Disputes under an EPC Contract are often resolved with the use of international arbitration tribunals. It is very important for the project company to require that the EPC Contractor continue working during a dispute. If the EPC Contractor is permitted to suspend work while a dispute is being resolved, there will be inevitable delays in the project that likely will not be subject to Delay LDs and will give the EPC Contractor additional leverage in negotiating a settlement to the dispute. It is also important to require that the EPC Contractor have similar provisions in the EPC Contractor's major subcontracts.

[C][10] Split EPC Contracts

It is not uncommon for an EPC Contractor to request the EPC Contract be split into an onshore EPC Contract and an offshore EPC Contract, predominantly for tax reasons. Local counsel should be consulted to confirm the intended tax benefits that will accrue from such a split. If appropriate, such a structure would reduce the EPC Contractor's local tax liability for equipment procured and services performed outside the host country. Such a structure adds to the complication of the project documentation and will result in at least three separate EPC Contracts: an onshore EPC Contract, an offshore EPC Contract (sometimes referred to as a supply contract) and a coordination agreement that confirms the two EPC Contracts work together as if one EPC Contract. The project company will need to assure that there are no gaps in coverage between the split EPC Contracts with respect to specifications, scope of work, performance and warranty obligations, timing, liquidated damages and overall liability.

[C][11] Conclusion

The EPC Contract must be carefully coordinated with the other project documents. The Offtake Agreement may require that the

project company begin performance by a date certain and the Feedstock Agreement may require the project company begin receiving fuel or other feedstock by a date certain. If the project has not achieved commercial operation by or prior to such dates, the project company will begin to incur costs and penalties. In addition, the EPC Contract must ensure that the project is capable of meeting minimum guaranteed deliveries under the Offtake Agreement and minimum guaranteed receipts under the Fuel Supply Agreement. The EPC Contract must provide for the appropriate level of performance guarantees for plant output, efficiency and reliability, in order to achieve these minimum requirements. Liability caps under the EPC Contract must be carefully considered with the obligations and liabilities under the other key documents. Proceeds from liquidated damage claims for performance guarantees will often be required to repay a portion of the project financing debt. If there are damages and other penalties, the proceeds must also sufficiently cover these risks or such risks will fall on the project company. If the risks fall on the project company, the Lenders will often require equity contribution guarantees from the Sponsors, since Lenders will usually not permit the project company to accept residual performance risks.

[D] Offtake Agreement

Offtake Agreements are the agreements that provide for the revenue stream to the project company. Hence, Offtake Agreements typically receive the most attention in negotiations by the Sponsors, and the most scrutiny in review by the Lenders. In a power project, the Offtake Agreement will usually be a Power Purchase Agreement or a tolling agreement. In a petrochemical project, it will be the contract that governs the sale of the chemical produced by the project. A long-term Offtake Agreement with a creditworthy counterparty is usually required in order for an infrastructure project to be financeable. Some projects can be financed without an Offtake Agreement covering all or a significant portion of the product produced. These projects are referred to as merchant projects, and the key to successfully structuring a merchant or a semi-merchant project is the ability for the project company to demonstrate, usually through the use of an independent third party market consultant, that there is adequate demand for the product such that a long-term Offtake Agreement is not necessary. After the recent failure of many U.S. merchant power projects, the ability to finance purely merchant projects has been more difficult unless the merchant portion of the project is limited. If there is a long-term Offtake Agreement which provides sufficient revenue to service the debt, the Lenders may allow the Sponsors take the merchant risk for the excess capacity.

[D][1] Types of Offtake Agreements

In international projects, Offtake Agreements can take the form of take-or-pay contracts, take-and-pay contracts, long-term sales agreements, spot sales agreements and tolling agreements. In a take-or-pay contract, the purchaser of the output will be required unconditionally to pay for product regardless of whether the purchaser actually received the product. A take-or-pay contract is often entered into with one or more of the Sponsors. It effectively serves as a guarantee of the project and is often reflected as a guarantee on the Sponsor's balance sheet. A true take-or-pay contract will permit limited exceptions to the purchaser's obligation to pay for product that it did not receive. The purchaser will, of course, try to negotiate exceptions to the take-or-pay obligation. To the extent a take-or-pay contract is deemed necessary for financing, if the project Owner cannot adequately demonstrate that a risk retained by the project company, rather than the purchaser, is not allocated to another creditworthy party under another project agreement, the Lenders will require the take-or-pay Offtaker to accept the risk in the Offtake Agreement.

In a take-and-pay contract, in contrast, the purchaser of the product is required to take product received or pay for such product, if the project company was capable of production. The amount required to be paid by the purchaser (in the situation where the Offtaker is unable to take delivery) is usually based on the fixed costs of the project company, and will typically be calculated to cover debt service, fixed operation and maintenance costs, and a fixed equity return.

In a long-term sales contract, the purchaser agrees to purchase specified amounts of product. The amount during any period will often be a range, with a specified minimum and maximum quantity requirement over any given period. The obligation to accept the product is only to the extent the product is produced and if it meets established quality specifications. If the purchaser does not take a negotiated minimum amount of product, then the purchaser may be required to pay damages for failing to accept the minimum amount; however, these damages are not necessarily linked to the project company's fixed costs.

Spot sales contracts are usually short term sales contracts in which the product purchased is based on the existing market price at the time of the sale. There is no obligation to pay for any minimum amount of product. These contracts are not considered to support a project's revenues and projected revenues from spot sales are not generally included in the Lenders' base case projections for a project. Unless a project generates product with significant projected long-term demand, the Offtake Agreements cannot be based

solely on spot sales arrangements. However, taking such price and production risk may yield commensurate returns. Unlike most take-or-pay or take-and-pay contracts, spot sales contracts allow the project company to take advantage of temporary price spikes in the commodity produced by the project. Accordingly, some projects may structure the offtake arrangements in a way that permits the project company to take advantage of market price increases through spot sales.

Under a tolling agreement, the Offtaker agrees to supply the fuel used at the plant and to purchase the electricity produced, and the project company agrees to convert the fuel (usually gas) into electricity. The Offtaker pays for the project's conversion service rather than the energy. The key advantage of a tolling agreement for the Offtaker is that it allows the Offtaker to trade around the "spark spread." If gas prices are high and electricity prices low, the Offtaker can sell the gas and leave the plant idle. Conversely, if electricity prices are high, the Offtaker can supply the gas to the project and purchase the electricity produced. With the significant rise of gas prices in the United States, many Offtakers are out-of-the money in their tolling agreements.

[D][2] Key Provisions

The key provisions of most international project offtake agreements include the following:

- (i) the term of the agreement;
- (ii) conditions precedent to effectiveness;
- (iii) purchase and sale obligations;
- (iv) construction obligations;
- (v) restrictions on the Offtaker's ability to resell the product;
- (vi) pricing;
- (vii) plant outages;
- (viii) measurement or metering;
- (ix) operating obligations;
- (x) force majeure;
- (xi) changes in law;
- (xii) events of default and remedies;
- (xiii) credit support obligations;
- (xiv) assignment prohibitions;
- (xv) indemnification;

- (xvi) limits of liability; and
- (xvii) dispute resolution.

A form of these will appear in most offtake agreements regardless of the nature of the product sold. For purposes of analysis, the discussion below will focus on how some of the foregoing terms are handled in the context of a Power Purchase Agreement (PPA). The concepts discussed below are also applicable to other common offtake agreements for industrial commodities beyond electric power.

[D][3] Term of Offtake Agreement

Power purchasers are usually public utilities, concessionaires, and regulated companies. In certain cases they are owned by the government. The project company will usually hold an authorization, concession, or other governmental permit enabling it to operate as an independent power producer. In addition, the PPA may also be executed by guarantors/sureties, transmission companies, and other entities with an interest in the transaction. The term of a PPA will depend on the location of the project, but should generally be for a base term that will provide for complete debt repayment and an equity return. The base term may also be renewed for a certain number of renewal periods, upon the agreement of both parties. A renewal may require the renegotiation of certain commercial terms. A PPA may also provide for an early termination in favor of the power purchaser. In such an event, there will generally be a requirement that the power purchaser purchase the project at a price sufficient to retire all debt and to provide a reasonable equity return. The term of the PPA will have a direct impact on the term of the financing. The longer the term, the less the exposure of the project company to energy market price variations, since the power purchaser will take certain amounts of energy and capacity at a pre-agreed price. On the other hand, the longer the term of the PPA, the further off the ability of the project company to capture the upside of higher than contract power prices. The term of the PPA should also coincide with the terms of other major project agreements, and principally the Fuel Supply Agreement.

[D][4] Construction; Environmental Issues

An international PPA will also address certain construction obligations of the project company. Power purchasers in the United States are generally only interested in plant output and not in its physical construction. In many international PPAs, however, the PPA will address construction obligations. Such construction obligations may include the obligation to construct the plant in accor-

dance with certain specifications. Since the power purchaser may ultimately be purchasing the project itself, it is important for the power purchaser to assure that the project meets specifications. For the Owner in this situation, it is important that these specifications are also included as a baseline in the EPC Contract. In the event the project does not meet the specifications required under the PPA, the project company will need to be able to pass through any resulting damages to the EPC Contractor. The PPA construction obligations may also include schedule milestones and bonus and penalty provisions for not satisfying such milestones, as the power purchaser will prefer to have certainty as to when it can rely on the energy produced by the project. These milestones similarly need to be integrated into the EPC Contract. If the construction obligations under the PPA are not properly allocated to the EPC Contractor under the EPC Contract, then the project company will bear the gap risks. Generally, Lenders will not accept such risks and will require some form of Sponsor support as cover in order for the project to be financeable.

In some instances, the PPA will also deal with environmental issues. When the PPA requires the power purchaser to purchase the project in certain events, environmental concerns will need to be addressed in detail. The project company should carefully analyze the environmental conditions of the project site and allocate responsibility accordingly.

[D][5] Testing and Commissioning

The PPA will likely also include specific testing obligations for the plant. Failure to satisfy certain tests will likely result in reductions in revenue payments to the project company. If the project company fails to satisfy the required tests, the power purchaser could decide to “downgrade” the amounts of assured capacity acquired under the PPA, which would result in the reduction of fixed payments along the life of the PPA. Since revenue reductions will make debt service obligations more difficult, the EPC Contract must provide for corresponding performance liquidated damages so that the proceeds of these damages can be used to prepay indebtedness. If properly structured, the debt prepayments would reduce the debt in such a way that the project is not materially disadvantaged as a result of failing to satisfy the testing requirements under the PPA. There may also be an acceptance requirement by the power purchaser and a deadline by which the plant must be commercially operational. These requirements should be reflected in the EPC Contract acceptance and commercial operation date provisions. The acceptance provisions are important for the power purchaser because they describe how the plant will be deemed capable to pro-

duce energy. It is unlikely that the plant will operate at full load from the outset, but rather will undergo a series of operations tests. During the test period, fuel will be consumed and certain energy (though not assured) may be produced. In some cases the project company will be allowed to sell the energy generated during testing, but since test energy is not continuous, the power purchaser will only be willing to pay for the electricity actually delivered, and not the capacity charge associated with overall plant availability during the operations period. The power purchaser will inspect the facilities and equipment and, once found acceptable, the plant will be “commissioned.” Thereafter, the plant will operate commercially, which means that the full supply and payment obligations of the respective parties will become effective.

[D][6] Conditions Precedent

A PPA may also have conditions precedent which must be satisfied prior to the agreement becoming effective. The key conditions precedent should include the availability of adequate fuel supply, procurement of key permits and achievement of financial close. If the conditions precedent are not satisfied in a timely manner, then the PPA may be terminated without further liability. This protects both the project company and the power purchaser. If the project company cannot obtain financing, adequate fuel supply and key permits, it will not want to incur liability to the power purchaser. The power purchaser, for its part, will not want to be indefinitely bound under a PPA with a project company that is incapable of getting the project developed and financed in a timely manner, and would rather prefer to look for an alternative Sponsor group or put the project out to bid after a date certain. To the extent possible, events under the control of one of the parties to the PPA should not be included as conditions precedent to effectiveness.

[D][7] Outages

A “forced outage” is meant to be a temporary and short curtailment of a power plant’s delivery obligations that becomes necessary to prevent major damage to people or property. A “forced outage” generally means an outage for which the project company is excused under limited circumstances from its ordinary availability requirements before being subject to liquidated damages or other penalties. The power purchaser will generally refuse to accept the risk of supply failure or outage arising as a result of an Operator error. An outage due to the failure to run the plant correctly, or failure of the project company’s equipment, will generally be a forced outage as to which liquidated damages will usually apply. To the extent possible, the project company should be permitted to pass through these

damages to the plant Operator under the terms of the Operation and Maintenance Agreement. In an international project, the project company may be able to obtain broader relief from its performance obligations under the PPA in the event of a forced outage. Particularly in the situation where the plant will ultimately be purchased by the Offtaker, the Offtaker is generally more inclined to excuse the project company's performance in order to address the causes of the outage because otherwise the overall damage to the plant could be much worse.

[D][8] Pricing

The price to be paid the project company under the PPA is usually comprised of a contract capacity charge and an energy charge (for the energy actually provided). The concept of capacity is unique to PPAs because of the unique nature of electricity. Electricity cannot be stored and must be used as soon as it is generated, and must be generated as soon as it is required. Power purchasers generally buy the ability to generate electricity on demand up to a certain amount, in addition to the actual energy generated. Capacity payments are sometimes referred to as demand charges, since the charge is based upon the power purchaser's peak demand for energy at any given time. The price paid by the power purchaser for the ability to demand purchased capacity is referred to as the capacity charge. In order to determine if the project company has available the required capacity, the PPA will usually require scheduled capacity tests to determine whether the plant will generate the contracted quantity of energy. Determining a power plant's capacity at any given time can be important in a natural gas fired power plant, because such plants may have a degradation factor of between 2% to 5% per year until the next major maintenance. In the event the tested capacity is less than minimum contracted capacity, the project company may be required to pay a penalty. If the tested capacity is higher than the contracted capacity, the project company may be entitled to an increase in the capacity payment.

The level of the capacity payments should be structured to pay for the project's fixed costs, including fixed operation and maintenance costs and financing costs. The capacity payments will usually begin once the power plant achieves commercial operation, but from that point on, the project company must also make the capacity available to the purchaser. In the United States, the declaration of commercial operation is usually at the discretion of the project company and not of the power purchaser. Although declaration of commercial operation will commence the flow of capacity payments, a project company will not declare commercial operation

until it is willing to assume the risk of damages for failure to make available the stated capacity.

A PPA may require an annual, monthly or daily determination of the availability of the power plant. The availability factor is used to determine whether the project company is in compliance with its obligation to provide the assured capacity. In order to calculate the amount of electric capacity that is available, the PPA will establish an average availability calculation. The formula for calculating the availability will not consider permitted shutdowns such as scheduled outages and maintenance and certain events of force majeure. The availability formula may allow a “cushion” to the project company which permits minor variations in availability for which the project company will not be penalized. An availability requirement of 92% to 96% of the contract capacity is typical, and during peak periods, the requirement may be as high as 98% of the contract capacity. Alternatively, the PPA may impose an extra penalty if the project company does not maintain certain capacity levels during peak hours.

A PPA will also have an energy payment based on energy produced by the power plant. The energy payment should be designed to cover the project’s variable operation and maintenance costs and fuel costs. The component of the energy payment to account for fuel may be in the form of a straight pass-through of fuel costs, thus passing fuel price risk to the power purchaser. In such a situation, the power purchaser may have the right to approve the Fuel Supply Agreement at the outset and ongoing consent rights with respect to subsequent amendments thereto. Another alternative will be a fuel charge component to the PPA energy price calculation based on an index-based price, which may index the price of natural gas, alternative fuels or even a basket of fuels. The PPA may provide that energy payments become payable during the testing period rather than the commercial operation date. Often the energy payment during the testing period will not be at the same level as after commercial operation, but should at least cover all or a significant portion of the fuel cost during the testing period.

In some PPAs, payments may be subject to indexation and revision. Indexation may be tied to an inflation index or provide for periodic currency adjustments. Since a PPA usually provides for revenue in the host country’s currency, exchange risk is a concern for both Sponsors and Lenders in any international power project. Where payments under the PPA are in local currency, the agreement’s pricing formula may index certain cost components to a foreign currency. In addition to indexation, a PPA may permit revisions to the purchase price in the event of changes in certain market conditions, increased taxes or changes in law.

In a PPA that adopts a take-or-pay obligation, the power purchaser assumes the obligations to pay for a certain quantity of capacity and energy, regardless of whether the power purchaser has actually taken such energy. Such obligations must be well-defined so the Lenders and the Sponsors are ensured a continuous flow of revenue. The project company will also be under an obligation to produce a minimum amount of energy and must meet a minimum level of availability in order to be entitled to the capacity payments. There has been substantial litigation over take-or-pay obligations in the United States that are relevant in the international context as well. Some of the issues involved may be ameliorated by structuring the provisions to establish a fixed charge for the capacity that is payable even in the event of an outage, and a variable charge for energy produced that reflects all variable costs. This structure will have a similar result—a fixed stream of revenues will be available to the project company to allow the project company to repay project debt. Under this structure, however, the power purchaser is not paying for power it did not receive.

[D][9] Operating Obligations

The PPA will usually impose on the project company operation and maintenance obligations for the plant and interconnection facilities, and establish performance standards against which to measure compliance. For the power purchaser, it is important to make clear that the project company will not be relieved from liability by assigning its operation and maintenance obligations to third parties. Hence, for the project company, it is likewise important to make sure that its operation and maintenance obligations under the PPA are included in the scope of the Operator's obligations under the Operation and Maintenance Agreement.

[D][10] Metering and Measurement

Metering and measurement provisions provide procedures whereby the project's output quantities are measured, discrepancies in measurement are resolved, and the metering devices are maintained and tested periodically. These provisions permit the parties to assess penalties, calculate losses, and issue invoices. In certain jurisdictions, most rules on metering and measurement are preestablished in the regulations (particularly in the case of integrated plants). The metering and measurement provisions will not need to be as detailed when preestablished metering and measurement regulations exist.

[E] Fuel/Feedstock Supply Agreement

Because the costs of fuel or feedstock supply typically constitute the single largest component of a project's operating costs, the price, delivery and other terms of fuel or feedstock supply agreements are critical to the feasibility and economics of the project. For convenience, this section will discuss only fuel supply, but analogous principles will also apply to agreements for the supply feedstock.

In a traditional project financing structure, the cost of the fuel is borne by the Offtaker of the project output as a component of the variable or operating charge. In addition, however, it is essential that the quantities, schedules and quality terms of the fuel supply be compatible with the Offtaker's requirements as provided in the project's Offtake Agreement.

[E][1] Nature of Fuel Supply Obligations

The nature of the supply obligations under a Fuel or Feedstock Supply Agreement can vary over a wide range. "Firm" supplies are the most secure, requiring the delivery of fuel in virtually all events, other than defined force majeure circumstances. Not surprisingly, these supplies bear the highest prices, and supply failures are subject to liquidated damages. Supplies of fuel can also be "interruptible," and within that category are degrees of interruptibility: interruptible supply can range from a quasi-firm supply obligation, to an obligation to use reasonable commercial efforts to supply fuel, to an obligation to supply fuel only if and when fuel is available. The contract pricing will vary depending on the degree of supply interruptibility.

Thus, there is a trade-off between price and supply availability which must be factored in choosing the appropriate fuel supply arrangements for a project. Many project variables will be relevant in making this determination, including:

- (i) the output supply terms of the Offtake Agreement (if the project has a firm supply obligation with respect to the output, it will need a firm supply of fuel),
- (ii) the project's operating characteristics (such as its fuel requirements during peak demand and low demand periods),
- (iii) the revenue generation capabilities of the project, as compared with the fuel cost in various scenarios,
- (iv) the availability of on-site storage or of backup or alternative fuel supplies, and
- (vi) Lender requirements.

[E][2] Commissioning and Testing of the Project

It is also necessary to ensure that the fuel supply arrangements are sufficiently accommodate the commissioning and testing of the project. There may, for example, be a defined commencement date for the fuel supply and fuel transportation services, and liquidated damages that apply for each day of delay in accepting the supplies or transportation services. In addition, depending on the nature of the fuel supply and the location of the project, lateral pipelines, rail connections or other facilities may have to be constructed to bring the fuel to the project, and the project may be obligated under the terms of a fuel supply or transportation contract to provide adequate notice to permit these facilities to be commenced and completed in order to be available in time for the commissioning and testing of the project.

[E][3] Term of Fuel Supply Agreement

Generally, the term of the Fuel Supply Agreement will be coextensive with the Offtake Agreement, or at least cover the term of the projected debt. However, as discussed below, if there is assurance as to adequate nearby fuel supply and transportation available to the project, a project company may be able to have a shorter term Fuel Supply Agreement or several alternative fuel supply arrangements.

Shorter term Fuel Supply Agreements can present both opportunities and risks for the project company. There are methods for mitigating these risks. Likewise, a project may be financeable if all parties can get comfort on effectively creating a firm fuel supply obligation through the use of several interruptible fuel supply agreements. In order to be financeable, an independent third-party fuel supply report acceptable to the independent engineers is usually required. In the context of interruptible or short-term fuel supply arrangements, fuel cost and availability risk will receive extra scrutiny from Lenders. By contrast, Lenders will be more comfortable with a structure where fuel availability and price are passed through to a credit-worthy Offtaker, such as in a tolling agreement.

[E][4] Fuel Supply and Transportation Pricing

The pricing for fuel supply can vary substantially based on the type of fuel, location of the project, and the liquidity and depth of the market for the commodity. In certain international projects (for example power or other chemical projects), where there may be only a single source of natural gas supply and transportation, and in other situations where market liquidity is an issue, the Fuel Supply Agreement may be structured to provide both a variable component (based on units of energy supplied) and a fixed component that may

escalate on an annual basis and may vary based on the daily contract quantity (DCQ) to be provided. In contracts structured on this basis, a DCQ may be established for the term of the contract. The applicable daily quantity operates as a limit on the amount of fuel the project company may nominate for delivery on a particular day.

Some fuel supply or transportation agreements contain a take-and-pay obligation. Under such a provision, a percentage of the monthly contract quantity (the DCQ multiplied by the number of days in the month) is required to be paid for by the project company/buyer whether or not the buyer requires the supplies. The take-and-pay quantity, which is sometimes as high as 75% to 85% of the monthly contract quantity, operates as a minimum quantity for each monthly period (subject to offset for amounts that the supplier is unable to supply). Many contracts with take-and-pay payment requirements also have “make up” mechanisms that permit the buyer to recover the value of the take-and-pay payments for some period after the take-and-pay payments are made, through later deliveries of quantities of fuel without charge, after the buyer has taken a certain percentage (usually higher than the take-and-pay percentage) of the monthly contract quantity.

In addition, it is fairly typical for the fuel supplier to negotiate for some form of security for the project’s obligations to the fuel supplier. This security may take the form of a letter of credit or a performance bond, covering the payments for some period of time, or less frequently, a lien on the project assets subordinate to that of the Lenders.

[E][5] Failure to Deliver

In contracts with fixed quantity terms, an important point for negotiation is the list (usually limited) of the events where the fuel supplier is not obligated to deliver the DCQ. Maintenance outages and force majeure events are typical circumstances that excuse fuel delivery. To the extent that a project company agrees to events that excuse the delivery of the DCQ, it will be important to provide for a corresponding relief from delivery obligations under the Offtake Agreement.

In international projects, fuel supply agreements frequently contain a relatively expansive definition of what constitutes a force majeure event. A typical definition of force majeure event will include an event that is unforeseeable, beyond the control of the affected person, and the effects of which could not be avoided by the affected person. Most definitions also provide a list of certain events which qualify as a force majeure event, which include acts of God, wars, and riots. It is important, in the context of Fuel Supply Agreement negotiations, for the project company to limit the degree to which

the term “force majeure” incorporates events of economic hardship or changes in market condition.

In addition, care must be taken to ensure that the force majeure events under the project’s Fuel Supply and Transportation Agreements are not more extensive than the force majeure events that excuse the delivery of output under the project’s Offtake Agreement, so that the project is in no event required to make deliveries under its Offtake Agreement when it does not have a fuel to produce the output. Similarly, in the case of unexcused failures to deliver fuel, it will be important to make sure that the damages available to the project company under its Fuel Supply Agreement will be sufficient to cover the damages payable by the project company under the Offtake Agreement.

Unless carefully negotiated, the Fuel Supply Agreements can be drafted to be quite disadvantageous to the project company. For example, they may require continued payment of some portion of the fixed component of the price, and only excuse the variable component. If the project company’s Offtake Agreement provides for continued payment of capacity charges, or to the extent that the project company has business interruption insurance in amounts intended to cover the charges under the Fuel Supply Agreements, then it may be reasonable and feasible for the project company to agree to continue paying some portion of the fixed fuel charge.

Unless excused by force majeure or other specific events, the fuel supplier will generally be in default of its obligations under the Fuel Supply Agreement if it fails to make available nominated quantities of fuel up to the DCQ. The project company’s remedy in such event will depend on whether the project company can obtain an alternative source of supply. If so, then the remedy will be typical contract cover damages—the difference between the costs incurred by the project company to acquire the alternative fuel and the cost the project company would have otherwise been obligated to pay the fuel supplier. If an alternative source of fuel is not available, the damages payable by the fuel supplier should be measured by the revenues lost by the project company as a result of being unable to deliver the project’s output. The liability of the fuel supplier may also be capped. In this event, it is important that the liability to the output purchaser under the Offtake Agreement be similarly capped.

[E][6] Feedstock Supply to LNG Receiving Terminals

The feedstock supply arrangements for an LNG receiving terminal project are quite different from the fuel supply arrangements for a typical power project. A power project, whether gas or coal fired, may often have several potential sources of supply and transporta-

tion. In addition, there are well-developed practices and conventions that have been adopted to achieve coordination between the fuel supply arrangements and the offtake contracts for a typical power project.

In contrast, an LNG receiving terminal has limited supply and transportation options. The supply needs of such a facility are long term, and are not tied to a daily schedule. As a result of these different business characteristics, among others, there is a developing trend towards obtaining LNG supplies on the spot market for LNG receiving terminals. Spot market sourcing can complicate the fuel supply arrangements for an LNG receiving terminal and increase the project's fuel supply risk. It seems likely that over the medium to longer term, LNG receiving terminals will opt for a mix of firm or long-term supply arrangements for a base load amount, combined with spot market agreements.

Another issue for LNG receiving terminals is that, in contrast to power plants (which, as noted above, have well developed conventions for coordinating the fuel supply arrangements with the offtake arrangements), the fuel supply arrangements for LNG receiving terminals may not fit well with the offtake arrangements, especially when the receiving terminal is located in a country with a developed competitive natural gas market, such as in the United States, the United Kingdom, and other parts of Europe. In such cases, it is important to design the offtake agreements to conform as closely as possible to local natural gas supply agreements.

For example, LNG supply arrangements may not provide cover damages for failure to deliver, and generally have a very broad definition of force majeure. In addition, quantities required to be delivered under an LNG supply agreement are usually based on minimum contract quantities rather than daily quantities. In the case of a failure by the LNG supplier to supply a daily quantity that is needed by the terminal, the project company may not be excused from its product supply obligation, and may have to purchase natural gas in the market or pay its Offtaker cover damages for loss of the bargain, based on the difference between the spot price of natural gas and the price of natural gas under the Offtake Agreement. This risk usually cannot be passed on to the LNG supplier under the market standard LNG supply agreement.

In addition, there may be exposures to the terminal Owner resulting from the mismatch between the typically broad force majeure provisions in the LNG supply agreement and the narrow force majeure clauses that are typical in standard U.S. gas supply agreements. In this situation, if the receiving terminal does not receive LNG as a result of a hurricane which delayed the LNG vessel, for example, the LNG supplier will not have liability, but the project

company may not have an excused failure to deliver its output. Again, the market practice is evolving in this area, but there continue to be significant gaps between LNG supply agreements and the domestic form of natural gas supply agreements. Identifying and eliminating or allocating these risks is key to developing and financing successful LNG receiving terminals.

It is also important to provide for flexibility in receipt obligations to permit variations due to dispatching and to account for fuel requirements for transport, such as fuel for compressors or boil-off for LNG tankers.

[F] Operation and Maintenance Agreement

Most infrastructure projects enter into an Operation and Maintenance Agreement (O&M Agreement) with a third-party Operator, or, in some cases, an affiliate of the Sponsor. In either case, the Lenders will require the Operator to be a party with a proven name and reputation in the operation and maintenance industry, direct experience with a similar project or similar technology, experience in the country in which the project is located, human and technical resources, and creditworthiness. In the case of a third-party Operator, these issues will be important not only to the Lenders, but also to the Sponsors, because the Operator must be able to support the contractual obligations, which include performance guarantees, warranties, indemnities and liquidated damages.

The O&M Agreement establishes the standards to which the Operator must adhere in its operation and maintenance of the project. These standards include acting in accordance with prudent operating practices, and operating the plant to comply with all project documents and warranties and in accordance with applicable laws and permit requirements.

The payment terms under an O&M Agreement can vary and are frequently heavily negotiated—there may be a fixed periodic fee plus out-of-pocket costs as negotiated, or a cost-plus arrangement. Generally, there are also bonus and liquidated damages provisions that depend on contractually established performance standards, with the liquidated damages usually capped at the total amount of the fees payable under the contract.

The central feature in an O&M Agreement will be the description of the scope of work delegated to the Operator. The scope of work will generally include operations, maintenance and repair obligations; administrative obligations; the obligations to coordinate with the EPC Contractor upon project completion, to hire and train personnel, to monitor warranties under the EPC Contract or equipment supply contracts, to manage and/or purchase the supply of all inputs (including raw materials, parts, fuel and labor), to obtain and

maintain permits, to maintain inventory (including spare parts and consumables such as diesel fuel); and various reporting obligations concerning financial and operational results.

There are generally three project phases covered in an O&M Agreement: the mobilization phase, the preoperational phase and the operating phase. During the mobilization phase, the Operator provides input into budget preparation, equipment recommendations and reviews project documents to understand how the project documents work together and how the project company earns revenues and incurs costs. In the preoperational phase, the Operator will identify, recruit, hire and train the required personnel, develop operation and maintenance procedures and manuals, establish tools and spare parts requirements, support startup and testing with the EPC Contractor, and provide other necessary coordination with the EPC Contractor. Finally, during the operational phase, the Operator will control operations, maintenance and repair of the facility. This will include, among other things, the preparation and monitoring of budgets, and interfacing between the project and the local community.

§ 16:4.5 Project Financing Documentation

The financing documentation for infrastructure projects takes many different forms, depending on the financing sources and the phase of project implementation that is being financed. The sources for project finance funds or credit can include commercial banks, institutional investors, multilateral and bilateral funding agencies, export credit agencies, private equity or hedge funds, and monoline insurers among others. The structural and other issues presented by the use of these different sources are discussed below.

[A] Commercial Bank Financing

Commercial bank financing is frequently the vehicle used during the construction phase of a project, and can also be used as long-term financing after completion and commercial operation of the project has been achieved. Generally, the financing is provided by a syndicate of commercial banks, led by a commercial bank acting as the administrative agent.

Commercial bank financing provides significant flexibility to the project borrower. During the construction period, funds can generally be drawn down on a monthly basis, enabling the project to borrow only as needed, thereby minimizing interest costs.

Although traditionally commercial bank financings of projects consisted of a construction loan facility converting into a term loan facility amortizing over a long-term period after project completion,

commercial banks, particularly in the United States, have been reluctant to hold long-term assets on their balance sheets. A common structure to address this latter issue is the “mini-perm” loan, in which the commercial operations phase of the financing is amortized over a long-term schedule, but with a bullet maturity of the entire principal amount after a relatively short period (say, four years). This mini-perm period provides the project with a reasonably sufficient time horizon to arrange for long-term financing.

The relatively short mini-perm period creates refinancing risk which the Lenders seek to mitigate through the imposition of tight debt service coverage ratios and other conditions to limit the amount of cash that can be distributed to the Owners. When this structure came into common use in the 1990s, refinancing risks were not considered to be that worrisome. However, especially in the U.S. power sector as a result of overbuilding and other structural issues, many of the power projects financed in this manner could not find long-term take-out financing, resulting in widespread defaults and Lender takeovers of project assets.

In addition, because of the close monitoring of a project credit, commercial bank financings also tend to have a tighter covenant package. Accordingly, many changes that may occur during the course of an operating project (such as amendments to contracts, replacement of supplies, and similar events) will require consents or waivers from the Lenders.

Commercial bank financing also can create interest rate risk for the project because it is typically floating rate financing at a spread over LIBOR or some other base rate. The floating interest risk can be partially mitigated with the use of interest rate hedges, but the providers of these hedging arrangements require security, and the exposures under the interest rate hedges in the event of adverse events affecting the project can increase the project’s risk profile. In addition, the existence of the hedges operates to limit significantly one of the advantages of floating rate debt, which is the ability to prepay at any time without premium. If the interest rate risk has been hedged, and the hedges are out of the money, then there can be very substantial penalties involved in breaking the hedge to permit the prepayment.

[B] Capital Markets Financing

Capital market financings of projects that include U.S. investors are traditionally done as “144A” debt financings, although a few projects have been financed through bond offerings registered with the U.S. Securities and Exchange Commission. Rule 144A permits the resale of securities at any time to a qualified institutional buyer (QIB) without requiring such securities to be registered under U.S.

federal securities laws. A QIB is defined as an entity that owns and invests at least US\$100 million in the securities of unaffiliated companies, and can include pension funds, insurance companies, and other sophisticated investors. In a typical 144A structure, the 144A securities are initially sold in a private placement exempt from registration to one or more investment banking firms, who then resell the debt securities to QIBs in reliance on the Rule 144A exemption.

Capital market financings are usually structured for a one-time drawdown of funds. This mechanism works well as take-out financing for a construction loan after the project reaches completion, but is not well-suited for construction financing. The main reason is the so-called “negative arbitrage,” which results from borrowing funds before they are needed for project construction. In a project financing, the funds borrowed and not immediately used must be held in trust, to be disbursed over the construction period. During that time, they are invested in very highly rated, but very low yielding, investments. Thus, the interest rate being paid on the 144A securities will be higher than the amount being earned on the amounts held in trust, giving rise to the negative arbitrage.

It is possible to mitigate this adverse result to some extent, for example by negotiating a fixed drawdown schedule based on the expected construction schedule. Because the construction schedule will surely vary from what was expected, however, the project will still be faced with disparities between the scheduled drawdowns and the amounts needed from time to time, so that the project may either be paying interest on funds it does not need or, worse, have insufficient funds to carry it through a drawdown period. This latter issue can be addressed through a contingent equity facility or similar device, but Sponsors are frequently not willing to commit their capital to contingent equity obligations.

The availability of a market of potential investors, and the resultant liquidity of these investments, permits the project debt issuer to obtain relatively favorable fixed interest rates. In some large financings, the debt is “tranching,” with different maturities bearing interest rates that are tied to the tenor of the tranche and the associated risk profile. This can result in optimizing the overall interest cost to the project issuer. Fixed rate paper generally has a period during which it cannot be prepaid without a prepayment penalty. In many cases, the penalty is based on an assumed redeployment of the funds into an alternative investment, and is intended to compensate the investors for any loss arising from this redeployment as compared to the debt securities being prepaid. Such “make whole” provisions are a disincentive to a borrower who might otherwise

seek to prepay a capital market financing to take advantage of a drop in prevailing interest rates.

Capital market financings tend to have longer tenors than commercial bank financings and, if the project does not also have a tranche of commercial bank debt, will usually have a looser covenant package. This gives the project greater flexibility to make changes without having to obtain Lender consent, as the project would be required to do in a commercial bank financing. However, in the circumstance where the project requires a waiver as a result of a change in circumstances not envisioned when the covenant package was developed, it may be significantly more difficult to obtain a waiver (since the consent of a majority, supermajority or all of the bondholders will be required), and even if this can be obtained, it may require the payment of a sizable consent fee which may depend on whether the then-prevailing interest rates are higher or lower than the rate on the project's 144A securities.

A portion of a project's financing may be through an equity offering of the project company. The source of funds for this equity may come from international or local equity markets. These types of transactions are not as common as debt financings. An example of a project partially financed through a local equity offering is a power plant located in the Gaza strip. A portion of this project was financed through a public offering of the equity in the project company in the local Palestine market. This project's equity is still traded on the Palestine securities exchange.

[C] Combination Commercial Bank and Capital Market Financing

Some project financings combine a commercial bank tranche and a capital markets tranche during both the construction and commercial operation phase. Structuring this arrangement during the construction stage can be difficult. The commercial bank tranche and the capital markets tranche will typically be based upon pre-agreed percentages, and structuring the drawdowns to stay as close as possible to this agreed percentage can be tricky. In addition, drawdowns under the commercial bank tranche typically only require a few days notice prior to drawdown date, whereas the institutional tranche will require a long advance notice period, or most likely a fixed drawdown.

In addition, commercial banks and institutional investors may have quite different agendas in a troubled situation. For example, in a default situation, a commercial bank may wish to grant a waiver and look to restructure the debt, while the institutional investor may wish to simply call the loans, foreclose, and take a writeoff. Some of these variations arise from their differing regulatory or re-

porting environments. Whatever the reason, divergent interests among the Lenders can create a very difficult situation if the project suffers adverse circumstances and has to be restructured.

[D] Lease Financing

Lease financings are sometimes used in jurisdictions in which the access to collateral may be weak because of local legal issues, or the availability of regulatory or tax benefits make it advisable for the ownership to be held in an entity other than the user. Lease financing is also common in Islamic (or Shari'a compliant) financings, in which the payment of interest is prohibited. Under a lease financing, an entity other than the project company owns the asset, and leases it to the project company under a long-term lease. The financing is obtained at the lessor level, and the lease payments are designed to be sufficient to pay the financing and other costs. Often, these leases are structured as triple net leases, in which the lessee is obliged to bear all operating costs, costs of insurance and tax liabilities relative to the leased property. The lease between the project company and the lease financing entity will contain similar covenants and events of default as in a commercial bank financing.

A lease financing has several benefits for the project company. The project company will maintain control and use over the project as if the project company owned the project. Depending on the terms of the transaction, the Sponsors may be able to contribute less Sponsor equity than is required in a conventional debt financing, and the project company may enjoy more favorable tax treatment than if it owned the project. For example, if structured correctly, the entire lease payment by the project company may be tax deductible as an operating expense, which could be more favorable than the combination of deductions for interest payments and depreciation.

[E] Local Financing

In international financings, it is becoming more common to include a tranche in a project financing sourced from local markets. Although this tranche can add to the complexity of the financing arrangements, the host country generally views such participation favorably because it allows local financiers to participate in an important project and can also improve the image of the project locally. It can also help to mitigate political risk, as the government may be more hesitant to take actions adverse to a project if the local financial participant will be likewise adversely affected. While most projects are not completely financeable from local financing, this trend is also changing, especially in Middle Eastern countries

where, today, there are large amounts of capital available to be deployed. Many infrastructure projects in the Arabian Peninsula are financed entirely from local funds, which can afford the project companies a reduced financing cost.

[F] Multilateral and Bilateral Agencies; Export Credit Agencies

Many international projects, particularly in emerging markets, have a component of multilateral or bilateral agency funding. Structurally, these loans tend to be more like commercial bank loans than like capital markets loans, although they may be for a longer term than commercial bank loans, and often have fixed interest charges. Participation by these agencies can be a great advantage to a project, because their presence lends credibility, thereby attracting other capital. Because their participation is based on unique policy objectives, however, their requirements in terms of both designing the financing structure and implementation can be quite different from those of other Lenders. This divergence of interests can present many challenging issues when agency financing is combined with other financing sources, as is frequently the case. A more complete discussion of the role of multilateral and bilateral agencies in international project financing transactions is contained in section 16:10.

[G] Subordinated Debt

Various types of entities may provide subordinated debt to projects. Sponsor equity is sometimes contributed in the form of subordinated debt. In addition, key suppliers (such as the EPC Contractor) may make investments in the project in the form of subordinated debt. The finance markets may take a favorable view of contractor-provided subordinated debt because it aligns the interests of the EPC Contractor with that of the holders of the senior debt. However, the inclusion of subordinated debt in the capital structure will introduce intercreditor issues, and otherwise increase the complexity of the financing.

[H] Hedge Funds/Term B Loans

Second lien financings, also referred to as Term B Loans, are a relatively new form of project financing. Frequently, the Term B Lenders are private equity or hedge fund investors. Term A/Term B financings are tranching debt. The "Term A" tranche is conventional senior secured debt and the "Term B" tranche is *pari passu* in right of payment with the Term A debt, but subordinated in right of security. In effect, the two tranches have comparable rights pre-default

and pre-bankruptcy, but in an enforcement of remedies situation, the Term B debt is subordinated.

While these structures have been used in power plant acquisition financings, they may be difficult to use in construction projects because of credit issues affecting the lending commitment of the Term B Lenders for the delayed draw. This is because the Term B Lenders are frequently hedge funds or private equity funds, which do not have a credit rating. The alternative to the delayed draw is a single drawdown, which, as noted above in the discussion on capital markets financings, for a construction financing can result in significant negative arbitrage exposure if all funds are advanced upfront, because the carrying cost of the debt exceeds the amounts that can be earned on unexpended construction funds that are held in trust.

§ 16:4.6 Standard Terms in Financing Documents

The standard terms in financing documents for a project finance transaction are, to a certain degree, similar to such terms in a fully-secured corporate financing. However, there are a few differences which should be considered by the Sponsors.

[A] Limited Recourse

The distinguishing feature of project financing transaction is that it should provide for limited recourse to the Sponsors. The only recourse to the Sponsors should arise from the limited guarantees provided by the Sponsors, which will usually be limited in amount or duration. For example, Sponsors are often required to guarantee a minimum equity contribution to the project. The equity can be required to be contributed up front (in advance of debt financing) or in parallel with the loan drawdowns. In some instances, Sponsors are asked to guarantee the offtake of a project. This is a disguised form of guarantee that can operate to defeat a Sponsor's objective to obtain true limited recourse financing. In other instances, Sponsors may be required to provide construction guarantees, effectively taking the delay and performance risks that are not allocated to the EPC Contractor. If the Sponsors are able to avoid providing such overarching construction guarantees, they may still be required to guarantee or otherwise cover specific construction risks which the Lenders are not willing to accept. Each of these guarantees should be limited and terminate at a specified time. At such time, the project will be considered nonrecourse to the Sponsors and the recourse of the Lenders will be solely with respect to the security package, which will include collateral assignments of all rights necessary to construct, own and operate the project. In comparison, in a corporate financing (whether unsecured or secured), Lender recourse will not be limited.

[B] Representations and Warranties

Many of the representations and warranties in the project financing documents will be identical to the representations and warranties in a corporate financing. These include, for example, the traditional representations and warranties addressing the formalities of formation, existence, good standing, power and authority, due qualification, legal enforceability of the agreement, possession of consents, absence of litigation, and compliance with laws. The project financing representations will be expanded to give the Lenders comfort that the relevant facts pertaining to the project are consistent with the Lenders' understanding and analysis that formed the basis for the Lenders' internal approval for the project financing. These representations will be tailored to the specific project and will focus on the essential elements of the project financing, including, in particular, the project documents, budget and projections. The representations relating to the project budget and projections will focus on the construction budget and the expense and revenue projections for the project. The customary representation with respect to the construction budget is that it fairly reflects the construction costs for the project. The customary representation with respect to expense and revenue projections is that they fairly reflect anticipated expenses and revenues.

These representations will form the basis of the financial model prepared by the project company and accepted by the Lenders. The financial model, in turn, forms the basis for determining whether a project is financeable. The model will determine a base case for the project. This base case projection will project the most likely results of revenues and expenses and must be reviewed and accepted by the independent engineer. There will also be models based on varying cost and pricing assumptions covering both optimistic (or upside) and pessimistic (or downside) scenarios. Generally, for a project to be financeable, the likely downside projections should still project funds sufficient to service the project's fixed costs, including fixed operation and maintenance costs, taxes and debt service.

The representations and warranties relating to the project documents will include representations that the project company has provided the Lenders with true and correct copies of each such project document on the date of closing, that the project documents are enforceable, that there are no breaches or force majeure events existing under the project documents, and that the performance of such project documents do not violate any other project documents or applicable laws. The representations and warranties will also include a provision stating that the project company has obtained all required permits and licenses to operate the project in accordance with applicable law and in accordance with each of the project docu-

ments. Finally the representations and warranties should include a statement that the project company has all rights necessary (or required at that point in time) for the construction and operation of the project for its intended purpose.

[C] Covenants

A financing agreement for a project will also have many covenants that are included in a typical corporate credit facility. Some of these relate to the need for the Lenders to maintain the project as expected and not to permit the project company to take actions or fail to take actions that may adversely impact the project or the Lenders' collateral. These covenants are often very restrictive and subject to significant negotiation. It is the covenant package that typically gives Sponsors pause in deciding whether to project finance a transaction. A few of the more commonly negotiated covenants are described below.

The project company will be obligated to maintain stringent insurance requirements. These requirements can be costly for the project company and often do not provide for changes in market conditions. For example, projects financed before September 11, 2001, generally required terrorism insurance. After September 11, terrorism insurance generally became unavailable or cost prohibitive. Many project financings required waivers or amendments to the terms of the agreements that required the maintenance of terrorism insurance. A well-crafted covenant to provide insurance should ensure that the obligation to provide insurance is based upon what is reasonably available and commercially feasible in the commercial insurance market. This will be a heavily negotiated provision because such a provision allocates a degree of insurability risk to the Lenders.

The project company will be limited with respect to what it can do with proceeds from claims received under the EPC Contract or any other project document or with respect to insurance proceeds. The negotiation will usually relate to whether the proceeds will be used to repay indebtedness or whether the project company can use the proceeds to repair the damage or pay damages which may arise under another project document.

The project company will be obligated to cause the project to be constructed in accordance with the EPC Contract. The project company will be limited in its ability to enter into any change orders under the EPC Contract without Lender consent. There will usually be a *de minimis* exception for change orders that do not exceed a negotiated amount individually or in the aggregate with all prior change orders. The project company will also be prohibited from changing

the construction budget or the construction schedule without consent from the Lenders.

A project company will be limited in its ability to enter into additional material contracts and will be obligated to assign collaterally to the Lenders any such contract entered (as well as provide a consent from the counterparty with respect to such assignment). The key negotiation point with respect to this covenant is the materiality standard. The project company will desire the ability to operate the business in the ordinary course and to enter freely into contracts in the ordinary course. The Lenders will desire to limit the project company's ability to enter into long-term financial commitments, which might increase project risk or decrease the Lenders' collateral value.

The project company will be required to deposit all project revenues into a collateral account and will be required to use all proceeds of the project in a narrowly tailored manner. When project revenues are deposited into a collateral account, the revenues will not be accessible by the project company except in accordance with the waterfall provisions of the collateral account agreement.

A project company will be limited in its ability to effect any material disposition of assets. This restriction may not appear too different from a typical secured credit facility, but it will often provide far greater limitations as to what assets can be disposed of without Lender consent.

One of the more heavily negotiated covenants in a project financing credit facility is the clause dealing with restricted payments. The project company will be restricted from making any distributions, dividends or other payments to the Sponsors unless certain conditions are satisfied. These conditions are highly negotiated but usually include the following:

- (i) the project shall be completed;
- (ii) there is no existing default or event of default;
- (iii) certain historical debt service coverage ratios and projected debt service coverage ratios are satisfied; and
- (iv) certain reserve accounts are funded up to a minimum threshold amount.

Another highly negotiated covenant relates to restrictions with respect to the project documents. The project company will be prohibited from:

- (i) canceling or terminating material project documents or consenting to or accepting the cancellation or termination of the material project documents prior to the scheduled expiration thereof;

- (ii) selling or assigning any of its interest in any of the material project documents;
- (iii) waiving defaults under or breaches of material project documents, or from failing to enforce, or releasing, material rights under the material project documents; or
- (iv) amending or modifying any material project document.

The negotiation of this covenant generally relates to certain exceptions as to the project company's ability to take certain immaterial actions or actions which do not adversely affect the Lenders' rights in the collateral.

Finally, the project company will be required to provide monthly construction reports and monthly operating reports and annual operating budgets. These reporting obligations add additional administrative burdens which are not typical in a corporate financing arrangement.

§ 16:4.7 Security Documents

In project financings, the borrower's obligations under the financing documents are generally secured by all of the assets of the project company for which a security interest can be granted. These include a security interest in all personal property of the project company (which will include the plant, equipment, spare parts and other physical assets as well as technology licenses, intellectual property and other intangible assets of the project company), a pledge of the equity interests of the Sponsors in the project company, and a mortgage over the real property rights of the project company, whether based on a fee interest or leasehold interest in the project site. Project financings usually contain provisions requiring all drawdowns under the financing package and all revenues generated by the project, including liquidated damages, to be deposited into a deposit account with a depositary bank. The funds in these deposit accounts will also be pledged to the secured parties. Finally, an important part of the security package in a project financing is the collateral assignment of the material project documents.

[A] Personal Property

As discussed elsewhere in this chapter, the granting of a security interest in the project company's physical assets is usually governed by the laws of the state, region or country where such assets are located. The assistance of reliable local counsel will be required for purposes of preparing the security documentation, and establishing, registering and perfecting the security interest. The granting of a security interest in the project company's intangible assets may be a

matter of local law or the law governing the license, property or contract over which a security interest is granted.

[B] Real Property

The granting of a mortgage over the real property on which the project site is located is a matter of local law. Sometimes, a project company will only have a leasehold interest in the site. In such a situation, the project company will be required to enter into a leasehold mortgage. The terms of the leasehold mortgage will be similar to a mortgage over a fee simple interest, but will also require a separate agreement with the lessor of the project such that the lessor will consent to the mortgage of the property and will provide quiet enjoyment of the property during the term of the lease as long as the project company is in compliance with the lease terms.

[C] Pledge of Deposit Accounts

Project financings contain strict controls on the project company's use of borrowed funds and on all revenues received by the project company, whether through sales under the Offtake Agreement or receipt of proceeds from insurance claims or other project document claims. Borrowed funds will usually be deposited into some form of a disbursement account and all disbursements will usually require a certification from the independent engineer confirming that construction can be completed on or before the scheduled date certain, and that the project company will not suffer cost overruns to complete the construction based on firm debt and equity commitments.

Once a project has achieved commercial operation, all revenues generated by the project company will be deposited into a separate collateral account, often called the revenue account, and will also be subject to strict disbursement requirements. The ability to access the funds from the revenue account will be based on the use of the funds. The provisions governing the disbursement funds from the revenue account are typically referred to as the "waterfall" provisions. Waterfall provisions can be quite complicated. Funds from the revenue account will usually be disbursed in an order such that the project company can continue to operate, make debt service payments, pay taxes, fund revenue accounts, and finally fund the distribution account. The term "waterfall" refers to the requirement that revenues be disbursed to fund fully first the account at the highest priority level, prior to funding the account at the next priority level, and so on down the waterfall. Some of the more difficult negotiations will relate to where debt service payments will be placed in the waterfall. Obviously, the Lenders will desire debt service to be at as high a level as possible. The project company, how-

ever, will seek to make sure that certain mandatory payments are made so that the project company can operate at a minimum level. For example, fixed operating and maintenance costs and payment of taxes are often above debt service because the project assets will quickly lose value if not operated and maintained at a minimum level. Tax payments are also high in the waterfall so as not to run afoul of a country's revenue service.

Another negotiated provision will relate to the required reserve accounts for the project, the minimum amounts required for these reserves, and their placement in the waterfall. Every dollar deposited into a reserve account will result in ultimately less revenues left over for the distribution account. Reserves will almost always include a debt service reserve account which will often require the reservation of funds sufficient to pay six months of debt service. Another common reserve account is dedicated to meet major maintenance requirements. As mentioned above, ordinary operations and maintenance costs will be paid even before debt service in the waterfall, but major maintenance will only be required from time to time on a relatively predictable schedule. Major maintenance is usually funded from the major maintenance reserve account, and this reserve account will likely be funded after debt service and the debt service reserve in the waterfall. The primary negotiation issues surrounding the major maintenance account will relate to its size and how it should be funded. The project company may prefer the amount to be as low as possible, and want the ability to fund on a pro-rata basis. For example, if major maintenance costs are projected to be US\$10 million in a particular year, the project company would prefer to fund one-twelfth of this amount during each month. All revenues in excess of this amount would drop further in the waterfall and ultimately become available for distribution. Sometimes in lieu of a major maintenance reserve account, the Lenders may accept (or require) that the project company enter into a long-term service agreement with the equipment supplier, which will include the costs of a major overhaul. Under a long-term service agreement, the project company will pay a flat monthly amount to the equipment supplier for scheduled maintenance and overhauls and priority service in the event of an outage.

[D] Collateral Assignment of Project Documents

In order for a project to be financeable, the project documents must be negotiated with a project financing in mind. The secured parties must be able to foreclose on the entire project and rely on the project documents to operate the project. Accordingly, the project documents must permit collateral assignment to the Lenders. Upon a project company event of default under the loan docu-

ments (and the Lenders' decision to exercise their rights thereunder), the documents must contemplate the ability of the Lenders (or their designee) to step into the role of the project company and perform the project company's obligations under the underlying project contracts, and further must obligate the counterparties under such contracts to perform their respective obligations thereunder in favor of the Lenders or their designee.

Most project documents have provisions allowing the project company to assign collaterally the project documents to the Lenders and reflecting the agreement of the contract counterparty to execute consents to such an assignment. The Lenders will always require a consent to the assignment executed by the project contract counterparties. These are sometimes difficult to negotiate because the assignment process (and negotiation of the consent permitting the assignment) usually occurs during the financing phase, long after the underlying project document has been executed. The Lenders will sometimes seek, through the consent, to amend the underlying project agreement, changing the agreed terms in ways the Lenders believe are necessary to achieve a financeable project. This will, of course, require further negotiation among the Lenders, the project company and the counterparty to the specific project agreement in question.

§ 16:5 Common Concepts in All Project Finance Documents

This section addresses several critical provisions typically included in the documentation of all project finance transactions. These provisions do not necessarily relate to the specific substance of the underlying transaction, but rather identify mechanisms to anticipate potential issues that would arise in any project transaction, and provide a structured framework for resolving such issues. This section addresses four of these concepts: force majeure, choice of law, dispute resolution, and default and remedies.

§ 16:5.1 Force Majeure

The term "force majeure" refers to an event that is beyond the control of a party and prevents the party from performing its obligations under the contract. Examples of such events include natural disasters (often referred to as "acts of God"), war and other political risks, and broad-based (as opposed to project or site-specific) labor strikes. Most definitions of force majeure will also require the claimed force majeure to be an event that is unforeseeable and could not have been avoided by the exercise of reasonable diligence.

Ordinarily, a party that cannot perform its contractual obligations will be in default and liable for damages under the contract. The occurrence of a force majeure event excuses the performance of the obligations of the party claiming relief to the extent that such obligations cannot be performed due to the occurrence of such force majeure event. A well-crafted force majeure provision usually obligates the party claiming relief to notify the other party upon or within a reasonable time period after the occurrence of the force majeure event, and to take all reasonable steps to alleviate the effects of the force majeure event as soon as reasonably possible. In addition, there may be a provision allowing the counterparty to terminate the agreement if the claiming party has not resumed performance within a specified time period after claiming relief. Typically, force majeure provisions will not grant the claiming party relief from the performance of the contract for any period longer than the period during which the event actually impairs (or could reasonably be anticipated to impair) the claiming party's performance.

In recent years, there has been a propensity towards elaborate force majeure definitions that include descriptions of every conceivable "act of God" type event that could affect the project, with a catchall at the end intended to include "any other similar or dissimilar event" that could impair the performance of a party's obligations. A well-crafted provision will qualify each of the items listed as force majeure events by a requirement that the event claimed actually be beyond the reasonable control of the party claiming force majeure. As a simplified example, "explosions" are sometimes included in the kitchen-sink variety of force majeure definitions. The occurrence of an explosion should not, by itself, however, end the inquiry. If the explosion occurred due to the failure of a party to conduct its work or performance in a manner contractually or customarily required, than the failing party should not be entitled to the benefit of the relief afforded by a balanced and well-crafted force majeure provision.

It is worth noting that labor disruption constitutes a unique variety of force majeure in that it is capable of resolution through negotiation. While it largely depends on the relative bargaining power of parties, force majeure provisions will typically exclude labor disruptions that are limited to the site or the party in question, on the rationale that the risk of such disruptions should rest with such party. Accordingly, labor disruptions are usually required to be industry- or region-wide to constitute force majeure, or at least broader than being aimed solely at the project or party in question. Once a labor disruption falls within the defined realm of force majeure, however, the party that is confronting the disruption is usually permitted latitude to settle the dispute at its discretion, without violating the terms of the force majeure provision.

Most importantly, it is essential that force majeure provisions operate seamlessly across all project documents. If there is a mismatch among the force majeure provisions in the different project documents, it could result in one party being relieved of its obligations under a contract, but fail to provide the other party to that contract (who relies on the performance of the relieved party for its own performance under a separate contract) with corresponding relief under the separate contract. As a simple example, in the event that an EPC Contractor for a power project is relieved from its performance obligations under the EPC Contract for a period of time due to a force majeure event, there should ideally be relief of similar duration provided to the Owner of the project from its obligation to produce output by a date certain under the terms of the Power Purchase Agreement. The interplay between the force majeure provisions in project contracts can be quite complex. Among other things, the various project contracts may be governed by the laws of different jurisdictions, or subject to arbitration in different forums. In such an event, force majeure definitions that are identical could be interpreted differently, leaving an unwanted exposure for the project.

In sum, force majeure provisions comprise an important part of project finance documentation. Such provisions include procedures for claiming force majeure relief and an obligation to remedy the effects of a force majeure event as soon as reasonably possible. Force majeure provisions may also take into account any special circumstances surrounding a particular project. Finally, force majeure provisions should, to the extent possible, operate seamlessly across all project documentation in order to avoid causing “gaps” in relief among the parties to a project finance transaction.

§ 16:5.2 Choice of Law

In any complex transaction involving multiple parties with differing goals and incentives, it is likely that disputes will arise. As one of the primary goals in structuring a project finance transaction is identifying and either eliminating or assigning risk, it is important that project finance contracts contain provisions that address the risk of such disputes. The relevant provisions that do so are the choice of law and dispute resolution provisions.

A choice of law provision specifies which jurisdiction’s law will be used in interpreting an agreement and in adjudicating any disputes arising in connection therewith. The importance of a carefully considered choice of law provision, especially in international transactions, cannot be overstated.

The law governing any project contract sometimes depends upon the location of performance of the contract, as a particular jurisdic-

tion may insist (as a matter of its public policy) that its law be applied with respect to certain types of agreements or with respect to a particular class of assets, regardless of the dictates of the relevant agreement's choice of law provision. Such a possibility highlights the need to have knowledgeable local counsel that can provide guidance regarding choice of law provisions and other local laws or customs impacting the relevant agreements. Or, alternatively, even in the absence of an overriding public policy imperative, the host country may insist (as a negotiating matter) that its law govern the principle documents between the project Sponsor/Owner and the government or its instrumentalities. In other instances, Sponsors have the bargaining power to insist on the selection of a neutral choice of law governing the essential contracts between the parties. This is particularly the case in emerging countries that are newly inviting foreign investment into a particular sector, and do not have the leverage to dictate critical provisions such as choice of law.

This issue of which law should govern the project documents can be controversial. Lenders will generally prefer that the project documents be governed by the laws of a neutral jurisdiction (New York or the United Kingdom) rather than the laws of the jurisdiction in which the project is located. Certainly in the loan or financing documents, the Lenders are likely to insist on the application of either New York or English law. Beyond concerns of neutrality, these jurisdictions are perceived as having a sophisticated and well-developed body of law applicable to complex commercial (including, specifically project finance) transactions and documentation. Hence, in international project finance transactions, New York or English law is quite commonly selected even if such jurisdictions bear no apparent relation to the transaction at issue. New York, for example, has a statutory provision enabling the selection of New York law as the governing law by contractual parties, regardless of whether the contract bears any relationship to New York, provided that the contract has a transaction value of at least US\$250,000.

It is important to note, however, that the security documents in a project financing will need to be governed by the law having jurisdiction over the particular asset pledged as security. For physical assets this will likely be the law of the jurisdiction where the asset is located or registered. Hence, the security documents are generally governed by the law of the country in which the project is located. The need for reliable local counsel to assure that the security arrangements are effectively documented, registered and perfected should not be underestimated.

§ 16:5.3 *Dispute Resolution*

All project documents should include a clear dispute resolution provision, which can help avoid unpredictable and inconsistent resolution of disputes that may arise. Efficient resolution of disputes is necessary to avoid schedule delays, limit distractions from project development, construction or operation, and minimize the expense of a protracted conflict.

A dispute resolution provision will generally specify that parties to a contract must either litigate or arbitrate any disputes that may arise. Litigation and arbitration each has its own advantages and setbacks, but this determination often depends on the point of view of the party involved.

Traditionally, arbitration is considered faster and cheaper than litigation. Its advantages are expected to be lower legal fees and shorter delays while disputes are resolved. In addition, arbitration is viewed as emphasizing compromise between the parties, rather than strictly enforcing the relevant agreement. It can sometimes be difficult for a particular party to know going into a transaction, however, whether this emphasis on compromise will prove to be beneficial.

If the relevant agreement provides for arbitration of disputes, then it must also specify the procedures to be used in an arbitration, including the procedural rules that will apply, the method of selecting arbitrators and the location of the arbitration. There are several organizations that specialize in providing an administrative and procedural framework for arbitrations, as well as arbitrators, including the American Arbitration Association (AAA), the International Chamber of Commerce (ICC), and the United Nations Commission on International Trade Law (UNCITRAL).

A common pitfall confronting arbitration clause drafters is the allure of over-drafting the provision by providing for elaborate procedures and strict deadlines, with the aim of preordaining a highly synthesized and orderly method of dispute resolution applicable to every dispute. Disputes, however, are rarely predictable or capable of resolution in such a fashion. Once the practical realities of a particular dispute depart from the detailed requirements of such a provision, the workability or effectiveness of the entire arbitration provision can be called into question. For example, sometimes such arbitration provisions mandate the holding of a hearing and the issuance of an arbitral award in the time period during which the parties in an actual arbitration would select an arbitral panel. Once off-schedule from the outset, such provisions offer little guidance in managing the direction of the arbitration. For these reasons, it would be prudent to collaborate with experienced arbitration or dispute resolution counsel in preparing an arbitration provision, as

well as in deciding whether arbitration may be the optimal forum to resolve disputes under a particular contract.

Traditionally, Lenders prefer to avoid the uncertainty of the “negotiated” outcome of an arbitration, opting instead for the binding nature and fact-based approach of litigation. Courts are perceived as offering Lenders the ability to obtain strict and literal enforcement of their financing and security documents. Additionally, courts have the power to order quick provisional relief through the issuance of preliminary injunctions or other immediate temporary relief.

The Owner, on the other hand, may prefer to arbitrate in certain situations, such as in disputes with Lenders, the host country or parties located in the host country (certainly, with respect to the latter two, in contrast to litigating in a foreign court against a local party). In other situations, however, the Owner may prefer to avoid arbitration. A dispute with an EPC Contractor might be one such situation, since the EPC Contract is drafted primarily to impose specific obligations on the EPC Contractor against a strict deadline. In such a case, the Owner may have greater leverage in a dispute where the resolution mechanism presages the prospect of a strict enforcement rather than a compromise oriented approach.

Increasingly, whether arbitration or litigation is selected as the method for final dispute resolution, project documents include provisions that call for the parties to take formal steps to mediate the dispute through friendly negotiation before submitting to a confrontational proceeding. Typically, these mediation procedures are non-binding and tiered, commencing with discussions among the lead officers for the parties at the project level, and sometimes proceeding upward to the chief executive of the parent company of each party involved (depending on the nature of the dispute). Sometimes, in an effort to avoid the time and cost of either arbitration or litigation, the parties may agree that disputes below a certain threshold dollar amount must be resolved through mediation and, failing agreement, through some preagreed formulaic disposition of the amounts in dispute.

The type of dispute resolution that is best for a project cannot be decided in the abstract. The correct decision will vary based on the project, the parties, the location, the type of contract and the expected nature of the disputes. In addition, as explained in the foregoing, it is quite rational for two separate parties to the same contract to take opposite views on the optimal method for dispute resolution.

In all cases, choice of law and dispute resolution provisions are among the most important in a project contract. These provisions help to ensure a stable and predictable framework for resolving conflicts that may inevitably arise from time to time in connection with a project. Having workable frameworks in place can save time and money when a dispute does arise.

§ 16:5.4 Default and Remedies

All project documents will contain a section that enumerates events of default and the counterparty's remedies therefor. In general, there are several common events of default that will be identified in all project documents, including the bankruptcy of a party, abandonment by a party, failure to make timely payment, and breach of other material covenants or representations.

The events of default provision in a project contract will also contain specific defaults that are particular or unique to the contract and to a particular party under the contract. For example, under an EPC Contract the EPC Contractor would be in default if it failed to achieve substantial completion by a date certain, and an Owner would be in default if it failed to provide key permits or full and free access to the site. However, the consequences of these defaults, and the respective remedies of the EPC Contractor and Owner will vary greatly. As another example, under a Fuel Supply Agreement the Fuel Supplier would be in default if it failed to provide the required amount of fuel meeting express project specifications, and the Owner would be in default if it was unable to take delivery of the minimum monthly quantities specified under the contract.

In certain instances, the project documents may contain cross-default provisions, pursuant to which a default under one document triggers a simultaneous default under a separate document. For example, under a Power Purchase Agreement the power purchaser may be required to provide credit support for its obligation to pay for the power. The Owner may want the right to terminate the Power Purchase Agreement in the event that there is a default under the related credit support documents, even if the power purchaser is not otherwise in default under the terms of the Power Purchase Agreement.

Project agreements typically provide for specific cure periods associated with each type of default, during which the defaulting party has the right to cure its default and resume performance in full compliance with the contract. Cure provisions are often two-tiered, providing for an initial period during which the defaulting party may cure its default, as well as a second time period extending the initial cure period, provided that the defaulting party is in the process of attempting to cure in good faith.

Like events of default, remedies will also be tailored to each particular contract and contract counterparty. For example, in the event of a material default by an EPC Contractor, the EPC Contractor might be obligated to pay delay liquidated damages to the Owner based on the length of delay that results from such default. Additionally, after certain material events of default by the EPC Contractor, the Owner would be able to take possession of the project,

assume any contracts with subcontractors and arrange for completion of the project. The EPC Contractor may become liable for any excess completion costs incurred as a result of its default. In contrast, failure by the Owner to perform its limited obligations under the EPC Contract might relieve the EPC Contractor of certain of its affected performance obligations, but will not result in the Owner having to pay liquidated damages or other similar amounts to the EPC Contractor.

As with other contracts, the ability to obtain specific performance as a remedy is rare in project contracts as well. It may be available in situations where performance is unique and cannot be replicated or remedied fully by monetary damages. The delivery of land comprising the project site, or the obligation of an EPC Contractor to perform work in accordance with the EPC Contract and achieve the minimum performance guaranties required by the contract are two prominent examples where project contracts may expressly make available specific performance as a remedy.

§ 16:6 Environmental Issues

This section provides an overview of the framework for environmental compliance standards applicable to many international project financings. It focuses on developments within the International Finance Corporation (IFC), the World Bank, the OECD, and among private financial institutions that are affecting this landscape. While environmental standards have generally evolved over the last thirty years, the last few years in particular have seen significant developments that are the focus of this section.

Environmental compliance presents a distinct transaction cost and project risk to be managed and structured within the context of an overall project. One way that project participants have sought to manage environmental transaction costs in projects is through standardization. The trend in this area has been for project parties to apply the IFC's environmental and social safeguard policies to their projects, in many cases, regardless of whether a multilateral institution (such as the IFC) is involved in the particular project.⁵

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5. There are also sources of international law that have developed over the past decades which have helped to establish common international standards for environmental protection. These primarily include the following treaties: "Agenda 21" and "Rio Declaration on Environment and Development," adopted by the United Nations in 1992; the World Charter for Nature, U.N. General Assembly Resolution 37/7; the Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal of 1989; the Convention on Environmental Impact Assessment in a Transboundary Context on 1991; and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 1992.

As discussed at the end of this section, this approach has been reflected in adoption of the Equator Principles by leading private financial institutions, and the best practices of many project Sponsors, governments, and multilateral institutions such as the OCED and the World Bank.

In view of this convergence around the IFC's environmental policies, section 16:6.1 provides a summary description of the IFC policies and a primer on developments relating to the IFC's wide-ranging Safeguard Policy Update that is presently nearing completion. Section 16:6.2 provides a discussion of the World Bank's Extractive Industries Review, which began in 2000, and its implications for international projects. Section 16:6.3 contains a discussion of the 2004 OECD Guidelines for Multinational Enterprises that have an environmental application. Finally, section 16:6.4 introduces the Equator Principles launched in 2003 and ends with a few concluding remarks regarding the tendency towards standardization in the area of environmental compliance.

§ 16:6.1 IFC Sustainability Policy and Performance Standards

As discussed in section 16:10, the IFC is the private sector investment arm of the World Bank Group, which unlike the World Bank, lends directly to private entities. In 1998, the IFC adopted ten environmental and social policies (Safeguard Policies) to which projects are expected to adhere in order to receive IFC financing. These policies, which are still in place, focus on the following areas:

- environmental assessments;
- natural habitats;
- pest management;
- indigenous peoples;
- safeguarding cultural property;
- involuntary resettlement;
- forestry;
- safety of dams;
- international waterways;
- child and forced labor.

In August 2004, the IFC updated its Safeguard Policies, revising them to focus on sustainability issues. After an extensive public comment on the revised "Policy and Performance Standards on Social and Environmental Sustainability," the IFC released in late 2005 a draft Safeguard Policy Update. As of the time of this writing,

the Safeguard Policy Update remains subject to IFC review. While there have been several changes to the policies, a detailed discussion of each policy and performance standard is beyond the scope of this section. Instead, the discussion below focuses on the first IFC standard, the “Social and Environmental Assessment and Management Program” because the classification of projects under this standard drives many other IFC environmental requirements. In addition, many of the remaining performance standards are encompassed within the IFC’s social and environmental scope of review.

[A] Social and Environmental Assessment and Management Program

Performance Standard 1 under the draft Sustainability Policy and Performance Standards that were released in September 2005 is the requirement for each IFC project to establish and maintain a “Social and Environmental Assessment and Management Program,” the purpose of which is to:

- identify and assess the social and environmental impacts of a project;
- avoid or minimize any adverse impacts of the project;
- ensure that affected communities are engaged on issues relating to the project that will impact their lives;
- promote improved social and environmental performance of companies through management systems.

[B] Social and Environmental Assessment (S&EA)

The first aspect of compliance with this standard is the preparation of a social and environmental assessment (S&EA). The S&EA is a broad undertaking that varies from project-to-project and country-to-country. It must consider all risks and impacts of the project, including the issues identified in the other performance standards, which may necessitate the preparation of such diverse specialized studies or plans to address:

- population resettlement;
- biodiversity;
- hazardous materials management;
- emergency preparedness response;
- community health and safety;
- indigenous people.

The geographic scope of the S&EA is not just the project site, but encompasses the project's "area of influence." The IFC will broadly construe an area of influence to include project impacts that are global or transboundary in nature, as well as areas potentially affected by the cumulative impact of the project. It does not, however, include potential impacts that would occur independently of the project. The size, scope and scale of the S&EA will ultimately depend on the IFC's classification of the project into one of the three following categories:

Category A projects are expected to have significant adverse environmental impacts that are diverse, irreversible, or unprecedented.

Category B projects are expected to have limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation.

Category C projects are expected to have minimal or no adverse impacts.

Regardless of how a project is classified, at a minimum, S&EA documents must describe:

- the project and its social and environmental impacts, including an analysis of reasonable alternatives to the project and a justification of the approaches to the social and environmental design of the project;
- maps and drawings of the project and a delineation or description of its area of influence;
- the legal and regulatory framework, the applicable IFC performance standards, and the environmental, health and safety performance levels established for the project;
- key potential impacts and risks, planned mitigation, and any areas of concern that need to be further addressed;
- the process of community involvement.

[C] Social and Environmental Management Plan (SEMP)

The IFC will also require the submission of a social and environmental management plan (SEMP). However, the size and scope of the SEMF will vary depending on the nature of the environmental impacts identified in the S&EA. The SEMF should contain a comprehensive set of actions the Sponsors will adopt in order to meet the mitigation measures identified in the S&EA, and a completion

schedule for each milestone event. Finally, the SEMP should specify the mechanisms by which the Sponsors will monitor compliance.

[D] Communication and Disclosure

As part of the social and environmental assessment process, the IFC will require that Sponsors establish consultation and grievance reporting mechanisms with the local community in connection with the project.

IFC requirements for Sponsors to disclose the results of an S&EA will also depend on the categorization of the project. Generally, S&EAs for Category A projects must be fully disclosed, while Category B S&EAs need only be disclosed to affected groups and local nongovernmental organizations. However, the categorization of a project is not the only determinant of the degree of information about a project that needs to be communicated to various stakeholders. This is because the IFC has additional, sector-specific disclosure requirements for each of the sectors in which it is active. For instance, in the extractive industries sector, the IFC will require that projects disclose their material project payments to the host government and the relevant terms of key agreements with host governments.

§ 16:6.2 World Bank Extractive Industries Review

In addition to the IFC's sector-specific guidelines, the World Bank has many of its own sector-specific lending policies which impose environmental compliance standards on international projects. Although on an aggregate basis, extractive industries (oil, gas, and mining) represent a small portion of the World Bank's overall lending, World Bank participation in extractive industries project financings is highly visible to a variety of stakeholders. For this reason, the World Bank's policies on lending to such projects are an important element of the overall environmental compliance landscape, influencing project financings outside of the extractive industries as well.

As noted above, IFC standards for environmental compliance have had a wide ranging impact on international project finance, even if the IFC is not involved in a particular project. This is reflected in the extractive industries review (EIR) that the World Bank is presently undertaking, and is relevant to project finance because many World Bank investments in the extractive industries are through project financings. The EIR began in 2000 when the World Bank announced it would conduct a comprehensive assessment of its activity in the extractive industries sector through an independent stakeholder consultation process. Upon completion by the independent assessor in 2004, the World Bank's management

proposed a number of recommendations regarding policy in the extractive industries that its board of directors agreed to implement. One recommendation was that the clarity and accessibility of its environmental policies be continually improved. Other recommendations pertained to the use of social and environmental assessments, increasing community participation and transparency, and establishing certain “no-go” zones in environmentally sensitive regions of the world. These policies and their implementation will all be heavily influenced by the IFC’s Safeguard Policy Update. In fact, the World Bank is deferring a number of important decisions regarding the implementation of the EIR until the IFC concludes its Safeguard Policy Update.

§ 16:6.3 *OECD Guidelines for Multinational Enterprises*

Another important set of standards for environmental compliance in international project finance is derived from the OECD’s Guidelines for Multinational Enterprises (Guidelines). The Guidelines are recommendations promoted by OECD governments to multinational enterprises operating in or from OECD member countries and apply to global conduct by multinational companies from OECD member countries. In many cases, the Guidelines call for adherence to host country or international law. But they also provide guidance in instances where such laws are absent or deemed insufficient. The Guidelines were first issued in 1976 and readopted by the OECD member countries, as well as by Argentina, Brazil and Chile in 2000. Although the Guidelines are voluntary, they reflect a set of best practices applicable to Sponsors and to financing parties. One chapter of the Guidelines is specifically focused on environmental performance.

In addition to such topics as public consultation and disclosure of environmental, health and safety impacts, the Guidelines focus on the establishment and maintenance of environmental management systems (EMS). While an EMS is meant to be applied at the enterprise, rather than the project level, the OECD’s discussion of environmental management systems shares a lot in common with the IFC’s social and environmental management plan. The EMS contemplated by the Guidelines should include procedures to:

- collect and evaluate adequate and timely information regarding environmental, health and safety impacts;
- establish measurable objectives for improved environmental performance;
- monitor progress towards objectives or targets.

OECD publications regarding implementation of the Guidelines stress that there is no “one size fits all” EMS and differentiate between externally certified and performance driven EMSs. In terms of project finance, the trend in EMS design is toward performance, or outcome-based EMSs, as reflected in the IFC’s Safeguard Policy Update, as these are based on the actual operating requirements of a project. However, as a best practice for compliance with the Guidelines for large companies, external EMS certification obtained through compliance with ISO 14001 standards or the European Union’s Eco-Management and Audit Scheme (EMAS) is not uncommon.

§ 16:6.4 Equator Principles

The Equator Principles are the newest addition to the set of environmental standards that effect international project financings. They were first adopted by ten leading banks in 2003, and have since been adopted by nearly thirty additional financial institutions (collectively, Equator Banks). The Equator Principles are a baseline framework for environmental compliance standards applicable to projects with a total capital cost of US\$50 million, or higher. When a financial institution voluntarily adopts the Equator Principles it signals its intent to provide loans only to projects which comply with the IFC Safeguard Policies. In addition to the US\$50 million threshold, the Equator Principles apply globally to project financings in all industry sectors. The major implication of the Equator Principles for project Sponsors is that projects will need to comply with IFC policies, regardless of whether the IFC or another multilateral institution that requires compliance with IFC policies is involved in the project. This means that the IFC’s Social and Environmental Assessment and Management Program mandated by its Safeguard Policy Update is now essentially the norm for large-scale project financings.

What remains to be seen, however, is the precise manner in which Equator Banks will apply IFC policies to projects in which there is no IFC involvement. The IFC policies are not a set of steadfast procedures or rules. Rather, they reflect a body of thought and approach to environmental compliance. The Equator Banks’ application of the policies may turn out to be different from the IFC’s. For instance, it remains at the discretion of the Equator Banks to determine whether a project cannot comply fully with the Equator Principles, and if so, whether to proceed with project financing. In addition, the interpretation and implementation of IFC policies requires significant time, expertise and judgment, and different Equator Banks may apply the Equator Principles in a divergent manner, either in their capacity as co-Lenders on a particular project or from

one project to the next. Although the Equator Principles mark a significant step in conforming market standards for environmental compliance in international project finance, the process is still in its early stages and it is difficult to predict its evolution. As a result, market precedent from landmark project financings, combined with the evolving recommendations of multilateral organizations such as the World Bank Group and the OECD, will continue to play an important role in determining the landscape for environmental compliance in international project finance.

§ 16:7 Insurance

Insurance is another tool that can be used to assign and mitigate certain project risks. In general terms, insurance is equally critical to both Sponsors and Lenders. In the event of a major casualty, insurance is the protection of last resort covering the value of the Sponsors' equity investment and the Lenders' financing. Hence, while certain nominal risks can be self-insured, the vast majority of insurable risks will be covered by a policy provided by a third-party insurance provider.

Insurance requirements will vary by project, and within each project there will be variation among project documents depending upon the specific risks involved. Generally, however, Lenders will require an Owner to obtain, or insist that the counterparties to the various project agreements with the Owner obtain, one or more types of insurance, and that the insurance obtained cover certain enumerated risks. There will likely also be a requirement that the insurance policy deductibles not exceed a certain amount and that the insurance provider possess and maintain a credit rating above a certain specified threshold. Additionally, the insured party will be required to furnish its counterparty and the Lenders with proof of insurance coverage.

It is useful to divide the types of insurance customarily obtained for project transactions into two categories based on the stage of the project: construction phase insurance and operating phase insurance. The following brief list identifies the principal types of insurance necessary during both the construction phase and the operating phase of a project:

- *Employer's liability/worker's compensation insurance* covers liability for injuries to employees during construction and operation of the project.
- *Environmental liability insurance* covers liability for, or injury resulting from, any violation of environmental laws during construction or operation of the project.

- *Transit insurance* covers any losses or damages that occur while equipment or spare parts are in transit from a supplier to the project site during construction or operation of the project.
- *Political risk insurance* covers certain political risks of the host country (see section 16:9.3).

The principal forms of insurance required during the construction phase include the following:

- *Contractor's all risks insurance* covers any direct losses or damages that occur during project construction. This insurance generally provides broad coverage for all risks except for those that are specifically excluded from the policy, and terminates once construction is complete.
- *Delay-in-startup insurance* covers the increased costs resulting from a delay in project completion caused by an insured loss. This is intended to offset against the greater-than-expected cost of interest during construction and the loss of revenue arising from the delay.

The principal forms of insurance required during the operating phase include the following:

- *Operator's all risks insurance* covers loss or damage after operation has begun. This insurance generally provides broad coverage for all risks except for those that are specifically excluded from the policy.
- *Operator's loss of revenue (or business interruption) insurance* covers loss of revenue that results from damage to the project caused by an insured loss.

The allocation of responsibility for the maintenance of the foregoing insurance among the parties to a project transaction will vary from project to project. Typically, however, as can be expected from the discussion in other parts of this chapter, the party required to obtain insurance will be the party to whom the underlying risk being insured against is most optimally allocated. For example, the risk of environmental liability arising from preexisting site conditions is typically an Owner's risk to be covered by Owner-procured insurance, whereas the risk of environmental damage from construction risks should be borne by the EPC Contractor and covered under its all risks insurance policy or separately procured by the EPC Contractor. Generally, the EPC Contractor's all risk policy will provide the principal insurance covering the project and the site during construction, with the responsibility for maintaining the operations phase insurance shifting to the Owner or Operator after construction. In addition, insurance is sometimes procured at the

project level (on a project-by-project basis), and in other instances provided through an insurance program at the parent corporate level (for both Sponsors and large international contractors). This latter approach can sometimes afford parties the ability to leverage better rates and provide for a more efficient way to manage a party's global exposure.

There are several typical issues that could arise with insurance in the context of an international project financing transaction. These include:

- (i) policy cancellation or expiration without renewal, or an adverse change in the offered policy after the project has commenced;
- (ii) the occurrence of a loss that falls outside the policy coverage, or is expressly excluded;
- (iii) the insurance carrier seeking to void the policy on grounds of nonpayment of premiums, nondisclosure, fraud, misrepresentation or failure by the insured to comply with other policy requirements;
- (iv) failure by the insured to make a timely claim or provide timely notice of an insured event;
- (v) delay in the processing, analysis and payout of a claim by the insurance carrier; or
- (vi) insolvency of the insurance carrier.

The Lenders will attempt to address and minimize the likelihood of each of the foregoing risks in the project financing documentation.

As with other project agreements, the Lenders will insist that all insurance policies procured by a project company be assignable to the Lenders in case the Lenders foreclose on a project. Additionally, Lenders may insist that any payout under an insurance policy be deposited into a special account that the Lenders can control. Finally, the Lenders may also be loss payees under a project's insurance policies and listed as additional insureds thereunder.

The particular insurance program that is utilized in a project will be dictated by the type of project, the hazards involved, and the risk sensitivity of project parties and Lenders. Generally, however, consistent with the overarching theme of assignment and mitigation of risk, all project finance transactions will require certain types of insurance by creditworthy third parties to cover risks that cannot otherwise be adequately prevented or managed by the parties to the transaction.

§ 16:8 Tax Planning and International Project Finance

Tax planning is an essential element of project development and finance. Taxes will directly affect a Sponsor's net cash rate of return on investment, and hence influence significantly the Sponsor's analysis of reward and risk in any given project investment.

These considerations are present even when a project is built in the United States by a single U.S. developer. When the project is a cross-border transaction, however, the process is more complex. For example, operating results may be affected by the interplay of the tax laws of two or more taxing jurisdictions.

In addition, international projects are often pursued as a joint venture among two or more Sponsors, who may themselves be resident in different taxing jurisdictions. The resulting variances in tax treatment and interests may need to be harmonized to produce a viable result for each Sponsor.

This section will briefly consider some of the ways in which tax planning is relevant to an international project, and how it can affect the economic results to the parties. For the purposes of this section, we will assume that the project is an independent electric power generation facility to be built in Country X. The nature of the tax issues, however, will likely be fairly similar in any other type of income-producing project. We will also assume that the development is a 50/50 joint venture between Company A, a resident of the United States, and Company B, a resident of Country Y.

§ 16:8.1 The Project Entity

Local law or political considerations may often dictate that the project be owned by a legal entity formed in Country X. An initial task, therefore, is to explore with able counsel in Country X what forms of legal entity are permissible. For example, local law may permit the project to be owned by a corporation, a partnership, a limited liability company, or analogous forms under local law, such as a *sociedad anonima* or *limitada*.

The next step will be to consult with an expert tax advisor in Country X to determine whether such forms of entity are taxed differently on their income, and if so, to identify the differences. For example, the entities may be taxed at different rates. Or, in some instances, special tax benefits under local law may only be available to certain types of entities. In other cases, the entity may not be subject to tax, but its members may be directly taxed on their shares of the entity's income.

In addition, under U.S. federal income tax law, certain foreign entities will automatically be treated as corporations for U.S. tax purposes, under the so-called "check-the-box" classification rules. Other entities may be treated either as corporations, or as partner-

ships or “disregarded entities” (in effect, mere branches) for U.S. tax purposes, as the parties may elect.

These particular tax differences may be critically relevant to Company A, and completely irrelevant to Company B. However, any choice of entity resulting from this analysis may have tax importance to Company B for other reasons (for example, in its home jurisdiction). This is an example of the kinds of “harmonizing” choices required to fashion a plan workable for all parties.

§ 16:8.2 Contract Structuring Issues

In some instances, it may be possible to reduce the local taxes applicable to the construction of the project by modifying the form of the construction contract arrangements. For example, sales tax or value-added tax associated with that portion of the EPC Contract that is to be performed in Country X may, if the contract is structured without regard to the impact of such taxes, actually be applied to the entire contract price (if the contract is “unitary”).

On the other hand, such taxes might not apply to the supply of necessary project equipment shipped from sources outside Country X, if the procurement of such equipment were structured as a separate agreement. Whether that can be accomplished will depend on the facts, applicable law, thoughtful analysis and creative structuring of the EPC Contract arrangements. Given that the cost of major equipment comprises a significant portion of the overall construction cost, the possible tax savings at stake may be considerable.

To cite another example, if one of the Sponsors (say, Company B) is required to guarantee payment of the project company’s debt during the construction of the project, any fees paid by the project company to Company B for the guarantee may be treated as associated with the borrowing under the law of Country X. If so, such income may be treated as income arising at the place of the borrowing (namely, Country X), and be subject to a Country X withholding tax. If Company B cannot take advantage of any credit for such taxes in its home country (Country Y), it may have to pay a double tax on its fees—substantially impairing the economic benefit of the fees.

In such a case, it might instead be possible to structure the undertaking of Company B as a “standby purchase agreement” to purchase the debt of the project company from the Lenders in the event of a default—a contract to be performed in Country Y. Income from the fees for such an agreement might therefore be treated as income from the performance of services in Country Y (that is, the standby purchase of the debt), and thus not subject to any withholding tax in Country X. That might significantly reduce the taxes of Company B on its fee income from the undertaking.

§ 16:8.3 Effects of Ownership Structure

Some of the most dramatic effects of tax planning for an international development project relate to the nature and location of the equity ownership structure. For example, Company A or Company B (or both) may wish to create a mezzanine holding company outside their home jurisdiction, through which their investment into the project company may be channeled.

In this case, let us assume that they will jointly create such a company (“MezzCo”) in Country Z. Usually, the primary tax reason for such a strategy is that dividends from the project company to MezzCo will be taxed at a lower rate than if the same dividends were received by Company A or Company B—and in some cases, they may not be taxed at all. The latter result may apply if Company Z is a “tax haven” country that imposes no tax, or if its tax law exempts dividends from qualified subsidiary investments (such as under the “participation exemption” provided by the Netherlands and other EU countries).

As a result, dividends to MezzCo could be reinvested in other projects in countries outside the United States and Country Y, without being reduced by any current tax in the home countries of Company A and Company B. In that way, their investment can effectively compound on a “pretax” basis, until the earnings are ultimately repatriated home. This strategy may be particularly significant when Country X is a less-developed country that offers significant tax inducements (such as an income tax holiday for some initial period of years), to offset the political risk of the investment. If all dividends were remitted directly to Companies A and B, and were fully subject to current tax in their hands, the economic incentive of the tax holiday would be defeated.

Of course, for this strategy to work, the parties must successfully avoid any tax regime in Country Y or the United States that would tax the parties immediately on their share of the income of MezzCo, even if the income were not distributed to them. Many jurisdictions have regimes (like the rules concerning “controlled foreign corporations” in the United States) which seek to tax investors immediately on their shares of the passive income of offshore subsidiaries. In the United States, this result may be avoided if the project company can be treated as a partnership (or a “disregarded entity”) for U.S. federal income tax purposes. In that case, MezzCo’s income would be treated not as passive dividend income but as income from the active conduct of the project company’s business, and would not immediately be accrued to Company A.

In some cases, a further benefit of the MezzCo strategy may be a favorable tax treaty between Country X and Country Z. For example, such a treaty might provide for a reduced rate of withholding tax on

dividends from the project company to a resident of Country Z. Ordinarily, the fact that MezzCo is formed under the laws of Country Z would make it a “resident” of that Country. The tax authorities of Country X, however, may take a different view. They may consider it necessary that MezzCo have sufficient personnel, activities, office space and other indicia of real “presence” to be classified as a bona fide “resident” of Country Z, entitled to the protection of the treaty.

In addition, even if such “presence” is established, the favorable result may still not be assured. For some time now, the United States has been engaged in a program to renegotiate and update its existing tax treaties with foreign countries to include a “limitation of benefits” provision. Under such a provision, the eligibility of a company formed in Country Z to be treated as a resident of Country Z and entitled to the benefit and protection of its tax treaties, may be blocked when a majority of the company’s Owners are located outside Country Z. Other countries have been moving similarly to restrict the benefit of their tax treaties.

§ 16:8.4 Conclusion

When parties from different taxing jurisdictions engage in the development of an international project outside their home countries, the complexity of the needed tax planning is significant. As the foregoing discussion makes apparent, careful and imaginative tax planning may significantly enhance the net value of the investment to the parties.

§ 16:9 Unique Risks in International Projects

This section addresses two types of risks—currency risk and political risk—that are unique to international projects, and discusses techniques that have been developed to mitigate these risks, or shift them to parties better suited to manage them. This section also includes a case study in connection with the discussion of change in law risk, examining the experience of four multinational consortia that project financed several multi-billion-dollar heavy oil projects in Venezuela in the late 1990s, and the shifting Venezuelan fiscal laws that have affected these projects to the date of this chapter’s preparation.

§ 16:9.1 Currency Risk

Currency risk can be broadly divided into three different categories:

- Inconvertibility risk
- Transfer risk
- Devaluation risk

[A] Currency Inconvertibility and Transfer Risk

For purposes of this section, references to “local currency” means the currency of the host country in which an international project is located. “Foreign currency” means the currency of the home country of the Sponsor (that is, U.S. dollars for U.S. Sponsors).

Currency inconvertibility risk is the risk that a project entity will not be able to convert its profits or other cash from local currency into foreign currency. This risk is applicable to projects that earn income in a local currency but must service debt or repatriate profits in another currency. International projects that export goods paid for or priced in the foreign currency (for example, oil) are not susceptible to currency inconvertibility risk. They could, however, be susceptible to currency transfer risk. Currency transfer risk is the risk that local currency, once converted into foreign currency, will be restricted from being transferred outside of the host country.

Both inconvertibility risk and transfer risk arise if a host country is experiencing foreign exchange shortages, or if its central bank fails to act on an application for foreign currency. The failure by a host country’s central bank to either convert local currency into foreign currency, or to permit transfers of foreign currency offshore, is often a precursor to the rescheduling by a sovereign of its foreign currency obligations. Currency inconvertibility risk could also materialize through the imposition of restrictive foreign currency controls and regulations.

In addition, even in the absence of a currency crisis, local legal regulations (which will vary from country-to-country) may restrict the ability to convert local currency into foreign currency and to service all aspects of foreign loans (for example, principal, interest, fees, expenses and other indemnity payments). This can have a significant effect on the way that financing agreements are structured, and is another area to which Sponsors and Lenders pay close attention as the terms of project loan agreements are negotiated.

There are a variety of ways to mitigate or shift currency inconvertibility and transfer risk. In order to gauge the magnitude of this risk at the outset of planning a new project, Sponsors and Lenders should endeavor to become familiar with the status or condition of the host country’s foreign currency reserves. One way to structure around currency inconvertibility and transfer risk is to maintain bank accounts in foreign currency outside of the host country. However, offshore bank accounts may not be, in and of themselves, a complete solution for the following reasons. First, in the case of projects whose income streams are already denominated in foreign currency, some countries will require the return of all revenues earned in foreign currency to the host currency for conversion into the local currency. Second, in the case of projects that generate reve-

nues in local currencies, many countries limit the amount of foreign exchange that can be maintained offshore. For these reasons, Sponsors often seek special agreements with host governments that address offshore bank accounts, currency convertibility and transfer issues.

A well-structured host government (concession, implementation or stabilization) agreement that does not require the project company to access the local currency market in order to obtain foreign currency, and does not require local government approval to transfer hard currencies abroad, will reduce the currency inconvertibility and transfer risk to which the project is exposed. In this case, the risk becomes limited to the risk that a host government will breach the contractual obligations set forth in the agreement with the project company. This is a “political risk” that is addressed in section 16:9.2.

Currency inconvertibility and transfer risk can also be shifted to insurers. There are a variety of public and private sources that underwrite policies to insure against these risks. The public sources include multilateral and bilateral institutions, such as the Multilateral Investment Guarantee Agency, International Finance Corporation, Inter-American Development Bank, European Bank for Reconstruction and Development, U.S. Overseas Private Investment Corporation and the Asian Development Bank. Each insurer has different pricing structures and limits on the amount of risk that it will underwrite. In addition, the policies will distinguish between coverage for the project’s debt and the equity investment of the Sponsors. Events that are generally excluded from coverage under inconvertibility and transfer risk insurance policies include:

- Preexisting foreign exchange controls
- Losses that are avoidable, such as when a project company voluntarily brings in foreign exchange and is subsequently unable to reconvert to foreign currency
- Losses resulting from currency devaluation

[B] Currency Devaluation Risk

Currency devaluation risk is present whenever a project’s debt is denominated in foreign currency and the project earns its revenues in local currency. If the local currency depreciates in value, the project may be unable to generate enough local currency to convert into the foreign exchange that is required to service the project’s debt. Most political risk insurers will not insure against currency devaluation risk. The large size and long tenor of most project loans can also make currency hedging or derivative arrangements rather expensive (depending on the local currency in question, the market

may not even have sufficient liquidity to support long-term hedging arrangements). As a result, the project and its Lenders are sometimes left to bear devaluation risk, unless the Lenders are successful in shifting this risk to the Sponsors or the project company's Offtaker. Shifting this risk to either party, however, can be difficult. Asking the Sponsor to assume this currency risk of the project would defeat a key element of the nonrecourse project structure that is attractive to the Sponsor in the first place. As to the Offtaker, it will likely prove even to be more problematic to get an Offtaker to agree to index its purchase price to changes in the exchange rate because the Offtaker's business will not likely be generating sufficient income to cover sharp devaluations in the local currency during a monetary crisis. In many cases, the Offtaker will pass along increased costs under its offtake agreement with the project company to the Offtaker's customers. In the example of a power project, this would mean that the Offtaker (often a state owned or controlled utility) would have to pass these additional costs to its ratepaying customers. In many emerging economies, the political will to burden the local population with this cost is not usually present. Currency devaluation, and the inability to shift this risk on to any party other than the Lenders is what accounted for many of the failed power projects in Indonesia in the late 1990s, when the Indonesian rupiah plummeted in value.

The solution to any currency devaluation crisis will ultimately lie in actions taken by the host country. In this regard, all currency risks are essentially political risks. Currency risks are heightened in an international project financing because so many international projects are located in emerging and often unstable economies, where government participation in infrastructure development is commonplace, and where the infrastructure may be essential to the country's development and security.

§ 16:9.2 Political Risk

This section discusses three types of political risk:

- Political violence risk
- Expropriation risk
- Change in law risk

[A] Political Violence

Politically motivated violence in the host county can have obvious adverse effects on a project. Unless a country suffers a prolonged period of civil insurrection, the temporary nature of much political violence usually allows a project to weather the storm—provided the project has adequate cash reserves. In light of the un-

foreseeable, country-specific nature of political violence and the inability to mitigate this risk, however, risk insurance that covers political violence may be highly desirable. As with any political risk policy, it is essential to obtain a thorough understanding of the legal definitions that delineate what will constitute an insured political violence event. While political risk insurance is covered in section 16:9.3, Table 16-1 below illustrates a typical formulation of, and common exclusions from, the definition of political violence negotiated as part of a political risk insurance policy covering political violence.

Table 16-1

Common Formulation	May Include (negotiable)	May Exclude
A violent act undertaken with the primary intent of achieving a political objective, such as declared or undeclared war, hostile action by national or international armed forces, civil war, revolution, insurrection or sabotage.	<ul style="list-style-type: none"> • Civil disturbance or strife • Terrorism 	<ul style="list-style-type: none"> • Student violence • Labor violence • Environmentally motivated violence

In addition, coverage for political violence events typically pertains to a loss of assets or income directly related to the political violence. Since political violence can often take place at a national level but reverberate through an economy, the nature of what constitutes a direct loss can often be subject to dispute. For this reason, if political risk insurance is sought, it is important to tailor the covered events as closely as possible to the likely forms of political risk that can foreseeably affect a project.

[B] Expropriation Risk

There is a direct relationship between the importance of a project to a country’s economy and security and the risk that a host government may nationalize the project. When a project is nationalized, it is a clear form of “outright” expropriation. There are other forms of expropriation—“indirect” or “creeping” expropriation by a host government that do not involve the transfer of legal title to the government, but can still have an adverse effect on a project. Examples of creeping expropriation can include:

- Conditioning the grant or renewal of a key permit or government consent on concessions by the project that will degrade its financial returns
- Imposing confiscatory taxes or royalties on the project
- Other government acts which have the effect of depriving the Sponsors of ownership, control or substantial benefits from the project

Under accepted rules of customary international law, it is unlawful to expropriate property (on either an outright or indirect basis) without just compensation. State regulatory actions applied on a nondiscriminatory basis, however, are not considered to be forms of expropriation, even if those actions (or inactions) have an adverse economic impact on a project. Legal definitions of what constitutes creeping expropriation have been imprecise and generally do not address what distinguishes it from other noncompensable types of government regulation. This legal uncertainty makes it more difficult to challenge successfully creeping expropriation by host governments under multilateral and bilateral investment treaties or before arbitral tribunals. In part, this legal uncertainty may be due to the country-specific nature of government interference in the private sector and the intentional deference afforded by the drafters of some sources of international law to arbitral tribunals to address this issue on a case-by-case basis. Arbitral decisions interpreting various free trade agreements and bilateral investment treaties have led to the emergence of several broad criteria that provide a framework for determining what constitutes creeping expropriation as opposed to noncompensable government regulation. These criteria include:

- The extent to which the host government has hindered a property right
- The nature of the host government's interference with that property right (taking into account its purpose and context)
- Comparing the government's interference with reasonable and investment-backed expectations.⁶

These criteria have been reflected in recent free trade agreements that the United States has completed with countries or regions such as Morocco (2004), Central America (CAFTA) (2003) and Chile (2003). It is also reflected in the 2004 Model BIT (Bilateral Invest-

6. "INDIRECT EXPROPRIATION' AND THE 'RIGHT TO REGULATE' IN INTERNATIONAL INVESTMENT LAW," ORGANIZATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT, Working Papers on International Investment Number 2004/4.

ment Treaty).⁷ Although these recent agreements attempt to differentiate between noncompensable government regulation and creeping expropriation, they also acknowledge that a determination of indirect expropriation will ultimately be a case-by-base, fact-based inquiry. Hence, the determination of what constitutes indirect expropriation can be expected to change over the life of a project depending on the country in which the project is located and the particular political necessities that give rise to a host government's actions. As a result, bilateral investment treaties and free trade agreements often serve as just a tool for mitigating, rather than a blanket assurance against, expropriation risks.

[C] Change in Law Risk

As noted in the preceding discussion, host governments may take legal actions that have adverse effects on projects but do not rise to a level of indirect expropriation. Common examples of adverse changes in law include the imposition of:

- Import and export restrictions
- Price controls
- New environmental, health or safety standards or other changes in law that could require changes to the design of a project's key equipment or processes

For this reason, many Sponsors and Lenders try to enter into agreements with host governments that seek to stabilize the legal regime to which the project will be subject. The benefits and limitations of these agreements are discussed next.

[C][1] Host Government Agreements and the Limits of Contractual Risk Allocation

Host government agreements (Implementation, Concession or Stabilization Agreements) entered into between the project company or Lenders with host governments are a form of political risk mitigation. In addition, where a project is of particular strategic importance to a host country, and the host country cannot proceed without the support of the Sponsors, some countries have passed special laws to accommodate the project's ownership structure, tax rate, or use of offshore accounts. These agreements can address many of the key political risks described above, as well as provide for the following types of undertakings by the host government:

7. The text of the 2004 Model BIT is available at www.ustr.gov/Trade_Sectors/Investment/Model_BIT/Section_Index.html.

- No materially adverse changes in law that will affect the project
- Availability of foreign exchange and nonimposition of foreign exchange moratoria
- No expropriation without full compensation
- Levels of taxation applicable to the project
- Grant of permits to the project (so long as the company fulfills its obligations to obtain the permit)

Although topics such as expropriation are covered in bilateral investment treaties, host government agreements are tailored to specific projects and create direct contractual privity between a project or its Lenders and the host government. If a host government breaches its obligations under a stabilization agreement, the beneficiaries would have a contractual claim directly against the host government. While this can be difficult to enforce, many host governments, depending on the importance of the project's development to the country, will waive their rights of sovereign immunity in order to permit the beneficiaries to enforce the stabilization agreement against the government, either locally, or abroad. Unless a host government has significant assets abroad, the most valuable judgment will be one that can be enforced locally. Therefore, the extent to which the host country has a truly independent judiciary will have a strong bearing on the ability to prosecute successfully a claim against a host government for breaching a stabilization agreement.

Other than through third-party insurance for political risk events (discussed in section 16:9.3, below), it is very difficult to insulate against risks such as expropriation or change in law. Although stabilization agreements can help establish expectations based on adherence to contractual obligations, as previously discussed, those agreements can be breached. Accordingly, Sponsors often explore other ways to mitigate political risk. The importance of incentivizing a host government for a project's success cannot be understated. For instance, if a state-owned entity is also a project participant such as an Offtaker and the prices in the Offtake Agreement appear too high, the contract—or the project—is likely to come under scrutiny by the host government or a successor regime. A good example of this is the famously plagued Dabhol project in Maharashtra, India where the widespread perception that the price agreed by the prior (ousted) local government for power was simply too high led to project cancellation and litigation.

Other ways to incentivize host governments are through equitable forms of profit sharing, either in the form of taxes, equity in the project, or, in the case of extractive industries, royalties or other fees

associated with production. In addition, the fact that so many international project financings are structured as joint ventures with many different types of Lenders and multiple suppliers and Off-takers would serve as a form of political risk mitigation as well. This is because it may be more difficult for a government to take an adverse action against a project if many different types of parties would be affected by the government's action. It is often thought that including multilateral and bilateral lending institutions as financing parties will minimize political risk, as discussed further in section 16:10.1.

[C][2] Case Study: Venezuelan Heavy Oil Projects

Because projects have long lives, even those projects whose terms and conditions seem equitable at the outset can come under review as political and economic circumstances change. In the late 1990s the Venezuelan congress approved four separate strategic associations with different international oil consortia to develop heavy oil fields in Venezuela's Orinoco Delta region (the Orinoco Projects).⁸ Each of these multi-billion-dollar projects was project financed. At the time each of the Orinoco Projects reached their respective financial closings, the government's take over the life of each of the projects was estimated to be in the range of several billion dollars. Several years later the Venezuelan congress voted to increase royalties on all new oil projects to 16.6%. The Orinoco Projects were entitled to be grandfathered from this increase, however, because the Venezuelan congress had approved an initial nine-year royalty of 1% as an incentive for the Orinoco consortia to invest in their respective projects, given the extraordinarily high capital costs entailed. Nonetheless, by 2004, with oil prices significantly above the low-mid US\$20 per barrel range forecast when the projects closed, the Chavez government announced that it would unilaterally apply the 16.6% royalty rate on the four Orinoco Projects as well because rising oil prices had ostensibly offset the high capital costs attributable to the projects. In addition, the Orinoco Projects were initially granted a preferential tax rate of 34%. As of the time of this writing, however, the government has announced plans to raise the tax rates on these projects to 50%. When these projects were analyzed by U.S. credit rating agencies, the prevailing view was that the Orinoco Projects were strategic for

8. The four Orinoco Projects and their sponsors are as follows: **Petrozuata** (ConocoPhillips (50.1%), PDVSA (49.9%)); **Hamaca** (ConocoPhillips (40%), Chevron (30%), PDVSA (30%)); **Sincor** (Total (47%), PDVSA (38%), Statoil (15%)); **Cerro Negro** (ExxonMobil (42%), PDVSA (42%), Veba Oel (16%)).

Venezuela and that any efforts to interfere with them could impair Venezuela's future ability to access international capital markets and attract foreign oil company investment. Although it is uncertain whether any of Venezuela's actions at the time of this writing constitute clear breaches of the Orinoco Projects' contracts, it would appear that with oil prices presently hovering between US\$60 and US\$70 per barrel, Venezuela's ability to gain economic leverage to the detriment of the Sponsors without attracting a full-blown legal battle has been successful. In the end, the economic and political realities are that the projects are continuing to service their debt, and some Sponsors are seeking to pursue additional investment opportunities in Venezuela, although perhaps with eyes more keen to the government's ability to change any future projects' essential financial terms.

§ 16:9.3 Political Risk Insurance

In addition to expropriation claims that can be brought under international law, there are a variety of insurance products available to cover not only expropriation events, but currency risk and political violence as well. Political risk insurance, like most forms of insurance, is expensive and subject to many exclusions. In seeking political risk insurance, it is important to take care that the policy is as closely tailored to the anticipated risk as possible. In many cases, the decision to obtain political risk insurance for a project is driven less by the concerns of the Sponsor (who is willing to limit its losses to its nonrecourse equity investment in the project) and more by financing considerations. That is to say, it is often the financing parties who insist on "covering" their loans with political risk insurance. In the case of a typical project financing that is highly leveraged, it is not difficult to see why this is the case: Lenders, and not Sponsors, bear most of the political risk during the initial years of the project, once the project has been completed.

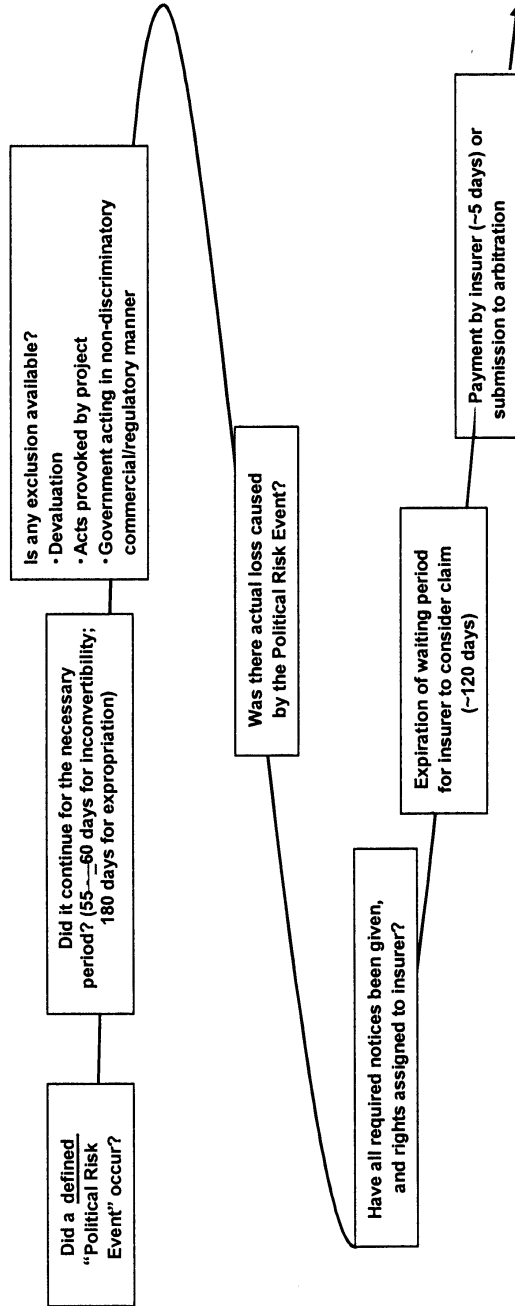
Political risk insurance used to be dominated by multilateral and bilateral institutions. In recent years, however, political risk policies have increasingly been offered by private insurers as well. In addition, bilateral agencies have begun to offer more complex political risk insurance products in order to keep pace with the changing profile of financing sources, such as capital markets investors that provide financing to projects. Until several years ago, political risk insurance was only available to protect equity investors and commercial bank Lenders. However, with the growing use of project bonds, many insurers developed policies to enhance bonds issued by emerging market issuers, such as project companies, to U.S. investors. A good example of this is the U.S. Overseas Private Investment Corporation's (OPIC) capital markets political risk insurance policy.

The OPIC capital markets policy covers currency inconvertibility and transfer risk. The limit of OPIC coverage is US\$200 million; however, OPIC generally limits its exposure in any one country under each form of coverage to up to 15% of its aggregate exposure. One of the benefits of the policy is that OPIC is willing to provide coverage for up to twenty years. Unlike many other forms of political risk insurance, such a long time period pairs well with the long-term amortization of many project bonds. Like most policies, there are waiting periods that must elapse before claims can be made: 55–60 successive days in the case of a currency inconvertibility or transfer event, and 180 successive days in the case of an expropriation event. Making a claim under a political risk policy requires the careful application of legal analysis and observance of procedural rules. The timeline in Figure 16-3 reflects the typical claims process under a political risk insurance policy (not just the OPIC capital markets policy). As illustrated, collecting on an insured political claim can take more than one year.

§ 16:9.4 Conclusion

Many legal innovations developed in the field of international project finance rest on the assumption that project parties can allocate risks through contract. The unique risks in international project finance, however, whether they relate to macroeconomic monetary policy or civil insurgency, are inherently political in nature. Although political risks can be allocated or mitigated in a project, the ultimate solution will likely come through an accommodation with the host government. While international finance communities can often exercise influence over host governments, the ability to contractually allocate or shift political risk is limited. The best form of political risk mitigation for Sponsors is a well structured nonrecourse project that enables a Sponsor to limit its liability and investment to its equity in the project.

Figure 16-3
Political Risk Insurance Claim Process and Timeline



§ 16:10 Export Credit Agencies; Bilateral and Multilateral Institutions

This section discusses the role that bilateral and multilateral finance institutions may play in a project financing. It discusses the differences between the different types of organizations and the pros and cons of including these institutions in a financing plan. It concludes with case studies of the role that public financing agencies played in two recent landmark cross-border pipeline project financings.

§ 16:10.1 Reasons to Include ECAs and MLAs

If a project is being developed or financed in an environment that presents political risk, public sources of finance may often be desirable, or in some cases, the only sources willing to bridge a financing gap that cannot be overcome by private sources such as commercial banks or capital markets investors. Where there are looming political risks in a project, private financing sources may view multilateral lending agencies (MLAs) and export credit agencies (ECAs) as stabilizing factors, and will not lend for the tenors required for project financings without the participation of one or more of these agencies. In this way, MLA and ECA participation effectively increases the amount that private sources are willing to lend to projects. Additionally, ECA loans typically have a greater amortization period than commercial bank loans and this can help increase a project's leverage.

The participation of multilateral lending agencies, bilateral lending agencies and export credit agencies is considered to minimize, if not eliminate, the likelihood of potential adverse acts by a host government. This is because a host government is viewed as being unlikely to interfere with a project or to repudiate an agreement when the World Bank, for example, has an interest in the agreement being respected. The conventional wisdom is that the participation of an MLA is a sufficient deterrent because the consequences of acting against a project could mean that the host country may have greater difficulty accessing the international financial markets in the future. This theory is explored in greater detail in section 16:10.3[A] in the context of the discussion of recent developments in the Chad-Cameroon pipeline project.

[A] Differences Between MLAs and ECAs

A major difference between bilateral lending agencies (which include ECAs) and MLAs is their mission: bilateral agencies primarily exist to promote the export of goods or services that are obtained from the agency's country of origin, whereas an MLA's mission is

broader in scope and is focused on promoting development and economic growth. MLAs are organized and funded by a group of countries and may have a global or regional focus. Bilateral lending agencies are organized by individual nations and are funded by their organizing governments and the revenues generated from their operations. In addition, because of each ECA's mandate to promote its host country's goods or services, there are many technical requirements for projects that obtain export credits. For instance, ECA involvement will mean that there will be heightened verification procedures for obtaining accurate information on the country of origin of goods and services used in the project. When determining the "origin of goods and services," this usually means not only the country where the invoice is issued or the nationality of the subcontractor, but where the goods are produced or manufactured as well.

A list of bilateral and multilateral agencies and their common acronyms is found in Appendix 16A at the end of this chapter. Each of these private sources provides an array of financing products commonly seen in project financings, such as loans, loan guarantees, interest rate support, and political and commercial risk insurance.

§ 16:10.2 World Bank Group and OECD Guidelines for ECAs

Describing all of the financial products offered by the myriad of public project finance sources is beyond the scope of this section. Because the World Bank Group is the largest MLA and a frequent participant in international projects, however, the various World Bank Group agencies and their missions are described below. In addition, the OECD consensus guidelines that many ECAs abide by in the projects to which they lend are also described.

[A] World Bank Group

The World Bank Group consists of five closely associated institutions:

- *International Bank for Reconstruction and Development (IBRD)* focuses on middle income and creditworthy poor countries.
- *International Development Association (IDA)* focuses on the poorest countries in the world. The IDA and the IBRD are owned by 184 member countries.
- *International Financial Corporation (IFC)* focuses on private sector investment in developing countries. The IFC is the largest multilateral source of loan and equity financing for private sector projects in the developing world and is owned by 178 member countries. The IFC normally arranges two

types of loans that are frequently seen in project financings: “IFC-A” and “IFC-B” loans. In both cases, the IFC is the Lender of record, however, IFC-B loans are syndicated to participating financial institutions.

- *Multilateral Investment Guarantee Agency (MIGA)* promotes foreign direct investment in developing countries by providing investment guarantees to the private sector that insure against political risks.
- *International Center for Settlement of Investment Disputes (ICSID)* does not provide finance. It provides facilities for the settlement, by conciliation, arbitration, or both, of investment disputes between member countries and foreign investors. All of ICSID’s member countries are members of the World Bank.

Most dispute resolution procedures in bilateral investment treaties and free trade agreements are submitted to ICSID.

[B] OECD Consensus Guidelines

Although each country with an ECA supports and sponsors that particular agency, most ECAs abide by the OECD’s “Arrangement on Guidelines for Officially Supported Export Credits” (Consensus Guidelines). The Consensus Guidelines were originally adopted in 1978.⁹ Their purpose is the operation of an orderly credit market and to prevent countries from competing to offer the more favorable financing terms than competitor ECAs. Generally, the Consensus Guidelines limit the terms and conditions of ECA lending (for example, minimum interest rates, risk fees and maximum repayment terms) and include procedures for prior notification, consultation, information exchange and review of ECA lending when a proposed financing deviates from the Consensus Guidelines.

Since 1978, the Consensus Guidelines have been periodically updated, most recently in December 2005.¹⁰ The revised text contains new provisions applicable to project financings, summarized in Table 16-2 below.

The terms and conditions summarized above do not purport to be a comprehensive summary of ECA terms and conditions applicable to all project financings. In addition to the terms and conditions summarized above, the Consensus Guidelines contain other terms

9. Countries with ECAs that have adopted the Consensus Rules are: Australia, Canada, the European Community, Japan, Korea (Republic of), New Zealand, Norway, Switzerland and the United States.

10. The text of the December 2005 revisions to the Consensus Guidelines is available at [http://webdomino1.oecd.org/olis/2005doc.nsf/Linkto/td-pg\(2005\)38-final](http://webdomino1.oecd.org/olis/2005doc.nsf/Linkto/td-pg(2005)38-final).

and provisions that are applicable to all ECA credits, including project financings. In addition, it is possible for ECAs to deviate from the Consensus Guidelines on any given project, so long as the ECA wishing to deviate from the Consensus Guidelines complies with the detailed notice requirements set forth in the Consensus Guidelines.

Table 16-2
OECD Terms and Conditions Applicable to
Project Finance Transactions

Term	Condition
Tenor	<ul style="list-style-type: none"> • 14 years, maximum (generally) • 10 years if ECA credit is more than 35% of total syndication and in a high income OECD country
Principal Amortization: Size of Installments	<ul style="list-style-type: none"> • Not to exceed 25% of original principal amount within a 6-month period
Principal Amortization: Frequency	<ul style="list-style-type: none"> • First repayment no later than 24 months after starting point of credit • No less than 2% of original principal amount to be repaid 24 months after starting point of credit
Principal Amortization: Weighted Average Life	<ul style="list-style-type: none"> • Not to exceed 7.25 years (generally) • 5.25 years if ECA credit is more than 35% of total syndication and in a high income OECD Country
Interest Payments: Frequency	<ul style="list-style-type: none"> • No less frequently than every 12 months • First payment date no later than 6 months after starting point of credit
Interest Rate: Fixed Rate Loans less than 12 years	<ul style="list-style-type: none"> • Base rate is an applicable government bond yield most closely matching the maturity of the fixed rate loan • Margin is Base Rate + 100 basis points (the "Commercial Interest Reference Rate" or "CIRR")
Interest Rate: Fixed Rate Loans greater than 12 years	<ul style="list-style-type: none"> • CIRR + 20 basis points

§ 16:10.3 Case Study: West African and Caspian Cross-Border Pipeline Projects

Two landmark cross-border pipeline project financings illustrate the role that ECAs and MLAs may play in a politically risky project financing. These are the US\$2 billion Chad-Cameroon pipeline (closed in 2001) and the US\$3.6 billion Baku-Tblisi-Ceyhan (BTC) pipeline (closed in 2004).¹¹

[A] Chad-Cameroon Pipeline

The Chad-Cameroon pipeline is significant and unusual because its principal purpose was to include MLA and ECA participation in the financing for the protection they could bring to the project, and not to bridge a financing gap. In addition to IBRD and European Investment Bank (EIB) loans to the Chad and Cameroon governments to support their equity contributions to the project, the debt financing was limited to US\$600 million: two loans of US\$100 million each from the IFC (A and B loans) and two ECA tranches of US\$200 million each. The overall debt portion of the financing represented only 30% of the total project costs. In addition, the Sponsors obtained political risk cover during both the precompletion and postcompletion stages of the project.

The importance of attracting capital and rents from the pipeline to the Chad government, then rated as one of the world's most corrupt, gave the World Bank the leverage to demand greater transparency of oil revenues and to use such revenues for social purposes as a condition to World Bank participation: as originally structured, 10% of the revenues would be held in trust for future generations and 80% of the remaining revenues would be devoted to education, health and social services. However, in December 2005, Chad's parliament approved a law with the strong backing of its president to repudiate its agreement with the World Bank over the management of oil revenues, including abolishing the fund for future generations. According to newswire stories that followed this event, the World Bank's response was to halt all new loans to Chad and suspend US\$124 million already approved for lending to Chad. In addition, the World Bank is reported to have ordered the London-based escrow accounts into which royalties attributable to project profits are to be paid to be frozen. It is unclear how this dispute will be resolved between the World Bank and Chad.

11. For further discussion comparing and contrasting these two financings, see Bob Spjut & Philip Tandler, *Pipeline Paradigms*, PROJECT FINANCE GLOBAL OIL AND GAS REPORT, Dec. 2003, at 15.

As previously discussed, one of the key reasons that the Sponsors sought World Bank participation on the project was to obtain the protection such participation could bring to the project. Although there have been no reports that the government of Chad intends to expropriate the project or to alter the financial terms by which the Sponsors earn a return on their investment in the project, World Bank officials have been publicly quoted as saying that Chad's modification of the World Bank oil revenue management law is a "material breach" of its loan agreement. The actions by the Chad government have triggered a strong response from the World Bank—halting future loans and potentially depriving Chad of royalties from the project. Industry observers will be following this development closely because the end result should provide insights into the limits and effectiveness of MLA participation in international project finance. One preliminary observation is that this situation presents a challenge to conventional wisdom: the mere presence of the World Bank as a project participant was not sufficient to deter the Chadian government from taking a materially adverse position to the World Bank with respect to the project.

[B] Baku-Tblisi-Ceyhan (BTC) Pipeline

In contrast to the Chad-Cameroon financing, in the BTC financing, MLA and ECA participation enabled the Sponsors to borrow substantial amounts that would not likely have otherwise been available. With the exception of US\$923 million of Sponsor senior loans to the project company, approximately 65%, or US\$1.7 billion out of BTC's US\$2.6 billion of project debt was either tied to or covered by MLA and ECA funding.¹² Put another way, the principal reason for involving the MLAs and ECAs in the BTC financing was to increase the amount of debt financing.

Although the BTC pipeline reached financial close successfully, such concentrated ECA involvement was not without tremendous logistic challenges for the Sponsors. For instance, as previously noted, ECA credits must be tied to eligible goods and services. A key principal in multisource project financings is that commercial Lenders desire for the ratio of their credit extensions to remain balanced

12. Stewart Robertson & Craig Jones, *How Sponsors Financed the First Caspian Pipeline to the Mediterranean*, INT'L FIN. L. REV., Mar. 2004. BTC's total project costs were US\$3.65 billion. The debt, consisting of US\$2.589 billion, included the following tranches: **IFC/EBRD/A/B loans** (US\$500 million); **ECA loans** (JBIC, NEXI, US Exim, ECGD, Hermes, Coface and SACE) (US\$766 million); **Japan Bank for International Cooperation (JBIC)** overseas investment loan (US\$300 million); **Overseas Private Investment Corporation (OPIC)** covered loans (US\$100 million); **Sponsor senior loans** (US\$923 million).

with credit extensions by ECAs, and among the ECAs, no one ECA should advance more than its pro rata share of credit. Coordinating the draw downs under BTC's multiple tranches of ECA and commercial (covered) bank debt required care in taking all this into account, while at the same time ensuring that project costs being reimbursed by drawdowns under ECA facilities matched the timing of production, shipment and delivery of eligible goods and services.¹³

[C] Delay

Structuring a project to include MLA and ECA participation can take years. Chad-Cameroon was four years in the making (1997–2001). Planning for BTC began in 2001; it closed in 2004. Lending programs sponsored by MLAs can involve detailed political and social reforms that are difficult to implement. Despite the recent dispute with the World Bank, Chad's oil revenue management trust accounts were originally touted as a model for future project financings. It took a long time for these arrangements to be worked out, however. As discussed in section 16:6, environmental due diligence and the development of social and environmental assessments can also delay a project. The World Bank began public consultations on the Chad-Cameroon project in 1993. Its environmental assessment and nineteen-volume environmental management plan were not completed until 1997 and 1999, respectively, with numerous changes during the draft stages of the documentation to meet the World Bank's requirements. On the BTC project, the IFC began its due diligence in 2001 and together with the EBRD held meetings with communities and governmental agencies in the host countries, in addition to meetings with many non-governmental organizations.

Finally, notwithstanding the Consensus Guidelines, the lending policies among the myriad of ECAs active in the project finance market still lack harmonization. Different ECAs may require the inclusion of specific clauses in supply contracts, and because ECAs only support eligible goods and services, there can be delays in finalizing a project's equipment procurement plan. Several ways to limit delay when dealing with an ECA include limiting the number of EPC Contractors and subcontractors involved, and where possible, limiting the number of ECAs involved in a given project.

13. John Watkins, *BTC-Reaching First Drawdown*, PROJECT FIN. INT'L, Sept. 29, 2004, at 48.

§ 16:10.4 Conclusion

MLAs and ECAs, with their unique ability to absorb political risk coverage, are the only sources able, in many instances, to fill financing gaps in project financings in countries that present political risk and have low sovereign credit ratings. The need for ECAs and MLAs to bear a portion of this risk is not just driven by risk adversity on the part of commercial sources. Bank regulatory considerations such as capital adequacy requirements also limit the exposure that different commercial financial institutions can afford in non-OECD countries. As a result, Sponsors will likely need the participation of MLAs, ECAs, or both, when they seek project finance in countries or regions that pose political risk concerns.

