Sustainable Energy Handbook

Module 3.1

Introduction to public private partnerships

Published in February 2016

1 Introduction and definitions

This fiche aims at presenting the key elements that EU staff should take into account when dealing with a Public Private Partnership (PPP) project in the energy sector.

Indeed, the lack of financial resources in developing countries, the huge amount of investment required by the energy sector, the complexity of projects, the guarantees demanded by the financial sector (development as well as private banks), have stimulated the international development community to promote this PPP approach.

There are actually two fundamental drivers for the development of PPPs. Firstly, PPPs are claimed to enable the public sector to harness the expertise and efficiencies that the private sector can bring to the delivery of certain facilities and services traditionally procured and delivered by the public sector. Secondly, a PPP is structured so that the public sector body seeking to make a capital investment does not incur any borrowing. Rather, the PPP borrowing is incurred by the private sector vehicle implementing the project.

PPP has been defined by the World Bank as:

"A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance"

2 General Principles and Different Types of PPP

A central characteristic of a PPP contract is that it 'bundles' together multiple project phases or functions. Nevertheless, the **functions** for which the private party is responsible vary, and can depend on the type of asset and service involved. Typical functions can include the following:

- **Design** (also called 'engineering' work) – means developing the project from initial concept and output requirements to construction-ready design specifications.
- **Build, or Rehabilitate** – when PPPs are used for new infrastructure assets, they typically require the private party to construct the asset and install all equipment. Where PPPs involve existing assets, the private party may be responsible for rehabilitating or extending the asset.
- **Finance** – when a PPP includes building or rehabilitating the asset, the private party is typically also required to finance all or part of the necessary capital expenditure, as explained further below.
- **Maintain** – PPPs assign responsibility to the private party for maintaining an infrastructure asset to a specified standard over the life of the contract. This is typically considered a defining feature of PPP contracts.
- **Operate** – the operating responsibilities of the private party to a PPP can vary widely, depending on the nature of the underlying asset and associated service. For example, the private party could be responsible for:

- Technical operation of an asset, and providing a bulk service to a government off-taker – for example, a bulk water treatment plant.
- Technical operation of an asset, and providing services directly to users – for example, a PPP for a water distribution system.
- Providing support services, with the government agency remaining responsible for delivering the public service to users – for example, a PPP for a school building that includes janitorial service.

The **payment mechanism** is an important PPP feature. The private party can be paid by collecting fees from service users, by the government, or by a combination of the two – with the common, defining characteristic that payment is contingent on performance, which may be often a cause of conflict, since the revenue forecast might have been overoptimistic.

The table below indicates the various types of contracts which are used by PPPs.

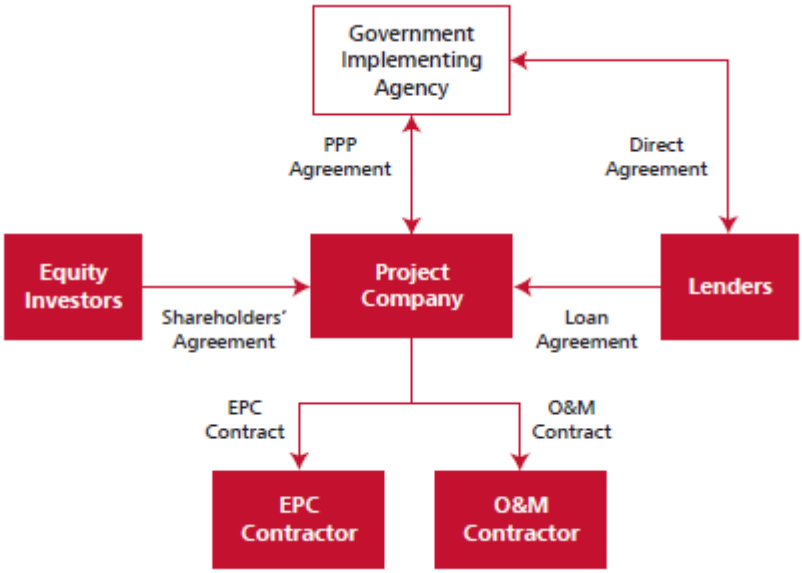
Contract Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Mechanism
Design-Build-Finance-Operate-Maintain (DBFOM): Design-Build-Finance-Operate (DBFO)	Under this nomenclature, the range of PPP contract types is described by the functions transferred to the private sector. The 'maintain' function may be left out of the description (so instead of DBFOM a contract transferring all these functions may simply be described as DBFO with responsibility for maintenance implied as part of operations)	New infrastructure	As captured by contract name	Can be either government or user pays
Operations and Maintenance (O&M)	O&M contracts for existing assets may come under the definition of PPP where these are performance-based, and long-term (sometimes also called performance-based maintenance contracts)	Existing infrastructure	Operations and maintenance	Government pays
Build-Operate-Transfer (BOT)	This approach to describing PPPs for new assets captures legal ownership and control of the project assets. Under a BOT project the private company owns the projects assets until they are transferred at the end of the contract. In a Build-Transfer operation (BTO) contract, asset ownership is transferred once construction is complete. Ownership rights mainly affect how handover of assets is managed at the end of the contract	New infrastructure	Typically design, build, finance, maintain, and some or all operations.	Can be either government or user pays
Rehabilitate-Operate-Transfer (ROT)	In either of the naming conventions described above 'Rehabilitate' may take the place of 'Build' where the private party is responsible for rehabilitating, upgrading, or extending existing assets	Existing infrastructure	As above, but 'rehabilitate' instead of 'build'	As above
Concession	'Concession' is used for a range of types of contract. In the PPP context, a concession is mostly used to describe a 'user-pays' PPP. For example, in Brazil, the 'Concession Law' applies only to user-pays contracts: a distinct 'PPP Law' regulates contracts that require some payment from government	New or existing infrastructure	Design, rehabilitate, extend or build, finance, maintain, and operate – typically providing services to users	Usually user pays

Contract Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Mechanism
Lease or affermage	A lease or affermage contract is similar to a concession but with the government typically remaining responsible for capital expenditures. 'Affermage' in particular may have a specific meaning in some jurisdictions. Such contracts may or may not come under the definition of PPP depending on the duration of the contract	Existing	Maintain and operate providing services to users	User pays – private party typically remits part of user fees to government, to cover capital expenditures

Source: Public-private partnership reference guide version 2.0 World Bank 2014

The private party to most PPP contracts is a specific project company formed for that purpose – often called a Special Purpose Vehicle (SPV). The project company raises finance through a combination of equity – provided by the company's shareholders – and debt provided by banks, or through bonds or other financial instruments. The finance structure is the combination of equity and debt, and contractual relationships between the equity holders and lenders.

Figure 1: Typical PPP Project Structure



Source: Public-private partnership reference guide version 2.0 World Bank 2014

Typical PPP Project Structure shows a typical finance and contract structure for a PPP project. The Government's primary contractual relationship is with the project company. This may be complemented by a direct agreement between contracting authority and lenders; although often this relationship is limited to the provisions in favour of the lenders included in the PPP agreement, such as step-in rights or senior debt repayment guarantees.

The initial equity investors, who develop the PPP proposal, are typically called project shareholders. Typical **equity investors** may be project developers, engineering or construction companies, infrastructure management companies, and private equity funds. **Lender**s to PPP projects in developing countries may include commercial banks, multilateral and bilateral development banks and finance institutions, and institutional investors such as pension funds.

As shown in the figure above, the project company in turn contracts with firms to manage design and construct (usually known as an Engineering, Procurement and Constructions, or EPC contract), and take responsibility for operation and maintenance (O&M). These contractors may be affiliated with the equity investors.

As in most project finance deals, equity investment is 'first in, last out' – that is, any project losses are borne first by the equity investors, and lenders suffer only if the equity investment is lost. This means equity investors accept a higher risk than debt providers, and require a higher return on their investment.

The aim of the project shareholders and their advisors in developing the finance structure is typically to minimize the cost of finance for the project. Because equity is more expensive than debt, project shareholders use a high proportion of debt to finance the project, whenever possible.

3 PPP and Sector Regulations

PPPs often deal with the supply of essential services in monopoly (or near-monopoly) conditions. Private monopoly essential service providers are typically regulated by government to control tariffs and service standards – often by assigning responsibilities to an independent regulatory agency – to protect customers from possible abuse of market power. Sector regulation may also govern the terms on which providers to a sector deal with each other; entry to the sector through licensing; and control over sector investment decisions. Regulation is particularly important in the water, electricity, gas, and telecommunications sectors and can also be found in other sectors, such as airports or highways.

There are several ways in which PPPs relate to the concept of sector regulation, in the context of natural monopoly sectors:

- **PPP and privatization as alternative reform options.** Governments looking at options to improve performance of existing public assets and services in these sectors may consider a PPP as an alternative sector reform option to privatizing and establishing a regulatory regime. While there are similarities in the processes of establishing a PPP and privatizing, the nature of the resulting relationship is distinct.
- **Regulation by contract *through* a PPP.** When PPPs are introduced in sectors that would typically be regulated, the PPP contract itself can be used to define tariffs and service standards in a way that protects projects customers' interests, as an alternative to establishing a regulatory regime.
- **PPP alongside sector regulation.** Some countries decide to establish sector regulatory regimes when introducing a PPP for service provision in a sector, including in some cases to act as government party to the contract. In other cases, sector regulation may already be in place. In either case, the PPP agreement and sector law and regulations need to be carefully harmonized – to ensure there is no conflict between the PPP contract and regulatory requirements, and to establish clear roles and responsibilities.

4 PPP's Specificities in the Energy Sector

Energy is a broad sector that holds two important yet very different industries: the oil and gas sector, and the power sector. The focus of this fiche is on both sub-sectors, knowing however that a majority of PPPs take place in the power sector.

PPPs in the energy sector come in different shapes, sizes and structures and are used mainly in generation and transmission. The methodology used varies, depending on the place, the government and the specifics of the operation; therefore each one is tailored to the needs and circumstances given at the time when the partnership is created.

This section deals with the most common difficulties encountered by PPPs in the energy sector, and especially the power sector.

- **Energy Licenses and Licensing Procedures**

The creation of an infrastructure for energy production by both public and private parties is in most countries subject to a licensing procedure. The terms and conditions of licenses will vary depending on whether it is a license for generation, transmission, distribution or supply. In most instances, a license will contain the following sections: Technical Conditions, Financial Requirements, Rights and Obligations of Licensees, Environmental Standards, Customer Service Standards, Complaint and Dispute Procedures and Fines and Penalties.

Most generation licenses are issued on a provisional basis prior to actual operation. A difficult issue for many regulators is when to terminate a provisional license if the license holder fails to make sufficient progress in constructing and operating the planned facility. If the developer proposes to sell under a long term Power Purchase Agreement (PPA), the regulator will often be required to make a separate regulatory determination as to the reasonableness of the terms and conditions of the proposed PPA. This additional regulatory action introduces an element of uncertainty for license holders.

- **When to use a Power Purchase Agreement (PPA)**

Power Purchase Agreements (PPAs) are used for power projects where:

  - the projected revenues of the project would otherwise be uncertain and so some guarantee as to quantities purchased and price paid are required to make the project viable;
  - there is a possibility of competition from cheaper or subsidized domestic or international competition (e.g., where a neighbouring power plant is producing cheaper power) - the PPA provides some certainty of being protected from such competition;
  - there is one or a few major customers that will be taking the bulk of the production. For example, a government utility may be purchasing the power generated by a power plant. The government will want to understand how much it will be paying for its power and that it has the first call on that power. The project company will want certainty of revenue; and,
  - the purchaser wishes to secure security of supply.

5 Key features of a Power Purchase Agreement (PPA)

A Power Purchase Agreement (PPA**)** secures the payment stream for a Build-Own Transfer (BOT) or concession project for an independent power plant (IPP). It is between the purchaser "offtaker" (often a state-owned electricity utility) and a privately owned power producer also called Independent Power Producer or IPP). Such PPAs are not appropriate for electricity sold on the world spot markets which use other kinds of contracts tailor-made for deregulated electricity markets.).

- PPA definition: Where a government agency enters into an arrangement for a private power company to establish a power plant and sell on the power to the government agency, the public agency typically enters into a PPA. The PPA usually takes the place of a BOT or concession agreement. In addition to obligations relating to the sale and purchase of the power generated, the PPA also sets out the required design and outputs and operation and maintenance specifications for the power plant.
- Sale of capacity and energy - the power producer agrees to make available to the Purchaser the contracted capacity of energy and deliver the energy in accordance with the PPA.
- Charges for Available Capacity and Electrical Output - the charging mechanism in the PPA is generally a pass through arrangement: the price charged for the power will consist of a charge (availability charge) to cover the project company's fixed costs (including a return on equity for

the project company) plus a variable charge to cover the project company's variable costs. The availability charge relates to the availability of the power plant and the variable charge is calculated according to the quantity of power supplied. The purchaser will want a guaranteed long-term output from the project and so the availability charge is typically the minimum that it will be paid, provided that the plant can be shown to make sure power available.

- Take or pay contract: it is a rule structuring negotiations between companies and their suppliers. With this kind of contract, the company either takes the product from the supplier or pays the supplier a penalty. For any product the company takes, they agree to pay the supplier a certain price. Furthermore, up to an agreed-upon ceiling, the company has to pay the supplier even for products they do not take. This "penalty" price is usually lower. A properly constructed take-or-pay contract provides the seller with an assured revenue stream that ensures an adequate return on the significant project capital investment and risks to which it is exposed. Additionally, it is a form of contract that is generally understood by lenders, and it is often the most important means for a seller to secure the substantial external debt financing on limited recourse terms that energy projects typically require.
- Third party sales - the ability to make third-party sales can enhance the finance-ability of the project and cushion the purchaser against risks such as a reduction in the purchaser's monthly tariffs. This flexibility also has the advantage that, given the long-term nature of the PPA, if the market is deregulated at a later date then the PPA may not need to be completely replaced. However, purchasers are often nervous about allowing third-party sales as they want to be sure that all capacity is available to them at all times and so the PPA may include an exclusivity period during which all power producer is be supplied to the purchaser. Flexibility may need to be incorporated into the PPA to ensure that this exclusive period is not an impediment to future development/ deregulation of the electricity market. Exclusivity provisions in PPAs can create challenges for development of energy markets.
- Underperformance and delays by power producer - the PPA may provide sanctions or require the power producer to pay liquidated damages if the power producer fails to deliver power as promised; in particular, if the construction of the project is not completed on schedule or does not perform as required when completed. Lenders will be concerned to ensure that liquidated damages do not have too damaging an impact on debt coverage ratios.
- Force majeure or purchaser breach of contract - the power producer is usually not required to pay damages for delays resulting from events beyond its control.
- Testing regime - this should be objective and designed to confirm levels of contracted capacity, reliability and fuel efficiency or heat rate, ideally certified by an independent engineer.
- Termination - the PPA will need to provide for what happens on termination (whether at the end of the term of the agreement or early termination for default etc), including obligations of the power producer on hand-over of assets, calculation of buyout price for IPP (if this is contemplated), what happens to employees of power producer if IPP transferred to purchaser on termination.
- Project operation - issues typically include scheduled outages and maintenance outages, operation and maintenance, emergencies and keeping of accounts and records.
- Change of law - PPA should address impact on tariff in event of a change in applicable law and the mechanism for tariff adjustment. Lenders will be anxious to ensure that the cash flows of the project required for debt service are protected against changes in law.

6 Main challenges of PPPs

PPP projects are complex to manage and can face various challenges, as described below (list non-exhaustive):

6.1. Legal basis of PPPs

Even though PPPs have a long history in many countries, a clear and comprehensive rule covering the use of PPPs is deficient in both international and domestic levels. Except only a few countries and international bodies, most of them even do not recognize the need for a special PPP rule. The United Nations Commission on International Trade Law (UNCITRAL) adopted the UNCITRAL Legislative Guide to Privately Financed Infrastructure Projects (PFIP) in 2001 and the UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects (Model Provisions) in 2003, which provide a legal framework to facilitate the accomplishment of PPP projects.

6.2. Project definition

The ultimate objective of the project definition process is to ensure that the investment offers value for money. Value for money refers to the best available outcome for society, account being taken of all benefits, costs and risks over the whole life of the project. A necessary condition for a project to represent value for money, irrespective of the procurement option chosen to deliver it, is that the benefits to be derived from the project outweigh the costs. This is normally tested by undertaking a cost-benefit analysis of the project and its requirements. A distinctive feature of PPP projects is that their requirements are defined in terms of outputs rather than inputs. Conventional project procurement has usually focused on inputs. In this regard, PPPs involve fundamental changes in the way projects are prepared and in the information that the Public Authority (PA) needs to provide to private sector sponsors. While the typical set of feasibility studies used in the public procurement of projects focuses on inputs, PPP projects demand a clear set of output requirements and service quality standards, which are reflected in the PPP contract. As a result of the output nature of PPPs, the bulk of the expensive and time-consuming technical design activities for a project will be carried out by the private partner.

In the project definition step, the PA and its advisers will review alternative project designs, sometimes following guidelines that the public sector will use to assess PPP projects. These guidelines normally specify who approves what and when throughout the process of project definition, preparation and procurement. Once a project specification is selected, the PA will normally undertake feasibility analyses and project preparation, including supply or demand analysis, cost analysis and a preliminary environmental assessment of the potential impacts of the project. In order to consider the PPP procurement option, the Public Authority (PA) need to answer a set of key questions:

- Is the project affordable? Will users or the PA, or both, pay for the project? How will they pay (e.g. user charges, operating subsidies, public sector or donors grants)?
- What are the key sources of risk in the proposed project? What is the optimal risk allocation and risk management strategy?
- What are the financing sources for the proposed project? Will the project be "bankable" (i.e. capable of raising debt finance)? Will it attract investors? Will it comply with the requisites for donors or national public funding?
- Even if the project is affordable and bankable, does the project represent value for money?
- Has the issue of the "balance sheet treatment" of the project (i.e. the classification of the project as a public sector investment for the purposes of national debt and deficit) been considered?

6.3. Affordability and cash-flow analysis

Affordability relates to the capacity to pay for building, operating and maintaining the project, be it the capacity to pay of the users of the services or that of the Public Authorities (PA) that has identified the need for the asset to be built.

An affordability assessment requires a careful analysis of the expected operating and maintenance costs of the project, together with the levels of cash flow required to repay the loans and provide a return to the investors in the PPP Company. The PPP needs to develop a financial model to assess alternatives in terms of a range of capital, operating and maintenance cost estimates, appropriate cost escalation indexes, assumed financing structure and preliminary PPP contract terms. At the pre-feasibility stage, the financial model is developed at a fairly high level. It is later on, at the feasibility stage and when the PPP arrangement is designed in detail, that the financial model is further developed and refined. The assessment of costs translates into an estimate of the required revenues to meet those costs:

- In PPPs where users pay directly for the service ("revenue based PPPs"), the PA needs to examine the capacity and willingness of users to pay, especially if tariffs need to be increased from current levels. In many PPPs, the public sector will need to subsidize the service in order to make it affordable. The use of public subsidies can impact the value for money of a PPP arrangement, requiring that the efficiency savings from the PPP option be large enough to compensate for the use of public funds.
- In PPPs where the Public authorities make the payments ("availability-based PPPs"), the assessment of affordability is a key consideration in the design of the transaction. The PA will enter into payment obligations over the life of the PPP contract (the so-called "service fee"), which represent long-term commitments and can influence the design of the transaction and its value for money proposition. Sometimes options that combine direct charges to users with service fees may need to be examined. Thus affordability relates not only to the financial balance of the PPP arrangement, but also to public expenditure items in general. A PPP project is considered to be affordable if the public expenditure associated with it can be accommodated within the public sector's budget ceiling over time.

6.4. Value for money analysis

A PPP project yields value for money if it results in a net positive gain to society which is greater than that which could be achieved through any alternative procurement route. It is good practice to carry out a value for money analysis (essentially a cost-benefit analysis) as part of the initial preparation of a project, regardless of whether it is procured conventionally or as a PPP. A PPP project is said to achieve value for money if it costs less than the best realistic public sector project alternative (often a hypothetical project) which would deliver the same (or very similar) services. The value for money assessment should also take into account the potential non-financial benefits of PPPs such as the accelerated and enhanced delivery of projects.

The project identification phase therefore involves an early assessment of what payment structure is feasible, what the PA or the users can afford to pay (and when), the impact on the project scope and the service levels, and the associated risks the private sector might be prepared to accept.

This exercise should help the Public Authority to identify and manage any long-term fiscal obligations (implicit and explicit) that may result from the PPP project. In challenging times for public finances, the national debt and deficit treatment of a PPP is likely to be a critical issue for the PA and government in general.

6.5. Financing issues and bankability

A common problem with PPP projects is that private investors require a rate of return for their investment much higher than the interest rate of the concessional loans that developing countries can get from international financing institutions. In addition, loans applied to private sector in developing countries are much less attractive than the ones applied to countries (much shorter duration and higher interest rates). In some projects, this can lead to an initial cost of kWh produced up to 3 times higher than the ones financed through a fully public project.

A PPP project is considered bankable if lenders are willing to finance it (generally on a project finance basis). The majority of third-party funding for PPP projects consists of long-term debt finance, which typically varies from 70% to as much as 90% of the total funding requirement (for example, in an availability-based PPP), depending on the perceived risks of the project. Debt is a cheaper source of funding than equity, as it carries relatively less risk. Lending to PPP projects (usually referred to as non or limited-recourse finance) looks to the cash flow of the project as the principal source of security. The Public Authority needs to assess financial risks thoroughly. The financial risks experienced by PPP projects tend to be related to some or all of the following factors:

- reliance on optimistic revenue assumptions and on levels of demand from a poorly chosen "baseline" case;
- lack of attention to financing needs in the project feasibility, which leads to larger amounts of debt in projects;
- long-term PPP projects that are financed with short-term debt, coupled with a sometimes unjustified assumption that the short-term debt can be rolled over at the same or even better refinancing conditions; floating rate debt that creates interest rate risk;
- Public Authorities (PAs) As which ignore the incentives the PPP Company may have to renegotiate the contractual arrangements in its favour; and
- Re-financing that can create unforeseen benefits for the PPP Company, which the PA might not share if the contract does not explicitly provide for this possibility.

6.6. Risks allocation

Tasks and functions, including risk coverage need to be well defined in the PPP agreement. In addition, the interpretation of the agreement as well as performance measures and government regulations might vary according to the parties and generate disagreements and disputes. Achieving the value for money that justifies the PPP option also depends on the ability to identify, analyse and allocate project risks adequately. Failure to do so will have financial implications. Thus, at the project identification stage, in addition to assessing the sources of revenue linked with the affordability of the project, the PA needs to undertake a broad assessment of the risks that arise from the project requirements in order to manage them. Risk management is an ongoing process which continues throughout the life of a PPP project. It takes place in five stages:

- risk identification: the process of identifying all the risks relevant to the project, whether during its construction phase or its operational phase;
- risk assessment: determining the likelihood of identified risks materializing and the magnitude of their consequences if they do materialize;
- risk allocation: allocating responsibility for dealing with the consequences of each risk to one of the parties to the PPP contract, or agreeing to deal with the risk through a specified mechanism which may involve sharing the risk;
- risk mitigation: attempting to reduce the likelihood of the risk occurring and the degree of its consequences for the risk-taker; and

- risk monitoring and review: monitoring and reviewing identified risks and new risks as the PPP project develops and its environment changes. This process continues during the life of the PPP contract.

PPP project risks can be divided broadly into commercial risks and legal and political risks:

- Commercial risks can be divided into supply and demand risks. Supply risk concerns mainly the ability of the PPP Company to deliver. Supply risk can be subdivided into construction risk and supply-side operation risk (where construction and operation constitute the two phases of the project). Construction and supply-side operation risks include possible delays in project implementation due to administrative constraints, financial market risk due to, for example, changes in the cost of capital or changes in exchange rates and inflation, etc. Demand risk relates to insufficient user volumes compared to base case assumptions.
- Legal and political risks relate to, among other factors, the legal framework, dispute resolution, the regulatory framework, government policy, taxation, expropriation and nationalization.

In general, the private sector is better placed to assume commercial risks while the public sector is better placed to assume legal and political risks. If a public guarantee is envisaged for the PPP project, the PA needs to assess the guarantee's impact on the risk allocation and its future implications for public finances before granting it.

7 List of key questions

Project analysis

- Is the project affordable for the country and the users?
- Who will pay for the project (users or the Public authority)?
- How will they pay (e.g. user charges, operating subsidies, public sector or donors grants)?
- Has a negotiating team been assembled and empowered to take decisions on the issues pertaining to the PPP contract?
- Have the Authority and the negotiating team agreed a negotiating strategy, including (i) an assessment of the position of the Authority on key issues and (ii) a risk management strategy?
- Have the legal advisers evaluated the marked-up draft PPP contract proposed by the bidders, assessing it against its risk allocation and value for money targets?
- Have the financial advisers assessed affordability, project costs, sources and costs of funding and project bankability?
- Have the negotiations resulted in terms and conditions that vary substantially and materially from the bid offer and therefore could be open to challenge because they are less favorable or could have resulted in the selection of a different bidder?
- Have all the legal and administrative requirements of contract award been complied with? Is the final PPP contract still affordable and does it represent value for money?
- Have the information needs for ex post evaluation been identified and included in the PPP contract to enable adequate information to be gathered during the performance phase?
- Have the necessary instructions been given, resources made available and high level support obtained to motivate the contract management team to acquire the necessary information for an ex post evaluation assessment?
- Has a timetable for ex post evaluation been developed and approved, balancing the need to obtain useful information quickly in order to inform current processes and to obtain meaningful data on performance?

Risk assessment

- What are the key sources of risk in the proposed project?
- What is the optimal risk allocation and risk management strategy?
- Is the risk allocation between the public and private sectors clearly identified?
- Have all necessary steps been taken to ensure continuing review and monitoring of project risks using, for example, the risk register developed during the detailed preparation phase? In the event of changes to the PPP contract, what steps are envisaged to maintain monitoring of operational performance and not simply concentrate on managing changes to the contract?
- What mechanism has been developed to ensure that value for money is maintained after the changes if risks are transferred from the PPP Company back to the Authority?

Financing analysis

- What are the financing sources for the proposed project?
- Will the project be "bankable" (i.e. capable of raising debt finance)?
- Will it attract investors?
- Will it comply with the requisites for donors or national public funding?
- Even if the project is affordable and bankable, does the project represent value for money?
- Has the issue of the "balance sheet treatment" of the project (i.e. the classification of the project as a public sector investment for the purposes of national debt and deficit) been considered?
- Is the value of the project sufficiently large to ensure that procurement and transaction costs are not disproportionate?

Capacity analysis

- Does the private sector have the expertise to design and implement the project?
- Is the public sector able to define its service needs as outputs that can be written into the PPP contract ensuring effective and accountable delivery of services in the long run?;
- What experience does the public authority have in the preparation and implementation of PPP project?
- Does the country have a legal basis for PPP and concessions?
- Are the technological aspects of the project reasonably stable and not susceptible to short-term and sudden changes?
- Has the possibility of engaging the same advisers employed in the procurement phase been considered (availability, potential engagement, required budget and conflict of interest)?
- Have experienced advisers been consulted to help the contract management team address sensitive changes to the PPP contract, including refinancing?
- Has a contract administration manual been developed to help coordinate information on contract terms with contract management procedures, including the allocation of responsibilities and timetables?
- Have guidelines been developed for users of the contract administration manual to help monitor contract performance in case this is envisaged?
- Have criteria and procedures been agreed to monitor the residual value of the PPP assets so that the asset management and maintenance practices support the PPP project objectives and maximize value for money?
- Has a communication strategy been developed to provide the PPP Company, users and other relevant stakeholders with regular reviews and updates?

8 Useful References and Links

http://en.wikipedia.org/wiki/Public%E2%80%93private_partnership

Public-private partnership reference guide version 2.0 World Bank 2014: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/09/08/000442464_20140

European Communication on PPP: march 15
http://www.eurosfaire.prd.fr/7pc/doc/1262165254_com_2009_615_ppp_fr.pdf

Yescombe's book on PPP finance includes examples of PPP structures for different types of PPP [#295 section 1.4].

The UNCITRAL Legislative Guide to Privately Financed Infrastructure Projects (PFIP) in 2001
http://www.uncitral.org/pdf/english/texts/procurem/pfip/guide/pfip-e.pdf

The UNCITRAL Model Legislative Provisions on Privately Financed Infrastructure Projects (Model Provisions) in 2003 http://www.uncitral.org/pdf/english/texts/procurem/pfip/model/03-90621_Ebook.pdf

Le Guide Opérationnel des PPP François Bergère et al. Le Moniteur, Third Edition (2010) ISBN 978-2-281-12718-8 Annex 5 (pages 239-249 and page 399) provides a detailed description of the analysis and distribution of risk in a PPP contract (risk identification, risk quantification and probability, generally using a Monte Carlo simulation, risk allocation)

Public-Private Partnerships - In Pursuit of Risk Sharing and Value for Money OECD (2008), ISBN 978-92-64-04279-7 Chapter 3 reviews affordability, risk allocation and value for money in PPPs, while Chapter 4 discusses how PPPs are treated in the public sector budget and accounts.

State Guarantees in PPPs, A Guide to Better Evaluation, Design, Implementation and Management European PPP Expertise Centre – EPEC (May 2011) The paper aims to help policy makers evaluate whether State guarantees are an appropriate tool for their PPP programme and provides on how best to implement and manage them. http://www.eib.org/epec/resources/epec-state-guarantees-inppps-public.pdf

Guidelines for Successful Public-Private Partnerships European Commission, Directorate General Regional Policy (March 2003) Part 3 (pages 50-59) provides an overview of the economic and financial implications of PPP risks and value for money assessment of PPPs.
http://ec.europa.eu/regional_policy/sources/docgener/guides/ppp_en.pdf

The Non-Financial Benefits of PPPs, An Overview of Concepts and Methodology European PPP Expertise Centre - EPEC (June 2011) The paper examines possible additional non-financial benefits associated with PPPs and presents a conceptual framework for a value for money comparison between PPP and conventional procurement which incorporates both financial and non-financial benefits.
www.eib.org/epec/resources/epec-non-financial-benefits-ofppps-public.pdf

Hybrid PPPs: Levering EU Funds and Private Capital PricewaterhouseCoopers (January 2006). The most thorough discussion of the basic issues publicly available. http://www.irfnet.ch/files-upload/knowledges/PWC_HybridPPPs_2006.pdf

Capital Markets in PPP Financing, Where Were We and Where Are We Going? European PPP Expertise Centre - EPEC (February 2010) Abridged version of a study providing background information on the role of capital markets in PPP financing and setting out the reasons why the capital markets have largely withdrawn from it. http://www.eib.org/epec/resources/epec-capital-markets.pdf

Public-Private Partnerships (PPP), A Decision Maker's Guide Michael Burnett, Institut Européen d'Administration Publique (2007), ISBN -978-92-9203-001-8 Chapter 6 (pages 150-165) develops a detailed operational approach