PUBLIC-PRIVATE PARTNERSHIPS IN E-GOVERNMENT: HANDBOOK

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The Institute for Public-Private Partnerships

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<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<td>ADR</td>
<td>Alternative Dispute Resolution</td>
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<td>AfDB</td>
<td>African Development Bank</td>
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<td>ARM</td>
<td>Automated Remote Metering</td>
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<td>BOO</td>
<td>Build-Own-Operate</td>
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<td>BOT</td>
<td>Build-Operate-Transfer</td>
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<td>BPR</td>
<td>Business Process Re-engineering</td>
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<td>CAPEX</td>
<td>Capital Expenditure</td>
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<td>CCO</td>
<td>Contract Compliance Office</td>
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<td>CIO</td>
<td>Chief Information Officer</td>
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<td>CMU</td>
<td>Contract Monitoring Unit</td>
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<td>DBFO</td>
<td>Design-Build-Finance-Operate</td>
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<td>DFBOT</td>
<td>Design-Finance-Build-Operate-Transfer</td>
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<td>DSCR</td>
<td>Debt Service Coverage Ratio</td>
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<td>EBIDTA</td>
<td>Earnings Before Interest</td>
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<td></td>
<td>Depreciation Taxes and Amortization</td>
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<td>e-Gov</td>
<td>Electronic-Government</td>
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<td>EIRR</td>
<td>Economic Internal Rate of Return</td>
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<td>ELRS</td>
<td>Electronic Land Registration System</td>
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<td>ESD</td>
<td>Electronic Service Delivery</td>
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<td>e-SEVA</td>
<td>Electronic Service</td>
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<td>FIRR</td>
<td>Financial Internal Rate of Return</td>
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<td>FOREX</td>
<td>Foreign Exchange</td>
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<td>FS</td>
<td>Feasibility Study</td>
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<td>G2B</td>
<td>Government to Business</td>
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<td>G2C</td>
<td>Government to Citizen</td>
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<td>G2G</td>
<td>Government to Government</td>
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<tr>
<td>ICB</td>
<td>International Competitive Bidding</td>
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<td>ICT</td>
<td>Information and Communications Technology</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>JV</td>
<td>Joint Venture</td>
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<td>KPI</td>
<td>Key Performance Indicator</td>
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<td>MCA</td>
<td>Multi-Criteria Analysis</td>
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<td>MDB</td>
<td>Multilateral Development Bank</td>
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<td>PCG</td>
<td>Partial Credit Guarantee</td>
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<td>PFI</td>
<td>Private Finance Initiative</td>
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<td>PPIAF</td>
<td>Public-Private Infrastructure Advisory Facility</td>
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<td>PPIFF</td>
<td>Public-Private Infrastructure Financing Facility</td>
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<td>PPP</td>
<td>Public-Private Partnership</td>
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<td>PRG</td>
<td>Partial Risk Guarantee</td>
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<td>PSC</td>
<td>Public Sector Comparator</td>
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<td>RFP</td>
<td>Request for Proposals</td>
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<td>RFQ</td>
<td>Request for Qualifications</td>
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<td>SOE</td>
<td>State-Owned Enterprise</td>
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<td>SPV</td>
<td>Special Purpose Vehicle</td>
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<td>UNCITRAL</td>
<td>United Nations Commission on International Trade Law</td>
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<td>VFM</td>
<td>Value for Money</td>
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<td>WB</td>
<td>World Bank</td>
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The last few years have seen a considerable amount of research and applications in the two areas of Public Private Partnerships (PPPs) and e-government. Rather than attempting to redefine these areas, or considering them as two distinct paradigms, this Knowledge Map (KM) and the Handbook is an effort to bring a certain degree of convergence, and to see whether PPPs are, or can be, effective instruments for e-government initiatives in a country.

The increasing emphasis on e-government is often directly attributed to the fact that the use and application of Information and Communication Technologies (ICT) are now commonly accepted as powerful engines for economic growth. As governments embrace ICT as a means to accelerate the development process this also becomes foremost in the reforms agenda, and in their delivery of services to citizens, businesses, civil society organizations, and other government agencies.

The extensive experience and knowledge currently available allows us to focus on the various dimensions of e-government and the specificities that invariably need to be taken into account at the national, sub-national, local, and district levels. Similarly, there is also the need to understand the key aspects that play a significant role in the effectiveness and indeed the appropriateness of PPPs in such scenarios. This KM and Handbook helps identify such specificities, and highlight the importance of policies, programs, services, and instruments that may facilitate the engagement of the private sector in areas that were hitherto the domain of the government.

PPPs and e-government are complex exercises, which must encompass a variety of issues covering many areas such as infrastructure, applications, institutions, people, and policies. While it is important to understand the nuances of each concept, it might help to recognize the fact that PPPs are often the chosen path when the objectives are to ease the financial constraints on the government and at the same time increase its efficiency and effectiveness. For this reason, PPPs are all the more important in the context of the current financial crisis. However, it should also be noted that optimal benefits can only be derived when good governance, transparency, and political commitment are coupled with the existence of appropriate legal, institutional, and regulatory frameworks, and adequate local capacity (institutional, human, and financial) before such PPP programs/strategies can be translated into action.

This Handbook and KM should not be viewed as a prescription of best practices. They should be used as guides, and lessons should be learned, in terms of how the good practices and experiences can be replicated or applied while undertaking a PPP initiative in e-government. This Handbook is designed as a guide on the question of How?, while the KM answers the questions of Why?, What?, and Where? to implement PPP projects in e-government.

We anticipate that the KM and Handbook will be valuable resources for policymakers and practitioners across the world. Besides helping to address the needs in developing countries, they are also relevant for middle income as well as developed countries since they draw upon a broad spectrum of programs and experiences across a wide range of sectors in a number of countries.

infoDev would like to acknowledge the contribution of the Institute for Public-Private Partnerships (IP3) in delivering this Handbook and KM.

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The Handbook is part of a broader infoDev initiative to expand the scope of e-government applications in all aspects of government services. The Handbook contains extensive links to reference materials, and guidelines for contributing to the growing body of knowledge about e-government.

The idea for this Handbook for PPPs in e-government was born out of the recognition that, while governments have been successfully employing PPP models in other sectors such as water, energy and transportation, their application to the ICT and e-government sector is relatively new. Furthermore, given that the technological know-how required for most e-government initiatives lies primarily with the private sector (especially in emerging economies), learning how to appropriately leverage that know-how is essential to ensuring the success of e-government. The purpose of this Handbook is to provide a clear system of practical steps to follow when implementing PPPs in e-government projects and services.

The Role of this Handbook within the Overall “PPPs in E-Government” Project

The KM provides an interactive and web-linked outline of what is known about PPPs in e-government, including: (i) concise thought pieces; (ii) case studies that illustrate the key concepts; and (iii) resources for users that want more detailed information. This Handbook is designed to be a paper and web-based resource that is based on the technical foundation established by the KM. Whereas the KM establishes what is known about PPPs in e-government and answers the questions, Why?, What?, and Where?, this Handbook serves as a User’s Guide and answers the more practical question of How? to implement PPP projects in e-government.

The Methodology and Format of the Handbook

The format of the Handbook is intended to be an easily accessible, practical guide that users can quickly consult for the information they need about specific issues and challenges they encounter when trying to actually implement PPPs in e-government. Therefore, rather than being presented in the format of a textbook on PPP theory—which would require readers to digest the entire volume cover-to-cover—the Handbook is presented more as a reference manual, so users can read only the one or two relevant sections they need before they return it to the shelf for later use. The format is flavored with real-world case illustrations, and lessons learned and good practices checklists.

The organization and sequence of this Handbook is based upon the sequence of steps that need to be followed when actually implementing PPPs in e-government to make it easier for practitioners to quickly understand the sequence of the different stages of the overall PPP process. The practitioners can then determine where they are in the sequence...
and easily consult only the relevant section covering the operational technique for which they specifically need guidance and help.

The order and sequence of the chapters of this handbook reflects the order of the PPP project cycle:

- **Introduction**: Purpose and Format of the PPP Handbook and Guidelines on How to Use It
- **Chapter 1**: Understanding the Purpose and Rationale for PPPs in E-Government
- **Chapter 2**: Techniques for Establishing the Appropriate Policy, Legal, Institutional and Regulatory Framework for PPPs in E-Government
- **Chapter 3**: Techniques for Identifying and Selecting Appropriate Candidate Projects for PPPs in E-Government
- **Chapter 4**: Techniques for Analyzing and Structuring E-Government Projects to be Viable PPPs
- **Chapter 5**: Techniques for Tendering and Procuring PPP Projects in E-Government
- **Chapter 6**: Techniques for Negotiating Contracts and Financing PPP Projects in E-Government
- **Chapter 7**: Techniques for Managing PPP Contracts and Monitoring E-Government Performance

Each chapter of the handbook is organized and presented as a sequence of specific, practical techniques that should be followed when attempting to implement PPPs. The number of these PPP techniques within each chapter varies, because some phases of the PPP project life cycle require many different, discrete steps, whereas others generally require few. To achieve these important format and usability goals for this handbook, each PPP technique has been organized using a consistent format. This enables users of the handbook to quickly understand the most important, practical guidelines for the specific PPP issue with which they are confronted.

Within each chapter, each PPP technique is presented according to the same outline:

- **Definition** – What is this PPP technique?
- **Rationale** – Why is this PPP technique necessary or important? What would happen to the PPP project without this technique?
- **Description** – What are the key steps, the inputs, and the outputs required to employ this PPP technique?
- **Case Illustration** – What is a realistic example of a case that shows how this technique has been practically performed and what are the lessons learned?

Figure 1. Handbook Organized along PPP Project Life Cycle
- **Good Practices and Lessons Learned** – A quick checklist of practical tips to follow and mistakes to avoid, when trying to implement this technique in practice.

The readers and users of this handbook are also encouraged to consult the two annexes of this handbook, which include useful and practical documents essential to the e-government PPP “process”. These include a template contract for hiring PPP transaction advisors, as well as an example of a PPP e-government contract for a large Build-Operate-Transfer (BOT) project.
Understanding the Goals of and Benefits from PPPs in E-Government

A Public-private partnership in e-government may be defined as a legally enforceable contract between a private sector entity and a government body that requires the private partner to deliver a desired electronic public service, for which the private sector must invest some of its own resources (financial, technological, time, corporate reputation, etc.), and must become responsible for some of the risks of service delivery, and for which payments to the private partner are made only in exchange for actual performance delivered.

Therefore, e-government PPPs are defined to include a broad range of contracts in which private partners and government bodies each share a different level of the e-government project’s risks. For example, in some PPPs, governments may be responsible for financing and owning the project’s underlying electronic network infrastructure and equipment facilities, while the operation of a new e-government service that uses this network becomes the contractual responsibility of the private partner. In other cases, the private partner could become responsible for design, financing, installation and construction, as well as the operation of a new electronic network, including the delivery of electronic government services.

E-Government PPPs may even include joint venture contracts, by which a new company is created by a combination of a private investor(s) and a government body(s), which then signs a contract to deliver a specific e-government service. The JV may either be paid for the new electronic services they deliver through a fixed “availability payment” from the client government department or agency, or from per-transaction fees paid by end-users.

For example, the Indian State of Andhra Pradesh’s pioneering electronic service project (eSeva), first launched in 1999, has created “one-stop-shop” kiosks throughout the state where a multitude of Government-to-Citizen (G2C) services may be transacted from a single location. The eSeva project was developed through a PPP on a Build-Own-Operate-Transfer (BOOT) basis (see explanation of BOOT below). The Government of Andhra Pradesh invested in the development of e-government applications at the back-end, and used a PPP model to provide the interface with the citizens. Under this model the government invested some $600,000 for site preparations, while eSeva’s private contractors, CMS Computers Ltd. and Ram Informatics Ltd., provided US$1 million of hardware, software, and networking. E-Seva was initially paid a rate of US$0.08 per transaction by the Government of Andhra Pradesh.1

Risks are allocated between the public and private parties to the contract; this is what forms the

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1 For more information on Andhra Pradesh’s eSeva program see http://esevaonline.com/htmlpages/aboutSeva.htm and http://www.economist.com/specialreports/PrinterFriendly.cfm?story_id=10638184
“partnership.” Generally, the operating risks are allocated to the private sector partner (generally the “commercial” risks) while the “political” risks are allocated to the public sector partner. In practice, there are many kinds of risks that do not fall neatly into the categories of “commercial” or “political”, and those risks are allocated between the parties based on negotiations.

The popularity of PPPs arose initially during the late 1980s and early 1990s, out of governments’ need for financing to meet increasing demand for expansion and rehabilitation of infrastructure such as telecommunications networks, as well as other energy and transport sectors. Employing PPPs as a tool for meeting their obligations to citizens, governments have been able to avail themselves of state of the art electronic technologies and private sector expertise, while avoiding excessive strains on already limited budgets. Citizens enjoy improved service delivery and sometimes decreased user fees, and economic growth flourishes in sectors seeking to compete for lucrative PPP contracts.

The goals of PPPs in e-government are:

- To mobilize new private sector investment in order to leverage public funds required in the development of e-government networks, including both underlying information and communications technology infrastructure and equipment, as well as the public services being delivered on these networks;
- To attract private sector experience, technology, and innovation in the design of electronic networks and services, and to benefit from private sector creativeness and ingenuity; and
- To utilize private sector marketing channels and customer service expertise in the commercial delivery of services to customers of the e-government system.

The potential benefits of PPPs in e-government are:

- Increased pace of rolling out e-government services, applications, and infrastructure, due to the financial participation of the private sector through both investment and profit-sharing;
- Use of more advanced technologies in the engineering design and availability of more custom-tailored engineering systems, made available by the private sector;
- Increased focus on outcomes resulting in better quality of service delivery and increased client satisfaction; and
- Downstream effects in terms of a more capable domestic private sector.

**Forms of PPPs Applicable for Use in E-Government**

There are a number of PPP models; however, some of the key models in e-government include:

(i) contracting for electronic services and ICT facilities management; (ii) JV co-ownership and financing of projects; and (iii) BOT arrangements.

**Contracting for Electronic Services and ICT Facilities Management**

Contracting or outsourcing involves the provision of services and infrastructure that have previously been provided by government. Contracting enables government to provide the specifications. Service contracts enable government to procure service provisions for a specified period of time. The three popular PPP contracting mechanisms are service, management, and leasing.

**Examples**

**US State of Virginia Seat Management for ICT Services** – The state of Virginia in the US employs seat management contracts for many of its government offices. Seat management is a method of coordinating all the computer workstations in an organization by overseeing the installation, operation, maintenance of hardware and software at each workstation, and providing help desk support. The state pays a private operator a fixed fee for this service. The private contractor has the incentive to manage the operation as efficiently as possible, while the state saves on the expense of actually purchasing computer equipment.

**Singapore** – The Government of Singapore awarded a $1.3 billion IT transformation program in February 2008 to the OneMeridian consortium led by EDS. The eight-year contract involves implementing and managing a desktop standard operating environment across the whole of the Singapore government, apart from IT infrastructure utility services. It is projected that 74 departments and 60,000 users will benefit from the arrangement with
a savings of S$500 million being generated over the program period. The OneMeridian consortium includes EDS, Singapore Computer Systems (SCS), FrontLine Technologies, Fuji Xerox, Avanade, Cisco, Alcatel-Lucent, Microsoft, and SingTel. The model is to charge on a utility and usage basis, e.g., cost per seat and pages printed per month.

**US Federal, State, and Local Governments** – These governments contract with private organizations to provide ICT network infrastructure and electronic services that public agencies cannot offer efficiently or effectively on their own. The state government of Texas entered into a public-private partnership with BearingPoint for the design and management of a multi-service platform for citizens to access and transact nearly all state government services online, including: (i) Department of Motor Vehicles transactions; (ii) hunting and fishing licenses; and (iii) state court transactions.2

**Canada and most European countries** – These countries use private companies as public service providers. An increasing number of developing countries are also turning to private sector service contracts. One of the earliest e-government PPPs, was the joint development of Teranet in 1991, between the government of Ontario and Teramira Holdings, Inc., for the operation of Ontario’s Electronic Land Registration System (ELRS).3

**Chile**4 – In Chile, the government created ChileCompra in 1999 for the streamlined electronic procurement by government of goods and services from businesses. By 2006, ChileCompra had succeeded by saving about US$60 million in government administrative costs, and in transacting US$34 billion per year (3% of Chile’s GDP). However, Chile’s small businesses, many of which lacked the computers and Information Technology (IT) skills required to access ChileCompra, were losing out. Beginning in late 2006, a PPP, led by Microsoft, Inc., provided “Mi Pyme Avanza” (My Small Business Grows) packages of needed hardware, software, connections, and training to small businesses through affordable 3-year financing terms. By late 2007, the initiative had tripled its original target of 10,000 businesses signed up. By 2008, 900 public agencies were trading more than US$5 billion and conducting almost one half million tendering processes over the internet each year, generating more than 1.6 million purchase orders, which greatly improved conditions of efficiency and transparency. Meanwhile, businesses have also improved their access to this market, and the number of suppliers doing business with the government has now tripled. More than 82,000 businesses place bids and/or are awarded contracts with the government each year, totalling more than 90% of the share of business opportunities awarded; micro-, small- and medium-sized businesses are the ones that have gained the most from this new marketplace. Finally, the systems managed by ChileCompra produce a tremendous amount of savings in public expenditure: around US$150 million each year.

**Case Illustration – Bangalore City Corporation (BCC)**5

The BCC was suffering from a continued “leakage” in its financial resources, while at the same time experiencing increased customer dissatisfaction over slow response rates and bureaucratic delays in processing many financial and administrative transactions. With technical assistance from the Asian Development Bank (ADB), the Bangalore Agenda Task Force (BATF) was contracted to improve the technical capacity of the financial management systems, while at the same time provide electronic access for improved transaction processing speed. Nandan Nilekan, the CEO of Infosys, was appointed as the chairman of the BATF. The initiative brought together both public and private sector executives for addressing citizens’ issues and concerns relating to Bangalore City.

The implementation of this e-government PPP was challenged by the lack of complete and reliable financial data in the general records of the BCC. This was an important “lesson learned” for e-government projects. The value of any new e-government system is limited by the quality and comprehensiveness of the information conveyed. In practice, for many e-government PPPs, there is a temptation to focus too much on the design and development of a new ICT network or system, and to overlook the issues of improving the quality, completeness, accuracy, and relevance of the information that will be delivered by the new system.

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2 See [www.TexasOnline.com](http://www.TexasOnline.com)
3 See [http://www.teranet.ca/corporate/profileindex.html](http://www.teranet.ca/corporate/profileindex.html)
4 See [https://www.chilecompra.cl/portal/information/information_chilecompra.asp](https://www.chilecompra.cl/portal/information/information_chilecompra.asp)
5 For more details on this case study, visit [www.bmponline.org](http://www.bmponline.org) and [www.batf.org](http://www.batf.org)
The PPP experienced a continuing series of delays—lasting nearly a year—which were caused by the necessity of manually compiling complete and accurate data. Once that problem was taken care of, the implementation of the PPP began to gain momentum. However, again unanticipated delays were caused by passive resistance among some BCC personnel. The consultants were not able to identify the exact causes of this resistance. They speculated that perhaps some personnel had a vested interest in the financial “leaks” that were enabled by the old system, which would be nearly impossible in the new system. This was another “lesson learned”, in that the virtues of an e-government system (speed, transparency, accuracy, and ease of usage) are not always welcomed by all stakeholders, for various reasons, and this can lead to resistance.

The next challenge arose as the new electronic system was completed and became operational. The consultants learned that the end-users of the new services were not immediately trusting of the electronic medium. In particular, transactions involving financial services or legal obligations were not immediately welcomed by many consumers, who still only felt comfortable if they conducted the transaction with a “real person” and obtained a hard copy “real receipt.” A considerable amount of public awareness and education activity had to be conducted to overcome this problem. Figure 2 shows the project’s technology architecture, internal information systems, and Internet transaction processing, developed by the BATF team.

The role of ICT was not limited to the mere replacement of manual, paper-based systems with computer-based systems. Rather, it included substantial revamping of overall business processes—a form of business process re-engineering. The new ICT system was also more than just a more efficient mechanism for the previously established information flows. In addition, it created some entirely new information management, such as redefining audit and control mechanisms, and providing real-time information flow to and from banks connected to the system via leased dedicated phone lines. This kind of business process re-engineering (BPR) requires a complete re-thinking of what information management activities represent. In accounting, activities are recorded according to their costs and benefits. In BPR, an activity is managed in terms of its effort, e.g., the amount of a person’s time that is required to perform the task, or the opportunity cost of a person performing a given task instead of an alternative task, etc. With the BCC e-government PPP, as well as other BPR-based initiatives, a significant amount of time and effort was required to prepare personnel to change from thinking in the traditional accounting terms of costs and benefits, and to start thinking of the process involved in business activities.

The re-orientation of BCC personnel from accounting-based costing to process-based activity management took a lot of hard work, but it was eventually successful over a 2-year roll-out period. It also took a lot of time and effort to customize the design the management reports that would be generated by the new system, and to build the skills of managers to be able to use those tools effectively. Certain data security systems had to be put in place for the leased phone lines connecting BCC to its banks. But overall the e-government PPP project was a clear success. Figure 3 shows the technical design of the system.

This PPP project, in which a private firm provided not only the design and engineering, but also served as the government’s partner in the implementation and management of the system, was very successful in converting a government organization that had been plagued by financial leakages and slow transaction processing into a competitive organization that continues to be
Understanding the Purpose and Rationale for PPPs in E-Government

Co-Ownership and/or Co-Financing of E-Government Projects

PPP policies in many countries either require or allow the government to retain some share of the stock in profitable or strategic companies making them, in effect, joint ventures.

Examples

Estonia – Estonia has one of the highest degrees of connectivity in Europe. It ranks among the top 20 countries worldwide for teledensity, as a result of the tremendous focus placed on the development of a core network infrastructure and provision of access to the general population. Through a concession agreement, the Estonian Telephone Company helped to ensure connectivity in rural and sparsely populated areas in return for lucrative urban contracts. The government is actively extending connectivity throughout the nation. By 2002, Estonia had approximately 300 public Internet access points providing free email and Internet access. These points also serve as e-government access points, where citizens can conduct the majority of their transactions with the public administration.

India – The Government of Andhra Pradesh established a series of PPPs that formed a multi-sector IT Growth Corridor, as the foundation of its strategic infrastructure and its rapidly growing IT industry. The government created a new 159 km outer-ring road that was undertaken as a PPP to link the new IT zones of city, and a new Mass Rapid Transit System PPP. In addition, it initiated PPPs for the development of both the 156 acre HITEC Park (together with L&T Infocity, Ltd.); and the 110 acre Mindspace Cyberabad, as special zones for IT industries. A key to the risk-sharing of these PPPs, has been the provision of government land to private infrastructure developers as well as government funding of investments in ancillary infrastructure such as roads, electricity, water, and sewage systems. The private sector for its part has invested in the construction, marketing, and management of core IT Park office space and facilities.

Croatia – To address its growing traffic and parking congestion problems, the city of Zagreb was one of the first in the world to enter into an e-government partnership for the remote, electronic payment of municipal parking meters, called “M-Parking.” Together with Rao Engineering, d.o.o. the partnership allows car

See http://www.ltinfocity.com/
See http://www.rao.hr/PARKEX%20-%20CPA%20Presentation.pps
owners to pay parking charges through established accounts that are accessed through the users’ mobile telephones. The service automatically calls the driver’s mobile phone number 5 minutes before the meter is set to expire. The joint project has reduced the city’s parking administration and enforcement costs, and increased municipal parking revenues by 10%.

**Build-Operate-Transfer Agreements**
Governments around the world use turnkey projects with consortia of private companies to build ICT, telecommunication, and other large, infrastructure facilities and networks. Governments in both advanced and developing countries, often use build-operate-transfer (BOT) agreements, in which they buy or lease completed facilities constructed by private investors after the companies have recouped their investment and a reasonable return by operating the facilities for an agreed period of time.

**Examples**

*Hong Kong* – ESDlife was a bilingual portal in Hong Kong, which was developed and maintained through a Design-Build-Own-Operate (DBOO) PPP that implemented the government’s Electronic Service Delivery (ESD) Scheme from 2000–2008. Under this contract, the private operator, ESD Services Limited (a JV between Hutchison Whampoa Limited and Hewlett-Packard HK SAR Limited), was responsible for developing, financing, operating, and maintaining the portal, and the government was responsible for paying transaction fees to the private operator after the transaction level had reached a pre-agreed volume. In turn, the private operator was allowed to expand the portal to include commercial services, such as advertisements and e-commerce, to generate additional income. Booking of sport venues, arrangement of marriage registration, scheduling of identity card and passport applications, and many other services could be utilized on this website. The PPP contract with Hutchinson Whampoa was completed on 1 January 2008 and all government services have since been migrated to a single entry portal of all government information and services in Hong Kong.

*Brazil* – Poupatempo Citizen Service Centers – Poupatempo, meaning “time saver”, is a program of the State of Sao Paolo in Brazil, where citizen service centers have been developed through partnership with two private companies, AMD and Intel. These centers are located in public places, such as shopping malls, and have revolutionized Brazil’s tax system.

*Australia* – The federal and state governments have used BOO and BOTs to establish new electronic communications systems for public sector police, fire, and emergency response workers. Private firms design, finance, build, and operate these new electronic government networks under government supervision, for periods of about 5–7 years. One of the most challenging risks to address in these PPPs, has been obsolescence of the given e-government technology.

**Types of PPP Contracts**

Table 1 summarizes the key types of PPP contracts and their features.

<table>
<thead>
<tr>
<th>Type of PPP Contract</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Contracts (or outsourcing)</td>
<td>Service contracts are legally binding agreements between a government authority and a private partner to perform specific, usually non-core tasks. Examples include government agencies, such as utilities, ministries, and municipal offices, that contract out for website design and management, capacity building, janitorial services, billing and tariff collection, or security services. These are usually short-term contracts. They avail government of private sector expertise, and save time and money spent on non-core services.</td>
</tr>
<tr>
<td>Management Contracts</td>
<td>Management contracts transfer responsibility for the operation and maintenance of government-owned entities to the private sector. Asset ownership remains with the government, while management control, operating authority, and often the risk of the commercial success or failure of the e-government service, are transferred to the private management contractor. Such contracts provide a clear incentive for the private management contractor to apply its expertise to improving management systems, efficiency, and customer services practices. Compensation is often</td>
</tr>
</tbody>
</table>

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in the form of both a fixed management fee and an important performance-based incentive payment.

**Leases** – There are two primary ways in which lease PPP agreements function: (i) the private sector builds an asset, such as a new specialized ICT facility or piece of equipment, and leases it to a government entity, which then operates the asset; (ii) the private sector leases an asset, such as an ICT facility or network, from the government, which the private partner uses in order to deliver an e-government service. Under the latter scheme, the private partner pays the state (as the owner) rental or lease payments for the use of these assets, and it also collects fees from its e-government customers, who may be government departments or retail end-users. While the latter scheme is common in physical infrastructure PPP projects, such as water and sanitation utility operations, the former scheme is most common and most appropriate for e-government PPP initiatives. In this case, the private sector often retains the rights to the technology developed, and it may sell or lease that technology to other clients (government or private). Another variant, is that the government may purchase the technology outright and lease the technology to other government agencies. In practice, private partners usually prefer to maintain their ownership rights to the technology, which also helps keep the government focused on its core, strategic functions, leaving specialized development and commercialization of the ICT technology in the hands of private firms.

**BOT and Variants** – Build-operate-transfer (BOT), build-own-operate (BOO), build-own-operate-transfer (BOOT), design-build-finance-operate (DBFO), and similar arrangements are contracts specifically designed for new projects. Under these arrangements, the private partner typically designs, constructs and operates facilities for a limited period of time—typically 10 to 20 years—after which all rights or title to the assets may be transferred to the government. Under a BOO contract, the project’s residual assets remain indefinitely with the private partner after the contract has expired. The client government body will typically pay the BOT partner a price calculated over the life of the contract to cover construc-

**TABLE 1. Types of PPP Contracts**

<table>
<thead>
<tr>
<th>Type of Contract</th>
<th>Duration (years)</th>
<th>What the Private Contractor Receives</th>
<th>Nature of Private Contractor Performance</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Contract (outsourcing)</td>
<td>1–3</td>
<td>Fee from government for performing a non-core service</td>
<td>Definitive, often technical type of service</td>
<td>Website design and management, ICT Capacity Building</td>
</tr>
<tr>
<td>Management Contract</td>
<td>3–8</td>
<td>Fee from government for the service and a performance-based incentive</td>
<td>Manage the operation of a government service</td>
<td>Call center staffing, Management and operation of a new records management project</td>
</tr>
<tr>
<td>Lease</td>
<td>8–15</td>
<td>All revenues, fees or charges from consumers for the provision of the service; the service provider rents the facility from government</td>
<td>Manage, operate, repair, and maintain (and maybe invest in) a service to specified standards and outputs</td>
<td>Equipment and ICT facilities for delivering a new electronic service, Existing Govt. office space, interconnections, kiosks, etc.</td>
</tr>
<tr>
<td>BOO &amp; BOT</td>
<td>1.5–25</td>
<td>The government pays the service provider on a unit basis</td>
<td>Design, finance (long-term) construct/install and operate, to specified standards, the facilities necessary for service provision</td>
<td>ICT Infrastructure; e-procurement systems; e-business portals; Network of public kiosks</td>
</tr>
<tr>
<td>Concession</td>
<td>15–30</td>
<td>All revenues from the end-users of the e-government service; the service provider may pay a concession fee to the government and may assume existing debt</td>
<td>Manage, operate, as well as invest in and expand, maintain and operate an ICT facility/network or e-government services to specified standards</td>
<td>Telecom operations and expansion, New ICT networks for the delivery of e-government services</td>
</tr>
</tbody>
</table>
tion and operating costs and provide a reasonable return. For e-government and ICT projects, BOOs and BOTs are challenging, due to the issue of technology risk and obsolescence. Technologies used today for delivery of e-government services become obsolete within 5–7 years or less, and the value of the residual assets after 7–10 years or more is usually zero.

Concessions — Under a concession, the private partner ("Concessionaire") bears overall responsibility for an entire sector or network of government services, including the design, technology, financing, operation, maintenance, and periodic asset renewal and replacement. In concessions, the concessionaire services the broad market of retail end-users directly, collecting user fees in exchange for each unit of service delivered. The fixed assets either remain the property of the public authority or revert to public ownership at the end of the concession period. The main advantage of a concession is that it passes full, system-wide responsibility for commercial operations, maintenance, rehabilitation, renewal, and service expansion to the private partner, and thus creates incentives for efficiency and even for customer services in all activities.
Chapter 2

Techniques for Establishing the Appropriate Policy, Legal, Institutional and Regulatory Framework for PPPs in E-Government

Essential Components

Designing and implementing PPPs in e-government systems, requires long-term political will and a clear set of public policy, legal, regulatory, and institutional frameworks within which e-government PPP transactions can develop and operate. The process must include the following components.

Commitment from the Political Leadership

A truly successful partnership between the public and private sector can result only if there is commitment from both the leadership in the government and the private sector organization. This needs to go beyond mere public statements, and feature PPP transactions as well. The most senior public officials must be willing to be actively involved in supporting the goals of public-private partnerships, and take an active leadership role in the development of each given venture. A well-informed senior policymaker can play a critical role in minimizing misconceptions about the value to the public of an effectively developed partnership.

Legal Framework

Equally important is the need for a statutory foundation for the implementation of PPPs in e-government. Too often, existing laws may limit or lack clarity, regarding the legality of the formation and management of public-private sector partnership contracts. Without this clarity, the private sector leadership often views these collaborative partnerships as risky ventures, and they are reluctant to bear the kinds of risks that would incentivize them to invest in technologically innovative and commercially creative solutions. A number of countries have established effective statutory frameworks to foster collaborative work with the private sector. Unfortunately, any perception of risk, whether real or even just “imaginary”, tends to increase the cost of undertaking that particular e-government project. These legal uncertainties generally make e-government PPPs less feasible and attractive for the private sector.

Direct Public Sector Involvement

Once a partnership has been established, the public sector must remain actively involved in the project at all levels, especially in monitoring the performance of each PPP project and of the e-government PPP policy implementation overall. Ongoing monitoring of the performance of each e-government PPP contract is critical to assuring its success. This monitoring can focus on the final outcomes of the partnership (e.g., level of citizen satisfaction) and can be done on a daily, weekly, monthly, or quarterly basis. The frequency is often defined in the business plan and/or contract. This monitoring also helps the government to explain to its citizens the positive attributes of the project, in addition to ensuring that the private sector partner abides by agreed commitments.

A Well-Crafted Action Plan

Each party must know what to expect of the partnership beforehand. A carefully developed plan will substantially increase the probability of success of the partnership. The plan is often devised with the assistance of an outside expert, who is well-conversant in the given field. This plan most often will take the form of an extensive, detailed contract, clearly describing the responsibilities of both the public and private partners. In addition to addressing areas of respective responsibilities, a good plan or contract will include a clearly defined method of dispute resolution, because not all contingencies can be foreseen.

Effective Communication with Stakeholders

More people will be affected by an e-government PPP project than just the public officials and the private sector partner. Affected employees, the portions of the public receiving the service, the press, labor unions, and relevant interest groups, will all have opinions and, frequently, significant misconceptions about a
partnership and its value to the general public. It is important to communicate openly and candidly with these stakeholders, to minimize potential resistance to the establishment of the partnership.

**The Right Opportunity**

Only a select number of electronic government services are going to be appropriate for PPP solutions. Of these, a smaller number of potential projects may be “ready” for a PPP. Often key reforms and preparations must be completed within a specific public service sector before a PPP contract can be implemented. The e-government projects selected should have the right characteristics—clear need, affordable costs, limited uncertainties, opportunities for private sector innovation, etc. When forming a public-private partnership, it is critically important that both parties set and manage reasonable expectations, especially the government sector.

**The Right Partner**

In any contract for the delivery of a service over a long period of time (more than 2–3 years) the “lowest-priced bid” is not always the best bid. In practice, such lowest-priced bids for long-term service delivery contracts are often under-priced because they deliver a lower quality of service, and they assume that the risks of any changes in circumstances during the term of the contract will be borne by the public sector client. Therefore, selecting the right private partner should allow the government to select the bid that provides the “best value” throughout the long-term relationship. A private candidate’s experience in the specific e-government or technology area of partnership should be an important factor in identifying the right partner.

**Well-Defined Management Processes**

It is important that both public and private sector parties agree on key management processes early in the formation of the relationship.

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**Technique 2.1 – Establishing an Appropriate Policy Framework for PPPs in E-Government**

**Definition**

Establishing, drafting, and publishing an effective policy framework for PPPs in e-government, involves the adherence on the part of policymakers to an agreed-upon definition of PPP, including its goals and principal requirements (affordability, value for money, transparent procurement, and risk allocation) that should be upheld in any PPP arrangement.

**Rationale**

The e-government PPP policy is the foundation on which e-government PPP laws and regulations are designed and drafted, so establishing the policy framework for PPPs in e-government is normally the first step in setting the overall framework for PPPs in e-government. Without a clearly established and published e-government policy—which includes PPPs—different individual government departments and agencies will often seek, structure, and sign their own different e-government PPP contracts for different, often unsustainable reasons. Such ad-hoc e-government PPPs tend to suffer from problems of being unaffordable, lacking clear output standards, exposing governments to too much risk, and not delivering clear value to either government or public end-user clients and customers. Therefore, establishing and communicating a clear policy on e-government PPPs is critical, both to ensuring success and especially to avoiding costly failures.

**Description**

An e-government PPP policy should be officially articulated and circulated as an official government document. It should first define exactly what is considered to be an e-government PPP, and what it is not. Then it should confirm the government’s clear support for PPPs as an option for delivering and improving e-government service, and explain why that support exists. Then it should indicate what the responsibilities of government agencies will be as a result of the new PPP policy, e.g. that any government agency proposing a new e-government project must include an analysis of potential for use of PPPs to implement the e-government project and attract private investment to reduce demands on government budget resources. Finally, the e-government PPP policy statement should define the basic principles of e-government project identification, project appraisal, and procurement for PPP projects.

Some sample language from an international good practice in designing and drafting many of the key components of an e-government PPP Policy Statement, is provided below.
Definition of Public-Private Partnership

A “public-private partnership” is a commercial transaction between a public institution and a private party, in terms of which the private party:

a. performs an institutional function on behalf of the institution; and/or
b. is allowed the use of state property on behalf of the institution; and
c. assumes substantial financial, technical, and operational risks in connection with the performance of the institutional function and/or use of state property; and
d. receives a benefit for performing the institutional function or from utilizing the state property, either by way of:
   i. consideration to be paid by the institution, which derives from a revenue fund or, where the institution is a national government business enterprise or a regional or local government business enterprise, from the revenues of such institution; or
   ii. charges or fees to be collected by the private party from users or customers of a service provided to them; or
   iii. a combination of such consideration and such charges or fees.

The essence of PPP is the allocation of project risk to the parties best equipped to manage those categories of risk. Generally, political risk is allocated to the public sector partner, and commercial risk is allocated to the private sector partner. By allocating risks in this manner, the success of the commercial transaction and its future operations are assured. In practice, there are always some categories of risk in which both partners must share management responsibility.

The rationale for PPPs in (name of country) is that they will accelerate infrastructure development by leveraging public financial resources with private investment, and they will increase the quantity and quality of public services to improve the quality of life for (name of country’s citizens). All government institutions should use PPPs whenever possible in conducting economic and/or procurement activities requiring public expenditure. When proposing new projects to be included in a national budget and any related Public Sector Investment Plan, all Project Sponsors (the government body that has proposed the project) shall include an appraisal of whether the project should be a PPP.

Principles of Public-Private Partnership

Affordability to Consumers and Government

Affordability to Consumers shall be assessed by conducting a Consumer Demand, Affordability, and Willingness to Pay Survey, which must be conducted by all Project Sponsors. The Survey does not have to be exhaustive, only an indication of how consumers are likely to respond to the services to be provided by the project—whether they will be able to afford the services if offered at projected prices, and under what service conditions they will be willing to pay those prices.

The reason why the Survey is required, is that e-government PPP projects should be demand-driven. This is quite different from traditional procurement, in which the government makes decisions regarding the projects to be implemented and the prices to be paid. In PPPs, the emphasis is on service delivery—therefore, consumer preferences dictate which projects will be implemented and what prices will be paid. The responsibility of the government is to respond to such consumer preferences, to the extent that resources permit, and to leverage those resources by partnering with the private sector.

Affordability to government shall be assessed by determining whether the proposed PPP project is included in the (name of national budget plan) maintained by (name of agency responsible for the national budget plan), or fits within a category of projects defined as eligible for inclusion within the (name of national budget plan). Once it is determined that the proposed project can fit within the (name of national budget plan), the (name of agency responsible for PPP) will be the government’s representative in determining what public resources will be committed to the project. The (name of agency responsible for PPP) contact point for this process will be the (name of designated office in that agency).

Allocation of Risks between the PPP Partners

Risk allocation is at the essence of PPPs. In traditional procurement, government takes all the design and service delivery risks, while the private sector provider is responsible only for the construction and completion risks. In PPPs, much of the design and long-term service delivery risks are transferred to the private sector, and the government focuses on...
managing the risks that it is best equipped to manage, i.e. the political risks. Similarly, the private sector partner manages the risks that it is best equipped to manage, i.e. the commercial risks.

In practice, the dividing line between political risks and commercial risks is often not so clear. Some kinds of risk have to be shared—for example, the design and demand risks, when the preliminary estimate of the size of the new project that is needed to meet the government’s own demand for the e-government service has been conducted by the government and the final design and engineering has been completed by the private partner. In these cases, the risk of the level of demand for the project is often borne by the government. Other risks may or may not be shared, depending on the public policy environment, e.g. the exchange rate risk.

The guiding principle in allocating risks is that the role of government is to ensure that the interests of all stakeholders are protected. That includes consumers, who are protected by the service standards, and also the private sector partner, for whom the protection of a “level playing field” must be provided. The role of the private sector is to deliver the services at the specified levels of quantity and quality, at prices consumers can afford. Quantity and quality of service delivery is known as the Service Delivery Standards. Prices necessary to maintain the standards are defined by tariff formulas in the PPP contract, and are usually limited by an Investor’s Equity Financial Internal Rate of Return, which has been agreed upon during contract negotiations.

In PPP contracting, there are sometimes three parties representing the government. The first is the Contracting Authority. This is the entity that executes the PPP agreement, and which has full responsibility for the government’s obligations under the agreement. The second is the Executing Agency. This is the entity responsible for implementing the acts for which the Contracting Authority is responsible under the PPP contract. The third is the Regulator. This is the entity that serves to protect the interests of all stakeholders in the PPP agreement, i.e. the government, the private sector partner, and the consumers. There should be inter-agency written agreements that clearly convey the Contracting Authority’s right to legally obligate the other agencies to obligations they have in the PPP contract. The Regulator should be politically and financially independent. It is essential that the roles and obligations of each of these parties be clearly defined in the contract.

Value for Money (VFM) to Leverage Fiscal Resources

From a fiscal budgeting standpoint, the concept of VFM is at the core of the PPP approach. It may be difficult for the government to build and operate all required infrastructure and provide required services, without private investment to leverage public fiscal resources.

The concept of value for money is that the projects to be selected will be those that will provide the highest quantity and quality of service provision for a given amount of public expenditure. In evaluating bids for PPP projects, the focus is different from traditional procurement, which is to select the bidder that can provide the specified product or service at the lowest price. In PPPs, the winning bidder is the one that provides the highest quantity and quality of service delivery, given a particular level of public expenditure, not necessarily the bidder with the lowest cost to the government. For example, a bidder offering a high level of service delivery at the maximum level of government investment allowed, could prevail over a bidder that offered a significantly lower level of service delivery at a cost to the government that is less than the maximum allowed.

PPP Procurement and Contracting

The tendering and procurement process for PPPs is different from standard procurement, and more complex in some ways. Standard procurement requires governments to do most of the design and engineering, and then publish tenders to invite the private sector to provide those facilities at the lowest price. PPP procurement requires governments to do only the basic design and engineering, because the tender is for delivery of the outputs rather than delivery of the facilities. Private sector providers complete the design and engineering, indicating their planned approach in their proposals, and demonstrate how this approach will comply with the service delivery requirements. This infuses private sector innovation into the project design. In PPP contracting, the terms “Outputs” and “Service Delivery Standards” are often used.

Although private sector innovation is encouraged in PPP procurement, government still has the responsi-
bility of preparing a baseline project design, along with pre-feasibility and feasibility studies to demonstrate basic due diligence, and to forecast the financial performance of the project. A prefeasibility study is sufficient to begin the process, with a Request for Qualification (RFQ), but by the time the Request for Proposals (RFP) is issued, a complete feasibility study should have been completed to ensure that any data derived from prior reports has been updated, and to ensure that the government has completed enough of its due diligence and analysis to be reasonably assured that the information in the RFP is accurate. Inaccurate information in an RFP can later lead to contract disputes.

Detailed provisions regarding PPP procurement are provided in the regulations pertaining to the PPP Act. In applying those provisions, stakeholders must adhere to these principles:

- **Fairness** – the procurement process must be fair to all parties, i.e., the rights of all parties must be protected at each stage of procurement, and then in contract management.
- **Transparency** – the procurement process must keep as much information as possible in the public domain, and as much information as practicable must be shared equally with all bidders, especially the methodology for selection;
- **Competition** – in order to avoid possible conflicts of interest, and in order to ensure that the most qualified bidder is selected, the procurement process must provide competition sufficient to ensure that vested interests and/or corruption do not influence selection; and
- **Accountability** – decisions made by the parties must be open to review by stakeholders, and decision-makers must be held accountable for their decisions.

### Technique 2.2.a – Establishing an Appropriate Legal and Regulatory Framework for PPPs in E-Government

**Definition**

All forms of PPP, from the most capital intensive to the least capital intensive, are usually covered under a “Law on Concessions”. While it used to be common that each sector would have their own law on PPP or concessions, most countries are increasingly establishing multi-sector concession laws or “umbrella” legislation, to harmonize the key legal issues in PPPs across sectors.

**Rationale**

A well-defined concessions law will, at a minimum, clearly establish: (i) what sectors are eligible for PPPs; (ii) the form of eligibility; (iii) eligible PPP approaches; (iv) the rights and obligations of the parties; (v) how projects are approved; (vi) limits to ownership; (vii) financial requirements; (viii) public roles and responsibilities; and (ix) dispute resolution responsibilities.

**Description**

In applying such a PPP law within an e-government environment, special problems arise. Electronic communications in e-government systems carry significance beyond the transactions they enable between governments and their constituents. They represent a radical change in the methods governments use to govern, assuming that e-government transactions will usher in a new era in which governments use the e-government systems for activities such as voting, polling, information dissemination, licensing, reporting, and other kinds of interactions between government and their citizens. Indeed, this trend is already well underway, so the international legal system needs to adapt to the trend, both in terms of laws within jurisdictions, and laws between two or more jurisdictions.

**Legal Barriers to PPPs in E-Government**

As stated above, a well-crafted multi-sector concessions law should provide a sufficient legal framework for PPPs in e-government. Countries need not create separate paradigms, in which e-government PPPs are defined by an entirely different set of legal principles than PPPs in any other sector. That said, special problems do arise in applying a multi-sector concessions law within an e-government environment. The key legal barriers to PPPs in e-government fall into the following categories:

- Liability (Contract Law)
- Intellectual Property Rights (Patent Law)
- Electronic Commerce (Commercial Law)
- Jurisdiction (Administrative Law)
- Consumer Protection (Tort Law)
- Protection of Privacy (Constitutional Law)
Laws relating to liability should cover:

- Liability for the infrastructure
- Liability for the information
- Excluding liability in contracts
- Use of disclaimers in terms and conditions
- Tension between economic risks and trustworthiness
- Harmonization of laws between different jurisdictions

Laws relating to intellectual property rights should cover:

- Dissemination of information to the public
- Requests for information from the public
- Commercialization of government information
- Neighboring rights, patents, trademarks, inventions, designs, and trade secrets

Laws relating to electronic commerce should cover:

- Transaction security
- Electronic signature security
- Protection of personal information
- Prevention of unauthorized transactions

**Jurisdiction**

Jurisdiction is one of the most problematic areas of law as it relates to PPPs in e-government. In Administrative Law, the problem can be partially solved by existing regulators by defining which kinds of activities they will continue to regulate in the electronic medium. This is covered below in the section on establishing an appropriate regulatory framework. But in cases where activities cannot be clearly defined as falling appropriately within established regulatory purview, jurisdiction becomes a key issue in defining which forum will be used for reviewing the case and making a binding legal decision.

For PPPs in e-government systems, jurisdiction becomes an issue of particular importance when there is a dispute, and both the mechanism and the venue for resolving the dispute is not clear. Electronic communications have exacerbated the challenges to the traditional model of “within the borders of the state and no further”, already created by increasing personal movement and commerce between states.

Initially, a consensus emerged associated with the *Zippo* case in the US, where the court decided it was appropriate to take jurisdiction over the matter if the electronic transaction involved “active engagement” in a territory over which the court had jurisdiction. This is known as the “active/passive” test.

Recently, the “active/passive” test has been challenged, because merchants and customers doing business online are being exposed to an increasing number of legal regimes, whether or not they ever had any mutual intent to do business in those territories. The law is still moving very slowly in this area, but the trend is to look to the intentions of the parties and to try to determine what legal jurisdiction they intended to be bound by in the transaction.

While jurisdiction in the electronic medium continues to evolve, some progress has been made in the area of dispute resolution. Governments are generally supporting of Online Dispute Resolution (ODR) when the parties have specified mutually agreed dispute resolution procedures in their agreements. Accordingly, for PPPs in e-government systems, it is appropriate and important for dispute resolution procedures to be clearly defined.

**Special Features of E-Government Legal and Regulatory Frameworks**

The essential elements necessary in an effective legal and regulatory framework to promote PPPs are universal. That is to say, that attracting private sector investment in key sectors of service delivery requires certain fundamental components in a legal and regulatory framework, no matter the sector—be it e-government and ICT, or water and transportation. Some of those fundamental components include:

(i) principles of project selection and viability;
(ii) sound policy to promote competition;
(iii) a process for vetting, procuring, and awarding projects; and
(iv) a clear and transparent framework to set and adjust tariffs, especially if consumers are paying for the service directly, and over the long-run.

However, e-government and ICT legal and regulatory frameworks do need to be adjusted and customized to promote greater private sector involvement in finance and management. This is particularly true in the areas of technology obsolescence, intellectual property, and risk allocation for the design and management of e-government
systems. While many of those issues can be addressed within the contract between the government and the service provider, some of these issues need to be addressed within the broader framework itself, in order to attract the highest number of bidders for a particular e-government or ICT PPP opportunity.

Technique 2.2.b – PPP Regulations and Regulatory Framework for E-Government Systems

Regulations are written in order to provide a mechanism for interpreting and enforcing the law. Regulatory institutions use the authority conveyed in such regulations to provide an enforcement mechanism for the regulations, and in many cases a monitoring mechanism to track behavior that is regulated. Some regulators are independent of the government, and are tasked with monitoring regulated behavior, and enforcing regulations, with equal regard to the protection of the government, private firms, and consumers.

Other regulators are housed within government, often as departments within relevant ministries, and they also are tasked with monitoring regulated behavior and enforcement of regulations, but they can be influenced by political pressure, because they are not independent. Other regulators are housed within industry and professional associations, in effect, to provide “self regulation” within the industry or area of professional practice.

For PPP projects, it is always optimal to have independent regulators. However, it is not always possible to put in place such a politically and financially independent organization. Monitoring and regulating activity for a PPP in an e-government project brings to bear a multitude of complex issues, one of which involves determining which organization is authorized to regulate.

Broadcasting regulators, as in the Canadian example provided to the right, can regulate the electronic aspect of the transactions carried out over the Internet via a PPP for e-government system. The substance of the transactions themselves can be regulated by whatever regulatory body exists for those kinds of transactions. For example, in the US, the Federal Reserve Board monitors and enforces compliance with its regulations, without any regard for the electronic medium of the communications. In combination, the Canadian and US regulatory models can be used to regulate PPPs in e-government systems, by limiting consumer transactions in electronic commerce (to comply with broadcasting regulations), and by requiring the disclosure of certain kinds of transactions (to comply with regulations pertaining to particular kinds of transactions). Table 2 shows the categories of regulation relevant for PPPs in e-government.

Regulation by Contract

When a regulatory framework is not fully developed, the protections that would otherwise have been provided by regulators need to be provided, to the extent possible, through the use of contracts. The use of Model Contracts is recommended in such situations, and a good reference point is the United Nations Commission on International Trade Law (UNCITRAL) Model Concession Contract. There are also some sector-specific model contracts on the World Bank’s IFC web portal, and in some PPP resource portals.

The following sections describe the essential elements of these model contracts.

Duration of Contract

The contract must specify its duration, along with the Commencement Date that may or may not be the date of contract signing. The Commencement Date is normally before the Service Period, and the duration of the contract must be long enough to cover the entire Service Period. The choice of duration should be made in consideration of the following:

Authority to Regulate – Canada

The Canadian Radio-Television and Telecommunications Commission (CRTC) has ruled that it has the legal power to regulate the Internet, because material that is not alphanumeric text, or customizable for individual users, falls within the definition of “broadcasting.” In addition, the physical infrastructure of the Internet and the market conduct of participants, such as telephone companies or cable companies or Internet Service Providers, are subject to regulation under various existing laws and related regulations.
The service requirements of the Contracting Authority;
- Anticipated uses of assets that will remain with the Contracting Authority;
- The amount of time it will take the private investor to achieve its targeted return;
- The affordability of the Service for the Contracting Authority;
- The cost of periodic asset refurbishment and related expenses;
- The terms of the project's debt financing; and
- Certain components of the contract may have a different duration than the duration of the contract as a whole.

**Commencement of Service Delivery**
After the signing of the PPP contract, there will usually be a period of construction or project development to put in place all the service delivery mechanisms. There is considerable risk associated with this period, in particular, the risk of delays and/or cost over-runs for the construction effort. The contract must include provisions that specify how the public sector partner will be compensated in the event that the private sector operator fails to complete construction within the agreed timeframe. On the contractor's side, they will need provisions in the contract that assure them the Contracting Authority will accept the constructed facilities if they meet certain specifications.

**Remedies for Delayed Service Delivery**
Both the Contracting Authority and the Contractor have strong incentives to get service delivery going on time. The Authority is under pressure from stakeholders who will use the service, and the Contractor needs payments from the Authority in order to make loan payments, and service other cash flow needs. As indicated in the preceding section, the Authority should not make any payments to the Contractor until Service Commencement, unless services can be commenced incrementally as construction continues.

**Supervening Events**
A supervening event is an event that prevents the Contractor from being able to comply with Service Commencement obligations. One type of supervening event, as mentioned in the preceding section, is a **Force Majeure** event. There are also Relief Events, in which the Contractor bears some responsibility, but not to the extent at which the Authority's rights of early termination would arise. There are also Compensation Events, in which the Authority has the obligation to compensate the Contractor. Normally a Compensation Event is one that takes place when the risk of late completion is very high, or completion was delayed by factors largely under the control of the Authority. Change in Law is often treated as a Compensation Event, because the Authority is a government institution, and law is under the control of government.

**Information Warranties and Disclaimers**
The contract should clearly indicate which party bears the risk of accuracy for each category of information provided within the contract. This provides the other party with recourse in the event that such information is inaccurate. It also covers latent defects in assets put under the control of a party by the other party. A common feature of PPP contracts for infrastructure service provision is that

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**TABLE 2. Regulatory Categories Relevant to PPPs in E-Government**

<table>
<thead>
<tr>
<th>Content Regulation of Services</th>
<th>E-Commerce Framework Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Traditional services that are now distributed online (tele-health, teleeducation, etc.)</td>
<td>- Authentication</td>
</tr>
<tr>
<td>- Reformulation of old regulations to apply to the online world</td>
<td>- Cryptography</td>
</tr>
<tr>
<td>2. Traditional goods that are now delivered as electronic services (software, music, etc.)</td>
<td>- Intellectual Property Rights</td>
</tr>
<tr>
<td>- Reinterpretation of former goods regulation to new e-services regulation (i.e. content, intellectual property rights)</td>
<td>- Consumer Protection</td>
</tr>
<tr>
<td>3. New electronic services (auction platforms, sophisticated Internet search agents, etc.)</td>
<td>- Security modes</td>
</tr>
<tr>
<td>- New types of regulation</td>
<td>- Privacy/Data Protection</td>
</tr>
<tr>
<td></td>
<td>- Competition policy for open networks</td>
</tr>
<tr>
<td></td>
<td>- Tax issues (i.e. VAT)</td>
</tr>
<tr>
<td></td>
<td>- Standards, technological compatibility</td>
</tr>
</tbody>
</table>

Source: World Trade Organization
the government places assets it owns under the control of the concessionaire. The government warrants that the assets are in a particular condition, and the concessionaire warrants that at the end of the contract it will return those assets to the government in the same condition, less normal wear and tear.

**Service Requirements and Availability**

The focus of PPPs is service delivery, so unavailability of the service should result in a reduction or elimination of payment by the Authority to the Conactor. The issue in PPP contracts is what constitutes service availability. This is a key issue, because contracts for PPP projects usually require the Contracting Authority to pay the Contractor for service made available, rather than service actually used.

**Maintenance of Assets and Service Delivery**

When the Contractor submits its financial proposal, it will include the cost of ordinary repairs and maintenance. The risk associated with determining what needs to be replaced, and the cost of making such replacements, is entirely upon the Contractor. This transfer of risk to the Operator is best achieved by expressing the service requirements in terms of output specifications. Bidders should be allowed to propose their own methods of repair and maintenance, within the parameters set by the output specifications. This encourages private sector innovation, a key objective of PPP contracting.

**Performance Monitoring and Compliance**

The contract should clearly specify: (a) the level of performance required; (b) the means by which the Authority will measure the Contractor’s performance; and (c) consequences to the Contractor in event of a failure to meet the required level of performance.

In setting the required level of performance, the contract should clearly specify the output requirements, rather than specifying how the services will be delivered. The negotiated performance regime will become a key element of the risk transfer mechanism. When setting the output specifications, if a benchmark (e.g., another PPP service provider that is already performing satisfactorily) is available, it can be used as a reference point in the specification of output requirements.

**Price and Payment Mechanisms**

Price and payment mechanisms are key tools with which PPP contracts allocate risks and responsibilities between the parties to the contact. Price and payment are also the means by which performance is rewarded, with bonuses for superior performance and penalties for inferior performance. The principle features of a contract payment mechanism are:

- No payments are made until the Service is available;
- There is a single Unitary Charge for the Service, rather than separate independent charges relating to availability or performance;
- The single Unitary Charge should only be paid to the extent that the Service is available, i.e. proportionate to the number of units; and
- Deductions should reflect the severity of the failure, e.g. no service will result in no payment, while a minor failure will result in only a minor deduction, unless the minor failure is repetitive, in which case the deduction will increase.

**Change in Service by Authority or Contractor**

Changes to the service requirements may be necessary if such changes fall outside of the changes anticipated at the time of contract formation. It is not unusual for advances in technology to motivate a Contractor to modify the technology it uses in service delivery. Normally, the Authority accepts such changes because they are improvements, but consultation with the Authority before making the change is a prudent requirement.

A proposed change may involve construction or operational charges. Depending on the nature of the change, costs may be incurred that may not have been anticipated. Changes to the service requirements that involve additional capital expenditure or operating costs may not be easily accommodated within the contract, if the additional costs cannot be covered by the contingency reserves put in place by the contractor. Because of this, the financial projections submitted by the Contractor should be checked by the Authority to ensure that they include contingency reserves. In particular, capital expenditures during the construction phase should always show reserves to cover say 10–15% overages in construction costs and/or construction period.

**Price Variations and Adjustments**

Every PPP contract should have a provision whereby the prices charged for the services will be automatically adjusted at regular intervals in accordance with a specified index. In the bidding documents, this
index should be identified, so that bidders do not submit proposals that use different indices, thereby compromising the comparability of the bids submitted. The Authority should take into account its affordability constraints when it selects the index to be used. It should also consider that the Contractor will charge a higher price if the index is not likely to provide cover for its costs.

Price variations and adjustments that cannot be covered by indexing can be determined by using either benchmarking or market testing. Benchmarking involves reference to the prices of an existing provider of the same type of service. Market testing involves review of the prices charged by other providers of the same type of service.

Sub-Contractors and Employees
Authorities tend to view the selection and performance of Sub-Contractors as something they need to control, whereas Contractors tend to view the selection and performance of Sub-Contractors as an area under which they should have exclusive control. In general, any attempt by an Authority to control Sub-Contractors is not advised and is in most cases unnecessary. In certain limited cases, there may be overriding reasons why an Authority should have a degree of control over sub-contractors, for example projects in which there are national security or public interest concerns.

Assignment and Change of Ownership
As many PPP projects involve the construction and operation of infrastructure, contract periods can be very long, commonly 15–20 years, and in some cases as long as 40 years. In view of this, some changes in ownership on the part of the Contractor are possible, even likely, and the Authority should take care to anticipate such changes in drafting the wording for the contract. Similarly, over such a long period of time the business profile of the Contractor may change, making assignment of certain service delivery tasks to other entities a necessity. Therefore, the contract should include provisions that will allow for assignment of tasks under certain specified conditions.

Treatment of Assets at End of Service Period
There are essentially two options for treatment of assets as the end of the service period:

- The Authority takes control of the assets on expiration of the Contract. This includes assets for which the long-term public sector demand is clear, and for which there is no practical alternative use of the assets; and
- The residual value of the assets is transferred to the Contractor. These kinds of assets are usually generic and have alternative use outside the public sector.

Early Termination and Payment for Early Termination
The Contractor should be allowed the right to terminate the contract if the Authority acts in a way that renders the contractual relationship untenable or completely frustrates the Contractor’s ability to deliver the service. In determining the compensation to be paid in event of default or breach by the Authority, the objective should be to ensure that the Contractor and the financiers are no worse off than they would have been had the default not occurred. The contract must provide a formula for such early termination payment. Such a formula can be based on one of the following three options:

- Compensation to reflect the base case IRR for equity and junior debt, for the duration of the contract;
- Compensation to reflect the market value of both equity and junior debt, for the duration of the contract; or
- Compensation to reflect the base case return for equity and junior debt, for the remainder of the duration of the contract.

Dispute Resolution and Authority Step-In Provisions
A popular dispute resolution process for PPP contracting is as follows:

1. The Authority and Contractor consult with each other for a fixed period of time, in an attempt to come to a mutually satisfactory agreement;
2. If consultation fails, the parties may then put their case before an expert to decide. The expert is appointed from a panel whose appointment is regulated by contract, and a separate financial expert may be appointed to handle disputes relating to price variations, financial returns, etc.; and
3. If either party is not satisfied with the expert’s decision, it may refer the matter to arbitration or to the courts for a final and binding decision. The method by which the arbitrator will be appointed should be set out in the contract.
Technique 2.3 – Establishing an Appropriate Institutional Framework for PPPs in E-Government

Institutionalizing PPPs can arguably be the determining factor in the success of PPP projects. As with any major policy change or initiative, governments must have an institutional strategy to ensure that the change takes place. Simply stated, PPP does not just happen. ESD Services Limited (a private JV company) did not approach the Government of Hong Kong and offer to design ESDLife, a web portal for government services. Rather, the Government of Hong Kong recognized a need to offer its services online, saw that the private sector was best equipped to design and operate the portal, and most importantly, availed itself of its institutional resources in managing PPP contracts. Private investors do not just come to governments ready to invest (except in the case of frameworks such as the Swiss Challenge), but rather willingly partner with governments where a clearly identified pathway for institutional collaboration has been established. This is true for any PPP.

There are two main themes to consider when discussing institutional roles in PPP projects. First, there is the role of independent or departmental PPP institutions in supporting the development and implementation of projects. There is also the role of the public institution involved in a PPP project, and how it must manage its transition from service provision to contracting monitoring.

**PPP Institutions**

The best way to define clear institutional roles and responsibilities for PPPs is to form a designated department or task force within government. In the case of national level PPPs, the Ministry of Finance is the best place for such a department, because its placement clearly communicates to local governments and to private investors the national government’s commitment to private sector partnerships. Examples of these departments or PPP units are found worldwide. They range from national level PPP units, such as Ireland’s National Development Finance Agency and South Africa’s National Treasury PPP Unit, to provincial level agencies, such as Partnerships Victoria in Australia and the Gujarat Infrastructure Development Board in India.

**Function of PPP Units**

While individual operating policies in PPP units vary from country to country, they serve to answer three main questions:

- Is the project affordable?
- Is the project a priority for the government?
- How can the project be implemented?

**Project Affordability** – The PPP Unit, either through its staff or through independent contractors will conduct financial pre-feasibility analysis and financial feasibility studies, to determine if the project is economically viable.

**Project Prioritization** – Once a government department proposes a PPP project, the PPP Unit will liaise with other departments and/or the Ministry of Finance, to determine if the project is an overall priority for the government. For example, the Department of Transportation may see a need for a highway investment project, but the PPP Unit has the responsibility of evaluating that need, along with other investment needs, in the Department of Health or Education. The PPP Unit has the benefit of an “arms length” perspective.

**Project Support** – The PPP Unit serves as a center of expertise for all government departments in identifying, structuring, and implementing viable PPP projects (deal flow, capacity building, etc).

**Alternatives to PPP Units**

Are PPP Units necessary to ensuring successful PPP processes? Given that one reason for PPPs is to lessen bureaucratic red tape in the delivery of public services, we have to agree that while PPP units are indeed useful, they are not prerequisites to successful PPPs. In Australia, for example, the Sydney Water Corporation identifies and prioritizes its need for major infrastructure projects, and recommends whether or not PPP financing and implementation vehicles are required. These recommendations are forwarded to the Board of Sydney Water, for careful review. If the project requires major investment, they are usually reviewed by the Cabinet, and are subject to a financial veto by the New South Wales State Treasury responsible for maintaining the state’s credit rating. This system is effective in quantifying and minimizing direct state risk.
Role of the National PPP Unit and PPP Cells in PPP Projects

An important aspect of the PPP program is that all stakeholders have an important role to play in the PPP project development process. While the National PPP Unit represents the nation’s key focus of expertise in PPP, the government institutions that propose PPP projects play a critical role in the selection and initial development of those projects. PPP projects are normally proposed by central government sector ministries, and/or by regional and local government agencies. Within each such government ministry or agency, there should be a core group of people who are familiar with PPP. This group is called a “PPP Cell” and works closely with the national PPP Unit in the identification, development, appraisal, structuring, financing, and contracting of PPP projects. The national PPP Unit will give technical assistance, including capacity building, to these PPP Cells. The primary purpose of the National PPP Unit is to provide expert assistance, disseminate information, and build capacity in PPPs. The role of the National PPP Unit is not to impose another layer of bureaucracy in implementing PPP projects. Rather, it serves as a resource to the PPP Cells and other PPP stakeholders. Its dissemination of information function includes standardized procurement documents and procedures. Its capacity building function includes PPP training programs at all levels of government.

Role of the Project Development Facility (PDF)

The Project Development Facility is a financially and politically independent managed fund that contracts with private sector consultants to perform feasibility analysis for PPP projects. The PDF responds to requests from the PPP Unit for feasibility analysis, and recruits the necessary consultants, from local firms whenever possible, to perform the work. In order to expedite the selecting and contracting process, the PDF maintains a list of consulting firms that have been pre-qualified in accordance with established criteria. Qualified firms are invited to submit their qualifications once per year, for the PDF to consider in making the list of pre-qualified firms.

The PDF funds feasibility studies: (i) to assist Project Sponsors in preparing their Requests for Qualifications; and (ii) to support Project Sponsors in preparing their Requests for Proposals. Project Sponsors may access such PDF assistance only through the National PPP Unit. The feasibility analysis performed by consultants contracted by the PDF does not include investor due diligence, nor does it include the highly detailed and comprehensive analysis that is required for an investment or loan solicitation. Such detailed analysis must be performed by the private sector firms that submit proposals to become partners in PPP projects, and in the bidding documents the government shall disclaim any representation or warranty of the information provided by the PDF-funded pre-feasibility and feasibility studies.

Cross-Sector PPP Units vs. Dedicated E-Government PPP Units

Internationally, most countries that have developed policy, regulatory, and institutional frameworks for PPPs in e-government, have first established multi-sector PPP units that are responsible for analyzing PPPs across a range of infrastructure sectors, including transportation, energy, public buildings and accommodation, and environmental infrastructure. Usually, it is after this cross-sector framework is established, that they have then launched initiatives for PPPs in e-government as well. This has been the case in the UK, Australia, South Africa, Malaysia, the Philippines and elsewhere. Therefore, the important issue emerges about whether a separate, new, specialized unit to support, review, and even manage e-government PPP transactions should be established, or whether this capacity should simply be developed within the existing cross-sector PPP unit.

Across countries, there is no clear best approach, and each country must select the institutional strategy that best meets its own bureaucratic context, as well as the ambitions of its e-government policy. In general, it is not advisable to create an entirely new unit, such as a specialized e-government PPP unit, if it can be avoided (as it easily adds to public sector overhead costs)—especially if a capable cross-sector PPP unit, such as within a Ministry of Finance, already exists.

On the other hand, the technical requirements of e-government PPPs are usually more challenging than those of traditional infrastructure sectors (roads, electricity, water, etc.)—especially the technological risks, and the fact that often PPP models such as Public Sector Comparators are not relevant to new e-government technologies.
Traditional line ministries in sectors such as transport, electricity, and water have substantial capacity in understanding the technical requirements and technological risks inherent in any PPPs, for providing their own core services of building roads, generating power, or treating and distributing water. However, many public agencies are not so familiar with the technical options and requirements for e-government applications for their non-core IT services, such as records management, applications, licenses, and payments. Most government agencies need more help, guidance, and assistance with selecting, preparing, and negotiating a PPP for an e-government service, than they do for one of their core-sector services. Therefore, governments should be prepared to establish a strong and technically experienced e-government PPP capacity, possibly within their existing cross-sector PPP units, to fulfill this important need.

**Capacity Building for PPP Institutions**

PPPs in e-government and other sectors of infrastructure require important new financial, legal, risk analysis, and tendering skills, that often do not exist within most governments or their Line Ministries. Effective ways that governments can address this include the following:

- Create a “PPP Unit” within the government to function as an important “Knowledge Center”. In addition to reviewing and approving PPP transactions, it should also catalog model PPP feasibility studies, contracts, tender documents, monitoring plans—and especially, catalog the “lessons learned” from case studies within the country. It is important that this valuable knowledge remain within the country, where it is easily accessible to local stakeholders, rather than leaving the country in the minds (and laptops) of international consultants.

- Partner with local universities and training institutions to systematically add PPPs to their official curricula. Too many countries rely on one-time, donor-funded training events to train one group of leading government officials on PPPs. These rarely get followed-up on or sustained as they need to be. In South Africa in 1998–1999, the government used donor support from USAID to train a group of leading professors and lecturers on Public Sector Administration and Management at the major University Graduate Schools (JUPMET = Joint Universities Program in Education and Training) throughout the country, on PPPs. These professors then designed their PPP courses and course components, and added it to their curricula. Now, hundreds of new and current public sector managers throughout South Africa have become conversant and even proficient in PPPs, through this sustainable PPP capacity-building initiative.

**Case Illustration – Malaysia’s PPP Framework: the “e-Perolehan” BOT Project**

Beginning in 1985, the Government of Malaysia was one of the very first developing economies to systematically adopt a long-term national policy of public-private partnerships using “BOT” structures to finance and expand the nation’s rapidly growing demand for infrastructure. According to the government’s Privatization Handbook, released in 1985, and the subsequent Privatization Master Plan of 1991, the primary goals of the new PPP policy and framework were:

- To relieve the financial and administrative burden on the government, of State-Owned Enterprises
- To promote competition and efficiency of enterprises
- To stimulate entrepreneurship and private sector-led growth
- To reduce the size of the public sector and its economic monopolies
- To promote entrepreneurship and advancement of Bumiputeras

Malaysia’s policy, institutional, and legal framework for PPPs focused on the central role of the Economic Planning Unit (EPU)—housed within the powerful Office of Prime Minister—to manage the overall process of analyzing, preparing, awarding, and negotiating BOT contracts. However, the framework also gave considerable rights to private developers, to identify new projects on their own, to submit unsolicited proposals, and to fund the analysis and preparation of new PPPs. For the first decade, most of the BOT contracts undertaken in Malaysia were for large transportation and water sector infrastructure projects.

As an indication of the overall strength and effectiveness of the Malaysian PPP policy, institu-
ational, and regulatory framework, by 2005, Malaysia had attracted over $40 billion (Figure 4) of new private sector investment into its infrastructure—far more than most other developing economies worldwide.

The financial crisis that hit the economies of Southeast Asia in 1997–1998, had a considerable impact on Malaysia’s portfolio of BOTs. Several BOT contracts were cancelled, while a number of others had to be re-negotiated—with significant new levels of risk and even financing falling onto the government. Despite these challenges to the country’s PPP policy, new PPP transactions were still able to continue, especially within the scope of the country’s recently-announced goal of becoming a “Knowledge-Based Economy” (KBE) by 2020, in areas such as multimedia and e-government services.13

One of the first BOT contracts that the Government of Malaysia signed was in 1999, with Commerce Dot Com (CDC) Sdn. Bhd., for the $71 million, eight-year, “e-Perolehan” electronic procurement project (Figure 5). CDC Sdn. Bhd. was a JV between Puncak Semangat Sdn. Bhd. and NTT Data Corp.) As part of the BOT contract, the Government of Malaysia retains ownership of a “Special Share” of CDC’s stock. This BOT was one of the first pilot PPP transactions launched as part of the country’s large Multimedia Super Corridor (MSC) initiatives, which featured several different PPP initiatives for land development, ICT infrastructure, and small and medium enterprise development, within special technology zones.

Under the e-Perolehan BOT, the private contractor receives a minimum transaction of 0.8%, with a maximum fee set at approximately $2,500 per transaction.

This e-government BOT has reduced the average procurement costs for the government from US$250 per transaction to only US$1714. The project has been implemented through three phases over a period of eight years, involving 4,288 government purchasing centers, 35,000 suppliers, and roughly 350,000 products. Commerce Dot

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13 Malaysia has a strong tradition of implementing its development projects according the detailed National Development Plans prepared and coordinated by the powerful Economic Planning Unit within the Office of the Prime Minister. The key development planning policy priority of the Seventh Malaysia Plan 1996–2000, as well as the longer-term “Vision 2020” was to become a “knowledge-based economy”.

Com Sdn. Bhd. estimated that the return on investment (ROI) would be around 15%–20% annually, with its initial investments recovered in the third year of operation, with a revenue of approximately US$13–$26 million annually. However, as a result of a number of challenges the project faced during its first four years (discussed below), these initial projections were not met.

As the first major e-government BOT in the country, the project has experienced a number of important challenges. According to CDC these included:

- Challenges in coordinating all of the various implementation tasks, in installing and launching the project;
- Lack of Clear Standard Procedure with Predefined Service Levels;
- Lack of inter-operability between the various components of the large e-Treasury project, and too many project issues addressed individually rather than holistically for the project overall;
- New solutions to the BOT project’s technical and implementational problems raised project costs—they did not “support” the need of the project to recover its own costs through its project-backed financing structure;
- The initial BOT contract prepared in 1999, was not updated and revised as the project’s own requirements and service standards were changed during the implementation of the project;
- Choice of technology (Market Maker) was not suitable for the magnitude of the project. The system started to suffocate even before 50% of rollout was completed.
- Initial users of e-Perolehan complained that it was too slow, and did not perform as expected;

These challenges led to a number of important changes that are not uncommon to larger, longer-term PPP contracts. In 2003, CDC submitted a variation order to the government that included, among other conditions, the need to revise the fees it charged in order to recover its own additional costs that were spent on delivering items that were

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16 For a candid and detailed assessment of the challenges faced by the e-government BOT project by CDC itself, see e-Perolehan: A Breakthrough for e-Commerce for the Government of Malaysia at http://aktiviti.eperolehan.com.my/pdf_ePbreakthrough_article.pdf
not within the original scope of the work. This Variation Order also included a request to extend the termination date of the BOT contract by five years—to 2012—to allow the company to adequately recover all of its investment costs. In 2003, CDC’s shareholders also restructured the project’s management team to better meet the project’s goals for the remainder of the contract term.

Lessons Learned and Good Practices Checklist

The e-Perolehan BOT case is used for illustration of the policy, legal, and institutional framework for PPPs in e-government, because the PPP policies and institutional and regulatory framework already in place in Malaysia clearly allowed the transaction to both proceed and to succeed. By 1999, the Malaysian Government’s EPU had already attracted an impressive US$27 billion in private investments in its infrastructure, through BOT contracts. This was more, for example, than the US$19 billion India had attracted by 1999. Therefore, both the Malaysian Government’s EPU and private developers such as Puncak Semangat Sdn. Bhd. and NTT Data Corp., were already familiar with the challenges of analyzing, structuring, and negotiating the risks of long-term BOT contracts within Malaysia’s framework.

One of the key factors to the generally successful outcome of e-Perolehan, was that it clearly fit within the larger context of the both the Government of Malaysia’s priority Multimedia Super Corridor Project, and its more recent policy priority of transforming Malaysia into a Knowledge-Based Economy. In many other countries, the very first e-government PPP projects are often undertaken by a single government department on its own initiative. What is missing, are clear, stated commitments from the national government to invest in major ICT infrastructure projects, such as a multimedia super-corridor or the support of a nation-wide policy to transform the entire economy (including government) from an agro-industrial base into a knowledge-based economy.

There have been numerous benefits from the new e-procurement system in Malaysia, including:

- The number of electronically-registered suppliers in Malaysia has risen from zero to over 40,000, and over 25,000 of them have received official training by e-Perolehan.
- The number of purchase orders transacted by the government using e-Perolehan rose from 43 in 2000, to 170,169 in 2006; and
- The total value of transactions increased from RM3.85 billion in 2007 to RM6 billion in 2008.

However, as illustrated by the detailed discussion of the challenges faced by CDC in implementing this BOT contract, there have been an important number of challenges and problems that the project has had to address. For example, many of the important e-procurement service standards that the new system had to meet were not specified in the original contract in sufficient detail. A key “good practice” for all e-government PPPs, is that governments should play a leading role in clearly setting the output standards that a new PPP project must meet. In the case of e-Perolehan, the private contractor bore the initial risk of paying for the new, increased costs of meeting many of the additional performance requirements of the project—which were not contained in the initial contract. However, when private contractors later submit requests for such Variation Orders to the government, it nearly always raises prices, passes risks back onto the government, and reduces both the affordability and the “value-for-money” benefits from the project for the public.

Governments must be prepared to carefully review and to negotiate any such requests from PPP contractors, so they are neither too inflexible, nor too lenient. In the former case, the contractor’s requests would all be denied, and the project would risk bankruptcy due to risks that it cannot control; in the latter case, the government would be effectively “bailing out” private investors and transferring risks from private contractors onto itself and onto consumers. Therefore, the e-Perolehan BOT case illustrates that a good PPP policy and regulatory framework for e-government must not only support the preparation and negotiation of PPP transactions; it must also provide a rigorous but fair framework for monitoring and revising PPP contracts during their later operational phases.
Chapter 3

Techniques for Identifying and Selecting Appropriate Candidate Projects for PPPs in E-Government

One of the first questions that a policymaker or practitioner responsible for e-government services needs to answer is, “What is an appropriate kind of project for a PPP in e-government?” This is a very important, fundamental question, for it is the first step in determining whether scarce public resources should be invested in preparing a detailed feasibility analysis and PPP project structuring assignment, before that project can be formally offered to the private marketplace. If this first step of PPP project selection is not done well, then the rest of the steps of the PPP project life cycle—such as tendering projects, evaluating private bids and selecting preferred bidders, reaching financial closure, and operating efficiently over the life of the contract—will not perform well either.

Definition

PPP Project identification is the process of developing an initial list of promising candidate e-government projects, which may be designated as potentially successful PPPs prior to the gathering of significant and detailed background data, and making project cost estimates.

Rationale

The purpose of this phase is to compile basic information about the project’s overall potential benefits, its likely required costs, and some probable options about how the major risks would likely be allocated between the parties. The idea is to gather enough basic information to enable an informed decision on whether the project would make a good candidate for spending additional resources on conducting a full PPP feasibility analysis, and on structuring a viable and “bankable” PPP project contract for tendering.

In practice, many developing government ministries and agencies have very limited funds that can be spent on feasibility analyses and project preparation...
for new e-government initiatives. Additionally, many of these public sector institutions have limited or no practical experience in either the design of e-government services, or in the structuring of viable PPP projects. Consequently, governments risk spending the limited public resources they do have on the analysis and preparation of projects that are not good candidates for e-government solutions, or are inappropriate candidates for PPP-type solutions. The purpose of this technique is to provide users with practical guidelines to follow when taking this important step of first identifying candidate projects and then selecting which ones would make suitable candidates for more detailed preparation.

**Description**

The key steps to follow in implementing this technique involve assembling the available information about the potential project, prioritizing candidate e-government PPP projects, and preparing an E-Government PPP Identification Report.

**Technique 3.1 – Assemble All Available Information about the Project**

Assemble all available information about the potential project or service—such as a summary project concept description, available technical analyses and studies, available economic and social impact studies—whether in the form of detailed quantitative studies or qualitative summary descriptions. Also assemble any relevant National or Sector long-term plans. Keep in mind that at this very early stage, there is often very little information available about a new project idea, and what information is available is likely to be qualitative and general in nature.

**Need** – Is there a clear need for the project? For example, is this project already identified as a priority for the government overall, or for the specific line ministry or public agency through its National Development Plan or Sector Plan?

**Technical Scope** – Can the technical rationale for the project be clearly stated and understood? Can the project be accurately and clearly described in terms of minimum output and performance standards that it must meet (as opposed to the traditional inputs, such as specifying the design, technology, and construction costs of a public sector project)?

**Stakeholders** – Identify them clearly. Also identify what are likely concerns they might have, whether as supporters of a PPP solution or as opponents. Does it appear that any of these stakeholder concerns is likely to become an obstacle that cannot be overcome?

- Users have to be interested and willing to consume the service being offered, and often may be asked to pay user-fees;
- Private firms and investors need to be willing to both finance the development and launching of the new e-government project, and to operate and maintain it for the entire term of the contract;
- Labor groups need to be willing to work on the project under the project's employment terms and conditions, especially if the project intends to replace labor-intensive government services with new electronic-based ones;
- Governments need to be willing to provide the contractual commitments (such as paying PPP contractors for their performance, for the entire term of the contract) to grant the exclusivities that a PPP project needs, including the possibility of providing limited public sector financial supports to the PPP.

**Leadership** – One of the criteria for selecting promising e-government projects for PPPs, is whether or not there is clear, strong, and committed leadership within the government to support the preparation, the transaction, and the on-going operation of the new project. Is there both a clear, high-level “champion” within the government who is committed to seeing the project successfully completed? Additionally, because high-level policymakers in government are periodically re-assigned to other organizations, are there an identifiable group of understudies and deputies to this “champion”, who are also committed to the project? If not, then there may be an serious risk, that if this initial project “champion” or “deal king” moves on, then the project may simply get dropped.

**Initial Project Risk Identification** – In the past, many public services, including e-government services, have been prepared under the assumption that the government will be bearing all of the financial and commercial risks. The result of this assumption has generally been a record of poor risk management, because governments have had to bear the risks and pay the costs of over-runs, delays, and
especially failures or inadequate performance levels of technologies. However, PPPs seek to break out of this cycle by carefully identifying all significant risks of a given project, assessing the likelihood of incidents and their likely impact on a project, and allocating each risk through clear contracts to the party that is best able to manage, control, and mitigate them. The overall result of this process is that a new e-government project should perform better, be completed on time and on budget, be managed and operated efficiently, and perform to its planned level of service. The first step in this process is to identify the major risks that could materially affect a potential PPP project.

This not a comprehensive list of risks, but rather, describes some of the most common ones for e-government PPPs.

**TABLE 3. Examples of Typical PPP Risks in E-Government**

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology/Design Risk</td>
<td>The technology for a given project does not perform in practice as well as planned for the project</td>
<td>A project proposes to interconnect different public agencies to allow each to access each other’s databases. However, when the project is built, the communications technology does not function to the desired level.</td>
</tr>
<tr>
<td>Construction and Completion Risk</td>
<td>The cost of constructing a project is more than was originally planned, or the project was completed later than planned</td>
<td>A new e-government initiative requires that new high-speed connections be made between different government agencies. However, the private contractor is unable to complete these interconnections on time due to installation cost overruns.</td>
</tr>
<tr>
<td>Operating Risk</td>
<td>The costs of operating and maintaining a project is more than was originally planned</td>
<td>A proposed e-government project assumes that it will require US$100,000 per year to operate the system. However, in practice, the private operator’s annual costs are US$200,000.</td>
</tr>
<tr>
<td>Market/Demand Risk</td>
<td>The demand for the project from users and customers is less than what was originally planned</td>
<td>A new project installs a new electronic collection network for motor vehicle drivers’ licenses, and proposes to recover the new investment and operating costs through user fees. However, in practice, the number of new license applicants is less than was originally anticipated, and fees collected do not allow the operator to recover its full costs.</td>
</tr>
<tr>
<td>Economic Risk</td>
<td>If the local economy goes through a recession, demand for the project could fall as incomes and growth decline</td>
<td>A new electronic tax collection system is launched just as the economy begins a recession. As a consequence of lower local incomes, the amount of revenues collected decreases.</td>
</tr>
<tr>
<td>Collection Risks</td>
<td>Users may consume the project’s service but not actually make payments for them</td>
<td>A new, electronic Automated Remote Metering (ARM) system is installed to both read and issue bills to electricity consumers. However, many consumers make their own illegal connections, and consume electricity without being billed and without paying for it.</td>
</tr>
<tr>
<td>Political and Regulatory Risks</td>
<td>New laws or regulations may be passed that raise a project’s costs or reduce its ability to perform as anticipated</td>
<td>Due to rising inflation, the operating costs of an e-government project also rise, prompting the private contractor to seek a reasonable and justified increase in its user fees. However, the government blocks the request, because it finds the increase to be politically unpopular and untimely.</td>
</tr>
<tr>
<td>Foreign Exchange Risks</td>
<td>The value of the local currency depreciates significantly relative to the value of hard currencies such as US dollars, Euros, and Yen.</td>
<td>An e-government project collects its user fees from consumers or from a Govt agency in the local currency. However, the construction and installation costs of the project were financed using a foreign, hard currency. The value of the local currency suddenly depreciates. When the local currency depreciates against hard currencies, the local revenues are no longer adequate to cover the debt service payments required by the project’s banks and lenders.</td>
</tr>
<tr>
<td>Force Majeure Risks</td>
<td>“Acts of God” such as storms, floods, earthquakes, and even strikes and riots</td>
<td>An e-government project, relying on the Internet, is suddenly struck by an external computer virus, which forces the entire project to shut down for a period of two weeks, during which it is unable to operate.</td>
</tr>
<tr>
<td>Environmental Risks</td>
<td>Consequences from the project that cause damage to the surrounding environment and its natural resources</td>
<td>An e-government project is launched to electronically and remotely monitor and record water quality and pollution levels around a crowded city, and to signal when environmental alerts and other preventive actions should be taken. If the project fails to perform as expected, part of the costs of the project’s failure is the additional damage to water resources and to public health, which may become the liability of the private operator of the project.</td>
</tr>
</tbody>
</table>
Initial VFM Assessment – Does the private sector have the expertise to deliver this e-government project or these services? Is there good reason to think that the private sector will offer better VFM than if it were done as a traditional public sector project? If there is no record of a previous PPP in this type of e-government service having been done, it may be necessary to proceed with caution. While PPPs may not have been done within the local economy, PPP and e-government precedents from other countries should be considered.

Deciding whether to Proceed to Full Feasibility Analysis and PPP Project Preparation – This task is primarily one of determining whether or not a given candidate e-government project is ready to proceed to the Feasibility Analysis and PPP Project Structuring stage or not (see Chapter 4). The following matrix tool can be used to assist in making a clear decision about whether or not the project should be selected for spending scarce resources on its further feasibility analysis and PPP project structuring:

In addition to providing clear answers and explanations to the above questions in the matrix, the responses provided should lay the groundwork for how the next phase of the project should proceed. Therefore, these responses should not just summarize the status of the initial information that is available about the project. Rather, they should also identify and explain the specific issues that should be the focus of the subsequent phase: Chapter 4’s Feasibility Analysis and PPP Project Structuring.

Technique 3.2 – How to Prioritize Candidate E-Government PPP Projects

Definition
Often governments identify not just a single e-government candidate PPP project, but rather a whole portfolio of them. This then requires that the government conduct some method of selecting which projects to do first, and which ones to attempt later. It is important to be able to devise a selection process that is transparent, publicly defendable, and able to satisfactorily address criticisms or rumors that self-interested insiders, such as political interests, ended up selecting the projects. Therefore, this technique offers a systematic means of rank-ordering e-government candidates to determine which should be analyzed, structured, and tendered first, and which should be saved for later. This technique provides guidelines as well as tools for governments to use to systematically and transparently assign priority to a whole list of potential e-government PPP projects.

Rationale
The purpose of this procedure is to provide an available tool, if needed, for clear ranking among the various different potential e-government PPP projects across many different sectors, ranging from the highest priority projects on the list to the lowest. Within most developing economies, the government’s financial and institutional resources that will be required to analyze, to structure, to tender, and especially to provide fiscal support to PPPs are quite limited. Therefore, it is important that these limited public resources be first offered only to those e-government projects that are the highest priority for the government and for public end-users. This procedure seeks to provide such a rank-ordering of projects, through a comparison of different e-government projects’ scores according to multiple different analytical criteria. Without this procedure, scarce public sector resources could be imprudently exhausted on low priority projects, leaving many more important projects—ones that could deliver the greater economic and other strategic benefits to the local economy and its stakeholders—without the basic resources they need to get implemented.

Description
Meaningful comparisons between different e-government projects from different sectors of the economy, can be difficult to do objectively. In many cases, subjective decisions may be needed. Because government ministries, public agencies, and other parastatals are presented with the problem of many projects, limited funding, and limited institutional capacity, they clearly need to prioritize these projects. Multi-criteria analysis can overcomes this problem, by analyzing a mixture of both objective and subjective information and data.

Multi-criteria analysis is primarily concerned with how to combine the information from several criteria to form a single index of evaluation. Using multi-criteria analysis in prioritizing PPP projects requires first selecting and defining the appropriate criteria, to ensure that the result transparently gives a meaningful description of all proposed PPP projects. The selection of these criteria should be
guided by the goals of the current national development plan. These can include the current 5-year Masterplan. Alternatively, some governments have current Information and Communications Technology (ICT) and e-government policies and plans. Additionally, many governments have long-term official, published “Visions” that provide goals and objectives for the next 20 to 30 years. These long-term development plans often include goals such as:

1. Accelerating new investments in the local economy and in the delivery of public services
2. Increasing investments in local human capital
3. Protecting the environment and improving the management of the nation’s natural resources
4. Expanding and accelerating exports
5. Advancing the role of the private sector to meet demands for new public services and infrastructure.

From these strategic goals, more specific criteria can be developed that should be applied to each candidate e-government PPP project. Each country and each region must identify its own criteria that are most relevant to its own long-term development goals. Table 4 is an example of a common list of 11 such criteria for a typical developing economy.

Tasks

1. Gather up all available documents and reports on the given e-government candidate project. These will be needed in order to decide on the scores that the project will receive in each of the MCA categories selected from the above matrix. These should include the previously completed Project Identification Report (Technique 3.1), as well as existing long-term “Visions”, 5-year national development plans, sector plans, and any existing e-government policies available.

2. Prepare a Multi-Criteria Analysis (MCA) matrix, using the selected criteria and the guidelines below on how to assess and “score” each project. Table 5 is an example of an MCA matrix:

3. Evaluate each Candidate E-Government PPP Project. At this stage in the project, given that most information that is available is qualitative in nature, select a team of project reviewers who are each knowledgeable and conversant in dealing with the broad range of disciplines included in the MCA matrix in Table 5. These would include the abilities to understand financial analysis, PPP risks, economic analysis, technical feasibility, environmental issues, etc. Each team member should first score the project according to the 11 criteria. For example, high benefit could score between 8 and 10; medium, between 4 and 7; and lower, between 0 and 3. The total score for each project can then be compared and ranked.

4. Select the weighting for each criterion. The criteria can be un-weighted or weighted. Un-weighted criteria are initially assumed to have the same importance. If some criteria are considered more important than others (such as poverty alleviation, for example), they should be weighted accordingly. Note, that for PPP projects, the project’s estimated financial viability and general riskiness should be weighted higher than others. An e-government project that has high projected economic benefits and poverty alleviation impacts, but has low financial viability, might make a good candidate for conventional public sector procurement and implementation by government—but it will not make a good candidate for PPP, unless it can be made financially viable—for example, through significant new public sector fiscal support. A possible recommended weighting of these 11 criteria could be as in Table 6.

Multiply the project score for each criterion by the weight of the criterion. The un-weighted and weighted scores can then be summed to obtain a total score per project.

Outputs

The output of this stage, would be the summary of the multi-criteria reports of all proposed e-government PPP projects that have been submitted. The report summarizes the list of prospective sub-sector and sector PPP projects.

Lessons Learned and Best Practices Checklist

For governments with little or no proven experience at having completed e-government...
PPP projects, it is advisable to assign much more weight to the “readiness” criteria than to others. The reason is that the very first PPPs implemented in any sector always take more time to prepare and complete, and are viewed by the private sector as having a higher risk level. This may be difficult for some governments, who are more likely to give clear priority to the high-cost mega-sized projects, which would attract US$100 million or more of new long-term investments from the private sector. While larger projects have higher projected economic benefits and poverty alleviation impacts, they are notoriously difficult to complete, especially when they are the first pilot PPP projects in the sector or in the country. Therefore, it is strongly recommended that governments select smaller, more

**TABLE 4. Common Selection Criteria for E-Government PPP Projects**

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Likely financial viability and fiscal support needed by the Project</td>
<td>How likely is the project to be financially viable (i.e., offering an attractive financial rate of return to the private operator)? How likely is the project to need public fiscal support, such as long-term fixed payments from the government, in order to become viable?</td>
</tr>
<tr>
<td>2</td>
<td>The Project’s “Readiness” and Initial Risk Profile</td>
<td>Compared to other projects, how susceptible is this project’s viability to major risks (demand, technology, legal and institutional, etc.)? Given these risks, how likely is that the project will be deemed “ready” to proceed to Feasibility Analysis and PPP Structuring (Chapter 4)?</td>
</tr>
<tr>
<td>3</td>
<td>Socio-economic benefits from the Project</td>
<td>What is the likely Economic Internal Rate of Return that the project can offer to the local economy and the public? What are the likely benefits from the project’s cost savings, time-savings, poverty alleviation, and investments in human resource development?</td>
</tr>
<tr>
<td>4</td>
<td>Regional development Impacts and Benefits</td>
<td>What is the likely size of the project’s contribution’s to local GDP and to developing the regional economy? Is this project a priority for the relevant affected regional and local governments, and is it supported by them?</td>
</tr>
<tr>
<td>5</td>
<td>Sector network role importance in sector plan</td>
<td>How important is this project to its sector’s current development plans and its existing network or procedures?</td>
</tr>
<tr>
<td>6</td>
<td>National integration and security</td>
<td>How well does the project assist with and contribute to the goals of national integration and security?</td>
</tr>
<tr>
<td>7</td>
<td>Environment</td>
<td>How large are the impacts the project will likely impose on the environment? How large are the planned environmental benefits from the project (reduced pollution, better pollution monitoring and licensing)? How large is the land area needed by the project (if any) and would any inhabitants need to be resettled?</td>
</tr>
<tr>
<td>8</td>
<td>Impact on economic growth and export earnings</td>
<td>How much is the project likely to contribute to national or local economic growth? Will the project help expand exports, through goods (agriculture or manufactured products) or through services (tourism or Business Process Outsourcing)?</td>
</tr>
<tr>
<td>9</td>
<td>Safety Impacts</td>
<td>How large are the benefits the project is likely to provide, in terms of any improved public safety? (better emergency management, safer roads, etc.)</td>
</tr>
<tr>
<td>10</td>
<td>Project costs</td>
<td>What is the likely cost of the project, and will it require new building and construction?</td>
</tr>
<tr>
<td>11</td>
<td>Demand for the Project</td>
<td>How strong is the demand for the new project’s services, in terms of recent history of demand, current levels, and projected trends?</td>
</tr>
</tbody>
</table>
“ready” and lower-risk projects for their first e-government PPPs. Once one or more of these smaller and easier transactions have been successfully completed—and models, procedures and lessons learned have been applied—then it is recommended to proceed to the larger, more expensive, more complex and higher-risk PPPs.

- Performing MCA, especially during the early-phase of a project when reliable data is often not yet available, is often a largely subjective exercise. It should be expected that different individuals selected to review the same projects will come up with different scores. Keep in mind that the purpose is not to arrive at an accurate numerical score for each project, but instead to generate a consistent rank-ordering of how different e-government candidate projects score relative to each other.
- In practice, some governments may find this tool cumbersome and not relevant. In fact, in many countries ministry leaders are simply asked to pick which projects or services they would like to nominate for e-government PPPs, without having to go through the lengthy MCA process. This helps ensure that there is a clear “champion” of the project within the given ministry, which made a clear selection decision from within, rather than based on a new MCA matrix.

### TABLE 5. Multi-Criteria Analysis Matrix for Prioritizing E-Government PPP Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>MCA Criteria</th>
<th>Higher Score</th>
<th>Moderate Score</th>
<th>Lower Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Likely financial viability and fiscal support</td>
<td>Viable: FIRR &gt; 20% No Govt. fiscal Support needed</td>
<td>Marginal: FIRR &gt; 14–20% Limited fiscal Support needed</td>
<td>Not viable: FIRR &lt; 14% High fiscal Support needed</td>
</tr>
<tr>
<td>2</td>
<td>Readiness and Risk</td>
<td>Few major issues Risks and Project is generally “Ready”</td>
<td>Identified risks, but appear to be able to be “mitigated” and made “Ready”</td>
<td>Many risks, few can be mitigated sufficiently and project not “Ready”</td>
</tr>
<tr>
<td>3</td>
<td>Socio-economic benefits</td>
<td>EIRR &gt; 1.5% Major Macro Impact</td>
<td>EIRR 1.2–1.5% Moderate Macro Impact</td>
<td>EIRR &lt; 1.2% Minor Macro Impact</td>
</tr>
<tr>
<td>4</td>
<td>Regional development</td>
<td>Provides positive impacts on low-income Provinces and/or High poverty alleviation benefits</td>
<td>Provides positive impact on Low-Medium income Provinces and/or Medium poverty alleviation benefits</td>
<td>Provides positive impacts on High income Provinces and/or low poverty alleviation benefits</td>
</tr>
<tr>
<td>5</td>
<td>Sector network role importance in sector plan</td>
<td>Forms integral part and already included in sector plans</td>
<td>Project is part of sector plan</td>
<td>Ad hoc project—but not in conflict with sector plan</td>
</tr>
<tr>
<td>6</td>
<td>National integration and security</td>
<td>Strengthens National security/integration</td>
<td>Medium impact</td>
<td>Low Impact</td>
</tr>
<tr>
<td>7</td>
<td>Environmental Impacts</td>
<td>Few Issues Low Environmental Impacts</td>
<td>Some Issues Medium Environmental Impacts</td>
<td>Many Issues Severe Environmental Impacts</td>
</tr>
<tr>
<td>8</td>
<td>Impact on Economic Growth and Exports</td>
<td>Major economic growth benefits and trade/tourism impacts</td>
<td>Limited economic growth impacts and trade/tourism impacts</td>
<td>Little or no economic growth and trade/tourism impacts</td>
</tr>
<tr>
<td>9</td>
<td>Safety</td>
<td>High Safety Focus</td>
<td>Moderate Safety Focus</td>
<td>Low Safety Focus</td>
</tr>
<tr>
<td>10</td>
<td>Project type/cost</td>
<td>Primary infrastructure construction costs estimated at &gt; $50 million</td>
<td>New equipment installation projects with costs estimated at $50 m–$25 million</td>
<td>Operational-based projects (e.g. Limited new equipment, new software, labor/staff, etc.) &lt; $25 million</td>
</tr>
<tr>
<td>11</td>
<td>Demand Growth</td>
<td>Project Demand Growth rate &gt; 15% per annum</td>
<td>Projected Demand Growth rate of 15–5% per annum</td>
<td>Projected Demand Growth rate &lt;5% per annum</td>
</tr>
</tbody>
</table>
Once the government has assembled all available information about a potential project, the output should be a brief “E-Government PPP Identification Report” that includes a discussion of issues or concerns that should be resolved through a more detailed, subsequent PPP Feasibility Analysis. Again, keep in mind that at this early phase of a new project, much of the information available, including the information within this output report, is likely to be qualitative and even anecdotal in nature. The E-Government PPP Identification Report should summarize the following information:

- **Need** – A clear description of the need for the new project or service, including its economic rationale and the benefits it could provide;
- **Technical Scope** – A description of the likely output standards and key performance indicators (KPIs) that the new project will be required to meet;
- **Stakeholders** – An identification of the major stakeholder groups that would need to be involved in the successful structuring and sustaining of the new e-government project as a PPP. This should include an initial assessment of likely sources of stakeholder support and stakeholder opposition;
- **Initial Project Risk Identification** – A listing and description of the major sources of risk for the project. If possible, this can include initial suggestions about how these risks might be feasibly allocated to the various parties in a PPP;
- **Initial Value for Money Assessment** – An identification of the likely sources of the public receiving better value for its money through the provision of these e-government services as a PPP, rather than through a public sector solution.

### Case Illustration – Identifying Projects for PPP in Victoria, Australia

PPPs in e-government have previously been identified by both governments and by private sector practitioners, across a variety of different sectors of public services, and have featured a variety of different PPP risk allocation structures. These have ranged from short-term service contract structures—which have required little new investment from the private contractor and little demand or revenue risk—to large new long-term concessions that have required over US$100 million in new private investments for contracts lasting more than 25 years.

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**TABLE 6. Criteria Weighting for MCA**

<table>
<thead>
<tr>
<th>No.</th>
<th>MCA Criteria</th>
<th>Weighting: (Average per Criterion = 10.0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Likely financial viability and fiscal support</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Readiness and Risk</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Socio-economic benefits</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Regional development</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Sector network role importance in sector plan</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>National integration and security</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Environmental Impacts</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Impact on Economic Growth and Exports</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Safety</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Project type/cost</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Demand</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Average Weighting (Total Divided by 11)</td>
<td>10</td>
</tr>
</tbody>
</table>

**Technique 3.3 – E-Government PPP Identification Report**

PPPs in e-government have previously been identified by both governments and by private sector practitioners, across a variety of different sectors of public services, and have featured a variety of different PPP risk allocation structures. These have ranged from short-term service contract structures—which have required little new investment from the private contractor and little demand or revenue risk—to large new long-term concessions that have required over US$100 million in new private investments for contracts lasting more than 25 years.
The State of Victoria, Australia has a population of 5.2 million. According to many international specialists, the State of Victoria has developed one of the most advanced, effective, and successful frameworks for identifying and implementing PPP projects. Thus far, “Partnerships Victoria” has completed over US$5.5 billion of new private investments across multiple sectors, including e-government, ICT, transportation, healthcare, and public facilities.

In the late 1980s, the State of Victoria signed a number of pilot PPP projects in sectors such as water and transportation—mainly to try to avoid the government’s sovereign borrowing procedures. However, few actual commercial risks were transferred to private investors in these projects. While these projects appeared to avoid public borrowing protocols, they still imposed new long-term liabilities on the State’s finances, and it was not clear if the private sector was any more efficient or cost-effective than the public sector. In the late 1990s, a new wave of PPPs were initiated that sought to optimize the transfer of risks to the private sector, and to nearly eliminate public sector supports and contributions to projects. Several of these projects failed to secure financing, because lenders proved reluctant to bear such high levels of risk.

Finally, in 2000, the government launched its new, comprehensive “Partnerships Victoria” framework (Figure 7) to pursue PPPs. The policy made clear that the goal of any future PPPs would not be the short-term benefits of avoiding public borrowings or imposing maximal risk transfer onto the private sector. Rather, the goal would be to maximize the value that the public (or government) receives for the money it spends on the project, by achieving an optimal balance of risk-sharing between the public and private sectors. To carry this out, Partnerships Victoria developed a series of PPP models and guidelines for each step of the PPP project life cycle. These included:

- June 2000: Partnerships Victoria Policy
- June 2001: Partnerships Victoria Practitioners’ Guide
  Risk Allocation and Contractual Issues Guide
  Public Sector Comparator – Technical Note
- June 2003: Contract Management Framework
- July 2003: Public Sector Comparator – Supplementary Technical Note
- Use of Discount Rates
- June 2005: Standard Commercial Principles

A key component of these PPP models was to lay out clear procedures on how the overall process of PPP project identification, structuring, and implementation would be managed.

Although Victoria’s PPP program features a sophisticated and detailed sequence of models and guidelines, the most important steps in the entire process remain the very first two stages: identifying the “Service Need” and appraising the available options for providing the project. According to its practitioners, all of the subsequent stages in the PPP process will suffer if the identification of the service need—including specifying the need in terms of outputs rather than inputs—is not done thoroughly and well. In practice, it is often a very challenging task for public sector managers—who are accustomed to thinking of projects in terms of their inputs (designs, installation costs, technologies, etc.)—to draft clear, relevant, and measurable output requirements for projects. This has been especially true of e-government and ICT projects, where public sector managers are largely unfamiliar with the technologies, technical service standards, and operational issues, and with the range of technical options that may be available. Table 7 offers examples of the type of PPP projects selected under the “Partnerships Victoria” Framework. Three of these projects are ICT-related.

In the e-government sector, one of the first PPP projects completed in all of Australia was for the
Figure 7. Major Steps in Developing Partnerships Victoria Projects

Major stages in delivering a Partnerships Victoria Project

Boxes on the left hand side show the points at which Cabinet approval (or approval of a Cabinet committee) is required

The service need

Key tasks:
- Identify service needs
- Focus on outputs
- Consider broad needs over time
- Allow scope for innovation

Option appraisal

Key tasks:
- Consider options
- Consider application of Partnerships Victoria
- Evaluate financial impacts, risks and other impacts

Business case

Key tasks:
- Confirm the project offers net benefit
- Quantify risks and costs
- Commence development of a PSC
- Conduct cost-benefit analysis
- Assess Partnerships Victoria potential
- Obtain funding and project approval

Funding approval

Project development

Key tasks:
- Assemble resources — steering committee, project director, probity auditor, procurement team
- Develop a project plan
- Further develop the PSC
- Develop commercial principles
- Consultation

Approval to invite Expressions of interest

Bidding process

Key tasks:
- Develop Expression of Interest invitation
- Seek approval to issue the EoI
- Evaluate responses and develop a shortlist
- Develop a Project Brief and contract
- Seek approval to issue the Project Brief
- Conduct clarification sessions
- Evaluate bids

Approval to issue a Project Brief

Project finalisation review

Key tasks:
- Confirm achievement of the policy intent
- Confirm value for money
- Report to the Minister
- Advise the Treasurer of intent

Final negotiation

Key tasks:
- Establish the negotiating team
- Set the negotiation framework
- Probity review
- Report to Minister and Treasurer
- Execute contract
- Financial close

Contract management

Key tasks:
- Formalise management responsibilities
- Monitor project delivery
- Manage variations
- Monitor the service outputs
- Maintain the integrity of the contract
provision of a new mobile, electronic data network for the State of Victoria’s Police and Ambulance Services\textsuperscript{26}. The project called for the private contractor to establish and operate a new data network that would allow police and ambulance personnel, both inside and outside of their vehicles, to simultaneously access many different governmental databases, including police and law enforcement files, maps, locator functions, emergency plans, and other electronic data. The project required that the private operator provide a guaranteed level of operational reliability of 99.9% for services, including:

- Allow important information about the emergency and the people involved to be sent directly to the vehicles involved;
- Use Satellite technology to track vehicle location, allowing the closest vehicles to be sent to an emergency;
- Give mobile access to databases, such as vehicle registrations and drivers licenses; and
- Allow police to submit paperwork via computer, while still in the field.

The PPP contract was awarded in 2003 to a team led by Motorola Australia Pty. Ltd., for a term of 5 years, including two 1-year option periods. The total cost to the government of the project’s PPP payments—on a Net Present Value basis at the State’s cost of capital of 8.65%—was A$85 million (at that time, about US$105 million). Following the Partnerships Victoria PPP models, a value for money analysis was done to estimate what the project would have cost if it had been financed and

\textsuperscript{26} For additional information on this PPP, including copies of the PPP contract, see http://www.partnerships.vic.gov.au/CA23708500035EB6/0/CCF275DF691DCC1CCA2370D9001672A7
implemented by the public sector. This VFM analysis estimated that the State had saved A$7.8 million as “Value for Money” benefits (equal to 11% of the project’s costs) by pursuing the PPP solution.

In terms of lessons learned, an audit of the Partnerships Victoria program in 2004 noted that the 3 years required to analyze and prepare this project was significantly longer than most other PPP projects. The reason cited was the challenge of dealing with the technology risks and issues associated with the project. This made it difficult to come up with clear and measurable output standards. As the project was further analyzed and prepared, these technical output standards underwent a number of changes. Additionally, because the State had very little experience with these kinds of mobile data technologies, it was doubtful that it could produce a meaningful estimate of the public sector cost comparator, and therefore, of the value for money benefits.

Overall, the Partnerships Victoria case illustrates the fundamental importance of this very first step of identifying service needs clearly and comprehensively, in order to establish the foundation upon which all of the subsequent stages of the PPP project life cycle depend.

**Checklist of Lessons Learned and Good Practices**

- Compared to later tasks in the analysis and structuring of PPP projects, this early technique is largely a qualitative procedure, and the goal is to decide if the limited, available information about the project would make it a good candidate for further analysis as a PPP. Avoid the temptation to conclude that, “first a comprehensive collection of technical, economic, legal, financial and other quantitative data must be completed and analyzed before any recommendation on further study and preparation should be made.”

- Each sector and each e-government project is different. Therefore, each project will have its own unique challenges when it comes to issues of technical scope and output standards, economic rationale and likely benefits, and stakeholder concerns. In practice, often the answers to each of these issues is not a simple, clear “Yes” or “No”, but instead a conclusion that “the e-government project could become a promising PPP candidate, but only after the following issues are successfully addressed:…”

- In order for this technique to be completed effectively and efficiently, the major stakeholders involved will need to have a basic understanding of PPPs, as well as some idea of what a project requires in order for it to become a viable PPP candidate. A common conclusion from projects at this initial stage, is that further public education and stakeholder consultation will be needed.

- Internationally, most public sector managers who have actually implemented PPP projects agree that it would have been better to involve all relevant public stakeholders earlier on in the project’s development. Many admit that they were tempted to try save time by avoiding consultations with stakeholder groups whom they assumed might be opposed to the PPP project. In practice, these excluded stakeholders tended to react by trying to simply stop the project later on, rather than by trying to ensure that their inputs were constructively received and included within the PPP project’s final structure.
The PPP Techniques in this chapter, build on the foundation established by Chapter 2’s techniques for establishing policy, legal, and institutional frameworks for PPPs in e-government; and also upon the results of Chapter 3’s techniques for identifying and selecting appropriate candidate e-government projects for PPPs.

Thus, the starting point for practitioners for this chapter is that we have already selected a specific e-government project as a good candidate for a PPP. However, while we believe that this project has some good initial indications that it would make an attractive candidate to be implemented as a PPP, there are still many unknown specifics. The e-government project may be a brand new concept or idea that has not been systematically studied at all. What information that was available for the previous PPP Project Identification and Selection stage (Chapter 3) is likely to be incomplete, largely qualitative in nature, and even based upon anecdotes and subjective assessments. So far, we only know that this project shows some initial signs that it could probably become an attractive PPP that would be beneficial to the public and the government. This project is not yet ready to be advertised to the private sector for bids or even Expressions of Interest. First, a systematic analysis must be completed that provides clear and complete answers to key questions like:

- How large would this project need to be in order to meet the current and projected future needs for its services?
- What should the key performance indicators (KPI) and output standards be that the project should be required to meet?
- Can we make any informed estimations of how much it might cost to install and then to operate a project that could meet these same output standards?
- Do the existing laws and regulations in the country allow this e-government project to perform? Would any new institutions need to be
established in order for this project to be able to
operate (and to be monitored)?

■ What are the most important risks facing this
project, and what is the optimal allocation of
these risks between the various parties (govt.,
private sector, public users, etc.)?

■ Should the government be prepared to offer
specific public sector supports, limited guaran-
tees (such as a fixed, minimum level of revenue
for the project over, say, the first five years), or
even assets, in order for this project to become
financially viable (i.e., “bankable”) to a private
contractor? If so, what kind and what size of
public sector supports will the project likely
need?

■ How should the various different analyses of this
e-government project’s feasibility be combined
with a specific risk allocation plan, in order to
provide a viable, bankable PPP project and
contract that is ready to be tendered to private
bidders?

■ Are there any recommendations or findings
from the feasibility analyses that must first be
implemented and completed before the project
should go out for tender, such as: (i) providing
interconnections with existing public networks;
(ii) acquiring land the project may need;
(iii) establishing workforce re-deployment or
severance arrangements; (iv) passing new
electronic commerce laws or regulations; and
(v) authorizing financial performance guaran-
tees by the treasury of client government
agencies that are not yet considered “creditwor-
thy” by private investors and lenders?

In the medium and long-term, none of these
options are beneficial to governments. To avoid this
outcome, and to attract competitive private bids that
offer the government and the public the best
combinations of high quality e-government services,
low prices and costs, and an attractive level of risks
being borne by the private operator—governments
should ensure that the Techniques of Chapter 4’s
E-Government PPP Feasibility Analysis and Project
Structuring are completed.

There are five (5) techniques described in this
chapter:

1. How to analyze technical feasibility;
2. How to analyze legal and institutional feasibility;
3. How to conduct PPP Financial and Economic
   Analysis;
4. How to identify risk; and
5. How to allocate risk among the various parties to
   a PPP.

Technique 4.1 – How to
Analyze Technical Feasibility

Definition
The analysis of a proposed e-government PPP
project’s technical feasibility is the procedure that:
(i) estimates and analyzes the size the project;
(ii) proposes the minimum technical and opera-
tional performance standards; and (iii) proposes the
key technical components the project will require
in order to be deemed feasible. In this case,
“technical feasibility” means that it will be able to meet the needs of the project. This procedure includes: (i) providing technical descriptions and plans for alternative technical solutions for the project; (ii) identifying relevant engineering and non-engineering components; (iii) estimating capacity and performance standards; (iv) providing preliminary design options; and (v) providing a preliminary cost estimate for the project to a range of within +/- 20%.

Rationale
This procedure is needed to allow the proposed project to select a set of clear, measurable output standards that the project must meet in order to be considered successful. Without this step, a new e-government project might be launched that seeks to help meet the demand for the electronic registration and issuance of new driver's licenses—without having first determined the actual demand. Then, if the new project is capable of processing 10,000 requests per day, while the actually demand from public applicants turns out to be 15,000 per day, the PPP will be deemed a technical failure.

This procedure is also needed to provide a meaningful estimate of how much the project is likely going to cost to both construct and to operate, which ultimately determines if the project is financially viable and whether it may need government support. If a new e-government PPP project is estimated to cost a government agency about $5 million per year in payments to a PPP contractor, but that government agency's current budget plans estimate that only $2 million per year would be available in current and projected future budgets—then the PPP option may not be affordable to the government. Either the project will need to be de-scoped to a smaller, more affordable size (if that is still technically feasible), or the government will need to consider adjusting its budget plans to be able to make these higher payment levels, or the project is simply unaffordable and should not proceed further.

This procedure can also identify the key technical and operational components of the project, which may need to be provided by other parties. For example, a proposed e-government project may seek to improve the performance of a public medical laboratory by establishing an electronic billing and collection system. However, in addition to the participation of the public medical lab, the technical requirements of this new PPP may require the cooperation and contributions of: (i) public and private medical insurance companies; (ii) the existing telecom network and Internet service providers; (iii) public and private hospitals, health clinics, and doctors' offices; (iv) banks and other financial institutions; and (v) the general State health service.

Description
In practice, the analysis of the technical feasibility of an e-government project is not an especially well-developed discipline. In fact, a significant number of audits and reviews of e-government projects show that many e-government projects have failed, and relatively few have been clear successes.27 Many government agencies, in both developing and industrialized countries, have little in-house experience with designing and managing new e-government systems. In fact, it is this lack of technical experience with e-government options, technologies, and standards that first prompts many

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27 According to one survey, only 15% of e-government projects are successes, while 85% are either full or partial failures. See e-government – From Vision to Implementation: A Practical Guide with Case Studies, by Subhash Bhatnagar, Sage Publications, 2003, pg.17. This cites the analysis “Successes and Failure Rates of e-government in Developing/Transitional Countries: Overview” by Richard Heeks, Institute for Development Policy and Management, University of Manchester, March 2003, http://www.e-devexchange.org/eGov/sfoverview.htm
government agency managers to contemplate contracting with the private sector in the first place. Therefore, one of the first useful steps that many government agencies are encouraged to take is to hire experienced outside e-government and PPP advisors to help them conduct these feasibility analyses. These advisors are separate and distinct from any new private contractors or investors that might later be awarded a PPP contract. The following are key tasks that should be included within the Scope of Work of the e-government PPP consultants and advisors that a government agency would hire to carry out this analysis of project feasibility.

Tasks
Based upon the summary report from Chapter 3’s PPP Identification and Selection Report, gather data needed to answer the following requirements:

1. **Technical Rationale** – Provide a clear explanation of the technical rationale for the project. If possible, link this technical objective to existing national policies and development plans. For example, a new project to install high-speed fiber-optic connection to a new technology park could be in support of a broader national development plan goal of improving the competitiveness of the country’s IT sector.

2. **Scope** – Identify the geographic scope, or describe the area of the demand for the new project.

3. **Demand** – Estimate the likely number of users, or the demand for e-government transactions, that the project would likely need to meet.

4. **Timeliness** – Estimate the minimum time requirements that the project must meet. For example, a new e-government project might require that electronic applications are responded to with either “accepted” or “declined” notifications, within a specific number of minutes, hours, or days.

5. **Reliability** – What is the minimum level of operational reliability that the new e-government service should function at? For example, it is common to require that e-government services dealing with security and public safety functions offer 99.9% guaranteed reliability. However, for e-government projects that handle non-urgent matters, such as reservations at National Parks, lower levels of operational reliability are likely acceptable.

6. **Technical Components** – Identify the major technical components of the project, according to both function and key stakeholder group. For example, these may include separate functions for: (i) designing and establishing new databases; (ii) constructing and installing new communication interconnections; (iii) providing a new customer service function; (iv) establishing new “kiosks” and access facilities; (v) providing new communications equipment; (vi) providing a billings and collections function; and (vii) providing back-up and electronic security functions. The specialists actually conducting this stage of the feasibility analysis should also be familiar with the general cost estimates for meeting each of these technical components. Their work should also include an initial estimate of the likely costs both for installing and for operating each of the technical components. As initial estimates, these should be within a broad range of +/- 20%, and can use existing cost engineering tables, benchmarks, and industry standards. This will be an important input to a later stage of the feasibility analysis, which will determine whether or not the project can be afforded.

7. **Output Standards** – Based upon the above factors, develop a list of the key, required, minimum performance standards that this project should meet.

**Outputs**
The key output of this procedure should be a brief report on the project’s technical feasibility. The most important part of this report should be a clear list and description of the project’s required output standards. These should be easy to understand, and relatively easy to measure and to quantify.

- Summarized technical description of the project, including a technical description of the project’s overall goals and objectives;
- Scope of the project;
- Size and nature of the demand for the project;
- Description the timeliness standards that the project should meet;
- Description of the reliability standards that the project should meet;
- Description of the overall technical components and functions of the project;
- List and description of clear, measurable minimum output performance standards.

In the US, one of the first PPPs to be established in the e-government and ICT sectors was the employee buy-out of the Office of Personnel Management’s Background Security Clearance Office in the early 1990s. From the late 1940s through the 1990s, one of the most information-intensive services performed by the US Federal Government was the coordination and implementation of security background checks on all US Government personnel who had access to classified information. Led by the Office of Personnel Management (OPM), this required: (i) gathering extensive applications; (ii) conducting interviews; and (iii) coordinating and communicating with dozens of different Federal Departments and agencies for tens of thousands of US Government personnel. Since the 1950s, as more and more security-related work was contracted out to private consulting firms, defense contractors, and “beltway bandits,” the demand on OPM resources began to grow at an accelerating rate.

By the 1980s, the backlog of personnel awaiting their security background reviews had reached new high levels, and several leading politicians and public sector managers began to complain that a new, more efficient system was needed. At the same time, the market demand for background reviews on employees had grown to include private industries and multi-national corporations. In the early 1990s, it was proposed that the information-intensive functions of security background checks could be performed more effectively by a privately-owned entity. The method of privatization selected for this service was that of employee-buy-out. The new company had a 5-year service contract with the OPM, and it was also free to expand into the growing market for security background checks for private contractors, especially those working on classified and security-related government projects. In response, the new company was able to initiate a large new investment in its IT resources to provide more efficient and effective communications and coordination. The key to this new privately financed e-government and ICT project was that there was a clear understanding about the existing demand for these security background check services. Without such a clear, proven track record of demand, it would have been much more difficult for the private contractor to finance these new investments, and to adopt such a competitive and commercial business posture.

Lessons Learned and Good Practices Checklist

- Technical feasibility analysis is often the result of a combination of: (i) different technical disciplines, such as computer science, network engineering, and telecommunications; and (ii) sector expertise, such as police and ambulance services, taxation filing and payments, water, electricity, and motor vehicle licenses. It is recommended that these different specialists work under one team and produce a single, consistent set of findings and recommendations. The government should avoid a situation in which a sector specialist recommends that the new project provide responses within one day, while a database specialist or electronic communications specialist recommends a project that provides responses within one week.

- One very important issue related to the technical feasibility analysis, is the quality and accuracy of available data: “Garbage in, garbage out.” According to that concept, a critical determinant of the value of a project’s overall feasibility analysis is the accuracy and realism of the technical data that is gathered and generated by this procedure. Many subsequent stages of the project’s feasibility analyses depend upon the results of this technical analysis. If the technical scope or technical output standards of this project change, then: (i) the estimated costs must change; (ii) the required laws and regulations may need to change; (iii) the size of the project’s risks may change; and (iv) the amount of public support needed may change. This could result in the project being deemed either unaffordable or unfeasible. Therefore, it is fundamentally important to first provide very accurate technical data and specific technical output standards.

- When reviewing the work of technical feasibility analysts, make sure that they clearly show the inputs and assumptions for each of their calculations, and how they arrived at their results. Any subsequent structuring of an e-government PPP might want to consider options, such as altering the size or scope of the project. If so, it should be relatively easy for the project managers to calculate how much key...
outputs such as total construction/installation costs and variable, operating costs would need to change if the size of the project were to change.

E-Government PPPs work most effectively when they focus on specifying the minimum performance levels that a project must deliver, rather than on the government client's dictating the preferred design and the technology that must be followed. A key rationale for PPPs in general, is that the private sector can do a better job than government of managing a new project's inputs, including: design, technology, and construction/completion, and operating risks. If the project fails to perform, it is not the government that will have to pay the costs (as it has in the past), but rather, the private operator who designed, installed, and operates it.

Technique 4.2 – How to Analyze the E-Government PPPs Legal and Institutional Feasibility

Description
This procedure assesses the existing laws and regulations that are relevant to the specific e-government project, and determines whether or not these are adequate to make the project viable. It also analyzes the existing institutions, and their resources to enforce these laws and sustain the public sector’s roles and obligations under the partnership contract.

Rationale
If an e-government project seeks to improve the collection of revenues for a specific public service, but there are no laws that explicitly require that users actually pay for this service, or that do not allow meaningful sanctions and consequences for non-payers, than that project is probably not legally feasible. Moreover, if the laws and regulations are in place, but they are not enforced or adhered to, then the proposed project is probably not feasible for institutional reasons.

Description
This task should consist of a review of all existing relevant laws and regulations within the country and within the specific sector in question. The legal specialist(s) tasked with carrying-out this review should be familiar with both the sector in question and the consequences of risks and risk allocation structures for PPPs. This review could incorporate the following questions:

- Do the existing laws and regulations clearly allow a private contractor or PPP approach to be used in offering the proposed public service? Do they explicitly allow for private contractors to operate services on behalf of the government or a public agency? Do they allow for private companies to actually collect payments or fees directly from users? In many cases, existing laws do not explicitly allow for government agencies to “transfer” this right to provide public services to outside private contractors, but they also do not explicitly prohibit it. In countries that follow the English “common law” legal system, it is generally concluded that whatever is not clearly and specifically forbidden by law is considered legal. In countries that follow the French Administrative Law tradition (and generally, those in the Roman-Dutch legal tradition), any action by the government must follow a precise regulation that specifies each procedure that must be followed in order to be considered legal. To show clear public policy support for both PPP approaches and for e-government solutions, many governments do choose to enact new e-government laws that make it clear that PPPs are not just allowed, but are strongly encouraged.

- Who will legally own the technology that the e-government system uses for its operations? Do existing laws and regulations require that the government must have full ownership of all technology that is used to carry-out specific functions, such as national security and public safety, tax collection and enforcement, and courts and judicial systems.

- Who has the legal ownership of the data that the e-government system collects and produces? Is any of the data or information that the private contractor would need to access classified as sensitive or “secret” by the government? Do existing laws allow private employees to obtain security clearances to work with and to protect this information?

- Institutionally, does the public sector have the resources and skills needed to oversee and to monitor the performance of the PPP contractor throughout the life of the contract? This includes the public sector having the resources...
to enforce compliance with the terms of the contract by individual users and consumers, by government agencies, and especially by the private contractor.

Case Illustration – PPP for Collecting Television Taxes

In many developing countries, the size of the broadcast television market is relatively small. As a result, the funds that can be generated by selling commercial and advertising time on the air is also limited. Therefore, many publicly-owned State Broadcasting Corporations require additional sources of revenue to cover all of their operating and programming costs. Consequently, most developing countries have instituted laws and regulations requiring that each owner of a functioning television should pay an annual “television tax,” which is then remitted to the State Broadcasting Corporation. However, these taxes are notoriously difficult to enforce, and many individuals (including many senior government officials) do not personally support the idea of a television tax, and therefore do not pay it. Some governments have considered options for improving the collection of these fees through e-government solutions. While technical solutions might exist that would allow for better electronic registration of television ownership—and even linking it with other information about property taxes, income taxes, or national ID numbers—the practical fact that these television fee laws are not followed and are not enforced, would very likely render a PPP solution for this service unfeasible. A private contractor might accept a contract to design, install, and operate the system, in exchange for a fixed, “unitary payment” from the government of the State Broadcasting Corp. However, it would not accept the demand and revenue risks that would result from the unwillingness of TV owners to actually make payments and from the likelihood that collection laws would not be enforced. In fact, it is unlikely that the cost of installing and operating a new e-government project to collect these fees would be outweighed by the benefits of the increase in fees and revenues collected.

Lessons Learned and Good Practices Checklist

- As a practical matter, the drafting, debate, and passage of a new e-government law, a new PPP law, or a new Sector Reform Law that allows e-government and PPP solutions, often takes several years to complete. While it can be tempting to recommend that a whole new law be passed for an e-government PPP, it is often more practical to recommend that simpler, ministerial regulations be issued that achieve nearly similar legal purposes.

Today most countries around the world choose to establish the legal foundation for PPs, in all sectors, including e-government, by issuing Ministry of Finance regulations, under the authority of an existing “Public Financial Management Act.” The few countries that have drafted, debated, passed, and enacted entirely new cross-sector PPP-type laws, have usually been those that recently underwent dramatic political changes, and have had the political will to rapidly adopt bold new legislative reforms. For example, the Philippines adopted its BOT Law in 1990, after the collapse of the corrupt Marcos regime in 1986, and in the face of a national electricity and infrastructure crisis. Hungary adopted its Concessions Law in 1991, soon after the downfall of its single-party State and command economy in 1989. In practice, it is often very difficult to have a new cross-sector PPP or Concessions Law passed in many countries. This is not only because of political and labor-related opposition to any policies of privatization and privately-provided public services, but more often because those Line Ministries that do want to do PPPs want to run (prepare, tender, and award) the whole process on their own, and not have to share their authority or to comply with standards set by some new “PPP Unit” or “National Concessions Authority”.

By contrast, most countries find it more feasible, legally and politically, to have the Ministry of Finance make the case that the financial obligations of a government agency to pay a PPP contractor for 3–20+ years for their services can be likened to repaying a loan. Therefore, PPPs impose new long-term financial liabilities, almost like sovereign-guaranteed borrowings by the government, which the Ministry of Finance has the existing legal authority to regulate and to approve/disapprove. These governments commonly have their Ministries of Finance issue new “PPP Regulations” setting the standards for how PPPs must be selected, analyzed, structured, tendered, awarded, and monitored, to ensure the overall transparency and accountability of the entire process, and most of all to ensure that only those PPPs that can offer
better value for the public’s money actually get approved. Countries like the UK, South Africa, and Australia have adopted this approach.

The international record of PPPs during the last 20 years has shown that a number of different economies across the world—both high and low income—can structure and sign PPP contracts, but that few can successfully sustain them. A major reason why PPP contracts have failed is the lack of the institutional capacity by governments to effectively monitor the private contractor performance and to enforce compliance. The regulation and monitoring of the performance of public services is generally regarded as a public function that is needed regardless of whether the public sector or a private contractor is providing services. In practice, therefore, when governments seek PPPs to provide e-government services that have never been properly monitored or regulated by the government, it often proves very challenging. If governments do lack this institutional capacity, but intend to establish it as part of a new PPP program, they should make sure that this institution is up and running before the PPP contract begins, and not wait until later.

The last ten years have seen a great acceleration in the number of countries around the world that have either issued new PPP Regulations or passed entirely new concession laws. Some Multilateral Development Banks (MDBs) and international donors have initiated programs to help a range of countries reform, update, and improve their concession-related and PPP laws, including providing a “Model PPP Law” for governments to use as a base. For example, in 2000, the European Bank for Reconstruction and Development (EBRD) created the Concession Law Reform Program, supported by its own office of General Counsel. This helped numerous governments throughout Central/Eastern Europe and Central Asia to systematically strengthen their concession laws to meet the needs of the growing PPP market. One of its activities was to conduct a general survey in which international lawyers, local lawyers, and other relevant legal specialists in the region rated the adequacy of the current concession laws in each member country. The results were provided through a map (Figure 10), which was produced in the year 2002.

It should be noted that this map from the EBRD reflected the results of this general
(non-scientific) survey, as they were “perceived” by a selected number of legal specialists in 2002. Since that time, concession laws and regulations throughout the region have certainly changed, much of it due to specialized legal assistance provided by the EBRD itself.

Additionally, UNCITRAL (the United Nations Commission on International Trade Law) prepared a “Model Legislative Provisions on Privately Financed Infrastructure Projects” in 2000, and again in 2003. These tools can be of great help to the growing number of governments seeking to join the growing PPP global market in e-government and other sectors.

Technique 4.3 – Conducting PPP Financial and Economic Feasibility Analysis

Definition
Financial feasibility analyses for PPPs measure the costs as well as the benefits from a project in terms of cash. By contrast, economic feasibility analyses measure cash plus non-cash costs and benefits to an overall economy. In terms of process, it is advisable to conduct the financial feasibility analysis first, and then conduct the economic analysis, because the latter requires adding non-cash costs and benefits to the basic financial analysis, as well as making adjustments to account for distorted financial costs or benefits.

Rationale
The reason a financial feasibility analysis is required, is to make sure that the proposed project is “bankable” from the private contractor’s perspective. In exchange for taking the risks involved in designing the project, raising the capital, installing the system, and operating it, the contractor would want to make sure that he can earn an adequate return that is commensurate with the amount of risks he has taken and the level of investments he has made. The goal of this procedure is to estimate a realistic range of prices or tariffs that the PPP contractor would have to earn in order to cover all of the costs of the new project, including a reasonable level of profit. If the government believes that the revenues that the private contractor needs to collect are more expensive than individual consumers can afford to pay, then the government should consider whether it is willing to offer public sector support to the PPP.

Description
The heart of a financial feasibility analysis of a PPP centers on what is called the “waterfall” model of cash flows.

First, the PPP project earns its revenues. These may be collected either from a single client (such as a government agency) or from individual retail consumers and users. Second, the project must pay its operating and maintenance expenses. This includes wages and labor benefits, any consumables used up by the project, as well as taxes on sales or gross revenues. Third, the project must repay its debt service obligations. BOTs and concession-type PPPs feature significant new investments in long-term assets and facilities. There is a need to borrow a lot of money—therefore, the project’s debt service obligations tend to be a large portion of the project’s cash flows. These debt service obligations include both interest payments and principal repayments. Fourth, taxes on income or profits must be paid to the government. Last, any remaining positive cash flow is classified as either “profits”—if it is a private project—or as “net surplus”—if it is a public sector project. These remaining cash flows can either be taken out of the

28 To view and download this entire UNCITRAL “Model Legislative Provisions on Privately Financed Infrastructure Projects” of 2003 see http://www.uncitral.org/pdf/english/texts/procurem/pfip/model/annex1-e.pdf
project as dividend payments to investors, or they may be retained within the project to increase its working capital, fund the renewal and replacement of project assets, or serve some other purpose.

**Designing a PPP Financial Feasibility Model**

To be easily understood, and to respond to the numerous “what if” questions, PPP cash flow models should have three general areas:

A. Inputs of data
B. Manipulations and displays of data
C. Analytical results

After the stakeholders and the required analytical results have been identified, the next step is to work backwards and determine what manipulations of data are needed to show those results, and what input data is needed for those manipulations of the data. While every sector and individual PPP project is unique, all project financings have a few components in common to manipulate and display data, and to clearly show the analytical results. These components include:

- **Key Inputs and Results**: When designing any model, it is advisable to place the key input variable cells and to display the key analytical results. This makes it much easier to understand the sensitivity of the project’s key results to given changes in the inputs.
- **Capital Expenditures (Capex)**: This includes lists of construction costs, equipment purchases, and other start-up costs.
- **Financing Structure**: This shows how the total capital expenditure and start-up costs will be met, by equity, by debt, by subordinated debts, and any other sources. Either within this component, or as a sub-component, debt repayment schedules should be shown for each loan.
- **Income Statement**: This should show the project’s revenues, operating costs, depreciation, and finally its net income. For projects whose revenues are subject to varying levels of demand, a separate sub-component dealing with demand levels may be needed.
- **Cash Flow Analysis**: This converts the accounting results of the income statement into cash flow. The key results from this component include the investor’s return on equity and the key coverage ratios important to lenders.
- **Balance Sheet**: This tracks the total assets and liabilities of the project company through the life of the project.

In practice, almost all analysts are asked to present their models, and to demonstrate to the other stakeholders how the model was designed, how it functions, and how to interpret the meaning of the key results. Figure 12 is an example of a financial

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### Figure 12. Diagram for the Design of an E-Government PPP Cash Flow Model

1. Demand for the E-Government Service:
   - Current Demand
   - Projected over 10+ years

2. Capital Investment:
   - Installation (Phased)
   - Working Capital

3. Financing:
   - Debt (Term, %, DSCR)
   - Equity (Gearing & ROE)
   - Currency…

4. Operating Costs:
   - Tariffs --> Revs. (30 years)
   - Interest expenses
   - Depreciation
   - Taxes

5. Cash Flow:
   - + Depreciation
   - + Debt Principal Payments
   - +/- Change in WC

6. Balance Sheet:
   - Assets & Liabilities
   - Reserve Funds Accum.
   - Working Capital

**A. TARIFFS**
Affordable? (Users & Government)

**B. DSCR**
Adequate? (Lenders)

**C. ROE**
Acceptable? (Investors)

**D. TOTAL E-GOVERNMENT BENEFITS & RISKS**
Attractive? WHY are we Doing this again? (All)
feasibility cash flow model diagram for a large BOT-type of e-government project.

**Listing the Key Input Data to Gather**

The next step is to list the key data that will needed as inputs for the model. This will serve two important functions:

- It is a guide to key input cells that need to be included in each of the model’s components.
- It is a guide for interviewing and requesting data from technical specialists, engineers, operators, and other consultants or stakeholders working on the project.

Some common checklists of data to gather for inputs in project finance cash flow models include:

**Project Technical Data**

- Minimum required performance standards of the new project/facility, expressed in terms of outputs.
- Background data on demand and growth projections from existing official master plans for the sector (20–30 years).
- Class identity of users (i.e., retail, institutional, etc.)
- Background data on existing network: size and age of existing facilities and assets.
- Proposed or possible location for the facility.

**Capital and Operating Cost Data**

- Preliminary Capital Expenditure estimates of project construction and start-up. Sub-categories of these costs could include:
  - Any Civil works or major preparations;
  - Installation, broken down by sub-project and project phase;
  - Equipment, broken down by category;
  - Interconnection costs;
  - Other capital expenditures;
  - Periodic rehabilitation and renewal costs.

  For cash flow models at the pre-feasibility and feasibility study stages, these costs are almost always estimated based on construction cost estimating guidelines and tables. More detailed data on these has to wait until the proposal or design stage of the project. If possible, modelers should try to include the formulas behind these estimates in the model, so that any proposed changes in the size or capacity of the project can more easily show reasonable estimates of changes in capital expenditures.

- Operating and maintenance cost estimates for major cost categories including:
  - Wages;
  - Overheads;
  - Utilities and electricity;
  - Any consumables required;
  - Other operating and maintenance costs;

  Because O&M cost data at the pre-feasibility and feasibility study stage is based on estimating guidelines, such as percentage of plant size, etc., it is important to try to include these formulas, when available, in the model.

- Depreciation schedules for assets.

**Financing Data**

- Debt:
  - List potential commercial lending sources;
  - Estimates of Debt/Equity leverage acceptable;
  - Lending periods available;
  - Currencies and estimated ranges of interest rates and spreads;
  - Terms of any grace periods available;
  - Terms for any subordinated debt available;
  - Minimum coverage ratios required; interest and debt service.

- Equity:
  - Estimates of Debt/Equity leverage acceptable;
  - Estimates of expected return on equity by likely investors.

**Case Illustration – Financial Feasibility of the Philippines’ PPP for Computerization and Networking of National Land Transport Office’s (LTO’s) Vehicle Inspection Stations**

In 2001, the Philippines signed an US$84 million PPP contract for the computerization and network linkage for its National Land Transport Office’s vehicle inspection stations. The fees collected from car, truck, and bus (“jeepney”) owners, is the fourth largest source of public revenue for the national government. However, the lack of coordination and consistent standards for the country’s 284 different offices and inspection facilities meant that many vehicle-owners were not getting their vehicles tested, and also that opportunistic LTO employees could be tempted to “pass” vehicles that were not roadworthy or in compliance with pollution regulations, in exchange for bribes.
The new BOT project required that the private operator would install a new computerized inspection system that prevented the previous "false positives." It also required the private operator to install data linkages between the LTO’s 284 different inspection facilities, offices, and public kiosks across the country. A key to the success of this project was the comprehensive feasibility analysis, including its financial feasibility analysis that was conducted during the preparation phase. This analysis estimated the capital costs of constructing and installing the new system, as well as its operating costs.

The Filipino BOT program and framework was one of the most developed in the developing world by the year 2000. With its BOT Law in place for about 10 years, along with a “BOT Center” to assist with transactions, the Philippines had already attracted about US$27 billion of new private investment in infrastructure. This framework provided guidelines for how to conduct PPP financial feasibility analysis.

As a result of this detailed and rigorous financial feasibility analysis, the LTO’s PPP was structured with the private contractor taking almost all of the market demand risk. All of the PPP contractor’s (Stadcom’s) revenues come from its collection of a portion of the revenues it collects from vehicle-owners. Therefore, the new e-government investments had almost no direct cost to the government itself.

For many larger PPP investments, the parties agree to make general information about the agreements available through press releases, but commit to keep the full texts of the contracts and their Technical Schedules confidential. For more information about this e-government PPP project, please consult the Stradcom website at http://www.stradcom.net.ph/proj-profile.html.

Lessons Learned and Good Practices Checklist

- While government agency professionals have strong experience with their own sector’s operational requirements, they often do not have strong experience regarding the provision of accurate data on the financial analysis of projects from the private sector’s perspective. Therefore, at this stage of the PPP project feasibility analysis (financial analysis), it is particularly recommended that contracting agencies gain the assistance and experienced of PPP project advisors. These advisors should have readily available direct sources of information on PPP risks, on operating and financing costs, and on required rates of return by private investors and contractors.

  - Financial analyses of large projects, such as PPPs, follow the "garbage in = garbage out" principle. Therefore, inaccurate or questionable input data about items such as demand projections, installation costs, and operating costs, will lead to equally inaccurate outputs from a model, such as, “What is the average expected tariff that is needed to make the project financially viable?” and “Is government support needed to sustain the project, and if so at what level?” If the answers to these questions are inaccurate due to faulty, old, inaccurate, or incomplete input data, then experienced PPP investors are not likely to bid on the tender, once it is released. Retaining experienced PPP project advisors is usually the most effective way to avoid this risk.

Technique 4.4 – How to Identify Relevant PPP Risks

Definition
Risk identification is the process of determining which specific risk events are the most important in determining whether the project is viable or not. Those specific risk events include: (i) higher than planned installation costs; (ii) higher than planned operating costs; (iii) lower than projected levels of demand for the project; and (iv) a drop in the value of the local currency relative to other currencies.

Rationale
By this point, the project’s technical, economic, environmental, financial, and government support feasibility have all been analyzed. The feasibility analyses have indicated some of the major risks, or unplanned changes, that could threaten the viability of the project. In PPP projects, this usually means that the end result of a given risk is that the project becomes financially unviable. This procedure of identifying the project’s most important risks is necessary, in order to come up with an effective and acceptable risk allocation structure that ensures that the PPP project is
viable. For example, if key risks are identified that demonstrate a significant likelihood that the project may become financially unviable, then it is likely that credit enhancements, such as government support, will be needed to share in some of these risks.

**Description**

**Tasks**

1. Assemble all available information about a proposed e-government project, such as a summary project concept description, available

<table>
<thead>
<tr>
<th>No.</th>
<th>Risk Name</th>
<th>Risk Description</th>
<th>How this Risk Impacts the Specific PPP Project</th>
</tr>
</thead>
</table>
| 1   | Land or Interconnection Availability and Acquisition | ■ Land needed for the project is not available or has not been acquired.  
■ There is uncertainty over how much it would cost to acquire needed land and when it could be acquired. | ■ This could increase the construction costs of the project beyond what is planned.  
■ This could significantly delay construction, adding interest costs during construction, and delaying when the project could earn its first revenues. |
| 2   | Health, Safety and Permits/Licenses | ■ Absence of compliance with regulations and standards on health, safety, permitting, licenses, etc. | ■ Workers or neighboring residents could suffer poor health, injuries, or other safety consequences.  
■ The project might have to pay significant new large sums to mitigate or correct these health/safety damages.  
■ The project might have to pay significant new large sums in fines, penalties, or punitive damages.  
■ The project might have to cease operations altogether, or until it has successfully corrected these violations. |
| 3   | Currency Availability and Transferability | ■ Foreign currency is not available to transfer funds from local to hard currency.  
■ Profits earned by the PPP project inside the country cannot be repatriated to its owners outside the country. | ■ If this risk is present during the tendering phase, then international bidders will not bid on the project, and the tender may fail.  
■ If this risk is present during the operating phase, investors will not be able to earn their projected financial returns, and may seek disputes, termination or damages. |
| 4   | Operating Costs                   | ■ The costs of operating the project are higher than expected.                   | ■ This would reduce the profitability of the project for its owners, and the creditworthiness or coverage ratio for its lenders.  
■ Lenders may require more investments, such as reserve accounts, from owners.  
■ Investors may try to request price or tariff increases from the government or its contracting agency. |
| 5   | Interest Rate                     | ■ Interest rates on the loans used to construct the project increase.           | ■ This would reduce the profitability of the project for its owners, and the creditworthiness or coverage ratio for its lenders.  
■ Lenders may require more investments, such as reserve accounts, from owners.  
■ Investors may try to request price or tariff increases from the government or its contracting agency. |
| 6   | Exchange Rate                     | ■ The local currency depreciates in value relative to the hard currencies in which the PPP project’s loans and equity investments are denominated. | ■ This would reduce the profitability of the project for its owners, and the creditworthiness or coverage ratio for its lenders.  
■ Lenders may require more investments, such as reserve accounts, from owners.  
■ Investors may require price or tariff increases from the government or its contracting agency to be able to pay these higher debt service return on equity costs. |
| 7   | Market                            | ■ The actual quantity of outputs or services demanded by users or the off-taker is less than anticipated.  
■ The project’s tariffs or prices are not adjusted according to the escalation formula agreed upon. | ■ This would reduce revenue and therefore also the profitability of the project for its owners, and the creditworthiness or coverage ratio for its lenders.  
■ Lenders may require more investments, such as reserve accounts, from owners.  
■ Investors may view this as a contract violation and thus seek disputes, termination or damages. |

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<table>
<thead>
<tr>
<th>No.</th>
<th>Risk Name</th>
<th>Risk Description</th>
<th>How this Risk Impacts the Specific PPP Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Responsibility of Design</td>
<td>- The government has provid-ed a faulty or inappropriate design (if the government is responsible for providing the project’s design).</td>
<td>- This could increase construction costs, because new, more expensive designs would have to be completed and built.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- This could increase operating costs more than anticipated, as a result of having followed a faulty or inappropriate design.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- This could significantly delay construction, adding interest costs during construction, and delaying when the project could earn its first revenues.</td>
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<td></td>
<td></td>
<td></td>
<td>- Investors may require price or tariff increases from the government or its contracting agency to be able to pay these higher construction and operating costs.</td>
</tr>
<tr>
<td>9</td>
<td>Detailed Design, Specifications and Standards</td>
<td>- The project’s performance standards and design specifications are inappropriate for the project’s needs.</td>
<td>- This could increase construction costs, because new designs may have to be completed and built.</td>
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<td></td>
<td></td>
<td></td>
<td>- This could increase operating costs more than anticipated, as a result of having followed an inappropriate design.</td>
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<td>- This could significantly delay construction, adding interest costs during construction, and delaying when the project could earn its first revenues.</td>
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<td></td>
<td></td>
<td></td>
<td>- The private developer may have to pay penalties to the contracting agency, if it is not able to meet the project’s minimum contracted performance standards.</td>
</tr>
<tr>
<td>10</td>
<td>Design Data</td>
<td>- Wrong or inaccurate data was used during the project’s construction.</td>
<td>- This could increase construction costs as new designs may have to be completed and built.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- This could increase operating costs more than anticipated as a result of having followed an inappropriate design.</td>
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<td></td>
<td></td>
<td></td>
<td>- This could significantly delay construction, adding interest costs during construction and delaying when the project can earn its first revenues.</td>
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<td></td>
<td></td>
<td></td>
<td>- The private developer may have to pay penalties to the contracting agency, if it is not able to meet the project’s minimum contracted performance standards.</td>
</tr>
<tr>
<td>11</td>
<td>Procurement and Construction</td>
<td>- Completion of the project construction was delayed.</td>
<td>- This could increase construction costs through higher interest during construction costs.</td>
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<tr>
<td></td>
<td></td>
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<td>- This could delay when the project could earn its first revenues.</td>
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<td></td>
<td></td>
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<td>- The private developer may have to pay penalties to the contracting agency, if it is not able to start-up operations by the contracted deadline.</td>
</tr>
<tr>
<td>12</td>
<td>Construction Cost</td>
<td>- Total construction costs were more than anticipated.</td>
<td>- This would reduce the profitability of the projects for its owners, and the creditworthiness or coverage ratio for its lenders.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Lenders may require more investments, such as reserve accounts, from owners.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- Investors may try to request price or tariff increases from the government or its contracting agency.</td>
</tr>
<tr>
<td>13</td>
<td>Program</td>
<td>- The completion of the project is delayed or there is a cost overrun, due to faulty work scheduling.</td>
<td>- This could increase construction costs through higher interest during construction costs.</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>- This could delay when the project could earn its first revenues.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>- The private developer may have to pay penalties to the contracting agency, if it is not able to start-up operations by the contracted deadline.</td>
</tr>
<tr>
<td>14</td>
<td>Operation</td>
<td>- The project is not able to function and operate as fully as had been anticipated.</td>
<td>- This could reduce the project’s revenues, if its outputs are lower than anticipated.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- This could increase operating costs, if more capital needs to be spent on operating costs to achieve higher levels of output.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- This could significantly delay construction, if a new, corrected design must be completed and built.</td>
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<td></td>
<td></td>
<td></td>
<td>- The private developer may have to pay penalties to the contracting agency, if it is not able to meet the project’s minimum contracted output or performance standards.</td>
</tr>
<tr>
<td>15</td>
<td>Maintenance</td>
<td>- The project and its assets are not properly maintained.</td>
<td>- The project could face unscheduled outages, reducing its revenues, creditworthiness, and profits.</td>
</tr>
</tbody>
</table>

(continued on next page)
technical analyses and studies, available financial and economic analyses, and any other available information, whether in the form of detailed quantitative studies or qualitative summary descriptions.

2. Use Table 8 to identify the most relevant e-government PPP project risks.

**Outputs**
Prepare a brief “Risk Identification Report” that features the completed risk identification matrix above. This report should also feature additional explanations of the impacts of key risks, and why they are considered more important for this given project.
Case Illustration – South Africa’s Dept. of Labour, Information Systems Risk Identification and Analysis for the Design-Finance-Build-Operate-Transfer (DFBOT)

In 2000, the Government of South Africa’s new National PPP Unit in the National Treasury announced the signing of the US$250 million PPP contract for the Department of Labour’s new information system on a DFBOT basis. This project followed South Africa’s own detailed procedures for both analyzing and for allocating risks. South Africa’s PPP procedures were clearly articulated through its PPP Manual: see PPP Project Cycle (Figure 13).

The kinds of risks required to be analyzed, according to South Africa’s PPP Manual and its guidelines include:

- Availability Risk
- Completion Risk
- Cost Over-run Risk
- Design Risk
- Environmental Risk
- Exchange Rate Risk
- Force Majeure Risk
- Inflation Risks
- Insurance Risk
- Interest Rate Risk
- Latent Defect Risk
- Maintenance Risk
- Market Demand Risk
- Operating Risk
- Planning Risk
- Political Risk
- Regulatory Risk
- Residual Value Risk
- Resources/Input Risk
- Subcontractor Risk
- Tax Rate Change Risk
- Technology Risk
- Utilities Risk

The contract was awarded to Siemens Business Solutions Consortium on a Design-Finance-Build-Operate-Transfer (DFBOT) basis, for a term of 10 years, and a contract value of 1.5 Billion Rand (US$225 million).

Lessons Learned and Good Practices Checklist

- In practice, the most important risks that most proposed e-government PPP projects face are:
  - Technology risks;
  - Demand risks (when projects rely on individual retail users and consumers to use the service);
  - Market or commercial viability of the PPP project;
  - The Regulatory environment.
- Each sector and each e-government project is different—therefore, each project will have its own unique challenges regarding the risks that it faces. Some projects may have additional risks, not currently listed in the matrix above, that should nevertheless, still be identified and fully analyzed. Project analysts should take a flexible and adaptable approach when it comes to deciding which risks are relevant for a given project.
- The results of this procedure will serve as important inputs into the following procedure on Risk Allocation, which proposes how to assign the responsibility for bearing each risk (and therefore, for controlling that risk) to the party that is best able to manage it.

Technique 4.5 – Assessing the Risks in Proposed E-Government PPP Projects

Definition

This is the process of estimating both the size of the impact of each major risk, and the probability that the specific risk event will occur.

Rationale

The purpose of this technique is to provide a more transparent, measurable, and consistent evaluation of the costs of each relevant risk for an e-government project. Note that PPPs seek to break out of the patterns of decades of conventionally procured projects, where large projects have been planned and approved, but then fail to perform because risks are not well-managed by traditional public sector monopolies. Projects cost more to install and set-up than planned; they take longer to become operational than planned; they cost more to
Techniques for Analyzing and Structuring E-Government Projects to be Viable PPPs

Figure 13. South African PPP Project Cycle

**PPP Project Cycle**

Reflecting Treasury Regulation 16 to the Public Finance Management Act, 1999

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
<th>Phase IV</th>
<th>Phase V</th>
<th>Phase VI</th>
<th>Exit</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCEPTION</td>
<td>FEASIBILITY STUDY</td>
<td>PROCUREMENT</td>
<td>DEVELOPMENT</td>
<td>DELIVERY</td>
<td>EXIT</td>
<td></td>
</tr>
<tr>
<td>Module 1</td>
<td>Module 3</td>
<td>Module 4</td>
<td>Module 6</td>
<td>Module 5</td>
<td>Module 7</td>
<td>Module 9</td>
</tr>
</tbody>
</table>

**INCEPTION**
- Register project with the relevant treasury
- Appoint project officer
- Appoint transaction advisor

**FEASIBILITY STUDY**
- Prepare a feasibility study comprising:
  - Needs analysis
  - Options analysis
  - Project due diligence
  - Value assessment
  - Economic valuation
  - Procurement plan

**PROCUREMENT**
- Design a fair, equitable, transparent, competitive, cost-effective procurement process
- Prepare bid documents, including draft PPP agreement

**Procurement Steps**
- Treasury approval: I
- Treasury approval: IIA
- Treasury approval: IIB
- Treasury approval: III

- Pre-qualify parties
- Issue request for proposals with draft PPP agreement
- Negotiate with preferred bidder
- Finalise PPP agreement management plan

**DEVELOPMENT**
- Measure outputs, monitor and regulate performance, xxxxx effectively, settle disputes
- Report progress in the Annual Report
- Scrutiny by the Auditor-General

**DELIVERY**
- PPP agreement signed
- Measure outputs, monitor and regulate performance, xxxxx effectively, settle disputes
- Report progress in the Annual Report
- Scrutiny by the Auditor-General
operate than planned; they operate at lower levels of performance and efficiency than planned; they are often not properly maintained; and they either become unusable or require expensive, new, unplanned asset renewals and replacements. The key to breaking out of this vicious cycle is to estimate the costs of these risks as a combination of both the size of their impacts and the probability of the risk event occurring. Once risks are systematically and consistently analyzed according to this procedure, the next step is to determine who (public or private) should be made responsible for managing each risk, based on the analysis that results from this technique.

**Description**

To implement this technique, readers of this handbook will need to gather all of the same project information that was required for the previous technique (4.4) on Risk Identification for E-Government PPPs. This includes all existing reports on the project’s technical, legal and institutional, economic and financial, and other assessments of its feasibility. Next, it will be necessary to obtain clear access to the government’s current technical specialists and management leaders in the following disciplines related to the candidate e-government project and its sector:

- Chief Information Officers;
- Communications technology specialists;
- ICT equipment installation and construction management specialists;
- Public budget managers;
- Public Sector Auditors;
- Procurement specialists;
- Relevant sector operating and maintenance specialists;
- Public financial management specialists;
- Environmental management specialists (if relevant to the project); and
- Any other relevant, experienced public specialists required for the given project.

Additionally, readers are recommended to gather any existing accurate data from the government’s own past e-government or ICT-related projects in the same sector, including data on the planned vs. the actual (preferably audited) results, including:

- Project designs and technologies;
- Installation and construction costs;
- Project completion schedules;
- Project operating, maintenance and periodic software or equipment renewal/replacement costs;
- The project’s planned performance levels (volume/capacity, timeliness, accessibility, reliability, cost-savings, etc.); and
- Other relevant project performance data.

**Tasks**

The first step is to assemble a workshop(s) of these experienced ICT and other government management specialists from the given sector to draw on their decades of professional experience and on actual historical data about e-government, ICT, and management reform projects. Using the risks identified through the previous technique’s Risk Identification Matrix (4.4) for each risk, estimate the most likely cost of each risk event, as well as the probability of the risk event actually occurring. To assist the completion of this process, a risk analysis template (Table 9) can be used that proposes several scenarios for each risk event, such as:

---

**TABLE 9. PPP Risk Size/Impact Cost Estimation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Catastrophic Risk Event</th>
<th>Critical Risk Event</th>
<th>Serious Risk Event</th>
<th>Planned Scenario (No Change)</th>
<th>Favorable Scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Risk 1</td>
<td>Cost of a Catastrophic Risk Event for Risk #1</td>
<td>Cost of a Critical Risk Event for Risk #1</td>
<td>Cost of a Serious Risk Event for Risk #1</td>
<td>The Planned Cost for the Project (No Change)</td>
<td>Cost of a Favorable Risk Event for Risk #1</td>
</tr>
<tr>
<td>Project Risk 2</td>
<td>Cost of a Catastrophic Risk Event for Risk #2</td>
<td>Cost of a Critical Risk Event for Risk #2</td>
<td>Cost of a Serious Risk Event for Risk #2</td>
<td>The Planned Cost for the Project (No Change)</td>
<td>Cost of a Favorable Risk Event for Risk #2</td>
</tr>
<tr>
<td>Project Risk 3</td>
<td>Cost of a Catastrophic Risk Event for Risk #3</td>
<td>Cost of a Critical Risk Event for Risk #3</td>
<td>Cost of a Serious Risk Event for Risk #3</td>
<td>The Planned Cost for the Project (No Change)</td>
<td>Cost of a Favorable Risk Event for Risk #3</td>
</tr>
</tbody>
</table>

---

Techniques for Analyzing and Structuring E-Government Projects to be Viable PPPs

1. Catastrophic Scenario: The maximum possible cost from the risk event occurring.
2. Critical Scenario: The costs from a large impact from the risk event occurring.
3. Serious Scenario: The costs from a medium-sized impact from the risk event occurring.
4. The Planned Scenario: The original, planned cost of the project (i.e., no change)
5. Favorable Scenario: The cost savings from a favorable risk event occurring (i.e., the project is completed under-budget).

Next, estimate the probability, expressed as a percentage, of each of the five risk scenarios identified by the above matrix occurring. To assist in the completion of this process, a risk probability template (Table 10) can be used that proposes several scenarios for each risk event, such as:

1. Catastrophic Scenario: The probability of a catastrophic version of the risk event occurring.
2. Critical Scenario: The probability of a critical version of the risk event occurring.
3. Serious Scenario: The probability of a serious version of the risk event occurring.
4. The Planned Scenario: The probability of no changes occurring, and the project comes in at its planned, budgeted cost.
5. Favorable Scenario: The probability of a favorable version of the risk event occurring.

These five different scenarios are meant to cover the entire range of possible scenarios for each risk for the given project. Therefore, the sum of all five of these probabilities for a given risk must total 100%.

In reality, there are many more (possibly an infinite number) scenarios than just these five that could result from each individual risk. These five are meant to be a manageable number of different scenarios that cover the entire range of scenarios. Readers may decide that for the specific project they are analyzing, if there should be more (or less) than these five scenarios, and they are welcome to do so.

Last, calculate the probability-weighted cost of each PPP project risk. For each scenario, multiply the size of the estimated impact (expressed as a cost), by the estimated probability (expressed as a percentage) of that sized risk scenario occurring. Then add up the cost of all of these scenarios for that risk. This total is the probability-weighted cost of each risk.

**Outputs**

Analysts should pay particular attention to the calculated size of each risk’s probability-weighted cost to gain an understanding of how sensitive the project’s overall viability as a PPP may be to each given risk. Risks that result in high probability-weighted costs will need to be carefully allocated according to the following technique (Technique 4.6), and if they are particularly large, they may need to be shared between both the public and private sectors, or they may require additional fiscal contributions or credit enhancements from the government. Next, prepare a *PPP Project Risk Analysis Report* summarizing the process used to estimate risk costs, risk probabilities, and probability-weighted risk costs, as well as the end results.

**TABLE 10. PPP Risk Probability Estimation Matrix**

<table>
<thead>
<tr>
<th>Project Risk</th>
<th>Catastrophic Scenario</th>
<th>Critical Scenario</th>
<th>Serious Scenario</th>
<th>The Planned Scenario</th>
<th>Favorable Scenario</th>
<th>Sum of Probabilities = 100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk 1</td>
<td>Probability (%) of a</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>= 100%</td>
</tr>
<tr>
<td>Event for Risk #1</td>
<td>Catastrophic Risk Event for Risk #1</td>
<td>Critical Risk Event for Risk #1</td>
<td>Serious Risk Event for Risk #1</td>
<td>No Risk Event Occurring for Risk #1</td>
<td>a Favorable Risk Event for Risk #1</td>
<td></td>
</tr>
<tr>
<td>Risk 2</td>
<td>Probability (%) of a</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>= 100%</td>
</tr>
<tr>
<td>Event for Risk #2</td>
<td>Catastrophic Risk Event for Risk #2</td>
<td>Critical Risk Event for Risk #2</td>
<td>Serious Risk Event for Risk #2</td>
<td>No Risk Event Occurring for Risk #2</td>
<td>a Favorable Risk Event for Risk #2</td>
<td></td>
</tr>
<tr>
<td>Risk 3</td>
<td>Probability (%) of a</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>Probability (%) of</td>
<td>Probability (%)</td>
<td>= 100%</td>
</tr>
<tr>
<td>Event for Risk #3</td>
<td>Catastrophic Risk Event for Risk #3</td>
<td>Critical Risk Event for Risk #3</td>
<td>Serious Risk Event for Risk #3</td>
<td>No Risk Event Occurring for Risk #3</td>
<td>a Favorable Risk Event for Risk #3</td>
<td></td>
</tr>
</tbody>
</table>
Lessons Learned and Good Practices Checklist

- Most government ministries, public authorities, or parastatals have never conducted a systematic process like this project risk analysis before, on either PPPs or even on traditional publicly procured projects. While the process of estimating risk costs and probabilities for a project should be guided by confirmed, audited records comparing the planned vs. the actual resulting performance levels for similar projects in the past—in practice, it can be difficult to collect this data reliably. Many government ministries and other public agencies frankly have vested interests in preventing outside observers from measuring their actual costs vs. the planned or budgeted costs for their major projects. Moreover, the process of estimating risks is, at heart, a subjective process. Different individuals, each with long records of sector-specific professional experience to draw upon, can estimate differing levels of the size and the probability of a specific risk event occurring. Therefore, it is recommended that the Line Ministry Satellite Unit makes sure that its PPP Project Consultants have demonstrated prior experience in managing these procedures.

Technique 4.6 – How to Allocate the Risks Among Various Parties to the PPP

Definition
Risk allocation is the process of determining which parties to make responsible for managing, controlling, and bearing the impacts of each project risk. These risks—which were identified by the previous procedure on Risk Identification—should each be clearly allocated between the private sector and the government, or shared between the two.

Rationale
The purpose of this procedure is to propose the most effective strategy for allocating all of the relevant project risks between the parties. As is often repeated in PPP strategies, each risk should be assigned to and
made the responsibility of the party that is best able
to manage, control, and minimize that risk. If this
were not done, then a party would be exposed to a
risk that it has no control over, and it would therefore
require higher payments to compensate it for taking
that risk. For example, the private operator is best
able to control operating risk—the risk that operating
costs will be higher than anticipated. To assign this to
the government, would expose it to significant risk
that it would have little ability to control, because
operational management is usually in the hands of
the private contractor. This could make the project
more expensive for the government, reducing the
possible benefits of the PPP. Similarly, political and
regulatory risks are ones that the private developer
has no legal ability to control. If these were allocated
to him, he would likely demand a much higher risk
premium, in the form of higher profits, which would
require higher tariffs and prices to be paid by users
and/or by the client government agency. However,
some risks, such as parts of market and demand risk,
cannot be fully controlled by either side—the PPPs need to decide effective ways in which some of
these risks can be shared between the parties.

Without proper and effective risk allocation, e-government projects quickly become more
difficult and expensive for all parties. They also soon become
unviable as PPPs, because no party is willing to
participate in deals where they must bear large risks
that they cannot control.

**Description**

Use the following matrix (Table 12) as a guideline to
analyze each identified, relevant project risk, and
allocate it to the government or the private devel-
oper, or both. While the matrix below includes some
suggested risk allocations, each project should
develop its own unique risk allocation structure that
best suits its individual needs. Be sure to provide an
explanation (in the last column) for why each risk
should be allocated to each party as shown.

**Lessons Learned and Good Practices Checklist**

- The guidelines for risk allocation, as reflected by
  the checkmarks in the risk matrix above, are
  simply common, suggested, “guidelines”, and
  should not be taken as a strict requirement for all
e-government PPP projects. When implementing
this procedure, analysts should be aware of these
common approaches, but should be able to
decide what the needs of the specific project are
when determining how best to allocate each risk.

<table>
<thead>
<tr>
<th>No.</th>
<th>Risk Name</th>
<th>Risk Description</th>
<th>Risk Allocation</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| 1   | Land and Interconnection Availability   | ■ Land, office space or interconnections needed for the project is not available or has not been acquired.  
     and Acquisition and Interconnection Availability and Acquisition |                  |             |              |
| 2   | Environmental                           | ■ The project causes major environmental impacts on its surrounding natural resources.                                                                                                                      | ☑               |             |              |
| 3   | Health, Safety and Permits/Licenses    | ■ Absence of compliance with regulations and standards on health, safety, permitting, licenses, etc.                                                                                                        | ☑               |             |              |
| 4   | Currency Availability and Transferability | ■ Foreign currency is not available to transfer funds from local to hard currency.  
     Currency Availability and Transferability | ☑               |             |              |
| 5   | Operating Costs                         | ■ The costs of operating the project are higher than expected.                                                                                                                                               | ☑               |             |              |

(continued on next page)
## TABLE 12. Risk Allocation Matrix (continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Risk Name</th>
<th>Risk Description</th>
<th>Risk Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Interest Rate</td>
<td>■ Interest rates on the loans used to construct the project increase.</td>
<td>📊</td>
</tr>
<tr>
<td>7</td>
<td>Exchange Rate</td>
<td>■ The local currency depreciates in value relative to the hard currencies in which the PPP project’s loans and equity investments are denominated.</td>
<td>📊</td>
</tr>
<tr>
<td>8</td>
<td>Market</td>
<td>■ The actual quantity of outputs or services demanded by users or the off-taker is less than anticipated.</td>
<td>📊</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ The project’s tariffs or prices are not adjusted according to the escalation formula agreed upon.</td>
<td>📊</td>
</tr>
<tr>
<td>9</td>
<td>Responsibility of Design</td>
<td>■ The government has provided a faulty or inappropriate design.</td>
<td>📊</td>
</tr>
<tr>
<td>10</td>
<td>Detailed Design, Specifications and Standards</td>
<td>■ The project’s performance standards and design specifications are inappropriate for the project’s needs.</td>
<td>📊</td>
</tr>
<tr>
<td>11</td>
<td>Design Data</td>
<td>■ Wrong or inaccurate data was used during the project’s construction.</td>
<td>📊</td>
</tr>
<tr>
<td>12</td>
<td>Procurement and Construction</td>
<td>■ Completion of the project construction was delayed.</td>
<td>📊</td>
</tr>
<tr>
<td>13</td>
<td>Installation Cost</td>
<td>■ Total installation costs were more than anticipated.</td>
<td>📊</td>
</tr>
<tr>
<td>14</td>
<td>Completion</td>
<td>■ The completion of the project is delayed or there is a cost overrun, due to faulty work scheduling.</td>
<td>📊</td>
</tr>
<tr>
<td>15</td>
<td>Operation</td>
<td>■ The project is not able to function and operate as fully as had been anticipated.</td>
<td>📊</td>
</tr>
<tr>
<td>16</td>
<td>Maintenance</td>
<td>■ The project and its assets are not properly maintained.</td>
<td>📊</td>
</tr>
<tr>
<td>17</td>
<td>Ancillary Features</td>
<td>■ Ancillary infrastructure services that the project needs, such as interconnection facilities, are not provided and completed on time.</td>
<td>📊</td>
</tr>
<tr>
<td>18</td>
<td>Transfer</td>
<td>■ The condition of the project’s assets at the end of the contract term when they are transferred back to government, is not in compliance with the PPP contract’s maintenance and performance standards.</td>
<td>📊</td>
</tr>
<tr>
<td>19</td>
<td>Regulatory</td>
<td>■ The terms and conditions of the PPP contract regarding the private operator’s ability to collect revenues and to seek reasonable tariff increase in accordance with the contract’s price escalation formula are not fulfilled; or ■ New laws or regulations are passed that increase the costs or reduce the revenue of the PPP contractor, without fair compensation.</td>
<td>📊</td>
</tr>
<tr>
<td>20</td>
<td>Political/Sovereign</td>
<td>■ The government nationalizes the project.</td>
<td>📊</td>
</tr>
<tr>
<td>21</td>
<td>Force Majeure</td>
<td>■ The project is unable to perform due to terrorism, riots, war, or natural catastrophes, such as earthquakes, fire, and flooding.</td>
<td>📊</td>
</tr>
</tbody>
</table>
Each sector and each e-government project is different—therefore, each project will have its own unique challenges when it comes to the risks that it faces and how they should be allocated. Some projects may have additional risks, not currently listed in the matrix above that should nevertheless be identified and allocated. Project analysts should take a flexible and adaptable approach when it comes to deciding which risks are relevant for a given project and how they should be allocated.

The Use of Public Sector Comparators (PSCs) in Preparing and Analyzing E-Government PPPs

As mentioned in the first two chapters of this Handbook, one of the primary reasons for using PPPs to deliver e-government projects, is because the private sector may be able to deliver the project at a lower cost than if the government designed, financed, and implemented the project all on its own. Additionally, the risk-allocation that is enshrined in a PPP contract can significantly reduce the risks that the government is exposed to for an e-government project. However, the only way to determine if a PPP for an e-government project really is the lower cost and lower risk option, is to first prepare a detailed estimation of the government’s own costs and its risk exposure if it undertook the exact same project all on its own. Such a hypothetical estimation (Figure 14) is called a Public Sector Comparator.

If the winning PPP bid for an e-government project is at a lower cost than this estimation of the PSC, then it can be said that the PPP option provides better “value for the public’s money.”

However, in practice, the process for developing a sufficiently detailed and realistic hypothetical estimation of what the government’s costs (including the costs of government-managed risks) would most likely be, is complex and open to significant debate. It is quite possible, for example, for two different government construction engineers to provide quite different estimations of the size and the probability of a construction cost over-run for the same infrastructure project. Purists would argue that the only way to really tell would be to have the government actually construct the project; all others mechanisms are simply guesses.

Some PPP analysts would argue that it is possible to estimate public sector costs and risks for traditional economic infrastructure projects that governments have built and managed before, such as roads, public buildings, housing projects, power...
plants, and water treatment plants. However, it is much more difficult to estimate the public sector’s costs for projects and technologies that it has not directly managed before, such as e-government projects. In some e-government and ICT-sector cases, PPP specialists argue that because the government has neither the technology nor the technical experience to manage the entire process of design, installation, operation and maintenance, no public sector alternative exists. Therefore, any estimation of the public sector’s own costs for such a project must be meaningless.

For example, in the earlier case study of Victoria, Australia’s PPP for the development of a new Mobile Data Network for police, fire, and emergency services, one of the most challenging tasks in the preparation of the project was trying to estimate the public sector costs in undertaking the project on its own, because the public sector did not have direct experience in designing, installing, and managing such specialized ICT projects previously.

In practice, PSC techniques have been more useful and relevant in country frameworks like the UK, Australia, and South Africa, where detailed, independent audits of similar publicly-managed infrastructure projects have provided sufficient, accurate data on the government’s own performance record in designing, constructing, completing, and operating traditional infrastructure projects such as roads, public buildings, housing, and treatment plants. However, PSCs are less relevant in other country frameworks that have no verifiable or audited records on past public infrastructure projects that compare what the planned, budgeted figures were versus what the actual final figures ended up being for construction costs, completion deadlines, operating budgets, etc. A recent analysis by the World Bank Public-Private Infrastructure Advisory Facility (PPIAF) on the use of PSC techniques in preparing PPPs in developing economies—which often lack this data—argues that the PSC is often not relevant or meaningful.

Given the additional challenges of estimating public sector costs and risks for specialized e-government technologies—with which many governments have no prior experience—it becomes even more difficult to develop realistic, accurate, and meaningful estimations of public sector costs and risks.

29 For example, South Africa’s National PPP Unit often relies on a confidential booklet prepared by the government’s Department of Public Works that contains the government’s own cost estimates, and the costs of risks, for major public construction projects, broken down by common sub-categories and sectors. Without this, estimates of PSCs are critiqued as being merely subjective “guesses”, without an accurate, relevant basis in past public sector experience.

30 Please see “Is the Public Sector Comparator Right for Developing Countries?” at http://info.worldbank.org/etools/docs/library/240066/ISTHEP~1.PDF
In the previous chapter, we described the steps in conducting the feasibility analysis and structuring the e-government project as viable, “bankable” Public-Private Partnerships (PPP). Once the structure of the project is approved by the government, the next step is tendering and procurement. Therefore, this chapter will present the procedures and tools that can be used in the selection of a private sector company—a single firm or a consortium—that will be the contracted partner of the government in the provision of the e-government services.

In general, the procurement of any goods or services by a government must strike a balance between two extremes: value and timeliness. To maximize the public’s value from such contracts, most public procurements require open, competitive tendering, which seeks to ensure that the government receives the lowest price for the required level of quality. On the other hand, such open competition takes a long time to implement and complete—meaning that the government and the public must wait many months or years before new projects are completed and new services become available. In response, some practitioners favor timeliness over maximal competition through faster procurements, such as the acceptance of unsolicited proposals from private contractors, through direct selections, competitive negotiations, and other procurement options.

There are a series of tools and procedures that should be followed when managing tenders to procure PPP contracts for e-government services. These techniques, which are described and explained below, include:

1. Setting up and Managing a Government’s PPP Procurement Committee;
2. Hiring and Managing PPP Transaction Advisors for E-Government Projects;

Figure 15. Role of Tendering and Procurement in PPP Project Life Cycle
3. Selecting the Appropriate Procurement Technique for the Specific E-Government Project;
4. Managing the Pre-Qualifications and Short-listing for PPPs in E-Government;

Technique 5.1 – How to Set Up and Manage a PPP Procurement Committee for E-Government Projects

Definition
A PPP Procurement Committee is the government body that has the authority and the responsibility to conduct the procurement and tendering for a PPP project, which results in the selection of a preferred bidder with whom the relevant contracting agency is to sign a PPP contract. This procedure explains how the steps of first establishing a PPP Procurement Committee should be managed.

Rationale
The procurement or selection of the preferred private e-government contractor to undertake a PPP project, often involves the participation of several different public sector bodies. This may include: (i) the primary contracting agency; (ii) the relevant line ministry; (iii) the Ministry of Finance or treasury body responsible for providing any fiscal supports or budget commitments; and (iv) possibly even local governments that may be parties to the PPP. To get all of these different public sector bodies to agree on the selection of a single private sector contractor to undertake a large project is a considerable challenge. One of the most effective methods of meeting this challenge is to create a single PPP Project Procurement Committee that represents all of these key government stakeholders, and that is given the clear authority and the resources needed to conduct, to oversee and manage, and to complete the entire procurement and selection process, concluding with the selection of the preferred PPP bidder. To succeed in this task, the PPP Evaluation Committee should consist of a small number of skilled and experienced officials who understand the various different issues the project entails, and who can make decisions in a clear, transparent, accountable, and efficient manner. Without this procedure of establishing and managing a PPP Procurement Committee, the overall process of selecting e-government contractors would remain unclear and would likely take much longer to complete. Key stakeholders in projects, including contracting agencies, treasury bodies, line ministries, local governments and even direct users or consumers, would be unclear as to who has ultimate authority to decide on the final structure of the project and to award the contract.

Description
1. Establish the PPP Evaluation Committee and Provide it with its Official Responsibilities and Authorities:

- Officially establishes the Committee for the purpose of managing and completing the procurement of the given e-government PPP project.
- Gives the Committee the clear authority, on behalf of the government, to select the preferred bidder for the given e-government project. This includes giving the Committee the explicit legal authority to fully represent all of the government institutions that its members represent.
- Gives the Procurement Committee the authority to hire (and even to fire) outside PPP transaction advisors to assist it with the management and execution of the tendering process.
- Gives the Committee the authority and the resources: (i) to announce the PPP opportunity to interested bidders; (ii) to sponsor any promotional road-shows and other activities; (iii) to issue pre-qualification documents and to short-list qualified bidders; (iv) to issue bidding documents; (v) to evaluate bids; and (vi) to select and announce the preferred bidder.
- Requires that the PPP Project Committee comply with all existing procurement and tendering laws and regulations, to ensure fairness,
transparency, and accountability throughout the tendering and procurement process.

To ensure that this PPP Evaluation Committee has the full support and authority of all of the Government bodies that are represented on it, it is recommended that the other public bodies that participate on the Committee (such as the Ministry of Finance, the relevant Line Ministry, the local governments, or other associated infrastructure contracting agencies) also co-sign any official decree that establishes the Committee. This ensures that there is no room for critics of the process, or for later protests, to claim that the PPP Procurement Committee did not officially represent all of the members that it claimed to represent.

2. Select the Members of the PPP Procurement Committee

A key determinant of whether or not a PPP Procurement is successful or unsuccessful is the decision of who is selected to serve on the PPP Procurement Committee. When deciding on the make-up of the Committee, the following are recommended:

- The Procurement Committee should be led by an official from that public agency that will be signing the PPP contract. This official should have:
  - Suitable seniority, in order to fully represent the public agency at its highest levels and to lead the other members of the Committee;
  - Strong knowledge about the technical nature of the service that the e-government project will be supporting and processing;
  - Strong background in several of the disciplines needed to structure and evaluate PPP projects, including risk analysis and allocation, PPP modalities, understanding Value for Money, technical, economic, financial, social, and other feasibility analyses.
  - Near full-time attention to manage this PPP project’s tendering and procurement. This means that this leader should be suitably freed-up from other regular duties. This helps to reduce delays, especially for larger e-government projects.

- Regular members of the PPP Evaluation Committee should include:
  - A representative from the relevant Line Ministry;
  - A representative from the Ministry of Communications and Information Technology, if applicable;
  - A representative from the Ministry of Finance, or other public Treasury body that would be asked to commit to and contribute fiscal support or make budget commitments to meet the PPP project’s payments;
  - Representatives from other public agencies or sub-national governments that would need to be contractual parties to the PPP project.

- Other “Observer” members of the PPP Evaluation Committee. It can be very effective to allow representatives of key public and private stakeholders to serve as observers on the PPP Procurement Committee. This can help facilitate their support for the project. It can give confidence to private bidders that this Committee does speak for key stakeholders (such as consumers and users) who happen to be outside of government. It can help ensure that the key goals and priorities of the Procurement Committee are sustained throughout the subsequent stages of the PPP project’s life cycle. Such Observer members can include:
  - Key consumer groups and associations. For example, an e-government PPP for online vehicle registration and drivers licenses could be greatly helped by having representatives of transportation, trucking and freight hauling associations, and private vehicle-owner associations. Similar consumer associations exist for e-government projects for most other sectors of public services.
  - Performance monitors and contract compliance unit staff. A significant problem encountered by many PPP projects is that the public officials who are tasked with the subsequent overseeing, monitoring, and managing of the contract for the client public agency often have little advance familiarity with the terms of the contract or knowledge about the specific priorities that the PPP Project Committee adopted in selecting its preferred bidder. Therefore, it can be very helpful to include, as an observer, the lead manager of the new PPP contract management unit.

When selecting the specific individuals from these stakeholders to serve on the Committee, it is
recommended that they have the specific skills required to evaluate key issues about the project. These include knowledge and skills about:

- Procurement and Tendering regulations, including issues of fairness, transparency, and accountability.
- PPP risk analysis, allocation, mitigation, and PPP modalities.
- Analyzing Value for Money issues.
- Relevant technical issues and sector-specific technologies, designs, and demand issues.
- E-Government technologies and other requirements.
- Financial viability and PPP “bankability” issues.

3. Finalizing Establishment of the PPP Procurement Committee:

In finalizing this procedure, it is recommended for the sake of clarity, that the public agency prepare a “PPP Procurement Committee Report” that includes:

- A brief description of the current key goals and priorities of the tendering and procurement process for the given PPP project.
- A draft of the contracting agency’s official decree that formally establishes the PPP Procurement Committee and describes its resources, powers and authorities.
- A list and description of the invited members of the PPP Procurement Committee, including the skills and background of these individuals.
- An initial draft of a proposed timetable for the operations of the Committee.

Case Illustration – Johannesburg’s Procurement Committee for its 5-year E-Government PPP Contract

One the first e-government PPP contracts procured in South Africa was a 5-year management contract for the supply of IT services to the Government of the City of Johannesburg. South Africa was one of the leading developing economies to develop and launch a systematic policy, legal, institutional, and regulatory framework for PPP approaches to nearly all sectors of public services and government.

In 1994, South Africa’s new democratic constitution called for the systematic amalgamation of local government—forming single, unified local and municipal government structures out of what had previously been separate “white” and “black” cities and townships. As a result, in 1996, the Greater Johannesburg Metropolitan Council (GJMC) was created out of what had been 15 different local governments. A key to making the new GJMC structure work as an effective governmental structure was to unify and coordinate the management and flow of governmental information systems. In 1999, the GJMC approached the newly established Municipal Infrastructure Investment Unit (MIIU) a PPP technical-support unit, to assist with evaluating and structuring possible PPP approaches to GJMC’s e-government needs. A GJMC project committee was established to oversee the project’s development. In 1999, the GJMC appointed as transaction advisors the firm HSBC Simpson MacKenzie. With R1.3 million (US$180,000) in financial support from the MIIU’s Project Development Facility, the transaction advisors prepared a PPP feasibility study. This was reviewed by the GJMC’s Project Committee, which decided to proceed to competitive tendering. In mid-2000, four short-listed firms submitted bids. Negotiations between GJMC’s Project Committee and the preferred bidder, a consortium of IBM and Masana Technologies (Pty), took place from July to September 2000. The PPP contract was finally signed in December 2000, committing the GJMC to pay an estimated R590 million (US$84 million) over 5-years for e-government management services to the PPP contractor.

Lessons Learned and Good Practices Checklist:

When selecting individuals to serve on the PPP Project Committee, it is recommended to try to follow these additional guidelines:

- The size of the PPP Project Committee should not be too large. Inviting all interested public sector parties and non-governmental observers to serve on the Committee can appear as an attractive means of promoting support for the PPP project. However, the larger the size of the Committee, the more difficult it usually is to reach decisions and to complete key tasks in a timely manner. Therefore, it is recommended that the size of the PPP Evaluation Committee be not more than six or seven regular members (not counting invited observers).
- The individual members of the PPP Procurement Committee should serve throughout the entire tendering process, which can often take from one to two years to complete.

Lessons Learned and Good Practices Checklist:

When selecting individuals to serve on the PPP Project Committee, it is recommended to try to follow these additional guidelines:

- The size of the PPP Project Committee should not be too large. Inviting all interested public sector parties and non-governmental observers to serve on the Committee can appear as an attractive means of promoting support for the PPP project. However, the larger the size of the Committee, the more difficult it usually is to reach decisions and to complete key tasks in a timely manner. Therefore, it is recommended that the size of the PPP Evaluation Committee be not more than six or seven regular members (not counting invited observers).
- The individual members of the PPP Procurement Committee should serve throughout the entire tendering process, which can often take from one to two years to complete.
Technique 5.2—Utilizing Transaction Advisors for Procuring E-Government PPP Contracts

**Definition**
PPP Transaction Advisors are private specialists with strong practical experience: (i) in analyzing and structuring PPP projects; (ii) in understanding the legal, financial, and risk management requirements of private investors and contractors; and (iii) in the practical management of PPP tenders. These transaction advisors are typically hired by the client public agency to advise and support the Government’s PPP Procurement Committee in almost all of its functions and responsibilities. These advisors do not replace the Government Procurement Committee, nor do they make decisions in place of the government—rather, they support the Government Committee and provide it with important services, including their own recommendations. PPP transaction advisors may consist of a single individual consultant (for smaller projects), a consulting firm, or a number of different consulting firms.

**Rationale**
Because PPPs involve a fundamentally different assignment of risks and responsibilities than do traditional public entities, the procurement of PPPs is fundamentally different than that of traditional materials and commodities procurement. Most developing countries have limited practical experience with conducting procurements for significant PPP contracts. The reasons for engaging experienced PPP transaction advisors include:

- Experienced private investors and PPP contractors have more confidence in e-government tenders that are supported by experienced PPP transaction advisors compared to those that are not. Serious international bidders are even happy to help pay for much of the cost of hiring such advisors, by agreeing to Request for Qualifications (RFQs) and Requests for Proposals (RFPs), knowing that it will actually make the procurement and negotiation process go quicker and better.
- PPP procurements often have “lumpy” workloads, featuring periods of several weeks during which large amounts of analysis, compilation of information, and production of project documents must be completed. Such varied workloads are usually better managed by hired outside advisors than by existing civil servants.
- Many public procurements—especially large ones—face numerous challenges, and such tenders are commonly delayed and cancelled due to clarification questions and even protests from bidders. This is especially true of PPP procurements. PPP transaction advisors are usually hired based upon receiving an important success fee, that is only paid upon the successful financial closure of the project after the contract signing (time and expenses are paid on a regular basis). This ensures that PPP transaction advisors will be diligent throughout the procurement process, to help make sure the process does reach a successful closure.
- The private investors will almost always already have the advantage of their own specialized international legal, financial, technical and process consultants throughout the procurement cycle. The government’s transaction advisors will help the government negotiate more effectively with these private advisors.

**Description**

1. **Preparing the Terms of Reference for PPP Transaction Advisors**
The Government’s Procurement Committee should prepare a scope of work for PPP transaction advisors. Such a scope of work could consist of the following key categories:

- Review all existing project analyses and recommend a preferred PPP risk structuring option.
- Support the Government’s PPP Procurement Committee, to ensure that needed preconditions
are completed in advance of the tender (i.e. confirming government fiscal support, confirming that ancillary services will be ready for the project, etc.)

- Conduct market surveys of potential international and local private firms and financiers to confirm interest in the e-government PPP opportunity.
- Draft and prepare RFQ documents and evaluation criteria to be used for short-listing experienced and qualified private e-government contractors.
- Draft and prepare RFPs and evaluation criteria, including drafting the PPP contract or legal agreement that the successful bidder is expected to sign.
- Coordinate and manage tendering activities, such as investment road shows, pre-bid conferences, site inspections and walk-throughs, as well as the setting-up and management of project “data rooms”, as needed.
- Draft responses to all questions submitted by interested and short-listed firms, including making any needed amendments or modifications to the bidding documents.
- Help the Procurement Committee to comply with all relevant PPP legal requirements and regulations in the country, such as conducting and updating any required: (i) PPP affordability analyses; (ii) PPP public sector cost (PSC) comparison and Value for Money (VfM) analyses; or (iii) public sector risk analyses, that may be required by the existing PPP legal and regulatory framework.
- Conduct evaluations of submitted statements of qualification and final proposals from private bidders, and make recommendations to the PPP Procurement Committee.
- Assist the Procurement Committee with monitoring the progress of the PPP contractor during: (i) the financial closure negotiations; (ii) the project construction/installation phase; and (iii) the initial operational phase.
- Assist the Procurement Committee in defining the activities and resources of the public agency’s Contract Compliance Office needed to monitor the performance of the PPP contractor.

2. Tendering for PPP Transaction Advisors

The Government’s Procurement Committee should advertise this business opportunity in relevant local and international business periodicals and invite proposals from qualified firms. The Procurement Committee should also prepare a Request for Proposals document that all interested firms should follow in preparing their bids. A common checklist of the contents of such an RFP for E-Government PPP Transaction Advisors could include:

- A letter from the Procurement Committee inviting firms to bid.
- A summary of the background information on the proposed e-government project, focusing on the government’s goals and objectives for the PPP (e.g. increased public education, improved reliability, access to new technology, reduced costs of public services, improved revenue collections, Value for Money benefits, etc.).
- Terms of Reference and technical scope of work for the PPP Transaction Advisors.
- Instructions to bidders on how to respond to the RFP, including the scoring procedures and evaluation criteria for technical and financial proposals. How the Procurement Committee intends to compensate the Transaction Advisors through expense reimbursements, time reimbursements, and success-fee payments.
- Standard forms and templates for bidders to use in submission:
  - Statements of Corporate Capabilities of Previous PPP Transaction Advisory assignments;
  - References to check from previous clients;
  - CVs, Resumes, and qualifications of the individual specialists;
  - Information on how the Transaction Advisory Team will be organized and managed (i.e. ensuring that they speak and make recommendations with one single voice);
  - Budget templates for submitting cost information.

3. Selecting the PPP Transaction Advisors

The quality of work that PPP Transaction Advisors provide can vary greatly. The key criteria that the Government Procurement Committee should use when selecting these advisors, is their ability to deliver quality work and their ability to work well and cooperatively with the members of the PPP Procurement Committee. Therefore, it is highly recommended that the Procurement Committee require that the top-ranked bidders each provide a presentation and interview to demonstrate how they intend to work with the PPP Procurement...
Committee. The individual members of the Committee should each have confidence in their ability to work with the individuals of the PPP Transaction Advisory Team. All of the persons selected to serve on either the Government's PPP Procurement Committee or the PPP Transaction Advisory Team, should expect to serve throughout the entire procurement process, (see Figure 16) which can often last for one to two years, or more.

Following the completion of the PPP feasibility analysis, and with the approval of the National Treasury’s PPP Unit, a tender was released in 2001. In December 2002, a 5-year, R1.5 billion (US$215 million) contract was awarded to Siemens Business Solutions Consortium to provide IT services to the Department of Labour.

Case Illustration – Hiring Transaction Advisors for E-Government PPPs

In 2000, South Africa’s Department of Labour (DOL) initiated a process to expand its IT management capabilities. The information management demands on the DoL had grown rapidly as the new democratically-elected government enacted a policy of Black Economic Empowerment (BEE). The latter requiring that public contracting procedures include minimum targets for contract awards to qualified black-owned contractors and to black laborers. The main role of promoting, enforcing, and monitoring this new policy was given to the Department of Labour.

Following the requirements of PPPs in South Africa, the Department of Labour retained KPMG as PPP transaction advisors. An important tool in the management of these PPP Transaction Advisors was the preparation of a model TOR for PPP Transaction Advisors, which was prepared by the National Treasury’s PPP Unit. This model TOR included:

1. Introduction;
2. Scope of Work;
3. Background;
4. PPP Feasibility Study Deliverables;
5. PPP Procurement Deliverables;
6. Required Transaction Advisory Skills and Experience, Remuneration, and Management by the Institution;

A model contract for Transaction Advisors is included in Annex 1 of this Handbook.

Lessons Learned and Good Practices Checklist

- Because PPPs are complex transactions that involve long-term risks for both the government and the private contractor, and that require technical, financial, legal, public policy and other areas of feasibility, it is recommended to retain one single team of PPP transaction advisors that covers all of the required expertise. In practice, some governments have selected, under separate contracts, separate technical/technology advisors, separate legal advisors, separate financial advisors, etc. The problem is that these separate firms may provide separate and incompatible recommendations on structuring and procuring the PPP. In these cases, it becomes the management challenge of the Government Procurement Committee to reconcile these conflicting recommendations. Therefore, it is recommended that the Government Procurement Committee hire a single team of advisors that combines the requisite technical, legal, financial, and procurement expertise, and that speaks with a single voice through a clearly designated Team Leader. Often the advisory team consists of a prime contractor and subcontractors, which may be law firms or technology specialists.

- Government Procurement Committees should require that their own Committee members serve throughout the entire process. Replacing members during the middle of the process can be very disruptive, because new members often find it very difficult to understand the complex structure of PPPs, including all of the reasons why key decisions have already been taken. Therefore, the Procurement Committee should also require that the individuals of the PPP transaction advisory team also serve throughout the entire process.

- In practice, many PPPs, especially for large projects that involve high levels of new investments and risks, are very challenging to analyze and to understand as a coherent “whole.” In response, the chairman or head of the Government’s PPP Procurement Committee often becomes the de facto “Deal King”, and is only one who understands all of the details and
### Figure 16. Stages of PPP Procurement with Indicative Timelines

#### Transaction Adv. TOR: PPP Procurement Deliverables

<table>
<thead>
<tr>
<th>Activity</th>
<th>TA:IIA for RFP</th>
<th>TA:IIA for RFQ</th>
<th>TA:IIA for draft RFP</th>
<th>TA:IIA for RFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue final RFP documents</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Bid submission date</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Institution selects preferred bidder</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>BAFO documents</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>BAFO evaluation</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Issue RFQ documents</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>RFQ response phase</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Evaluate RFQ responses</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Appoint pre-qualified bidders</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Prepare draft RFP documents</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Consultation with bidders</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Prepare final RFP documents</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Possible investors’ conference</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Preparing RFQ documents</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Bid preparation</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>Bid evaluation</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>BAFO preparation</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
<tr>
<td>BAFO evaluation</td>
<td>4 to 8 weeks</td>
<td>3 to 6 weeks</td>
<td>4 to 6 weeks</td>
<td>3 to 6 weeks</td>
</tr>
</tbody>
</table>

#### Possible expression of interest

- Institutional due diligence
- Possible pre-feasibility study

#### PROCESS AND TIMELINES FOR TA–II A

- Issue final RFP documents
- Bid submission date
- Institution selects preferred bidder
- BAFO optional

#### PROCESS AND TIMELINES FOR TA–II B

- Issue final RFP documents
- Bid submission date
- Institution selects preferred bidder
- BAFO optional

#### PROCESS AND TIMELINES FOR TA–III

- Institution selects preferred bidder
- PPP agreement signing
- Financial closure

#### Further Activities

- Preparing value-for-money report along with negotiation strategy
- Negotiation of PPP agreement
- Preparation of funding conditionality
- Preparation of TA III application
- Preparation of PPP agreement management plan
- Preparation of close-out report and case study

#### Possible Timelines

- Continuing and completing land acquisition and EIA processes, legislative or regulatory processes to enable project, third-party agreements
- Preparation of pre-feasibility report

### Possible Investors’ Conference

- Prepare RFQ documents
- Evaluate RFQ responses
- Appoint pre-qualified bidders
- Issue draft RFP documents
- Issue final RFP documents
- Evaluate RFQ responses
- Appoint pre-qualified bidders
- Issue final RFP documents
issues involved, while the other members of the Committee limit their understanding to their own categories of interest, such as the technology issues, the construction issues, or other single-sector issues. This can be risky, because other members of the Committee tend to make statements like, “well, I don’t quite understand all of details myself, but I know that the Committee Chair (the “Deal King”) does, and he recommends that we structure the project this way.” Later on, when other issues emerge, or when stakeholders inquire as to why the project was structured the way it was, only the “Deal King” can respond. Therefore, it is recommended that several understudies on the Committee make sure that they understand all of the project’s issues as well.

Technique 5.3 – Selecting the Appropriate Procurement Technique

Definition
The procurement technique is the overall strategy that will be used to select the preferred private contractor to undertake the PPP project. These procurement techniques may range from open competitive tendering to direct award or “sole sourcing” techniques, and they include many different variations in-between. Usually, each of these procurement techniques that are allowed are legally defined by the government’s public procurement and asset disposal law and implementing regulations.

Rationale
As noted in the introduction to this chapter, procurement strategies must strike a balance between maximizing competition and minimizing delays in the implementation of the project. Thus while a procurement technique such as open competitive bidding may offer the best chance for the government to receive the lowest price for a specific minimum level of e-government service and performance, it may also require one to two years (or possibly more) to complete the entire process.

Conversely, a procurement technique such as making a direct award to a private firm that makes an unsolicited bid may only take two to three months from the first proposed project concept to the signing of a PPP contract—however, the government or the public may have to pay a higher per unit price for a level of quality of service that does not fully fit the overall e-government policy objectives.

Therefore, a crucial decision in the overall process of selecting a PPP contractor is determining which procurement technique best meets the public’s goals and objectives, and is in the best interests of the public, for a given e-government project. The selection or the granting of permission for an inappropriate procurement technique can cost the government and the public the equivalent of millions of dollars in either above-normal tariffs and prices, or in months or years of delays, during which the benefits of e-government solutions are “lost” and unavailable to the public’s welfare.

Moreover, one of the biggest constraints that many private contractors and investors cite when evaluating whether or not to participate in PPP contracting opportunities, is whether the procurement will be managed fairly and transparently. If inappropriate or questionable procurement techniques are selected by the government, many private investors will simply stay away from the entire market. Thus, poorly-managed procurement techniques can impose the lasting cost of “poisoning” the future potential for competitive, e-government PPPs in the country.

Description
1. Identify and Complete Required Reforms Before the Procurement Begins
Within the PPP project life cycle, the procurement phase follows the completion of the feasibility studies. However, in practice, almost all PPP feasibility studies conclude that a given e-government project could become a viable PPP transaction if certain issues are first effectively addressed by the public sector. PPP feasibility studies commonly make recommendations that before the project is tendered, specific reforms,
preparations, and conditions precedent should be met, such as:

- Retail tariffs for certain services may need to be raised from their current levels to a new baseline level that is at or near cost-recovery, before a PPP in the sector could become viable and sustainable.
- The government may have to confirm its intent to provide minimum levels of public supports to PPP projects, such as assuming some contingent liabilities or pledging to provide fixed unitary payments prior to the release of a PPP tender.
- Land, buildings or office space required for the installation of the new project may need to be acquired prior to tender.
- Debts owed to a client government agency may need to be paid-up or written-off, such as long-standing accounts receivable owed to it by other public sector customers who have consumed the public utility’s services but not paid-up.
- The status of the sector’s current workforce may need to be clarified—this may involve reduction in staff, confirmation of severance packages, quantification of pension liabilities, etc.
- Issues about the legal ownership of individual assets and equipment related to the new PPP project may need to be resolved. In some cases, existing assets, equipment, and public facilities are co-owned by mixtures of local governments and public enterprises.

2. Select the Appropriate Procurement Technique

There are a number of procurement techniques that may be suitable—and that may be legally permissible—for selecting PPP contractors for e-government services. Most developing economies already have specific public procurement laws and detailed tendering regulations that spell-out when certain procurement techniques are required and when different procurement options are permitted. Usually the larger the size of the PPP contract, the more likely it is that open, competitive tendering must be followed. (The size of the PPP contract is often measured by the total value of expected public payments to the private contractor of the total life of the contract.) However, exceptions are allowed for either smaller-sized PPP contracts, or in cases where there appears to be only one private contractor who is capable of providing the needed performance levels. This is often referred to as the private contractor having “predominant capability.” Generally, the more a project relies upon more advanced levels of technology to meet its needs, the more likely it is that exceptions to the open, competitive tendering rule would be allowed. This is an especially important factor in most e-government procurements. Many private bidders have invested heavily their technologies—including obtaining patents—and many will argue that they alone have the technical capacity to meet the unique needs of a given project.

The general categories of procurement techniques that are allowed and used in procuring PPP contractors for e-government projects include:

- Open Competitive Tendering;
- Limited Competition and Short-listing;
- Competitive Negotiations;
- Direct Awards and Sole Sourcing;
- Unsolicited Bids.

Open Competitive Tendering – Open competition is usually what is required for most larger-sized PPP projects, according to current public procurement laws in most developing economies. In this case, tenders must be publicly announced in relevant local and international business publications and periodicals. Usually, for highly technical projects like e-government, short-listing is allowed, which permits the Government Procurement Committee to narrow-down the number of actual, full proposals it needs to evaluate. If the e-government project in question is for a large amount (measured in the estimated size of the total government agency payments to the e-services provider or contractor), then open competitive tendering is usually required by law. This assures the government and the public which it represents, that public funds are being used only on projects that offer the public the best combination of both low prices and beneficial transfer of risks (such as performance risk) away from the government, and onto the private sector contractor.

Limited Competition and Short-listing – This may occur in conjunction with open competition, or it may be pursued on its own. In cases of open competition for an e-government PPP project, usually the first step is to invite interested bidders to submit their qualifications that are relevant to the needs of the specific project. The Procurement Committee and their advisors evaluate these and select the three to six firms or consortia that it
deems to be the most qualified. These firms are then allowed to obtain the Request for Proposals (RFP) document, and to submit full, detailed technical and financial bids. This procurement technique is widely used for nearly all PPP contracts, both in e-governance and in other sectors. It allows for maximum competition at the initial stage, because all interested parties are welcome to submit their qualifications. However, it also promotes an efficient process, because the Government Procurement Committee only needs to evaluate full and detailed bids from the three to six most qualified bidders. The key requirement to making this procurement technique work effectively, is the quality and specificity of the RFP document. Government agencies that know their administrative and information management procedures extremely well, but that do not know which technologies and electronic systems are appropriate for their needs, often have a difficult time in developing a sufficiently clear and relevant e-government PPP RFP. This is discussed in more detail below in Technique #5.5.

**Competitive Negotiations** – This procurement technique allows the government to negotiate with a selected group of private firms at the same time, and to then select one to which the contract will be awarded. Governments may prefer this technique in specific cases where it is believed that there are only a very limited number of private firms that are technically qualified to meet the needs of a given project. It avoids the time and effort of formally short-listing firms, and of preparing a formal RFP and evaluating all bids. It also provides government officials with flexibility and discretion: if they do not like the way negotiations are going with one interested vendor, they can put pressure on them by starting (or resuming) negotiating with a competing vendor. However, the danger is that for highly-technical projects, such as e-government projects, the Government’s Procurement Committee: (i) does not engage any qualified, experienced advisors to help it; (ii) does not take the time to specify the clear output levels of service that it expects from the PPP; and (iii) does not set clear affordability thresholds or limits on the amount of “risk” that the public sector is willing to contribute to the project. Instead, these important issues are too often left up to the private vendor to understand and to propose, while the government either accepts or rejects it. Additionally, while private vendors are usually enthusiastic about “sole sourcing” and “unsolicited proposals”, they are generally opposed to negotiating terms and conditions of PPP contracts (including sharing information about technology) with governments that might use this information in negotiations with other competing private vendors.

**Direct Awards and Sole Sourcing** – Under these procurement techniques, the government selects a preferred vendor and awards the contract to it outright. Sometimes this may follow after a short-list of qualified vendors has been produced, and sometimes it may happen without short-listing. The government would then negotiate a full contract with that vendor. Some government officials prefer this option as a way to shorten the procurement process. Additionally, private vendors often respond favorably when this is allowed, believing that it allows them to showcase their predominant experience, technology, and services, without having to comply with a rigid RFP. However, this technique has a reputation of being non-transparent, and is open to being declared corrupt by many groups, including politicians, citizens, consumer groups, and competing private vendors. The record generally shows that the quality of the PPP contracts, including the specificity of risk identification and allocation, are poorer than for competitively tendered PPPs. Private vendors may be inclined to not insist on detailed risk allocation, assuming that if problems emerge during the installation or operation phases of the PPP, then the contract can be renegotiated at the expense of the government.

**Unsolicited Bids** – Usually the above-described “Direct Award” technique begins by allowing unsolicited proposals. If unsolicited proposals are allowed, private vendors may invest their own time, money and other resources in analyzing the electronic technology and related needs of a government agency, and to develop and submit their own PPP proposals. Governments may prefer this as a way to avoid the process of having to first identify, select, and conduct detailed PPP analysis on e-government projects—especially when it may be a struggle for them to understand the technology details of e-government applications. It also avoids the surprise of having spent months analyzing and preparing a PPP project, only to release it for tender and discover that no private bidder is
actually interested. Under an unsolicited proposal, there is at least one very interested and committed private vendor. The danger is that the unsolicited proposal may be for a service that is not a real priority for the government agency, and that the risk allocation structure of the proposal may not be in the best interests of the government. If government agencies have little or no experience with PPPs or with e-government applications, they may not have the capacity to fully analyze these proposals or to negotiate effectively with an experienced private vendor to ensure both technical benefits and value for money. Like sole sourcing, these procurements are often criticized as being non-transparent.

Which technique is finally selected by the client government agency and its Procurement Committee is usually based upon a combination of factors, which are detailed in Table 13, listed in order of importance.

It should be noted that most of the above e-government procurement techniques feature a 2-envelope process, whereby each bidder is required to submit their technical proposals and their financial bids in separate, sealed envelopes. Technical proposals are reviewed first to ensure that they are in fact, “technically responsive” to the needs of the projects, and only then are the financial bids of the technically responsive bidders opened. In selecting the most appropriate procurement technique for a specific e-government PPP, managers should always carefully review the detailed procurement requirements of the host and any sponsoring donor organizations (such as the World Bank, Asian Development Bank, AfDB, IADB, EBRD, and Millennium Challenge Corporation) to make sure that the selected procurement technique is in full compliance with the relevant requirements.32

**Case Illustration – Selecting the Procurement Technique for an E-Government PPP – Hong Kong’s Electronic Service Delivery Portal**

One of the most widely cited e-government portal projects is Hong Kong’s ESD portal, ESDlife. This project was implemented through an innovative PPP, which expired in January 2008. It offered Hong Kong’s 7 million citizens access to over 180 online public services from over 50 different government departments and agencies, and at its peak processed over 230,000 transactions per month.

Under the PPP structure, the private contractor was responsible for the development, the operation, and the management of the system’s entire information.

32 See http://www.gov.hk

### TABLE 13. Selecting the Appropriate Procurement Method

<table>
<thead>
<tr>
<th>Procurement Selection Factors</th>
<th>Explanation</th>
<th>Procurement Committee’s Decision?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements of current national/local procurement laws and regulations</td>
<td>Some procurement laws and regulations are strict and precise in requiring competitive tendering or short-listing and RFPs for all procurements over a specific contract value. Larger e-government projects will often be legally required to go through open, competitive tendering.</td>
<td></td>
</tr>
<tr>
<td>The projected size of the new e-government Project</td>
<td>Procurement regulations may allow smaller-sized e-government projects to be procured without open, competitive tendering.</td>
<td></td>
</tr>
<tr>
<td>The assumed nature of the technology required for the e-government project:</td>
<td>The more specific and customized the technology that an e-government project requires, the more likely it is that techniques such as direct awards and sole sourcing can be allowed.</td>
<td></td>
</tr>
<tr>
<td>The assumed nature of the PPP risk-allocation for the project</td>
<td>Although often overlooked, this should be an important criterion in the decision about how to procure the project. The more risk that it appears the government would be taking (or sharing) in a PPP, the more likely it should be that project is procured openly and competitively.</td>
<td></td>
</tr>
</tbody>
</table>
infrastructure, including investing in hundreds of computerized public kiosks. The government only paid the private contractor a per-transaction fee after a minimum number of transactions had been reached. This provided a clear incentive for the private contractor to ensure that the system was reliable and user-friendly, and attracted strong public market demand. Additionally, the private contractor could charge fees for private advertising on the portal, and for other private transactions conducted through the portal (such as private ticket sales and other e-commerce transactions). The successful private bidder, ESD Services Ltd. (a consortium of Hutchinson Global Crossing and Compaq Computer), was selected through an open, competitive tendering process.

While unrelated to the procurement method, it is important to note that PPPs are contractual arrangements with fixed time periods. In the case of ESDlife, the portal was launched in 2000, and the government’s contract with ESD Services Ltd. expired in January 2008, as noted above. The contract stipulated different termination scenarios, including transfer to another private operator or takeover by government. The Hong Kong Government has now replaced the private sector-developed and managed ESD infrastructure, with a ‘one stop portal’ infrastructure developed and managed by the government itself.

Technique 5.4 – Developing Pre-Qualification Documents and Managing the Pre-Qualification Process

Definition
Pre-Qualification is the process of selecting a limited number of private sector bidders to actually submit full and detailed proposals for the given e-government PPP project. This process helps to ensure that only bids from qualified and experienced parties need to be evaluated. Implementing this procedure requires that the Procurement Committee prepare Pre-Qualification documents, and manage the overall process of distributing them, receiving qualification submissions, evaluating submissions, and selecting a limited number of short-listed bidders.

Rationale
Pre-Qualification means that only a limited number of private vendors are actually invited by the Government’s Procurement Committee to submit actual bids for a given e-government project. This has a number of potential advantages:

- It saves time and energy for the Procurement Committee, because they only have to review and evaluate a limited number of full and detailed bids during the subsequent bidding phase. Moreover, the quality of these bids will be higher, because inexperienced or non-serious private bidders—whose bids are often more aggressive, more risky, and therefore, more time-consuming to evaluate—will not be invited to bid.
- It gives more confidence to serious and experienced private e-technology bidders to invest more in the preparation of their final PPP bids. If they know that they are one of only three to six bidders that are invited to submit full proposals, they will invest more time, resources, and energy into preparing an innovative and competitive final bid, compared with a situation in which they could be just one of 20+ bidders.
- If serious and experienced private bidders have problems with accepting the risk-allocation structure or a proposed PPP project or its legal, institutional, and regulatory framework, they will often signal this to the PPP Procurement Committee early on, either by declining to submit their qualifications, or by asking questions and making comments on the deal structure included in their qualifications submission. Therefore, pre-qualification provides the Procurement Committee with an important opportunity to “fix” these problems before proceeding to tender.

Description
1. Preparing Pre-Qualification Documents
When conducting a pre-qualification process, pre-qualification documents—usually known as a “Request for Qualifications” (RFQ)—must be prepared. While an RFQ does not need to contain the detailed specifications for the PPP (such as the final risk allocation structure or the draft PPP contract), it should contain sufficient information about the project to allow firms to make a judgment about the fit between their qualifications and the project’s required output standards and risks.
Generally, the information requested in the RFQ should not require respondents to incur significant expenses in the preparation of the response, but it should be sufficient to allow an informed evaluation by the contracting agency’s PPP Evaluation Committee. An RFQ should contain the information provided by the client government agency, including the elements presented in the sample Table of Contents in Table 14.

2. Announcement and Distribution of the Request for Qualifications (RFQ)
The PPP Evaluation Committee should produce a notice announcing the RFQ, which should be published in at least two national newspapers, international media as appropriate, trade magazines, and the website of the contracting agency or its line ministry, for wide publicity. It may also be brought to the attention of parties deemed to be particularly qualified for the task. The notice will provide information on how to obtain the RFQ documents, and how to officially register, so that any subsequent communications, clarifications, and/or amendments can be sent to all those who obtain the RFQ documents.

**PPP Investment Road Shows** – It can be helpful for larger e-government PPPs to carry out a road show in which the sponsoring government agency has its knowledgeable and high-level representatives organize events or meetings to market and promote interest in a specific e-government PPP transaction. For international road shows, foreign trade and development agencies—especially from OECD-countries—are often willing to support the costs of travel and transportation for high level delegations to visit their countries, as well as the costs of preparing relevant marketing and promotion materials about a specific project and its contracting opportunities. Road shows offer some of the same benefits that market testings do, and more. The client government agency is able to: (i) notify the market about the potential project and its objectives; (ii) elicit and gauge interest on the part of potential bidders; (iii) understand the market’s point of view; and (iv) receive input toward improv—

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**TABLE 14. Sample Table of Contents of an RFQ for an E-Government PPP**

| I. | Letter of invitation to private firms and vendors to submit their qualifications |
| II. | Definitions of any special terminology used, as appropriate, including abbreviations glossary |
| III. | Description of the Purpose and Requirements of the E-Government PPP project |
| a. | Background, objectives and overview of the project (Attach any relevant, completed feasibility studies as Annexes) |
| b. | Name and brief description of the client government agency’s functions, and the sources of any statutory powers |
| c. | The specific services that the private contractor is expected to deliver, expressed as outputs and key performance indicators |
| d. | Proposed risk allocation (summary matrix) and description of PPP modality |
| e. | Description of payment mechanisms, including amount and nature of any public fiscal support available |
| IV. | Description of the PPP Procurement Technique and Process |
| a. | Description of the procurement technique (i.e., short-listing, competitive negotiations, etc.) |
| b. | Description of the legal requirements of existing procurement laws and implementing regulations |
| c. | Proposed timetable and key milestones for the tendering process |
| d. | Other procurement process requirements: Language and translation requirements, if any; Any disclaimer of liability, including the cost of preparing the response, and reservation of rights, such as the right not to proceed with the project; Period of validity of the responders’ offer; Grounds for disqualification, etc. |
| e. | Invitation to interested firms to submit comments, questions, and recommendations on the proposed output standards and PPP risk allocation structure |
| V. | Instructions to Interested Private Firms and Vendors in Submitting Qualifications |
| a. | Format, time, date and place and addressee for submitting the response |
| b. | Overall selection criteria/minimum conditions to be met by the bidder and instructions for completing standardized qualification forms and templates |
| i. | Technical Experience and Capacity: Minimum technical capacity required and instructions for how to present technical experience using standard templates in forms (attached in Annex) |
| ii. | PPP-Related Experience: Minimum PPP risk management experience and capacity required, and instructions for how to present PPP management experience using standard templates in forms (attached in Annex) |
| iii. | Financial Capacity: Minimum financial capacity/size of the firm/consortia, including experience with limited recourse project finance, if necessary for funding large PPP projects. Instructions for how to present PPP financial capacity and project-backed financing experience using standard templates in forms (attached in Annex). Bid bond requirements |
| iv. | Legal Structure: Legal requirements of vendor (such as incorporating locally); Legal description of bidder (as a consortium or joint venture); Ownership structure; Proof of Power of Attorney for lead firm; Statement of no existing conflict-of-interest; Statement of litigation history |
| v. | Personnel: Minimum technical, management and other requirements for key personnel to work on the project |
| VI. | ANNEXES: |
| ■ Standard Forms and Templates for Interested Firms to Use in Submitting Qualifications |
Road shows can be especially helpful when the government does not yet have an established record of PPPs in e-government in this area.

**Bid Bonds and Pre-Qualification** – To mitigate the risk of pre-qualified bidders dropping out of the process, a bid bond may be required. Formal appointment as pre-qualified bidders should be contingent on such bid bonds being provided to the Procurement Committee in the approved format. The size of the bonds should be appropriate to the project—typically, the cost to the contracting agency of restarting the procurement process from the RFQ stage.

### 3. Review and Evaluation of Qualification Submissions from Interested Bidders

The purpose of pre-qualification is to ensure that when actual bids are reviewed by the Procurement Committee, they will be coming only from firms and consortia that are clearly qualified to do the work. International PPP experience has shown that relatively few in the private sector have the skills and experience necessary to: (i) successfully lead consortia of different private investors and contractors through the entire process of structuring integrated and competitive bids; (ii) negotiate well with governments; (iii) reach financial closure with lenders; (iv) manage technology and installation risks; and (v) operate and sustain a PPP contract for its entire contract term. The pre-qualification evaluation criteria need to weed out the “brief case companies” or individual vendors, and to only let through those that can actually manage and sustain the entire PPP process. Therefore, the pre-qualification evaluation criteria must differentiate between general descriptions of experience such as “sector technical experience”, and proven experience managing PPP risks in the sector, including design, installation, long-term operating contracts, and especially experience structuring and raising long-term limited recourse project finances.

Some guidelines on criteria to use when evaluating qualification submissions from interested private contractors can include:

1. **The General Experience of the Firm**
   - **General Business Experience of the Firm**
     - Require minimum of five years in the e-government business;
   - **General Financial Performance of the Firm**
     - Require firm to show annual revenues of at least 2x the projected revenues of the new PPP project. This will help ensure that the financial demands of the new PPP project do not overwhelm a smaller company.

2. **Sector Specific/Project Relevant Experience**
   - Require firms to demonstrate the number, size, and age of similar relevant PPP contracts they have performed or are performing.
   - Be clear on how to treat the project experiences of lead developers vs. minority partners.
   - For specific sectors, ask for relevant technical information on the size of previous projects, such as number of transactions, key performance indicators, and size and nature of new investments required.

3. **Ability to meet the Financial Requirements of the E-Government Project**
   - Minimum required cash flow to meet the project’s projected working capital needs and collection periods.
   - Audited financial statements for the past five years—or the past three years, for smaller projects.
   - If the project is foreseen to require long-term project-backed financing, require firms to show the size, term, and structure of financings, as well as lenders.

4. **Personnel Capabilities**
   - Full CVs of key personnel with references.
   - Clearly define what constitutes “relevant experience”.
   - Generally require a minimum of five years relevant experience.

5. **Joint Ventures**
   - Ask consortia of firms to clearly define the management structure of a joint venture, to clarify who is in charge.
   - While consortia with large numbers of firms (>5) can appear impressive due to the different technical specializations they provide, the risk of default of the overall consortium tends to be greater.

In carrying-out this technique, the Procurement Committee should prepare a clear “e-government PPP Bidder Pre-Qualification Report.” This helps ensure and preserve transparency of the procurement process, and to facilitate subsequent decision-making by the Procurement Committee by providing clear information. This report can include:

- A copy of the Pre-Qualification Announcement, and a list of the publications and journals in which it was carried.
- A copy of the RFQ Package, including Annexes.
- A list of interested bidders who requested copies of the RFQ, including an accounting of all payments received from interested bidders for copies of the RFQ.
- A description of any investment promotion activities undertaken in conjunction with the Pre-Qualification process, including road shows or other conferences.
- A full description of the evaluation criteria used to review qualification submissions, including any minimum benchmark criteria.
- A description of the evaluation process, including the final list of pre-qualified bidders and a list of those who were not successful. This should also explain why specific bidders did not qualify. It should be available to help the PPP Evaluation Committee respond to requests for debriefings from unsuccessful bidders.
- A description and analysis of all comments and questions received from interested bidders about the proposed PPP risk allocation structure and the e-government project’s output standards. This will be very helpful in carrying out the subsequent procurement technique, in which the Procurement Committee will need to decide whether and how the final structure of the PPP project should be amended or clarified before the RFP is released.

**Case Illustration – An Example of a Hypothetical Pre-Qualification Announcement**

**Invitation to Parties Interested in Pre-Qualifying for the New Utopia Electronic Tax Payment Public-Private Partnership (PPP) Project**

The Government of Quahog’s Internal Revenue Service invites parties interested in pre-qualification for the design, financing, installation, and operation of a new electronic tax payment project. This project is being offered on a public-private partnership (PPP) basis, which will pay the private contractor performance-based payments for the operation of the new e-government system.

The successful bidder will be the one whose proposal offers the lowest discounted present value of payments by the government’s Internal Revenue Service, and whose technical proposal is consistent with meeting specific national and ISO standards for the design, installation, and operation of the new electronic tax payment system. A technical feasibility study was prepared on behalf of the IRS by the ICT engineering firm of Dewey, Cheetum, and Howe, Pty. of Shelbyville, Quahog. Bidding for the project will be conducted through a two-envelop process in which those firms determined to be qualified will be invited to submit technical bids and financial bids in separate sealed envelopes. Bidding will be conducted in accordance with the requirements of Quahog’s Public Procurement Act of 2006, and its Procurement Implementing Rules and Regulations of 2007.

The closure date for submission of pre-qualification documents is 5 PM on Friday, February 30, 2008. The documents shall be submitted in a sealed box marked “Electronic Tax Payment PPP Project”, that is located on the 13th floor of the Internal Revenue Service’s Garnish Building, Capitol City, Quahog. Those submitting pre-qualification documents shall obtain a receipt acknowledging the submission of the documents from the authorized staff member, who will be located adjacent to the sealed box.

Copies of the pre-qualification documents, including the project’s technical feasibility study ($1,000 per set) may be obtained from:

Mr. Elliot Poindexter, Chief Information Technology Officer, Internal Revenue Service 13th Floor, Garnish Building Capitol City, Quahog

For more information about this and other projects, please visit the Quahog Internal Revenue Service homepage at: [http://www.irs.go.qh](http://www.irs.go.qh)

**Lessons Learned and Good Practices Checklist**

- As with other procedures in the procurement and tendering of PPP projects, it is recommended
that government agencies seek the advice and inputs of experienced PPP transaction advisors. Appointing such experienced advisors gives confidence to serious private bidders, who want to see their qualifications evaluated in a fair, transparent, and accountable manner.

- In practice, because PPP projects require more analysis and preparation by governments, Procurement Committees are often under a lot of public and political pressure to demonstrate progress and results quickly. In response, many Procurement Committees rush to release very general and non-specific RFQs, and to save the demanding decisions of how to structure the PPP for later on. However, it is better for the government to complete its analysis and structuring of the PPP first, and to include a fairly detailed description of the PPP project’s risk allocation structure and performance output standards within the RFQ. This sends an important signal to private bidders that they should be similarly prepared to invest in innovate, competitive, and detailed bids. This also allows the government to receive informed comments and questions about the proposed PPP deal structure from interested bidders before the RFP is finalized and released.

- One practical technique of limiting the number of private firms that submit qualifications, especially for larger-sized e-government projects, is to charge fees for interested private vendors to purchase the RFQ documents. This tends to prevent non-experienced, “briefcase” companies from submitting qualifications that the Procurement Committee needs to spend time reviewing. It also helps to provide funds that can pay for some of the costs of hiring the PPP transaction advisors.

**Technique 5.5 – How to Prepare Bid Documents and Conduct Bidding for E-Government PPP Projects**

**Definition**
The bid documents are all of the documentation needed by qualified bidders to submit full and detailed bids for an e-government PPP project to the Procurement Committee. These bid documents include relevant background information about the project, including its technical, economic, financial, legal, environmental, and other feasibility analyses, as well as the detailed PPP risk allocation structure of the project, including a full draft of the PPP contract. These documents also include procedural instructions to bidders about the required formats in which their bids must be submitted and other requirements with which they must comply. When Procurement Committees conduct these bids, they not only release and distribute these bid documents, they also: (i) organize and conduct pre-bid conferences; (ii) respond to requests from bidders for clarifications to bidding documents and rules; (iii) make additional project information available through data rooms; and (iv) sponsor site inspections/walk-throughs and other important bidding related activities.

**Rationale**
The preparation of e-government PPP bid documents represents the culmination of all of the due diligence feasibility analyses and the project structuring activities, as well as the overall competitive process through which the government seeks to maximize the value for money from which the public benefits. Therefore, the preparation of the bid documents needs to be very clear about: (i) the minimum output performance requirements of the project; (ii) the allocation of key risks between the parties; (iii) the rules by which bidders must present and submit their bids; and (iv) the evaluation criteria against which those bids will be reviewed. Without this important step, bidders would likely submit very different technical and financial bids to the government, proposing different levels of performance, assuming different allocations of project risks, and featuring different prices. Such a scenario would make the job of the Procurement Committee a very difficult one, and it would expose the overall tendering process to protests from unsuccessful bidders. International experience has shown that, while it can take a significant amount of time for a Procurement Committee to prepare clear, detailed, and good-quality PPP bid documents, it generally takes even longer to have to respond to numerous requests for clarification or protests from bidders, and to evaluate vastly different PPP bids, each based upon differing assumptions.
Description

1. Preparing Bid Documents

PPP bid documents should contain the following general categories of information:

- General information required by bidders to prepare and submit their proposals. This should include overall instructions to bidders regarding the format and organization of the information they submit.
- E-Government project specific information and performance indicators, including the contracting agency’s standards regarding safety, security, environmental protection, etc. Again, PPP projects work best when the project’s requirements are expressed in terms of output levels and key performance standards that must be met, rather than in terms of the inputs (designs and technologies) desired by the contracting agency.
- The contractual terms of the PPP project. The PPP bid documents should include not only a detailed risk allocation matrix and description of the PPP modality, but also a complete draft of the full PPP contract that the preferred bidder will be expected to sign and fulfill. This draft contract should be complete and sufficiently detailed such that there will be very little that remains to be negotiated once the preferred bidder selection has been announced. This PPP contract should contain a minimum of:
  - Terms Sheet: Definition of terms used in the contract;
  - Scope of activities and standard of service performance (often described in detail in an Annex or Attached Schedule to the contract);
  - Rights and obligations, including risk allocation;
  - Term of the contract;
  - Performance bond;
  - Payments: Tariff and mechanism of adjustment and penalties or sanctions for non-performance of contractual stipulations;
  - Supervisory mechanism of business entity’s performance in agreement, annual audit of the business entity’s financial reports by independent auditor;
  - Severance or closure of agreement, including options for extension or renewal;
  - Official law, i.e., Local or Third Country Law;
  - Mechanisms of dispute resolution (i.e., discussion, mediation, and arbitration);
  - Force majeure conditions;
  - Responsibility for preparations: interconnections, land acquisition and ancillary services;
  - Ownership of assets during the period of agreement.
  - The criteria against which proposals will be evaluated, including minimum benchmarks that proposals must meet in order to be deemed responsive.

2. Distributing Requests for Proposals, Managing the Tender Process, and Receiving Bids

Distributing the RFP – Once bid documents have been prepared, reviewed, and approved by the Procurement Committee, they are ready to be released. It is common that short-listed bidders are charged a reasonable fee for the receipt of these bid documents. These funds can be used to help pay for the costs of preparing and conducting these tenders, such as the costs of retaining PPP transaction advisors. Depending on the size of the e-government project, these fees for RFPs can range from US$500 to 10,000.

Holding Bidders’ Conferences and Site Inspections/“Walk-Throughs” – Bidders’ Conferences are effective ways of clarifying any questions, comments, or uncertainties that short-listed bidders may have about the RFP and the bidding procedures. At this time questions and comments are solicited from the bidders’ representatives at the conference, allowing open interaction. The Procurement Committee, at its discretion, may issue amendments to the original RFP. During the pre-qualification and the bidding phases, all communication with the potential bidders should be formal and limited. Transcripts of the entire bidder’s conference should be provided to all short-listed bidders. Additionally, qualified bidders should be allowed to submit their own questions in writing, before an appropriate deadline. The full text of these questions, plus the Procurement Committee’s official responses, should be shared in writing with all of the short-listed bidders. Generally Bid Conferences should be held between two to three weeks after the formal release of the RFP.

Establishing a Project Data Room – Large e-government projects generally require more sharing of project technical, economic, sectoral, social, and possibly environmental background
information. Procurement Committees should understand that a PPP project requires bidders to base their bids upon an in-depth understanding of: (i) information about the conditions of existing government information management procedures; (ii) existing assets and equipment; (iii) forecasted levels of demand; (iv) any lands to be built on; and (v) the number and status of consumer accounts. Much of that information may not feasibly be included in the RFP package. The following can be kept in a project data room that is available to interested bidders to review: (i) network maps; (ii) asset registries and inventories; (iii) maintenance records; (iv) customer databases; and (v) existing IT contracts held by the client government agency. Such a data room is also a useful asset for the members of the Procurement Committee, their staff, and any advisors—in order to have a single location for all relevant project documents. Project Committees should give confidence to interested bidders, that all relevant information has been collected and is readily available for their review. A well-run project data room should function like a library. Bidding teams should be able to inspect and review all documents in its catalog. Photocopying and other relevant facilities, such as scanning, should be available on site, in order to allow bidders to make copies of relevant documents to take with them. Bidders should be required to pay for these copying procedures.

Receipt of PPP Bids – The RFP should be explicit and clear about: (i) the precise place where bids must be submitted; (ii) the number of copies to be submitted; (iii) how envelopes should be marked; and (iv) the deadline for submissions. It is recommended that bidders each receive an official receipt confirming that their bids have been received, and noting the time.

3. Evaluating PPP Bids

Evaluating PPP Technical Proposals – In evaluating technical proposals, the key requirement should be to determine if the technical approach described in the bid meets the minimum outputs and service standards of the project. For most e-government projects, technical evaluation consists of deciding whether a proposal is either “responsive” or “non-responsive.” Some Procurement Committees choose to give different scores to technical bids, such as awarding extra points for adding additional levels of quality and service. However, it is easier to make clear PPP award decisions based on meeting a specific required level of service and allowable risk allocation structure.

Evaluation and Handling of PPP Cost Proposals – When a firm’s technical bid is deemed to be “non-responsive”, its financial bid should be returned to it still sealed and unopened. Experienced private bidders take pride in their innovations and ability to compete effectively with other private bidders. If they are not successful with their technical bids, they do not want information about their costs and their financial proposals shared with others. In many cases financial proposals are opened at a public meeting, which all bidders are officially invited to attend. This meeting is often filmed and recorded. This ensures that the evaluation of financial bids is done with complete transparency. Often this meeting is where the announcement is made of the winning or preferred bidder: the one with the lowest tariff bid or the highest lease payments to government, etc.

Requesting Oral Presentations – Oral presentations can be including in the bid evaluation process. This is common in e-government projects where Procurement Committees need to fully understand the technological and management innovations being proposed by bidders. This may be useful in e-government projects where costs would not change, the scope of work likely will, and the ability to work well with clients on a daily basis is crucial. For large capital-intensive e-government projects, however, it is not recommended that oral presentations be allowed to “sway” bid scores and evaluations, unless there is uncertainty over the approach and technology.

4. Preparing a PPP Bid Management Report

In completing this procurement technique the Procurement Committee should prepare a “PPP Bid Management Report” that includes:

- A full copy of the RFP document and all its attached information.
- A list of all short-listed bidders who purchased and received copies of the RFP.
- Full copies of all questions received at the Bidder’s Conference or at site inspections/“walk throughs”, as well as full copies of all official responses from the PPP Evaluation Committee.
- A report on all proposals received from bidders, including the official time of receipt.
Case Illustration – Conducting Competitive Bidding for an E-Government PPP Contract

During the 1990s, the Government of the Philippines’ Bureau of Customs (BOC) modernized its overall customs management procedures through the participation of private e-technology contractors, through its 1991–1998 Customs Reform and Modernization Program. A key focus of this was the development of new computerized systems for the Philippines Tax Computerization Project (PTCP), and of automated systems for customs data.

The BOC engaged two consulting organizations to assist with the analysis and tendering for e-government solutions: UNCTAD (United Nations Conference on Trade and Development) and Crown Agents. UNCTAD advised using the “ready-made” software program “ASYCUDA” (Automated System for Customs Data—the most widely-used customs software program in the world) as the basis for BOC’s software needs, rather than seeking a new program to be custom-designed for BOC. Tenders for computer hardware, facilities management, and systems integration were selected on a competitive basis, using tender documents that had been prepared with the assistance of Crown Agents. The contract was awarded to Unisys, after the bids submitted by two other contractors were found to be twice as expensive. The award decision was reviewed and finally approved by the Customs Technical Committee, the Bids and Awards Committee, and the Department of Finance’s Advisory Committee, which featured reputable ICT specialists from the private sector.33

Lessons Learned and Good Practices Checklist

As with other procedures in the procurement and tendering of PPP projects, it is recommended that contracting agencies seek the advice and inputs of experienced PPP transaction advisors. Appointing experienced advisors gives confidence to serious private bidders, who want to see that their proposals are evaluated in a fair, transparent, and accountable manner. One of the biggest concerns about unsolicited proposals from both the public and the private sectors, is the amount of time required by the government to evaluate and to respond to these new, innovative concepts. If these proposals are for projects that have not previously been identified or analyzed, or ones that feature new technologies, it is often very difficult to quickly and rigorously review and evaluate them. This challenge is much easier for contracting agencies to meet, when they are supported and advised by experienced PPP transaction advisors.

 PPP Evaluation Committees should understand that competitive private bidders are often reluctant to ask many questions in such venues in front of their competitors. They often do not wish to disclose to their competitors whether they will be bidding at all, or what kinds of innovations they might be working on. Therefore, Project Committees should not be surprised or discouraged if Bidder’s Conferences do not generate high attendance or many questions from bidders.

 When holding a PPP Bid Conference, generally it is not recommended to have each member of the PPP Evaluation Committee sitting up on the dais and available to answer any questions put to them by bidders. The reason is that bidders would often ask questions about how different ministries, agencies, and governmental bodies will work together on the performance or monitoring of a project. This can risk opening up uncertainties, and even disagreements, within the Procurement Committee, which is not something that should be done in front of interested bidders. A better format is to have the Bidder’s Conference chaired by the Head of the Procurement Committee, with the Leader of the advisory team seated next to him. The other members of the Project Committee should be present to show support for the project.

 Questions from bidders should be posed directly to the Chair, who can readily confer with the Head of the advisory team. He can thereby chose to either respond to the easier questions then and there, or to confer with the Procurement Committee later and get back to bidders with responses at another time.

33 Source: Customs Modernization Initiatives: Case Studies, Edited by Luc de Wulf and Jose B. Sokol, World Bank http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/10/06/000090341_20041006140229/Rendered/PDF/301120PAPER0Customs0case0studies.pdf
Chapter 6

Techniques for Negotiating Contracts and Financing PPP Projects in E-Government

Around the world, in developing and industrialized economies alike, a significant proportion of large PPP projects are prepared, tendered, awarded and important new contracts are signed—only to find out nine to 12 months later that commercial lenders are unwilling to commit the 70–80% of the project financing needed, because they find the overall PPP project too risky. While the private contractors may end up forfeiting their performance bonds, this still leaves governments in the difficult position of either trying to engage the second-ranked bidder (if their bid is still valid), trying to restructure and re-tender the entire PPP project, or having to consider giving up on the project as a PPP altogether.

This Chapter will look at techniques of:

1. Finalizing and Signing PPP contracts for E-Government Projects.
2. Ensuring Financial Closure for PPP contracts.

Figure 17. Role of Reaching Financial Closure in the PPP Project Life Cycle

Technique 6.1 – How to Prepare, Conduct, Manage and Finalize Contract Negotiations

Definition
The management of PPP contract negotiations for e-government projects is the procedure that is followed to arrive at a signed PPP contract after the selection of the preferred bidder has been completed, and before the project’s financial negotiations between private investors and their lenders can occur.

Rationale
While it is recommended that e-government PPP tenders are conducted with full drafts of PPP contracts completed and included in the bidding packages—in practice, there are often important details and issues that still need to be resolved and
agreed upon before the final PPP contract between the government agency and the private contractor can be signed. This step is important, because the government agency must not allow the proposed value for money gains that are being offered to it and the public (through the competitive pressures of open tendering) by the successful private bidder to be eroded. Additionally, for large, capital intensive e-government projects, this step must be completed before the successful private bidder can officially begin its own negotiations with its commercial lenders, to structure and negotiate the terms for the financing for the project.

**Description**

**A Checklist of Items to Ensure are Included in the PPP Contract and Addressed in Negotiations:**

As noted previously, in Technique 5.5, PPP bidding documents should already include a full copy of the draft PPP contract, which the preferred bidder should be expected to sign without significant modification. The items that should generally be included in PPP contracts are listed in the section on Technique 5.5.

Additionally, to ensure that a draft e-government contract is complete, the following should also be addressed as a checklist for the completion of contract negotiations:

- **Scope of Work and Output Standards** – Is the main scope of work clear, unambiguous, and measurable? Is the schedule for the provision of all goods and services clear and agreed upon? Are requirements for training services clearly described?
- **Contracting** – Are the identity of all parties to the private contractor entity known and acceptable? Are there to be any limits on the private contractor’s ability to sub-contract? Are there specific targets the contractor must meet in sub-contracting, such as use of local subcontractors or use of affirmative action contractors?
- **Technology Escrow Account** – These accounts can protect licensees of specific e-government technologies during the entire term of a long-term PPP contract. Technology escrow agents are appointed who have access to the specific technology’s source code or other proprietary information that the licensee may need, especially if the original vendor goes out of business or stops supporting the given technology. Is access to the e-government project’s technology, including source code and other necessary support services, assured during the entire term of the PPP contract?
- **Reporting** – Are the reporting mechanisms and the schedule for determining the PPP contract’s progress clear and acceptable?
- **Records** – What records does the contractor have to maintain and make available for regular auditing?
- **System Maintenance** – Does the contract satisfactorily describe the standards of system maintenance that the private contractor must achieve?
- **Ownership** – Is the contract clear and acceptable about determining who has legal ownership title to any software (or hardware designs) developed for the PPP project?
- **Collusion and Conflicts of Interest** – Does the contract properly prevent collusive behavior and potential conflict-of-interest situations in the course of the PPP contract?
- **Termination** – Does the contract allow for the termination of the agreement, both for reasons of convenience and for reasons of cause?
- **Insurance** – Is the private contractor required to maintain specific insurance coverage (i.e. business insurance) during the term of the contract?
- **Indemnification** – Is the client government agency indemnified against liabilities from contractor actions, including patent, copyright and trademark infringements?
- **Legal Compliance** – Are all of the laws with which the contractor must comply known and planned for?35

**Case Illustration – The Development and Use of Standardized PPP Contracts for Information Technology in the UK**

The UK has developed what is arguably the most advanced and systematized framework for public-
private partnerships in the world. Launched in 1992 as the “Private Finance Initiative”, it has successfully attracted over US$82 billion of new private investment in sectors such as transportation and public facilities, as well as IT and e-govern-ment. Part of what has made this PPP framework successful has been the development of clear guidelines, including Model PFI contracts for each sector.

In 2000, the UK’s Treasury Taskforce published its guideline, Standardisation of PFI Contracts – Information Technology,\(^\text{36}\) which featured guidance on Contract Drafting for IT PFI Projects. This guideline incorporated model contract language for specific sections of PFI IT contracts, including:

3. Definitions;
4. Implementation;
5. Protections against late full implementation;
6. Delays;
7. Information warranties;
8. Performance monitoring;
9. Changes to the services and the contractor’s technical solutions;
11. Consequences of termination or expiry;
12. Compensation payable on termination;

The use of such model contract language for PPPs in e-government and ICT significantly shortens the process of preparing and approving these contracts.

Lessons Learned and Good Practices Checklist

- These negotiations should be kept as brief and focused as possible. In the case of detailed and well-prepared PPPs, there should already be a full draft of the PPP contract (concession agreement, off-take agreement, etc.) included in the tender package and a clear and detailed PPP risk-allocation structure, that includes the precise amount and form of any public sector support the project may receive.
- Contracting agencies and their transaction advisors should avoid requests—by the successful private bidder or by any other parties to the projects—to “re-open” project issues to negotiation and to consider material changes to the scope and risk allocation structure of the project. This could lead to effectively removing the important economic benefits that the original PPP project and the successful bidder’s bid offered to the client government.

Technique 6.2 – Ensuring that Signed PPP Contracts Reach Financial Closure and Implementation

Definition

Government agencies that procure PPPs for e-government should understand that the signing of a PPP contract does not necessarily lead directly to implementation. For larger, capital-intensive IT projects, the financial requirements of the project may be larger than any single private contractor can provide on its own. For such projects, a new “PPP Project Company” or Special Purpose Vehicle (SPV) usually needs to be incorporated to undertake the new project. This SPV will likely receive 20–40% of its total investment needs from its private owners as equity, which means it will need to raise 60–80% from commercial lenders. Before these private banks are willing to lend, they will insist on performing their own detailed due diligence on all of the risks facing the project, and insist that risks within the project are properly allocated to the party that is best able to manage each specific risk. This process, combined with the bank’s normal credit analysis, can take many months to complete—often up to one year for larger, complex deals.

Thus, financial closure is the process of a PPP project’s financiers finally agreeing on all of terms and conditions of the project, including signing the financing contracts that commit lenders and others to provide the funds that the project needs. This process happens between the private contractor and their own lenders. However, there are occasions when governments and their PPP transaction advisors are asked to clarify and help facilitate this process.

36 For further information on the UK’s latest PFI Standardised Contracts see http://www.hm-treasury.gov.uk/documents/public_private_partnerships/key_documents/standardised_contracts/ ppp_keydocsstand_index.cfm
Rationale
Reaching financial closure for larger and complex PPPs is a very demanding process. The consequences of a private contractor not reaching financial closure are very costly for client government agencies as well. While the private contractor may forfeit their bid bond, the implementation of the needed e-government project can be either delayed by a year or more, or it can be cancelled altogether. Most of the process of reaching financial closure occurs directly between private investors and their lenders, and does not directly involve governments. Nevertheless, there are a number of things that governments can do to help make sure that the financial closure process occurs smoothly and successfully.

Description
1. Understanding the Requirements of Project-Backed Financing for PPPs
The key feature that defines the term “project finance” is that the new project’s own revenues are relied upon to repay all loans and investments, rather than these loans simply being guaranteed by a host government or guaranteed by being carried directly on the balance sheets of the private sponsors. This means that project sponsors (i.e. the private developers and owners), and especially their commercial lenders, are much more thorough in carefully analyzing all e-government project risks and structuring project contracts to make sure that whatever might happen to the specific project in the future (i.e. risk events), each party will successfully manage their assigned risks, such that the project will still be able to perform as planned and to recover all of its costs.

However, this project-backed financing structure places a lot of new risks onto lenders. Without either sovereign guarantees from the host government, or pledges of adequate collateral from the private owners of the new project company, lenders must face the possibility that if the project fails to perform as planned, then they risk not being repaid.

2. Understanding the Need to Strengthen PPP Bankability: Credit Enhancements
Once PPP contracts have been awarded and signed, a very important negotiating process begins between the private developers and their selected lenders. Some of the main categories of credit enhancements that have often been used in project financing include: (i) raising more equity; (ii) introducing mezzanine financing or subordinated debt; (iii) enabling additional sources of project revenue; (iv) utilizing escrow agents; (v) capitalizing reserve accounts; and (vi) employing partial risk and partial credit guarantees from MDBs and Donors. It is important to note that while each of these options can improve the

Figure 18. Limited-Recourse "Project Finance"
Creditworthiness of a project from the lender’s perspective, they often increase the risks for other selected parties.

**Appointing an Escrow Agent** – Escrow accounts are a common feature of many project financings. An agent, who is acceptable to lenders, is selected to manage an account. The account is governed by a detailed agreement, called the “Escrow Agreement”. All revenues collected by the SPV are first deposited into the account, and held in “escrow” until they are paid out by the Agent according to the detailed requirements of the escrow agreement. Escrow agreements give lenders comfort that an independent party, rather than the operating contractor, the developer, or some other party, is managing the SPV’s payments. In lease-type projects, where private operators are required to pay a lease fee to the government (to pay the long-term debts incurred in building the system), operators are exposed to the risk that government customers, who often have never paid their water or electricity bills, will continue avoiding to pay. This risk is often dealt with in the Escrow Agreement, by requiring the escrow agent to subtract from the lease payment the amounts not paid by government customers.

**Raising Project Equity** – Another technique to improve creditworthiness is to finance more of the project’s investment through equity, and less through debt. Assuming revenues and O&M are held constant, this means debt service payments are lower, due to borrowing less, and the DSCR has been increased. However, this comes at the cost of decreasing the return on equity—even though the absolute size of profits has increased!

**Introducing Subordinated Debt** – While a proposed project’s creditworthiness could be improved by doubling the equity investment, in practice this is rarely possible, especially for large infrastructure projects. Therefore, many proposed projects are faced with stalemates, where lenders are not willing to lend more, and developers are not willing to invest more equity. This is an opportunity for the use of subordinated debt.

A subordinated lender could be willing to take more risk than the existing, senior lender, by agreeing to be repaid after the senior lender, but before the equity investor. This subordinated lender would expect a higher interest rate. Because this lender stands between senior lenders and owners, this is often referred to as “Mezzanine Financing”.

Subordinated debt is extremely useful to infrastructure project financing. However, in practice, there are very few financial institutions willing to offer it as a product. Assessing the riskiness of subordinated debt differs significantly from senior loans when commercial lenders are determining their capital adequacy. It is also much more challenging to price. Multilateral development banks, however, do provide subordinated debt for infrastructure project financings. This includes the International Finance Corporation (IFC), the Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), and regional development banks, such as the Development Bank for Southern Africa (DBSA). As part of the national framework for PPPs and project financings, there is much that governments can do to work with MDBs to facilitate the use of subordinated debt, such as setting up Public-Private Infrastructure Financing Facilities (PPIFFs).

**Figure 19. Enhancing PPP Creditworthiness through Introduction of Subordinated Debt**

<table>
<thead>
<tr>
<th>Figure 19. Enhancing PPP Creditworthiness through Introduction of Subordinated Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a Mezzanine Level of Subordinated Debt</td>
</tr>
<tr>
<td>+ Improves DSCR for Senior Lenders</td>
</tr>
<tr>
<td>– Higher interest rates for Subordinated Debt</td>
</tr>
<tr>
<td>– Increases total Debt Service Costs of the project</td>
</tr>
</tbody>
</table>

- **Revenue**
- **EBITDA**
- **1. O & M Costs**
- **2. Senior Debt**
- **3. Subordinated Debt**
- **4. Taxes**
- **5. Profit**

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Techniques for Negotiating Contracts and Financing PPP Projects in E-Government
commitments from sponsors. Usually stipulated as part of the project’s loan agreement, these confirm that if the project needs additional cash or investments—especially during the early years of the project—sponsors pledge to invest an amount equal to, say, 10–20% of the project’s initial investment. These pledges can either be unfunded, or they can take the form of fully funded reserve accounts. For example, many private utility revenue bond covenants in the US, require that the utility maintain as a reserve account an amount equal to 5 quarters, or 15 months worth, of debt service payments. Typically, these accounts are managed by an escrow agent and governed by the specific escrow agreement. Such accounts can give comfort to lenders, that should the project run into problems, there will at least be a period of one year during which remedies can be negotiated and implemented. However, adding these reserve accounts to a project will increase the project’s total costs, which ultimately results in higher prices for the client agency or for its end-users. For example, if a US$100 million project borrows 80% of its investment needs through 10-year loans, which charge 12% interest, it will have an annual debt obligation of US$14.16 million. If it is then required to set-up a new debt service reserve account that is equal to 125% of its annual debt service payments ($14.16 million x 125% = $17.7 million), this means that this initial US$100 million PPP project has just become 17.7% more expensive.

**Technology Escrow Accounts** – As noted above, technology escrow accounts can protect projects against technological risks. If the original firm that has licensed the e-government PPP project’s technology either goes out of business or stops providing the support services that the PPP project company requires, the technology escrow agents will ensure that the project still has access to the technology’s source code or other proprietary information. Like all escrow agents, a technology escrow agent who is retained for the entire term of a PPP contract, must be paid by the project, adding to the project’s costs. In practice, if a technology licensor does go out of business or decides to stop providing support services to one of its existing technologies, it is often a good indication that the technology is no longer very efficient or cost-competitive. Therefore, a PPP project might be best served by using the technology escrow agreement as a way of “buying-time” during a transition phase, while the client agency evaluates how best to acquire a more competitive technology.

**Partial Risk and Partial Credit Guarantees** – Project financings are governed by a very detailed set of contracts to protect lenders from unacceptable credit risks. Nevertheless, perceived political and regulatory risks often remain very high. If a new government defaults on its contractual obligations, it can be a very long, expensive, and uncertain process to seek compensation, even when remedies and consequences are clearly spelled out in the project agreements. Since the early 1990s, MDBs such as the WB, the ADB, the EBRD, and the European Investment Bank (EIB), have offered partial risk and partial credit guarantees (Figure 20) to participating member country governments and private investors and lenders. USAID has created the Development Credit Authority (DCA) guarantee mechanism, and the UK’s DFID offers the Granco Guarantee. There are two parts to these guarantees. First, the MDB offers to the participating local or international lenders a letter of credit, which they may activate if the government defaults on its project obligations by seizing assets, or refusing specified price increases, or refusing to pay for project services. These PRGs have a specified term, such as for the first five years of the project, and a specified maximum amount. Second, the MDB requires a counter-guarantee by the host government that it will not engage in any of the specified default activities, and that if it does, the government will owe the MDB an amount equal to the PRG.

In addition to providing strong political risk insurance to investors and lenders, PRGs have the advantage of being able to extend the terms of local currency loans. In many developing economies, the maximum term that local banks can provide debt for is 7–10 years. Infrastructure projects need long-term debt (12–15 years) in order for tariffs and tolls to be affordable. Under a PRG, a MDB can guarantee the local bank’s loans to an infrastructure project for the first five years. Note that the first years of a new infrastructure project are always the riskiest. Then, essentially, the local bank can lend directly to the project for the next 10 years. Thus, the PRG has turned a local 10-year loan into a 15-year loan. This is especially useful for infrastructure project financings, where
one of the biggest risks facing the global market is foreign exchange risk. Investors and lenders see foreign exchange as a political risk, and governments are increasingly reluctant to guarantee payments that involve foreign exchange. This troublesome risk, however, can be minimized by borrowing more of the project’s investment costs in the same, local currency in which the tariffs and tolls are collected.

Despite the attractiveness of PRGs to investors, lenders, and even to local officials managing new infrastructure investments, some government officials are reluctant to sign the counter-guarantees required by the MDBs. Some have cited concerns over the “moral hazards” these guarantees could incentivize. Others, such as the Government of the Philippines in the mid-1990s, indicated that it would only agree to these guarantees for local investors and lenders—and that for foreign lenders or investors to ask for a government counter-guarantee was an insult to the national government’s sovereignty.

This process of project lending negotiation features both the development of Term Sheets and the conducting of the lender’s due diligence. Once this is completed, the last and often most difficult process, is structuring the project so that it satisfies the key credit concerns of lenders. While most projects come to lenders with a fairly specific risk-allocation framework already in place, it is not at all unusual for lenders to request that these agreements be modified, and from the lender’s perspective, strengthened so as to place more risks onto those parties best able to control and manage them.

**Case Illustration – Project Financing for the Philippines PPP Computerization of the Land Transport Office**

Among developing countries, the Philippines has one of the longest track-records with structuring PPP investments. Since 1990, it has attracted over US$27 billion of private investment into sectors such as energy, transportation, water and wastewater, and IT.

The government’s Land Transport Office, which is responsible for registering the country’s vehicle population, is the country’s 4th largest generator of public revenue. However, with over 280 different offices and vehicle inspection stations, it lacked efficiency, and it lacked an effective system for sharing information. In 2000, the government tendered for a PPP
contractor to BOO the new IT system for the LTO. This included not only providing data interconnections, but also establishing and operating dozens of new LTO kiosks throughout the country that would allow users to apply for and receive licenses, registrations, and inspections.

A competitive tender was awarded to a consortium of Philippine investors [Strategic Alliance Development Corp. (60%) and Comfac Corp (40%)] and US technology suppliers, who formed the new project company “Stradcom” to undertake the US$84 million project. As an SPV, Stradcom was capitalized with equity investments from its sponsors. It then successfully received US$40 million in project-backed debt financing from the IFC, through an A Loan of $0 million, a B Loan of US$20 million, and C Loan (quasi-equity) of US$10 million.

Lessons Learned and Good Practices Checklist

- Consulting with and liaising with local and international private lenders during early stages
  The international market for project-backed lenders is one with relatively few players in it. Although these lenders may compete for deals between each other, they are generally keen to see that the quality, strength, and “bankability” of the deals coming onto the market get better and better. Therefore, many lenders are willing to share their initial assessments of PPP projects early on, in order to let governments know if they generally appear bankable or if they need significant restructuring and strengthening. Experienced transaction advisors can be very helpful in gathering initial feedback on proposed PPP structures from private investors and lenders, to uncover any important constraints or obstacles.

- Include Full, Complete, and Clear PPP contracts included in RFPs and Bid docs
  Sometimes governments are pressured to quickly implement and award PPP contracts, and they do so by issuing incomplete tender documents. Usually these documents have sufficient technical detail on a project, but they are often unclear about the exact nature of the risk-allocation structure. This not only makes it difficult for private developers to prepare a precise bid, it also makes it more difficult for the government to make an award decision, because the different bids are based upon different assumed allocations of risk and different prices. Once an award decision is made, there still remains the difficult task of negotiating the final PPP contract. Such uncertainties also tend to make the project financing negotiations more difficult, because lenders need to perform their own due diligence on a changing project structure. Therefore, it is good practice to include a full and complete version of a project’s contract in the RFP package, so that bidders and their lenders have a precise understanding of the project’s risk allocation structure. Again, appointing experienced transaction advisors is an effective way of ensuring that this important task gets done.

- Making a clear system of all forms of allowable credit enhancements, limited guarantees, counter-guarantees, etc. available and known to bidders and lenders early on.
  Often, when governments have tendered their first major PPPs, contracts have been awarded and signed only to have the awarded firms return with additional requests for changes to the contract and to the project structure, in order to satisfy the concerns of their lenders. This risks undermining the integrity of the entire competitive procurement system. To avoid this problem, governments should ensure first, that only firms with real experience in project financing are qualified to bid, and second, that all allowable forms of public sector support are known in advance to all bidders.

- Start out small. The larger the project size or more complex its structure (technologies, risk-allocations, perceived risks, etc.) the more difficult it is to reach financial closure
  International experience has shown that the larger the PPP project, the more difficult and complex is its financing structure. To reduce the time delays, and even the risk of projects failing to close, governments are advised to start out with smaller projects, and then to gradually tender out larger and larger projects. Once the key risk allocation models have been established and successful precedents have been set, larger transactions will be easier to negotiate and complete.

- Monitoring negotiations to decide whether to grant extensions or “pull the plug” on preferred bidders
  Internationally, most PPP infrastructure project financings give a maximum of one year from
contract signing for the awarded firm to demonstrate that it has reached financial closure, and for groundbreaking on the project to begin. Although the project financing negotiations occur between the private investors and their lenders, the government should ask to be informed about progress to ensure that those negotiations are leading to a successful conclusion. Governments and their transaction advisors should stand ready to respond to requests from lenders for additional information about projects. Typically lenders will insist on hiring their own advisors to carefully verify all background information about a project, as part of carrying out their own due diligence.

Governments can facilitate this process by making all relevant sources of information available to lenders as needed.

Governments should ask for regular progress reports from the awardees on their project financing negotiations. If after the first three to six months it appears that little actual progress has been made, and that there is little likelihood of a successful outcome by waiting another six months, governments and their transaction advisors may consider options for mutually agreeing to terminate the contract, and awarding the contract to the second-ranked bidder.
Up until now, the focus of this PPP Handbook has been on the pre-transaction tasks of identifying, analyzing, structuring, tendering, and signing PPP contracts. However, some PPP contracts in e-government can have terms lasting 10–20+ years, and while it is critical that they be prepared and structured well, it is equally critical that they be properly managed, monitored, and sustained during their long operating terms.

Otherwise said, if PPPs are likened to long-term marriages between the public and private sectors, it is one thing to select the right partner and to plan the wedding ceremony, but it is equally important to sustain and support the marriage after the honeymoon. Like a marriage, the partnership in a PPP is one that needs to work for both parties. Otherwise, as experience has shown, if one party believes that it has more to gain from terminating the contract, then the partnership no longer works for either party.

All PPPs have either a concession agreement, or some form of implementation or off-take agreement, that stipulates the performance standards and the prices or pricing formulas for the project in question. For example, India's corporate and commercial laws and regulations all contribute to the make-up of much of the surrounding legal framework for the project. To minimize exposure to perceived political and regulatory risks, private investors and their lenders prefer to clearly fix a contract's prices, and clearly specify how any decisions about changes to those payments within the project agreement will be made. Governments and the consumers they represent, however, need to ensure that the new PPP project performs satisfactorily, and if the private developer is providing a
natural monopoly service, that the PPP does not behave in a monopolistic manner—maximizing profits, restricting quantities, and raising prices at the expense of consumer welfare. Thus, the challenge is to develop a regulatory framework whereby all parties agree upon the mechanisms for how these changes can be made in a manner that is acceptable and sustainable.

This PPP Handbook has divided up the post-transaction management issues of PPPs into two categories:

- First are the post-transaction issues that occur within the terms and conditions of the PPP contract. For example, most long-term PPP contracts for leases, BOTs, and concessions, contain within them procedures and formulas for making decisions about any needed changes to the price or tariff for a PPP. Therefore, requests to adjust tariffs are generally managed within the contract, without requiring any substantive or fundamental changes to the contract itself.

- Second are the post-transaction issues that lead to requests, by either the public or the private sector, to change the underlying contract itself through a contract revision or re-negotiation process. These requests can lead to contract disputes, which can be addressed through dispute resolution mechanisms. Increasingly, long-term PPP contracts have to handle more demanding challenges to revise and renegotiate contracts, and to resolve formal disputes.

This Chapter will provide techniques for managing key steps in the post-transaction PPP contract compliance and performance monitoring process:

- 7.1 – How to Design and Manage PPP Contract Performance Monitoring Institutions/Units
- 7.2 – How to manage requests for adjustments in PPP contract prices and costs
- 7.3 – How to measure and monitor contractor performance (technical, financial, legal and other)
- 7.4 – How to manage requests to revise and renegotiate PPP contracts, and alternative dispute resolution mechanisms

Technique 7.1 – How to Design and Manage PPP Contract Performance Monitoring Institutions/Units

**Definition**

The performance monitoring and regulatory body is the institution for gathering the data necessary: (i) to determine what level of service and performance is actually being provided; (ii) to ensure that the terms and conditions of the PPP contract are being properly enforced; and (iii) to ensure that specific requested changes within the PPP contract, such as adjustments to tariffs are prices, are properly carried-out.

**Rationale**

In all PPPs, the public sector always remains responsible for regulating the performance of the sector, regardless of whether the delivery of services is being provided by public or private sector operators. Without this function, it will not be possible to accurately determine if the original goals and the contracted requirements of the e-government project are actually being met.

**Description**

Generally, there are two main options for how the institutional functions of PPP performance monitoring and regulation are conducted:

- Regulation by contract;
- Regulation by commission.

The determination of which technique to use depends on the structure of the PPP contract in question.

1. **Regulation by Contract: The Contract Compliance Office**

Regulation by contract means that nearly all of the decisions about the issues of whether or by how much tariffs and prices should be adjusted are contained within the specific terms and conditions of the contract itself. In general, PPP techniques such as service contracts, management contracts, many leases, and most BOTs, have a single, public sector off-taker or customer, and are therefore monitored by a Contract Compliance Office. Contract Compliance Offices generally do not require expensive resources in terms of staff or
budgets. However, they do require a clear designation of responsibility for monitoring performance, and the staff tasked with carrying it out need the clear capacity and resources to do their jobs. In general, Contract Compliance Offices need the human and budget resources for:

- Gathering and verifying data on the technical performance of a PPP, as specified by the key performance indicators and “out-puts” required by the PPP contract;
- Gathering and verifying financial and cost performance data of the contract;
- Monitoring and ensuring compliance with and enforcement of the legal terms and conditions of the contract;
- Coordinating with other relevant compliance bodies and regulators or outside monitoring specialists, such as outside lawyers, engineers, environmental specialists, retained to give advice on specific PPP performance issues.

For some PPPs, such as service contracts and management contracts, the Contract Compliance Office consists of just one single individual. A single Contract Compliance Officer would usually be supported by the ability to hire qualified outside specialists as needed, to address specific technical, legal or other performance issues. Because more public utilities are unbundling their services through multiple PPPs such as service contracts, often a single Contract Compliance Officer oversees the performance of a portfolio of several different PPP contracts at once. For larger and more complex PPPs, such as leases and BOTs, a Contract Compliance Office may include a team of different specialists responsible for technical, financial, legal, consumer service or other areas of contract performance. Usually, however, the size of Contract Compliance Offices—even for large BOT contracts—is relatively small, featuring not more than three to four professionals.

### 2. Regulation by Commission: The Infrastructure/Utility Regulatory Commission

When a PPP creates a private monopoly (one single seller) selling to individual retail consumers, then a regulatory mechanism is needed to protect the legitimate interests of consumers and private investors. Many infrastructure sectors have sector-specific laws for water, electricity, telecommunications, railways, etc., that give the exclusive right and responsibility for providing this service to the country’s citizens and consumers, to a public statutory authority. If

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**TABLE 15. Determining the Appropriate Regulatory Technique**

<table>
<thead>
<tr>
<th>Regulatory Issues</th>
<th>Regulation by Contract</th>
<th>Regulation by Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Structure</td>
<td>Monopoly (one single public buyer of the service)</td>
<td>Monopoly (one single private provider of the service and many individual customers)</td>
</tr>
<tr>
<td>Types of PPPs</td>
<td>Service Contracts, Management Contracts, BOTs, some affermage-type contracts</td>
<td>Concessions and some lease-type contracts</td>
</tr>
<tr>
<td>Risk of inaccurate information about existing infrastructure network and assets</td>
<td>Relatively Low</td>
<td>Higher risk of unknowns</td>
</tr>
<tr>
<td>Private contractor’s certainty about how much new investment is required by the project</td>
<td>Higher degree of certainty</td>
<td>Generally a lower degree of certainty (more risk for private investor)</td>
</tr>
<tr>
<td>Collection Risk faced by Private Contractor</td>
<td>Low. Collection is from one, single public client</td>
<td>Higher. Collection is from multiple individual accounts</td>
</tr>
<tr>
<td>Price Adjustment Procedures</td>
<td>Determined by a specific formula within the contract. Little discretion needed to make tariff adjustment decisions</td>
<td>Prescribed by price adjustment procedures within the concession contract, but verified and approved by the discretionary judgment of a qualified commission of regulators</td>
</tr>
</tbody>
</table>
this public statutory authority chooses to appoint a private operator to provide this service directly to consumers, then legally, it must give or “concede” this right, and a concession contract is required. When this special right has been conceded to an outside party, consumers need a mechanism to protect their interests vis-à-vis the new private monopoly. This is one of the key bases for a public utility regulatory commission.

Additionally, concessions frequently involve the handing-over of existing utility network assets and systems to a private operator—unlike the construction of a Greenfield or stand-alone facility. Usually, however, there is an important level of uncertainty about the exact condition and even the location of these existing assets, such as telecommunications networks buried underground. These uncertainties present important risks for private investors and lenders, who become accountable to replacing these old assets, rehabilitating systems, and meeting the minimum service quality targets and outputs required by a concession contract. Therefore, regulatory commissions are needed to use their independent judgment and discretion to reach price adjustment decisions that are reasonable and fair to both private investors and consumers.

Regulatory commissions generally require more resources than do Contract Compliance Offices. To ensure that the key decisions of regulators—which often affect tens of thousands of individual consumers—are fair, reasonable, and transparent, commissions make all of their proceedings open to the public. The size of the concession projects that commissions oversee tend to be larger and more complex, often requiring several teams of technical specialists, each responsible for monitoring and analyzing different areas of a contract’s performance (technical, financial, legal, social and customer service, etc.).

Regulatory commissions perform most effectively when they are independent. This means that key decisions about approving or denying changes to the prices of public services are made based upon sound technical, professional, reasonable and fair judgments about performance levels and costs, independent of pressures from either politicians or from private contractors. The three characteristics of independent regulatory commissions are:

- The selection and appointment of commissioners should be based on their technical experience and professional qualifications, rather than on their political qualifications and loyalties.
- The commission's operating budget is funded by the utility sector itself—for example, through a charge to each individual utility account holder, or a required “concession fee” charged to the private concessionaire. The commission should not be dependent on a political body, such as a State Assembly, legislature, or cabinet for its budget to be approved.
- The commission's decisions should be allowed to stand, and should not be over-turned by politicians because they are deemed unpopular. The only cases in which the actions of decisions of a regulatory commission may be over-turned is either if criminal conduct, such as bribery, can be proven, or if significant procedural errors and mistakes can be proven.

Case Illustration – Johannesburg, South Africa’s Contract Monitoring Unit and the Five-year IT Management Contract

In 2000, the City of Johannesburg, South Africa established a new Contract Monitoring Unit to oversee the growing number of city-owned public utilities and PPP contractors. The unit was established with the human and financial resources needed to monitor services ranging from water and electricity distribution to the City’s 5-year IT management contract.

Lessons Learned and Good Practices Checklist

- In practice, most private contractors prefer regulation by contract strategies instead of regulation by commission. Regulatory commissions, as we will describe below, place more discretionary powers into the hands of a panel of local commissioners or board members.
- Contract compliance offices, however, generally ensure that the contract’s key payment formula is followed when approving requested tariff adjustments. These tariff formulas generally identify which costs may be “passed-through” to the customer. Those costs may include:
  - Changes in inflation, as tracked by a Consumer Price Index (CPI);
  - Changes in Foreign Exchange Rates;
- Changes in laws or regulations that can be shown to increase the private contractor’s costs.
- In practice, there is an easy test to determine whether a public services regulatory body is truly independent: if all of the stakeholders are basically equally disappointed in the regulator’s decision, then it is safe to say that the regulator is independent. Whenever any party (the government, the private contractor, consumers, or others) concludes that they got everything they wanted from a regulator’s decisions, then there is reason to suspect whether the regulator is truly independent.
- To ensure that PPPs in e-government actually deliver the real value for money benefits that they were planned to deliver, PPP contract monitoring bodies should regularly measure the actual output levels of service being delivered by the specific PPP project, and compare them to the target levels of service in both the contract and in the earlier project feasibility studies. Some national and state governments, such as the UK and the States of Australia, have had external audits of their PPP programs in order to measure the actual value for money benefits that a whole range of PPP projects are delivering. (For an example of this, see the State of Victoria, Australia’s 2004 Review of Partnerships Victoria Provided Infrastructure: Report to the Treasurer.37) These are then used by PPP analysts and policymakers to recommend ways in which the overall design of the PPP Policy, its Procedures and Regulations might be improved in the future. This is a key to the sustainability of any national PPP program. The UK, which has been implementing PPPs and PFIs for over 15 years, has what many experienced observers credit with being the clearest and most efficient frameworks for PPPs, and one that has attracted the largest volume of new private investment into its infrastructure. However, even after 15 years, the Government of the UK continues to seriously consider options to change, restructure, and improve its PFI, in order to make it a more competitive option for developing and improving the nation’s public services long into the future.38

**Technique 7.2 – How to Manage Requests for Adjustments in PPP Contract Prices and Costs**

**Definition**
Price adjustment techniques are models for making predictable decisions about whether and how any changes should be made to a PPP contract’s prices, tariffs, or tolls in response to specific changes in the conditions in which a PPP contract operates. These changes in conditions are usually the result of changes in the operating costs or the investments that a private contractor must fund. The key decision about which price adjustment technique for a government to choose, depends upon what types of performance the government would like to encourage from the PPP contractor.

**Rationale**
It is practically impossible to write a single PPP contract that can foresee with certainty all material changes to a contract’s conditions for 10 years. Essentially, all parties agree at the outset that conditions will change over the life of the contract, and that these are likely to affect the costs that a contract must bear. Whether a PPP contract is regulated by a Contract Compliance Office or by a Regulatory Commission, some predictable rules and procedures should be agreed upon in advance regarding how decisions about possible adjustments to prices and tariffs should be made.

**Description**
Whether regulation of a PPP project is carried out by a contract compliance office or by a commission, there are two main techniques of setting and adjusting prices. Each technique provides incentives for the private developer to meet the goals of making new investments in the network or to

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38 See for example the UK Treasury’s 2006 Report Strengthening Long-Term Partnerships at http://www.hm-treasury.gov.uk/media/7/F/bud06_pfi_618.pdf
increasing operating efficiency. Neither technique is necessarily superior to the other. Rather, each can be applied to meet the changing priorities of infrastructure sectors over time:

- Rate of Return Regulation;
- Price-Cap Regulation.

1. Rate of Return Regulation

In rate of return regulation, the regulator must first review all of the assets in which the PPP project company has invested, and determine whether they are “used and useful.” Second, the regulator reviews the operating expenses of the PPP project, and determines whether they are all “prudent and necessary.” The main decision that the regulator focuses on, is determining what the company’s return on capital should be. Third, the prices the private contractor charges are adjusted to meet the new revenue requirement that provides this approved rate of return. The main guideline for how this rate of return regulation is implemented in utility regulation law, comes from a 1944 US Supreme Court decision:

*It is important that there be enough revenue to meet the operating costs of the enterprise and the capital costs as well. This includes interest of the debt and dividends on the stock. That return should be commensurate with returns on other enterprises facing corresponding risks. That return moreover, should be sufficient to assure the financial integrity of the enterprise and its ability to attract capital.*

This exact legal language from the Hope Natural Gas Case decision has been used by many developing economies over the past 60 years, when they first established new public utility regulatory commissions. In practice, fixing the rate of return that a company earns has been an effective method of incentivizing the private investor to go ahead and make investments in long-term assets. Investors are nearly assured that if they make these new long-term investments, they will earn a fair return on them. However, rate of return regulation has not been an effective way of encouraging operating efficiency by private utilities. In practice, it has been difficult for regulators to force companies to either cap or to reduce their operating expenses when their rate of return is also fixed.

2. Price-Cap Regulation

The second major technique of tariff adjustment for PPPs is price-cap regulation. Price-cap regulators set the prices that private contractors may charge during a given test period—say five years or longer—and allow the company to earn and keep whatever returns they achieve for that period. In practice, this has been a much more effective way of incentivizing companies to improve efficiency and reduce operating expenses. However, it has not necessarily encouraged private contractors to make new investments in system expansion, reliability and security. A price-capped operator would be likely to choose to invest in a new asset that reduced operating costs, such as a new automated remote metering (ARM) system to replace more expensive human meter-readers. However, the operator would be reluctant to invest in new assets that do not directly reduce operating costs, such as back-up systems and added security, unless clearly required to do so by the contract and by regulators. Under this price-cap technique, regulators need to be more vigilant in their performance monitoring, to make sure that private companies are not aggressively reducing operating costs at the expense of the quality and reliability of their service.

When prices are capped for a given test period, such as five years, they are pegged to a common retail price index (RPI), minus an efficiency factor, “X”. The X-factor is the single most important decision that the regulator makes. It represents the annual rate of improvements in operating efficiency that the regulator believes the company can reasonably make. For example, if the inflation rate for a 5-year revenue period remains constant at 8% per year, and the regulator believes that the company can reasonably improve its efficiency by 3% per year, then the company is allowed to raise its prices by 5% per year [this is calculated by subtracting the X-factor (3%) from the inflation rate (8%)]. In other words, the company must reduce its operating costs by at least 3% each year just to maintain the same level of profitability. However, what often happens in practice is that at the start of the review period when the X-factor is announced, companies will work hard to reduce their operating costs by

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more than the X–factor, because of the incentive to maximize their profitability.

In practice, even though the prices charged to customers are lower under the price-cap method, the profits and the investor’s return on its investment are higher. This is because operating risks and regulatory risks are higher under the price-cap regime. The compromise that lies at the heart of price-capping, is that private contractors are essentially told, that, regarding any cost-savings that they are able to achieve, they can keep the financial benefits of these improvement for the first five years and after that those financial benefits must be shared with consumers.

Case Illustration – Payment Adjustment Terms of Victoria, Australia’s Mobile Data Network PPP Contract
The State of Victoria, Australia’s PPP contract for the provision of Mobile Data Network services to the State’s police and emergency services contains the following provisions for when (and when not) payments to the PPP contractor may be adjusted:

12.8 Service Payment Adjustments

The Service Payment as specified in the Service Payment Model may be adjusted for the following:

- In accordance with a Variation (clause 31);
- In accordance with clause 5.3(c);
- As a result of a Force Majeure Event (clause 9.2);
- As a result of the introduction of a new customer in accordance with clause 10.6;
- In accordance with clauses 12.2, 12.6 and 12.7;
- As a result of an increase in Message Volumes (clause 12.9);
- In accordance with the Payment Adjustment Regime (clause 13.1);
- As a result of a Productivity Gain (clause 51);
- In accordance with clauses 32 and 34.5; or
- As a result of any other matter or event in respect of which this Agreement expressly contemplates an adjustment of the Service Payment Model.

The Service Provider is not entitled to automatically adjust the Service Payments for any of the events listed in clause 12.8. Service Payments may only be adjusted in accordance with the applicable clause referred to in clause 12.8, and with the agreement of the State. Any dispute in respect to adjustments to Service Payments under clause 12.8 will be resolved in accordance with clause 40.40

Thus, this is essentially a price-capped PPP contract.

Lessons Learned and Good Practices Checklist
- In practice, most large, capital-intensive PPPs, such as BOTs, are structured with detailed contracts that prescribe a variant of the price-cap technique, and the review period is for the full 10+ years of the project’s life. Prices are adjusted according to changes in inflation rates, world energy price indexes, foreign exchange rates, and occasionally to benchmark interest rates. The contracts also usually include requirements that any new investment project be completed according to an agreed timetable, or that specific performance standards be met by certain deadlines—such as deadlines for completing a specific number of new water or electricity connections. Sometimes these goals can be ensured more effectively by applying a variant of the rate of return regulatory technique. The sooner the company undertakes its new investments, the sooner it can earn its agreed rate of return on them.

Technique 7.3 – How to Measure and Monitor E-Government Contractor Performance

Definition
PPP contractor performance monitoring is the function carried out by the regulatory body: (i) to determine what level of service the PPP contractor is actually providing; and (ii) to devise a system of rewards and penalties to incentivize the contractor to meet and to exceed these performance levels.

Rationale
As discussed previously, PPPs are contracts based on clear and distinct outputs, such as performance

40 For a copy of the full PPP contract and its attached schedules, please see http://www.tenders.vic.gov.au/CA256AEA00206A7D/webpages/PublicContractsFrameset?Open
levels, rather than on inputs. A key requirement of a PPPs regulatory institution or framework, is to ensure that these specific performance levels are, in fact, being met through the monitoring of the project’s technical and operating performance.

**Description**

Contract compliance officers need to monitor the performance of PPP contractors to determine if they are meeting the minimum requirements of their contracts. To do so, specific data and information needs to be gathered and analyzed.

Examples of some of the kinds of data gathered and key performance indicators analyzed for PPP in e-government services include:

- The number and timing of new interconnections made (if relevant);
- The volume of transactions provided or records processed;
- The percentage of time that the project is available for users;
- The availability of the project to provide service;
- The proven ability of a new project or service, through commissioning tests, to operate at its intended and contracted capacity;
- The number of proven and justified complaints received from consumers for inadequate service.

Each project has its own specific levels of performance and relevant indicators for measuring them.

**Case Illustration – US Intergovernmental Advisory Board Guidelines for the Evaluation of E-Government Projects**

- **Financial**: Reducing costs or increasing revenues;
- **Economic**: Increasing income of business or regions;
- **Process**: Consolidating and integrating systems to produce greater efficiency and effectiveness;
- **Societal**: Improving the transparency and accountability of government;
- **Service**: Providing more efficient or more effective services to citizens.

**Lessons Learned and Good Practices Checklist**

- **Selecting Performance Indicators that are Objective, Quantitative, and Verifiable**

It is important for regulators to select indicators to monitor, that can be readily verified and not subject to interpretation. For example, in areas such as the PPP contractor’s training of its staff or providing customer service, it can be especially challenging to come up with consistent, measurable, and quantitative indicators of contractor performance.

- **Selecting the Most Important Data and Indicators to Analyze, Rather than the Most Numerous**

In practice, many PPP regulators—especially for brand-new pilot PPP projects—are tempted to request as much information as possible from contractors about their performance. There is often an institutional anxiety that the new PPP contractor is secretly making money at the expense of the public, and that the regulator’s job is to inspect every decision, activity, and expenditure to discover how these hidden private returns are being made. As a result, these regulators quickly find themselves overwhelmed by the information and data they must process and analyze. Soon they realize that it is better to limit performance data only to that which covers the most important areas of the contractor’s performance. This has been true of PPP regulators and contract compliance officials in Argentina and in South Africa.

- **The Costs and Physical Requirements of Gathering, Analyzing, and Verifying Performance Data**

A determinant of the institutional resources that a PPP regulator needs, is the kind of performance data that the regulator must collect. It is surprising in practice how often the costs of carrying out regulation duties are over-looked or underestimated. These costs include gathering PPP contractor performance data, analyzing it, and even verifying its authenticity and accuracy. Public PPP Project Committees can often develop “wish lists” of many different types of performance measurements that a regulator should collect, without estimating the resources needed to physically gather and record each performance instance.

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Technique 7.4 – How to Manage Contract Revisions, Renegotiations, and Dispute Resolution

Definition
Contract renegotiation and dispute resolution generally refers to the mechanism for solving differences that may arise in connection with a PPP contract—the mechanism for interpreting the arguments or implementing the solution to a dispute between the government and the private contractor.

Rationale
Despite all of the rigorous analysis and due diligence efforts that are invested in the preparation of PPP projects, tenders, and contracts, it is nearly impossible to craft a contract that can foresee all of the conditions and changes that will occur within the entire five or 10 year term of a PPP contract. When conditions do change (and they always will) there needs to be some mechanism by which the partnership agreement can be revised in a way that is acceptable to all parties. While the PPP project contract cannot predict what these new changes will be, it can agree on what the general mechanisms will be by which the parties will communicate, discuss, and agree on reasonable contract modifications. Without these renegotiation mechanisms and dispute resolution techniques, PPP contracts risk being terminated and cancelled, which is very costly for governments, for private contractors, and for the public.

Description
During past 15 years, as the global market for PPPs has grown, more and more PPP projects have focused on alternative dispute resolution (ADR) mechanisms. These ADR techniques include:

- Project Oversight Committee Discussion and Negotiation;
- Mediation;
- Arbitration/binding arbitration;
- Litigation;
- Termination.

1. Project Oversight Committees
Usually disputes about PPP contracts begin at implementation levels of projects, with managers and technical specialists. If the public and private managers or operators fail to reach agreement, then they usually seek to refer the matter up the chain to senior managers, and to those who represent the owners of either the investors or their contracted partners. In order for PPP projects to be successful and sustainable throughout their long contract terms, it is recommended that all sides be flexible in addressing new issues that arise. Therefore, it is recommended that the implementation of a PPP project readily allow the mid-level managers and technical specialists of both sides of a PPP to easily share information with each other and to discuss possible solutions, before referring the matter to senior managers. Sometimes, however, in environments characterized by political controversy and even suspicion between public and private sector personnel, it is difficult to get the implementation level managers to even feel comfortable sharing technical information with their contracted counterparts.

While it may appear obvious that the two sides should regularly be meeting to share information, and to discuss progress and plans, it is best for a contract to formally establish implementation level bodies or working groups that meet regularly to discuss issues and possible solutions—and also to formally establish senior-level oversight committees. The Oversight Committees should represent the senior managers and owners of the various parties, who should be given a chance to review these issues within the context of the overall partnership relationship of the project. These senior representatives on the committee should then decide if it is really worthwhile to declare a dispute and to take the issue to the next level: seeking mediation.

2. Mediation of PPP Disputes
Mediation requires both sides to agree to appoint a qualified official—indeed, independent of either of the two parties—who is knowledgeable about PPPs in general, and about the given infrastructure sector in particular. Often these mediators have legal backgrounds as lawyers or even judges. It is common that both sides will request that a mediator (or an arbitrator) be independent of all national and political pressures, and therefore, not be a national of the host country government or of the home country of the lead developer or its contractors. The mediator listens to testimony from both sides, and issues a recommended solution. However, the defining characteristic of mediation is that neither side is bound to accept the mediator’s finding.
Typically, the mediator will spend a reasonable amount of time (usually a day or less) hearing the summarized versions of the dispute from both sides, and will then issue a recommendation. The recommendation may come out in favor of one party or the other, or it may take the form of a compromise that involves sharing the costs of the risk event in question. The key to the success of a mediation is that it should be able to be done quickly and without significant expense. Moreover, the recommendation of a qualified mediator should be seen by both sides as being pretty close to what any binding arbitration or litigated outcome in a court would provide. Thus, for mediation to be successful, both sides should believe that they can accept the recommendation of a qualified mediator that can be provided within a period of weeks and for relatively low cost. Otherwise, they can spend many months or even years, and tens or hundreds of thousands of additional dollars in legal fees and court costs, to arrive at pretty much the same outcome. If one or both sides decide not to accept the mediator’s recommendation, then the next form of dispute resolution may be attempted: binding arbitration.

3. Arbitration and Binding Arbitration
Under arbitration procedures, both sides agree to appoint a single arbitrator or a panel of arbitrators to hear their case. Again, such arbitrators and their organizations should be agreed to and stipulated to within the PPP contract itself. In addition to the World Bank’s MIGA, there are other international arbitration bodies and associations of arbitration specialists, who are becoming increasingly experienced in hearing and in resolving the unique disputes of PPP contracts in nearly all infrastructure sectors and sub-sectors.

Unlike mediation, where both parties agree that they are free to ignore the recommended solution of the mediator, arbitration is usually classified as “binding”—meaning that both parties commit up front that they will accept and abide by the findings of the arbitrator. In this sense, arbitration resembles an official court of law. However, for PPPs, arbitration has the advantage that it can be much quicker and cheaper than going through official litigation through courts. Arbitration panels can be set up in a matter of weeks or months, and their decisions can be issued much quicker than a court decision. Moreover, arbitrators may be selected who already understand the technical, operational, and even contractual issues of such sectors as water, electricity, transportation, etc., unlike many civil court justices. Additionally, around the world most court systems are overwhelmed by the volumes of cases before them, and the mounting number of requests for new cases to be heard. If arbitration is not binding, then often the only opportunity for a party to “appeal” the decision is to seek resolution through litigation.

4. Litigation
PPP disputes may also be resolved through formal litigation in courts of law. However, this tends to be the most costly and to take the longest time to resolve, which imposes significant expenses on all parties, including the “winner.” For PPPs that involve foreign investors and lenders, the dispute resolution mechanisms of the PPP contract almost always require that a third country’s law be relied upon in the adjudication of any disputes. For example, for Independent Power Projects in South Asia that have featured private developers and lenders from the US, both sides agreed that if litigation were to be applied to resolve any disputes, it would be done in the court system of the UK.

5. Contract Termination
The final option available to end a PPP dispute is to seek the termination of the PPP contract. All contracts should specify in detail the procedures for contract termination. In most cases, termination must be formally sought or requested by one of the parties. Termination can be for “cause” or, in some cases for “no cause”. In the latter case, the party who wishes to terminate the contract is not required to give a cause. If “no cause” termination is allowed by the contract, it usually has very detailed procedures for how all the accumulated costs, including past investments, outstanding project-backed loans, and current inventories of assets, will be allocated and recovered. Generally, in large PPPs, lenders require that the full amount of their outstanding loans, plus additional fees (covering their “prepayment risk”) be paid by the government, if the government seeks to terminate the contract and to “buy out” the project company. Additionally, project-backed lenders nearly always insist on “step-in rights” for PPPs. This means that if a private investor or its operating contractor fails to perform, then the lenders may first “step in” and take over the project, and appoint their own management team and operating contractor to operate the
project and to thereby attempt to pay-off all outstanding project loans. Thus, lenders will insist on the right to step in and take over a problematic project before governments may do so.

Case Illustration – Sample Arbitration Clause
A suggested sample arbitration clause in a PPP contract might read along the following lines:

Any dispute or difference which may arise between or among the parties hereto related to or in connection with this Agreement shall first be attempted to be resolved amicably either between the parties themselves or with the assistance of a neutral third party mediator acceptable to both parties. Any dispute that is not so resolved within 30 days of written notice by one party to the other of the existence of such dispute may (only) be referred to arbitration before a tribunal consisting of three arbitrators, one to be appointed by each of the parties and the third, who shall act as chair, to be designated by the two arbitrators so appointed. The arbitration shall be held in the English language and shall be administered by the International Chamber of Commerce (“ICC”) pursuant to the ICC rules of arbitration, as amended by the provisions herein set out.

For avoidance of doubt, in the event that one party shall fail to nominate an arbitrator in the allotted time, or if two arbitrators so chosen fail to agree upon a chair, then and only then shall the ICC court have the authority to appoint the missing arbitrator.

The parties hereby waive provisions of the National Arbitration Act and the ICC Rules setting a six-month time limit for hearings, and agree that the arbitrators shall not lose their mandate so long as the hearings are completed within 12 months of the constitution of the Tribunal, and the award is issued within 90 days thereafter; with the caveat that these time limits may be further extended at the request of the Tribunal and approval of all parties.

Any award rendered in such arbitration shall be final and binding upon all parties hereto, and no party shall make any application to any court for any reason whatsoever in conjunction herewith other than for enforcement of the award once issued and if not complied with in a reasonable time.

Costs of the arbitration, including legal costs of the parties, shall be allocated by the Tribunal in such manner as they deem appropriate and consistent with the award.

Lessons Learned and Good Practices Checklist

- The PPP contract’s dispute resolution procedures should either name qualified PPP infrastructure mediators, or provide a list of qualified individuals or institutions that can provide those names. During the past decade, for example, the World Bank’s Multilateral Investment Guarantee Agency (MIGA) has become much more active in providing the names of qualified PPP infrastructure mediators from around the world.

- Contract terminations are expensive for all sides involved, and that is why they are relatively rare in large, capital-intensive PPPs. Almost all sides find it more attractive to try to restructure and renegotiate these deals, and to share the costs of projects gone awry, rather than to cancel contracts.
General terms and conditions for the appointment of a transaction advisor between [insert name of institution] herein represented by [insert name of institution's representative] in his or her capacity as accounting officer/authority who warrants that he or she is authorised thereto (hereinafter referred to as 'the institution') and [insert name of transaction advisor company], registration number [insert registration number], herein represented by [insert name of transaction advisor representative] in his or her capacity as [insert capacity] who warrants that he or she is duly authorised thereto (hereinafter referred to as 'the transaction advisor')

Background

The [insert name of institution] wishes to provide the public with a cost-effective, efficient service [insert description of the PPP project] and related activities, and requires the services of an experienced transaction advisor in bringing the PPP project from the concept stage through feasibility approval, competitive bidding and award, to actual execution.

Pursuant thereto, the institution has entered into negotiations with the transaction advisor for the provision of services based on the transaction advisor's proposal in response to the terms of reference.

The transaction advisor has agreed to provide the services on the terms and conditions set out herein.

Now it is hereby agreed as follows:

1. Definitions

In the agreement, unless the context indicates otherwise, the following words and expressions shall have the following meanings unless inconsistent with the context:

-'the Act' means the Public Finance Management Act, 1999, and the regulations promulgated thereunder and as amended from time to time;

-'affiliate' in relation to any person, any holding company or subsidiary of that person or any subsidiary of such holding company, and 'holding company' and 'subsidiary', shall have the meanings assigned to them in the Companies Act, 1973;

-'agreement' means this agreement and the schedules thereto;

-'applicable laws' means all applicable laws, ordinances, regulations, judgements and orders of any competent court, central bank or governmental agency, authority in any relevant jurisdiction within the Republic of South Africa, requirements of the PFMA, the National Treasury regulations, and such other laws as may be applicable;

-'business day' means any day other than a Saturday, Sunday or public holiday in the Republic of South Africa;

-'commencement date' means the [insert date as agreed by parties];

-'completion date' means the date on which the services by the transaction advisor are completed;
'confidential information' means any information:
  a. determined by the institution to be privileged or confidential;
  b. discussed in closed session by the bid evaluation panel;
  c. which if disclosed would violate a person's right to privacy;
  d. declared to be privileged, confidential or secret in terms of any law including, but not limited to, information contemplated in section 34(1); 35(1); 36(1); 37(1)(a); 38(a); 39(1)(a); 40 or 43(1) of the Promotion of Access to Information Act, 2000;
'deliverables' means those deliverables as set out in the agreement documents;
'good industry practice' means using standards, practices, methods and procedures conforming to applicable law and exercising that degree of skill, care, diligence, prudence and foresight that would reasonably and ordinarily be expected of a skilled, and experienced person engaged in a similar type of undertaking under similar circumstances;
'institution' in relation to the agreement, means [insert name of the national or provincial department, constitutional institution, public entity listed in schedules 3A, 3B and 3D of the Act or any subsidiary or entity under the ownership or control of any such public entity], and includes the officials of the institution acting in the course and scope of their employment;
'institutional default' means an act or omission by the institution which results in a breach of any of its material obligations under the agreement;
'parties' means the institution and the transaction advisor;
'private party' means the private party in relation to a PPP agreement contemplated in Treasury Regulation 16.1;
'PPP' means public private partnership as defined in Treasury Regulation 16.1;
'PPP agreement' means an agreement contemplated in Treasury Regulation 16.1 between the institution and a private party;
'project' means a PPP as defined by Treasury Regulation 16.1;
'project officer' means that person designated by the [accounting officer/authority] of the institution as project officer for the project;
'proposal' means the transaction advisor's response to the institution's terms of reference in respect of the carrying out of the services;
'services' means those services to be provided by the transaction advisor;
'signature date' means the date of signature of this agreement by the last signing party;
'success fee' means the portion of the transaction advisor's compensation which is contingent upon the financial closure as more fully set out in clause 6.2;
'termination date' means any date of termination of the agreement in accordance with clause 13 of the agreement;
'transaction advisor' means [insert name of transaction advisor company];
'variation' means any variation to the scope of services in terms of the agreement;
and
'VAT' means any value-added tax, or any similar tax which is imposed in place of or in addition to such tax.

2. Interpretation

2.1 The agreement shall be interpreted according to the following provisions, unless the context requires otherwise:

2.1.1 References to the provisions of any law shall include such provisions as amended, re-enacted or consolidated from time to time in so far as such amendment, re-enactment or consolidation applies or is capable of applying to any transaction entered into under the agreement;

2.1.2 References to clauses, sub-clauses, annexures and schedules are references to the clauses, sub-clauses, annexures and schedules of the agreement;

2.1.3 The headings of clauses, sub-clauses, annexures and schedules are included
for convenience only and shall not affect the interpretation of the agreement;

2.1.4 Reference to 'the agreement' shall include the agreement and its annexures, schedules as amended, varied, novated or substituted in writing from time to time;

2.1.5 The parties acknowledge that each of them has had the opportunity to take legal advice concerning the agreement, and agree that no provision or word used in the agreement shall be interpreted to the disadvantage of either party, because that party was responsible for or participated in the preparation or drafting of the agreement or any part of it;

2.1.6 Words importing the singular shall include the plural and vice versa, and words importing either gender or the neuter shall include both genders and the neuter, and 'person' shall include both corporeal and incorporeal entities;

3. Agreement to provide services

3.1 With effect from the commencement date, the institution hereby appoints the transaction advisor to provide the services and the transaction advisor agrees to provide the services to the institution on the terms and conditions recorded in the agreement.

4. Duration

4.1 The agreement shall commence on the commencement date and terminate on the termination date.

5. Scope of services

5.1 The scope of services to be provided by the transaction advisor in terms of the agreement is set out in the deliverables schedule, annexed hereto as Schedule A.

6. Price and payment terms

6.1 During the term of the agreement and in consideration for the services provided by the transaction advisor to the institution, the institution will pay the transaction advisor that fixed fee as specified in the payments schedule, annexed hereto as Schedule B.

6.2 The success fee portion of the transaction advisor's compensation will be contingent upon the financial closure (with all formalities completed) of the PPP agreement between the institution and the selected private party, and of receipt by the institution of the close-out report and relevant case study reports as set out in the deliverables schedule, annexed hereto as Schedule A.

6.3 Payment of the mobilisation allowance will be made by the institution within 30 days of the signature date. Invoices for further instalments may be submitted to the institution by the transaction advisor upon milestones achieved, as specified in the payments schedule, annexed hereto as Schedule B, and will be paid within 30 days of receipt of invoice.

7. Project team

7.1 The parties shall, immediately after the signature date, form a project team, which will be responsible for the management of the agreement so as to ensure the smooth and satisfactory delivery of the services by the transaction advisor to the institution.

7.2 The project team shall be composed of the following:

7.2.1 the project officer appointed by the institution, who shall act as manager on behalf of the institution;

7.2.2 such other additional members as appointed by the institution;

7.2.3 a representative appointed by the transaction advisor, who shall have authority to bind the transaction advisor; and

7.2.4 such other members of the transaction advisor as appointed by the transaction advisor.

7.3 The functions of the project team shall be as follows:

7.3.1 to facilitate communication between the parties;

7.3.2 to review the progress on the implementation of the agreement;

7.3.3 to manage and resolve potential disputes;

7.3.4 to monitor and maintain alignment with institutional policy and strategy;

7.3.5 to achieve agreement objectives within agreed scope, time, cost and quality;
7.3.6 to provide advice and consent on scope variation;
7.3.7 to facilitate all necessary institutional and treasury approvals; and
7.3.8 to provide feedback to relevant stakeholders.

7.4 The project team shall determine an appropriate set of meetings to be held and the frequency thereof.

8. Obligations of parties

8.1 The institution undertakes:
8.1.1 to remunerate the transaction advisor for its services as set out in the payments schedule, annexed hereto as Schedule B;
8.1.2 to provide all necessary logistical support to the transaction advisor so as to enable it effectively to render the services;
8.1.3 to use its best endeavours to ensure that the transaction advisor has timely and adequate access to all information, personnel and documentation available to the institution that will be required by the transaction advisor to render the services; and
8.1.4 to co-operate with the transaction advisor at all times for purposes of facilitating a timeous and efficient delivery of the services.

8.2 The transaction advisor undertakes:
8.2.1 to perform the services according to good industry practice;
8.2.2 to devote the necessary time and attention to providing the deliverables, as set out in the deliverables schedule, annexed hereto as Schedule A, and not engage in any business or activity that will prevent the transaction advisor from providing the services;
8.2.3 to maintain, at all times, the highest degree of good faith towards the institution and to ensure that no conflict of interest materialises, and in the event of a conflict of interest arising, to immediately advise the institution of same, upon which advice the institution shall, in its sole and absolute discretion, decide whether to proceed with the agreement or to terminate it forthwith. Failure by the transaction advisor to advise the institution of any conflict of interest shall amount to a material breach of the agreement and shall entitle the institution to terminate the agreement forthwith;
8.2.4 to render the services in accordance with the deliverables, timeframes and specifications, as set out in the deliverables schedule, annexed hereto as Schedule A, as amended by written agreement of the parties;
8.2.5 that all actions and commitments agreed upon or pursuant to the project management committee meetings or agreed to with the project officer, will be strictly adhered to;
8.2.6 to maintain independence from other individuals, organisations or government bodies;
8.2.7 to take out, at its own cost, appropriate insurance coverage against loss arising out of negligence, malpractice or unprofessional conduct of the transaction advisor;
8.2.8 to observe neutrality and objectivity in its views and opinions;
8.2.9 to respect and observe all applicable laws;
8.2.10 to provide the institution with any information and reports reasonably requested by the institution in connection with the services, and which information the transaction advisor warrants to be accurate and complete;
8.2.11 to maintain the professional personnel as promised and committed to by the transaction advisor in its proposal, and as recorded in the deliverables schedule, annexed hereto as Schedule A, and that in the event of any dedicated member of the transaction advisor becoming incapacitated and unable to carry out his or her duties or whose performance the institution reasonably considers to be unsatisfactory in its discretion, to replace, at the transaction advisor’s cost, such member, subject to the written approval of the institution.
9. Confidentiality

9.1 The transaction advisor shall not, during the term of the agreement and thereafter, without the prior written consent of the institution, disclose any confidential information relating to the institution and the services to anyone other than those persons who are connected to the institution and/or transaction advisor and who are required or authorised to have access to such information.

9.2 The obligation to maintain the confidentiality of information shall survive the termination of the agreement, but will not apply to confidential information which was in the public domain prior to being disclosed by the transaction advisor and has come into the public domain other than as a result of being divulged by the transaction advisor.

10. Ownership of material and intellectual property

10.1 Any information provided by the institution to the transaction advisor and any studies, reports and documentation produced by the transaction advisor in performance of the services (hereinafter ‘materials’) shall belong to and remain the property of the government of the Republic of South Africa as represented by the institution, and will not be used by the transaction advisor for any purpose other than in accordance with the agreement, or by written permission of the institution.

10.2 Upon termination of the agreement for any reason whatsoever, the transaction advisor must return to the institution all materials in its possession which belong to the institution, regardless of whether or not such materials were originally supplied by the institution to the transaction advisor.

11. Warranties and indemnities

11.1 The transaction advisor warrants that:

11.1.1 All corporate approvals and consents required for the incorporation of the transaction advisor and all resolutions of the board of directors of the transaction advisor authorising the execution and performance of the agreement have been obtained prior to the signature date of the agreement; and

11.1.2 It will use good industry practice and skill in performing the services.

11.2 The transaction advisor indemnifies and holds the institution harmless against any claim by any third party howsoever arising in connection with any wrongful act or omission of the transaction advisor.

11.3 The institution indemnifies and holds the transaction advisor harmless against any claim by any third party arising in connection with any wrongful act or omission of the institution.

12. Liability limitation

12.1 The transaction advisor will accept liability to pay damages for losses suffered by the institution arising as a direct result of breach of contract or negligence on its part in respect of the services. The maximum liability of the transaction advisor for all claims arising out of the services provided in connection with this agreement shall be limited to an amount equal to twice the fees charged for the services.

13. Termination

13.1 The institution reserves the right to terminate the agreement or temporarily defer the provisioning of the services, or any part thereof, at any phase with immediate effect on written notice to the transaction advisor, should the institution in its sole and absolute discretion, decide not to proceed with the services.

13.2 In the event of termination of the services in accordance with clause 13.1 above, the transaction advisor will be remunerated for such services as have already been rendered.

13.3 Termination on institutional default

13.3.1 On the occurrence of an institutional default, or within a reasonable time after the transaction advisor becomes aware of the same, the transaction advisor may serve notice on the institution of the occurrence (and specifying details) of such institutional default. If the relevant default has not been remedied or rectified within 10 (ten) business days of such notice, the transaction advisor may serve a further notice on the institution terminating the agreement with immediate effect.
13.4 Termination on transaction advisor default

13.4.1 Transaction advisor default means any of the following events or circumstances:

13.4.1.1 The transaction advisor ceasing to carry on business;

13.4.1.2 A resolution being passed or an order of a court being made for the administration or the judicial management, winding-up, liquidation or dissolution of the transaction advisor;

13.4.1.3 The transaction advisor failing to maintain any required insurance in terms of clause 8.2.7;

13.4.1.4 The transaction advisor committing a breach of any of its material obligations under the agreement;

13.4.1.5 The transaction advisor ceasing to provide all or a substantial part of the services in accordance with the agreement;

13.4.1.6 The transaction advisor providing services that are not good industry practice.

13.4.2 Institutional options

13.4.2.1 On the occurrence of a transaction advisor default, or within a reasonable time after the institution becomes aware of the same, and while the same is subsisting, the institution may:

13.4.2.1.1 In the case of the transaction advisor default referred to in clauses 13.4.1.1 to 13.4.1.3, terminate the agreement in its entirety by notice in writing having immediate effect;

13.4.2.1.2 In the case of the transaction advisor default referred to in clauses 13.4.1.4 to 13.4.1.6, serve notice of default on the transaction advisor, requiring the transaction advisor to remedy the transaction advisor default within 10 (ten) business days.

13.4.2.2 Failure by the transaction advisor to remedy the transaction advisor default within the specified time, as stipulated in clause 13.4.2.1.2, shall entitle the institution to terminate the agreement.

13.4.3 Costs

13.4.3.1 Each party shall reimburse the other party with all costs incurred by that party in exercising any of its rights (including, without limitation, any relevant administrative expenses), on an own attorney and client basis incurred by that party in enforcing its rights under the agreement arising out of any breach, together with all supporting documents of such amount, which amount shall not exceed twice the amount of fees payable in terms of this agreement.

14. Dispute resolution

14.1 Should any dispute arise between the parties to this agreement with regard to the interpretation, the carrying into effect and implementation of any one or more of the provisions of this agreement, any of the rights and obligations of either party arising from the agreement, the termination or purported termination of, or arising from the termination of, or the rectification or proposed rectification of the agreement, or out of pursuant to this agreement, or any other matter which in terms of this agreement requires agreement by the parties, the institution and the transaction advisor shall, in the first instance, attempt to come to an agreement in relation to any such dispute by consultation and negotiation in good faith.

14.2 In the event that the parties, after consultation and negotiation, are unable to come to an agreement, then either party may give written notice to the other party of its intention to cancel the agreement.
### 15. Notices

15.1 The parties choose as their respective *domicilium citandi et executandi* for all purposes of the giving of notices and the serving of any process, and for any other purpose arising from the agreement as follows:

In the case of the institution:

<table>
<thead>
<tr>
<th>Address:</th>
<th>[insert institution’s address]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telefax no:</td>
<td>[insert institution’s fax number]</td>
</tr>
</tbody>
</table>

In the case of the transaction advisor:

<table>
<thead>
<tr>
<th>Address:</th>
<th>[insert transaction advisor’s address]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telefax no:</td>
<td>[insert transaction advisor’s fax number]</td>
</tr>
</tbody>
</table>

15.2 A notice shall be deemed to have been duly given:

15.2.1 On delivery, if delivered to any party’s physical address in terms of this clause 15.1;

15.2.2 On despatch, if sent to any party’s then telefax number in terms of clause 15.1 as confirmed by telefax confirmation printout.

15.3 Either party may change its address to any physical address and telefax number (in the Republic of South Africa) for this purpose, by notice in writing to the other party.

### 18. Variation, cancellation and suspension

18.1 No contract varying, adding to, deleting from or cancelling the agreement, and no suspension of any right under the agreement shall be effective unless reduced to writing and signed by or on behalf of the parties.

### 19. Waiver

19.1 No waiver by a party of any right under the agreement shall be effective unless reduced to writing and signed by or on behalf of all the parties.

### 20. Indulgences

20.1 No indulgence granted by a party shall constitute a waiver or abandonment of any of that party’s rights under the agreement. Accordingly, that party shall not be precluded, as a consequence of having granted that indulgence, from exercising any rights against the other party which may have arisen in the past or which may arise in the future.

### 21. Assignment

21.1 Save as expressly provided in the agreement, the transaction advisor shall not cede any of its rights nor delegate any of its obligations in terms of the agreement without the prior written consent of the institution.

### 22. Costs

22.1 Each party shall bear its own legal costs of, and incidental to, the negotiation, drafting and preparation of the agreement.

22.2 Any costs, including attorney and own client costs, incurred by a party, arising out of the breach by either party of any of the provisions of the agreement, shall be borne by the party in breach.

### 23. Subcontracting

23.1 The transaction advisor shall not, without the prior written consent of the institution (which shall not be unreasonably withheld), subcontract or delegate any of the services to any par-
ties other than those listed as members of the transaction advisor as contained in the proposal and recorded in the deliverables schedule annexed hereto as Schedule A.

23.2 The transaction advisor shall not be relieved of any obligations, responsibility or liability under the agreement by the appointment of any subcontract to carry out any part of the services. As between the transaction advisor and the institution, the transaction advisor shall be responsible for the payment, performance, act, defaults, omissions, breaches and negligence of all subcontractors. All reference in the agreement to any performance payment, act, default, omission, breach or negligence of the transaction advisor shall be deemed to include any or the same by a subcontractor.

24. Governing law and language
24.1 The agreement shall be governed by the laws of the Republic of South Africa, and its language shall be English.

25. Counterparts
25.1 The agreement shall be capable of execution in counterparts, all of which when read together shall constitute one and the same document.

Signed and witnessed by the parties on the following dates and at the following places respectively:

<table>
<thead>
<tr>
<th>Date:</th>
<th>Place:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Witness:</td>
<td></td>
</tr>
<tr>
<td>Signature:</td>
<td></td>
</tr>
<tr>
<td>For: [insert name of institution]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date:</th>
<th>Place:</th>
</tr>
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<tbody>
<tr>
<td>Witness:</td>
<td></td>
</tr>
<tr>
<td>Signature:</td>
<td></td>
</tr>
<tr>
<td>For: [insert name of transaction advisor]</td>
<td></td>
</tr>
</tbody>
</table>

Schedule A: Deliverables schedule

Schedule B: Payments schedule
Reproduced with permission from a report by ARD, Inc. for the United States Trade and Development Agency (USTDA)
LAND TRANSPORTATION OFFICE
INFORMATION TECHNOLOGY PROJECT
BUILD-OPERATE-OWN AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:
This Agreement entered into this________day of______1997, by and between:

The _____________________________________, represented by its
__________________________________________, with
principal office at_________________________________________
hereinafter referred to as the “CONTRACTOR”;

-and-

The DEPARTMENT OF TRANSPORTATION AND
COMMUNICATIONS represented by Secretary ARTURO T.
ENRILE, with principal office at Columbia Tower, Ortigas Avenue,
Mandaluyong City, hereinafter referred to as the “DOTC/LTO”;

WITNESSETH:
WHEREAS, there is a need to improve the efficiency of processing, analyzing and storing of the data collected
and retained by the Land Transportation Office through a modern management information system;

WHEREAS, the DOTC/LTO is establishing its INFORMATION TECHNOLOGY PROJECT, hereinaf-
ter referred to as the “IT Facilities”, pursuant to the Medium Term Philippine Development Plan and the
National Information Technology Plan 2000;

WHEREAS, the DOTC/LTO has secured the approval of the President of the Republic of the Philippines
upon the recommendation of the Investment Coordination Committee (ICC) and the National Economic and
Development Authority (NEDA) Board for the implementation of the infrastructure facilities of the IT
Facilities under Republic Act No. 6957, as amended by Republic Act No. 7718, otherwise known as the Build-
Operate-transfer Law, and its Implementing Rules and Regulations on a BuildOwn-Operate (BOO) scheme;

WHEREAS, the DOTC/LTO’s Pre-qualification, Bids and Awards Committee (PBAC) has conducted the
pre-qualification and public bidding for this IT Facilities pursuant to the Implementing Rules and
Regulations of the BOT Law;

WHEREAS, several Contractors responded and herein CONTRACTOR was among those that pre-
qualified and submitted its Technical and Financial Proposals during the Public Bidding held on November
17, 1997 at Land Transportation Office, East Avenue, Quezon City;

WHEREAS, the CONTRACTOR’s bid was found by the DOTC/LTO’s PBAC to be the most responsive
and advantageous to the government;

WHEREAS, pursuant to DOTC/LTO’s PBAC Resolution No._____________ dated____________
recommended the award of the IT Facilities BOO contract agreement to the Contractor;

NOW THEREFORE, for and in consideration of the foregoing premises and all other commitments,
obligations and undertakings herein assumed and accepted by the Parties, it is mutually agreed:
Article 1
Definitions

SEC. 1.1 Build-Own-Operate (BOO) – A contractual arrangement whereby a project proponent is authorized to finance, construct, own, operate and maintain an infrastructure or development facility from which the proponent is allowed to recover its total investment, operating and maintenance costs plus a reasonable return thereon by collecting fees, rentals or other charges from facility users: Provided, that all such projects, upon recommendation of the investment Coordination Committee (ICC) of the National Economic Development Authority Board (NEDA) shall be approved by the President of the Philippines. Under this project, the proponent which owns the assets of the facility may assign its operation and maintenance to a facility operator.

SEC. 1.2 CAIF – Refers to the Certificate of Acceptance of an IT Facility to be issued by the DOTC/LTO in accordance with Article 16.

SEC. 1.3 Commencement of the Project – The Contractor shall commence work under the Agreement within 30 days upon issuance of a Notice to Proceed (NTP), otherwise the project shall be considered as abandoned by the Operator.

SEC. 1.4 Completion of the Project – Completion of the Project shall be defined as complete delivery, testing and operation of all components as evidenced by the issuance of the final CAIF subject to the conditions as stipulated in Article 16.

SEC. 1.5 “Data Base” shall refer to all the information, data, facts and documents supplied by LTO and the customers of the LTO, which is then inputted, stored, categorized and processed by the IT Facility.

SEC. 1.6 Effective Date of Agreement - The Agreement shall be made effective upon compliance with all conditions precedent or REQUIRED as may be provided for in this Agreement.

SEC. 1.7 “Force Majeure” is defined as specified in Article 17.

SEC. 1.8 In Service Date - By this date, within 18 months of the signing of this Contract, except as provided for under Article 17 (Force majeure) Section 1 (a) and (b), the computerized system shall have been tested, operated, accepted by the DOTC/LTO as evidenced by the Milestone CAIF and placed in service.

SEC. 1.9 “Operating Parameters” means the operating parameters in the Request for Proposal (RFP) as described in Annex “A” (Operating Parameters);

Article 2
Scope of Work

SEC. 2.1 DESIGN AND CONSTRUCTION OF INFORMATION TECHNOLOGY SYSTEM. The CONTRACTOR shall cause and be responsible for the design, installation, adaptation, customization, completion, testing and commissioning and operation of the entire information system that is constructed and installed in accordance with this Agreement and is capable of operating in accordance with the Operating Parameters. The details and the scope of the Project to be undertaken including all preliminary specifications are set out below and in further detail in ANNEX “A” (Project Scope and Specifications). However, the parties hereby agree that the Data Base shall remain the property of the DOTC/LTO throughout and after the term of this Agreement and ownership thereof shall not transfer to the CONTRACTOR. The CONTRACTOR merely has access to the Data Base and can use the Data Base for the operation of the IT Facility.

SEC. 2.2 COST OF CONSTRUCTION AND INSTALLATION. All costs incurred by the CONTRACTOR in connection with the construction and installation and operation of the IT Facilities as provided above shall be borne by the CONTRACTOR. All necessary funding including any available preferential credits shall be arranged by and be the responsibility of the CONTRACTOR.
Following the In Service Date, the IT Facilities shall be capable of operating within the Operating Parameters set out in ANNEX “A” (Operating Parameters).

SEC. 2.3 The LTO IT Project encompasses the following:

a. Construction/customization of the following major applications:
   - motor vehicle registration
   - drivers licensing
   - law enforcement and adjudication
   - revenue collection
   - transport planning
   - franchising of public utility vehicles
   - government and private sector information sharing

b. Establishing of the LTO Data Warehouse which includes the following database:
   - Motor Vehicle Registry DB
   - Drivers’ Licenses DB
   - Public Utility Franchise DB
   - Law Enforcement and Traffic Adjudication DB
   - GIS Transport Planning DB
   - Financial DB
   - Administrative DB

c. Interconnection in the Information Highway to support the networking requirements of the system to cover the following offices:
   - Central Office in Quezon City;
   - 15 Regional Offices;
   - 214 District and Field Offices;
   - Mobile Law Enforcement Units of LTO, MMDA and PNP-TMC
   - All Facilities of other LTO service contractors; and
   - DOTC Proper, other government agencies and the private sector.

d. Supply, delivery, testing and installation of appropriate computing and products and other resources relative to the implementation of the project on an open client/server environment such as:
   - hardware
   - software
   - networking products
   - special devices and other peripherals

e. Provision of the following IT services:
   - Project Management
   - Site Environment Planning and Preparation
   - Total Systems installation and Integration
   - Telecommunication Services
   - Business Process Reengineering
   - Education and Training
   - Facilities Management and maintenance Support
   - System Operations
   - Information Systems Security

The service standards of the project should conform to the following Key Performance Indices (KPI):

<table>
<thead>
<tr>
<th>Service Standard</th>
<th>Present</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vehicle Registration</td>
<td>4–8 hrs.</td>
<td>1 hr.</td>
</tr>
<tr>
<td>2. License Issuance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New/Changes</td>
<td>6 mos.</td>
<td>5 days</td>
</tr>
<tr>
<td>Renewal</td>
<td>3 mos.</td>
<td>1 day</td>
</tr>
<tr>
<td>3. Traffic Violation Adjudication</td>
<td>8 hrs.</td>
<td>1 hr.</td>
</tr>
<tr>
<td>4. Information Query</td>
<td>3–15 days</td>
<td>15 mins.</td>
</tr>
<tr>
<td>5. Tracking of Carnapped Vehicles</td>
<td>10%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Article 3
Annexes

SEC. 3.1 The following documents, which are attached as Annexes herein shall be collectively referred to as “Contract Documents” and are incorporated herein and made into integral parts of this BOO Agreement;

Annex “A” Approved DOTC/LTO Request For Proposals
Annex “B” Certified Copy of the NEDA Board Resolution approving the Project and Approval from the Office of the President of the Project
Annex “C” DOTC/LTO Invitations For Public Bidding
Annex “D” CONTRACTOR’s Technical Proposal
Annex “E” CONTRACTOR’s Financial Proposal
Annex “F” Performance Bonds
Annex “G” IT PBAC Resolution to Award
Annex “H” Notice of Award
Annex “I” Variation Orders
Annex “J” All Supplemental Notices

Article 4
Main Undertakings

SEC. 4.1 Through and subject to the terms and conditions of this BOO Agreement, the DOTC/LTO hereby grants the CONTRACTOR the exclusive right TO PROVIDE IT SERVICES TO DOTC/LTO on a BOO scheme for a Concession Period of 10 years commencing from the In-Service Date of the IT Facilities. Unless renewed or extended the concession period shall end on the tenth (10TH) anniversary year of the In-Service Date.

AT THE OPTION OF DOTC/LTO, this BOO Contract Agreement may be extended through negotiation and mutual agreement between the DOTC/LTO and CONTRACTOR but shall not exceed a total concession period of 50 years, such extension is subject to the Implementing Rules and Regulations of the BOT Law. The execution of a renewal or extension AGREEMENT shall be effective upon the approval of the DOTC Secretary.

THE PARTY INTERESTED TO RENEW THIS AGREEMENT SHALL INDICATE IN WRITING ITS DESIRE TO RENEW THE AGREEMENT BEYOND ITS TEN-YEAR TERM AT LEAST TWELVE MONTHS PRIOR TO THE EXPIRY OF THE ORIGINAL CONTRACT. IF THE REQUEST IS COMING FROM THE CONCESSIONAIRE, DOTC/LTO SHALL WITHIN THIRTY DAYS DECIDE WHETHER IT WANTS TO RENEW THE AGREEMENT. IF SO, BOTH PARTIES WILL SIT DOWN IMMEDIATELY TO NEGOTIATE IN GOOD FAITH TO ARRIVE AT A MUTUALLY ACCEPTABLE AGREEMENT.

Upon expiration of the concession period, the Data Base shall be returned by the CONTRACTOR to the DOTC/LTO. The CONTRACTOR shall not be allowed to keep the Data Base or a copy thereof after the term of this Agreement.

SEC. 4.2 Notwithstanding any provision in this Contract to the contrary, the DOTC/LTO reserves the right to exercise full regulatory control over the IT Facilities in the discharge of its mandates under the law.
SEC. 4.3 The CONTRACTOR shall be responsible for and shall bear all costs incurred by it in connection with the performance of its obligations hereunder.

SEC. 4.4 Throughout the entire duration of this Agreement, the CONTRACTOR shall, directly or indirectly, own the IT FACILITIES and all other equipment, fixtures and fittings used in connection with the IT FACILITIES and supplied by the CONTRACTOR at its own cost.

Article 5
Undertakings of The Contractor

SEC. 5.1 Non-Disruption - Public transaction shall not be hampered during the period of concession or reduced to the minimum when necessary.

SEC. 5.2 The CONTRACTOR shall complete the IT Facilities within the schedule as stated in ANNEX “A” (PROJECT MILESTONE DATES) herein and upon such completion present the IT Facilities to the DOTC/LTO along with an application requesting for a Certification of Acceptance of an IT Facility or CAIF as defined in Article 16.4 herein. Except when delays occur due to events as defined in Article 17.1(a) and 17.1(b) herein or unless otherwise approved by the DOTC/LTO the schedule stipulated for the completion of the IT Facilities shall not be extended. All attendant costs due to delay except for delays defined in Article 17.1(a) and 17.1(b) shall be borne by the concessionaire. In the event the CONTRACTOR requests for an extension of time the same shall be made at least 90 days before the deadline expires.

SEC. 5.3 Upon receipt of the first CAIF from the DOTC/LTO, the CONTRACTOR shall commence to operate, maintain and manage the IT Facilities to provide the IT-based Services so required by the DOTC/LTO and in accordance with the schedule set forth in Annex “A”.

SEC. 5.4 The CONTRACTOR may not without the consent of DOTC/LTO, transfer all or any of its obligations hereunder. However, the CONTRACTOR may, for purposes of arranging or rearranging finance for the IT Facilities, assign or transfer to any person providing finance to the IT Facilities all or any part of its rights and benefits hereunder but not its obligations. DOTC/LTO shall duly acknowledge any such assignment or transfer of which it is given notice.

SEC. 5.5 The CONTRACTOR shall be primarily responsible for the financing, development, construction, supply, operation, maintenance, and management of the IT Facilities of the DOTC/LTO. The CONTRACTOR shall see to it that the IT Facilities are in compliance with the technical and operating specifications as stated in the Annex “A”.

Article 6
Performance Security

SEC. 6.1 The CONTRACTOR shall post two Performance Securities in the form of cash, manager’s check, cashier’s check, bank draft confirmed by a local bank acceptable to DOTC/LTO, irrevocable Letter of Credit issued by a reputable bank acceptable by DOTC/LTO, provided that if a Letter of Credit is issued by a foreign bank, it must be confirmed by a local bank or by an off-shore banking unit, a surety bond which is callable upon demand and issued by GSIS or by Surety and Insurance Companies accredited by the Insurance Commission; or a combination thereof. The issuing bank, surety or insurance company concerned, if of foreign nationality shall be required to submit itself to Philippine Courts. Failure of the CONTRACTOR to post Performance Securities shall be sufficient ground for DOTC/LTO to cancel the contract. Should DOTC/LTO, under any of the conditions stipulated under Article 19 of this contract (Termination of Contract) terminate the contract, the performance securities shall be forfeited in favor of DOTC/LTO, with-
out any need for judicial action. Furthermore, any changes in the contract shall not require the prior approval of the surety and shall, in no way annul, release or affect the liability of the CONTRACTOR. The following conditions shall also be followed in relation to the Performance Security, namely, that:

a. Upon signing of the contract, the CONTRACTOR shall post one performance security in Philippine Pesos equivalent to ONE HUNDRED MILLION (P100,000,000.00), and shall remain valid and in full effect until the issuance of the final CAIF as defined in Article 16.4. It shall answer for and guarantee the completion of the project in accordance with the performance standards and the timetable.

b. Upon issuance of the first CAIF, the CONTRACTOR shall post one performance security in Philippine Pesos equivalent to ONE HUNDRED MILLION (P100,000,000.00) which will remain valid and in full effect for a concession period of ten (10) Years commencing from the first In-Service date of the IT Facilities.

c. Each performance security may be released by DOTC/LTO after the issuance of the Certificate of Completion, provided that there are no claims filed against the CONTRACTOR or the surety company.

d. The right to institute action on the bond of any individual, firm, partnership, corporation and or association supplying the Performance Security of the CONTRACTOR in relation with the execution of the IT Facilities shall be governed by the Philippine Laws applicable on the matter.

e. In the event the scheduled deadline is extended as referred to in Article 4.1.6 (Main Undertakings) Section 1 herein, the Performance Bond shall be extended accordingly.

Article 7
Financing and Operation

SEC. 7.1 For purposes of financing the construction and operations of the IT Facilities, the CONTRACTOR shall have the option to assign its rights and benefits to this BOO Agreement to the financial institutions that will provide financing to this Project (“Lenders”) as security for the repayment of the financing provided by the Lenders, and the Parties, as may be required, shall enter into such agreements as may be necessary and appropriate to give effect to this Section.

SEC. 7.2 Subject to the prior approval of DOTC/LTO, the CONTRACTOR shall have the option to undertake to subcontract another entity to operate, maintain and or manage a whole or a portion of the IT facilities and that entity shall hereinafter be referred to as the “Facility Operator”.

SEC. 7.3 Subject to the prior approval of the DOTC/LTO, the CONTRACTOR shall have the option to undertake to subcontract to another entity or entities the construction, design and installation of a portion or the whole of the IT Facilities provided that the IT Facilities are completed in compliance with the technical requirements and specifications as stated in ANNEX “D” and provided further that in subcontracting some or all of the construction, design and installation of the IT Facilities the CONTRACTOR shall not be excused from the primary liability of the CONTRACTOR to the DOTC/LTO under this Agreement.
Article 8
Warranties of The Contractor

SEC. 8.1 The CONTRACTOR warrants to the DOTC/LTO that:
   a. It is a corporation duly organized and validly existing under the laws of the Republic of the Philippines and has all the requisite power, authority and legal right to undertake the business which it now conducts or proposes to conduct.
   b. It has full power, authority and legal right to execute and deliver this BOO Agreement and to perform its obligations thereunder, and has taken all appropriate and necessary corporate and legal action and obtained all necessary permits and approvals for the execution, delivery and performance of this Agreement and all other agreements, instruments of documents contemplated hereunder.
   c. The CONTRACTOR’S signatory to this BOO Agreement is of age, has full legal capacity and has been duly authorized by the board of directors of the CONTRACTOR to sign, execute and deliver this BOO Agreement for and on behalf of the CONTRACTOR.
   d. This BOO Agreement constitutes the legal, valid and binding obligation of the CONTRACTOR, enforceable against the CONTRACTOR in accordance with the terms and conditions contained therein. This BOO Agreement is in satisfactory and proper legal form under the laws of the Republic of the Philippines.
   e. The execution, delivery and performance of this contract and the other documents herein referred to, do not violate any provision of law, rule, regulation, or order of decree of any court, tribunal or government authority, bureau or agency, or of the charter, by-laws or corporate rules of any corporation, or any indenture contract or other undertaking to which the CONTRACTOR is a party.

SEC. 8.2 The CONTRACTOR further warrants to the DOTC/LTO that:
   a. The equipment to be provided by the CONTRACTOR for the IT Facilities are brand new. The CONTRACTOR further warrants that all materials that the CONTRACTOR shall furnish, supply, manufacture or deliver under this BOO Agreement are of good quality and are genuine.
   b. The equipment and facilities the CONTRACTOR shall furnish as stated under the appropriate portions of the Contract Documents shall be in such quantities and with such capacities that the same shall be capable of operating in accordance with the Operating Parameters.
   c. The CONTRACTOR shall require its suppliers to agree to make available for the IT Facilities, the replacement spare parts, improvements, modifications and or new models of the equipment, software and peripherals as agreed upon and specified in the Contract Documents herein.
   d. That if, after the acceptance of all the IT Facilities, the equipment provided by the CONTRACTOR shall prove unsatisfactory by not meeting the operating parameters set forth in Annex “A”, the CONTRACTOR shall replace, at its own cost, the existing equipment and shall secure equipment of better quality and capacity, until such time as the IT Facilities meet the operating parameters agreed upon.
   e. That the CONTRACTOR shall not make or cause any alteration or change in specifications during the term of this Agreement of the IT Facilities without the written consent of the DOTC/LTO;

SEC. 8.3 The CONTRACTOR also warrants to the DOTC/LTO that:
   a. The CONTRACTOR shall be primarily responsible for the importation into the Philippines of the items needed to be imported as determined by the CONTRACTOR and as may be stated in the appropriate portions of the Contract Documents herein.
   b. The CONTRACTOR has not given or promised to give any gift or consideration to any employee or official of the DOTC/LTO or of any Philippine government instrumentality to obtain this BOO Agreement, and that the acts performed in good faith in accordance with
this BOO Agreement shall not result directly or indirectly in any violation of the Anti-Graft and Corrupt Practices Act.

SEC. 8.5 The Parties shall determine and agree upon a set of procedures for problem determination, problem analysis and warranty service requests. The CONTRACTOR will promptly respond to all requests in line with servicing the IT Facilities in order to meet the specifications set out in the Operating Parameters.

Article 9
Responsibilities of The Contractor

SEC. 9.1 LIMIT OF LIABILITY. The CONTRACTOR’s liability to DOTC/LTO arising from any breach of this Agreement or otherwise in connection with the IT Facilities shall be limited to payments as provided in Article 19 (Termination).

SEC. 9.2 CONTRACTOR’s INDEMNITY. The CONTRACTOR shall indemnify and shall not hold the DOTC/LTO, its officers and employees liable against any claims of any person who directly or indirectly suffers as a result of (i) an interruption of the operations of the IT Facilities or any other disruption arising out of or in connection with this Agreement and (ii) any of the DOTC/LTO’s officers or employees’ actions or omissions in connection with the same. The CONTRACTOR shall indemnify the DOTC/LTO against any loss, cost or expense resulting from damage to the IT Facilities or from any interruption or disruption in the operations of the IT Facilities.

SEC. 9.3 CROSS INDEMNITY. DOTC/LTO and the CONTRACTOR shall each indemnify, defend, and absolve the other, its directors, officers, employees and agents (including but not limited to affiliates and CONTRACTORs and their employees) from and against all liabilities, damages, losses, penalties, claims, demands, suits, costs, expenses and proceeding of any nature whatsoever for bodily injury (including death) or property damage (but not economic loss or any other consequential damage) that shall result from the performance of this Agreement by or on behalf of that party. This indemnity shall include, with respect to the CONTRACTOR, the design, construction, financing, purchase, acquisition, acceptance, delivery, ownership, leasing, maintenance, repair, reconditioning, return, abandonment or other application or disposition of the IT Facilities and any equipment, materials or supplies used therein, except to the extent that such injury and/or any damage is attributable to the negligent or intentional act or omission of the party seeking to be indemnified or its directors, officers, employees, representatives or agents. In the event such injury or damage results from the joint or concurrent negligent or intentional act or omission of the parties, each shall be liable under this indemnification in proportion to its relative degree of fault.

SEC. 9.4 In the event of loss or damage to any equipment of the IT Facilities, the CONTRACTOR shall provide temporary replacement pending the repair of damaged equipment in order that the IT Facilities continue to meet the Operating Parameters. The CONTRACTOR shall be responsible for all damages to any property belonging to the government or third parties which are directly attributable to the gross negligence of the CONTRACTOR.

SEC. 9.5 Unless caused by Force Majeure events as defined in this Agreement, the CONTRACTOR shall be allowed a maximum of one (1) day downtime every month preferably during non-working days/hours. A portion of this downtime may be scheduled by the CONTRACTOR in order to provide maintenance and repair services to the IT Facilities. The CONTRACTOR shall give the DOTC/LTO at least 24 hours notice prior to any scheduled downtime. In case the CONTRACTOR exceeds by 20% in a year the allowable downtime indicated above, such an occurrence will constitute an event of default under Article 18 (Default).
Article 10
Undertakings of The DOTC/LTO

SEC. 10.1 The DOTC/LTO shall assist the CONTRACTOR in obtaining any and all Philippine governmental and or other authorizations, approvals, licenses, permits, and or consents which may be required and or necessary to enable the CONTRACTOR to perform its obligations under this BOO Agreement.

SEC. 10.2 The DOTC/LTO shall assist the CONTRACTOR in obtaining any and all Philippine governmental authorizations, approvals, licenses, permits, and or consents which may be required for the financing of this Project including without limitation any authorization, approval, license, permit, and or consent from the Bangko Sentral ng Pilipinas and/or the Department of Finance.

SEC. 10.3 The DOTC/LTO shall assist the CONTRACTOR in availing of any incentives or privileges or the like provided under Philippine law, including without limitation, the Philippine Omnibus Investments Code.

SEC. 10.4 The DOTC/LTO shall be deemed to have complied with its undertakings under Sec. 10.1 to 10.3 whether or not the DOTC/LTO’s efforts at assisting the CONTRACTOR produces the intended outcome so long as in assisting the CONTRACTOR the DOTC/LTO acts in good faith and exercises its best endeavors.

SEC. 10.5 The DOTC/LTO may not assign or transfer all or any part of its rights, benefits or obligations hereunder. Provided however that this Article shall not prevent DOTC/LTO from effecting such assignment or transfer as long as it is with the consent of the CONTRACTOR.

Article 11
Payment Schedule

SEC. 11.1 The DOTC/LTO shall pay the CONTRACTOR based on the number of motor vehicles registered and the number of drivers' licensing transactions handled within 30 calendar days from receipt of billing, the inspection report and other documents which may be required by DOTC/ DOTC/LTO and the Commission on Audit. Upon final payment under this Contract, the CONTRACTOR shall issue a certificate, releasing DOTC/DOTC/LTO from any further obligation under this Contract.

SEC. 11.2 Any and all payments made to the CONTRACTOR under this Contract shall be subject to a retention fee of five percent (5%) herein referred to as the retention money. Such retention shall be based on the total amount due to the CONTRACTOR, prior to any deduction, and shall be taken from every progress payment, until the end of the first year of operation or until such time that the funds accumulated from the retention fee has reached P5 million, whichever comes first.

The funds accumulated from the retention fee may be used by the CONTRACTOR to undertake necessary and appropriate repair and maintenance of the project in accordance with the design and performance standards prescribed in Annex “A” (operating parameters) in order to ensure that the IT Facility operates at the desired level of service. The fund will maintain a minimum balance of P5 million. As such, any drawdown from the fund will be replenished through a resumption of the collection of a retention fee. The aforementioned retention money shall be deposited for the account of the CONTRACTOR on a bank agreed upon by DOTC/LTO and the CONTRACTOR, which bank shall hold the same in escrow in favor of the government.

The interest earned on said account shall accrue to the CONTRACTOR.

The total retention money shall be released to CONTRACTOR, sixty (60) days from the last day of the concession period.
Article 12
Contractor’s Fees

SEC. 12.1 The DOTC/LTO shall collect all Fees from the end-users and/or beneficiaries of the IT Based Services and remit the agreed upon payment to the CONTRACTOR. The DOTC/LTO shall prepare a daily report indicating the total volume of transactions conducted and the corresponding fees due to the CONTRACTOR and DOTC/LTO. In case the CONTRACTOR disputes the total volume of transactions or amount collectible, said dispute shall be referred to an arbitration committee composed of three members. The first member to be appointed by the DOTC/LTO, the second member to be appointed by the CONTRACTOR and the third member to be appointed jointly by the said 2 members. This arbitration committee shall decide on the dispute within 14 days from its submission to the committee. The decision of the arbitration committee shall be final and binding on the parties.

SEC. 12.2 The DOTC/LTO shall open a Trust Fund with the National Treasury and/or any authorized government depository bank and deposit all the CONTRACTOR’S fees collected into said Fund.

SEC. 12.3 All payments made by DOTC/LTO hereunder shall be made free and clear of and without deduction for or on account of any set-off, counterclaim, tax or otherwise except as required by the law of the Republic of the Philippines or in payment of penalties as provided for in this Agreement.

Article 13
Warranties and Responsibilities of The DOTC/LTO

SEC. 13.1 The DOTC/LTO warrants to the CONTRACTOR that:

a. The DOTC/LTO is duly organized and validly existing as an agency of the Philippine Government and has all the requisite power, authority and legal right to execute and deliver this BOO Agreement, and to perform its obligations hereunder.

b. The DOTC/LTO has taken all appropriate legal and/or other action which may be required and or appropriate to authorize the execution, delivery and performance of this BOO Agreement and any and all other agreements, instruments, or documents contemplated thereunder.

c. This BOO Agreement constitutes the legal, valid and binding obligation of the DOTC/LTO, enforceable against the DOTC/LTO in accordance with its terms. This BOO Agreement is in satisfactory and proper legal form under the laws of the Republic of the Philippines.

d. The DOTC/LTO is subject to civil and commercial law with respect to its obligations under this BOO Agreement or any other document contemplated thereunder, and that the DOTC/LTO does not enjoy any rights of immunity from suit, judgment or execution or from any other legal process with respect to its obligations under this BOO Agreement or any other document contemplated thereunder.

Notwithstanding the foregoing, the DOTC/LTO does not waive any such immunity with respect to the assets of the Republic of the Philippines which are (i) used by a diplomatic or consular mission of the Philippines, (ii) of a military character and under control of a military authority or defense agency, and (iii) located in the Philippines and dedicated to a public or governmental use as distinguished from a patrimonial asset, banking asset, industrial asset or asset dedicated to commercial use.

SEC. 13.2 The DOTC/LTO shall be responsible for providing the CONTRACTOR with access to the premises of the DOTC/LTO. Furthermore, when any of the services performed in line with this BOO Agreement by the CONTRACTOR includes the use by the CONTRACTOR of any
premises, hardware, software or other items provided by the DOTC/LTO, the DOTC/LTO warrants that:

a. Unless otherwise notified by the DOTC/LTO, the DOTC/LTO has all the necessary rights, expressed or otherwise, to enable such premises to be altered and such items to be moved, used, copied or distributed by the CONTRACTOR, as deemed necessary, during the course of this BOO Agreement without infringing on any third party rights;

Unless otherwise notified by the DOTC/LTO, the use or disclosure of such premises, hardware, software or other items by the CONTRACTOR during the course of this BOO Agreement will not involve any breach of any confidential or contractual obligations.

**Article 14**

**Prices For IT-Based Services and Price-Adjustment Procedure**

14.1 For and in consideration of the IT-based services provided by the CONTRACTOR to the LTO under this BOO Agreement, the CONTRACTOR will be paid in accordance with the price schedule shown below:

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<th>Year</th>
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The amount of payment per type of service rendered, as stated in this section, will be applicable from the day when the CONTRACTOR’S IT-based services are initially utilized by the LTO up to the end of that same year. Beginning on the first day of the following year and every year thereafter for the period of this BOO Agreement the prices per type of service rendered shall be automatically adjusted and revised in accordance with Article 14, Section 2 herein and shall be in force up to the last day of the same year.

14.2 Effective every first day of the year after the implementation of the prices for the IT-based services as shown in Article 14, Section herein, the prices per type of IT-based services rendered by the CONTRACTOR shall be automatically adjusted in accordance with an automatic price adjustment formula which is as follows:

\[
F_t = \pi_t F_p
\]

\[
\pi_t = \alpha \left( \theta \frac{\text{FOREX}}{\text{FOREX}_{t-1}} + \lambda \frac{\text{IL}_t}{\text{IL}_{t-1}} + \Phi \right) + \beta \left( \gamma \frac{\text{CPI}_t}{\text{CPI}_{t-1}} + \delta \frac{\text{PR}_t}{\text{PR}_{t-1}} + \eta \right) + \epsilon
\]

where:

- subscript “t” = the year in which the new adjustments shall be implemented
- subscript “t−1” = the previous year
\( \pi \) = Periodic adjustment factor
\( F_t \) = Adjusted fee for the current year
\( F_p \) = Proposed fee for the current year
\( \text{FOREX} \) = Average monthly peso-dollar exchange rate for the preceding 1 year, as published by the Philippine Dealing System. This variable shall be equal to 1.0 after the project has been in full operation for a number of years equal to the foreign project debt with the longest life.
\( \text{IL} \) = average 180-day Government Treasury Bill rate for the preceding 1 year, as published by the Bangkok Sentral ng Pilipinas. The variable \( \text{IL} / \text{IL}_{t-1} \) shall be equal to 1.0 after the project has been in full operation for a number of years equal to the project debt with the longest life.
\( \text{CPI} \) = the year-on-year Metro Manila Consumer Price Index (January 1997 = 100), as published by the National Statistical Office, corresponding the month closest to the date of the adjustment for which data is available.
\( \text{PR} \) = the average monthly peso/kilowatt-hour rate for the preceding I year, as calculated from the monthly Manila Electric Corporation (Meralco) billing statement of the Land Transportation Office.
\( \alpha \) = the proponent’s average total annual debt payments (principal plus interest) as a percent of total revenues, with the said average calculated over the period equal to the draft with the longest life, based upon verification by LTO of the winning bidder’s submitted financing plan.
\( \theta \) = the proponent’s average total annual foreign currency-denominated debt payments (principal plus interest) as a percent of total annual debt, with the said average calculated over the period equal to the debt with the longest life, based upon verification by LTO of the winning bidder’s submitted financing plan.
\( \lambda \) = the proponent’s average total annual peso-denominated interest payments as a percent of total annual debt, with the said average calculated over the debt over longest period, based upon verification by LTO of the winning bidder’s submitted financing plan.
\( \beta \) = the proponent’s average annual operating expenses (less interest, but including taxes), as a percent of total revenues, with the said average calculated over the entire cooperation period, based upon verification by LTO of the winning bidder’s submitted financing plan.
\( \gamma \) = the proponent’s average annual manpower and repairs and maintenance expenses (excluding janitorial and security expenses) as a percent of total operating expenses, with the said average calculated over the entire concession period, based upon verification by the LTO of the winning bidder’s submitted project cost estimate.
\( \delta \) = the proponent’s average annual power expenses (electrical and fuel) as a percent of total operating expenses, with the said average calculated over the entire concession period, based upon verification by LTO of the winning bidder’s submitted pro-forma project cost estimates.
\( \eta \) = 1 – \( \gamma – \delta \)
\( \Phi \) = 1 – \( \theta – \lambda \)
\( \varepsilon \) = 1 – \( \alpha – \beta \)

All weights (e.g. \( \alpha, \beta, \gamma, \delta, \lambda \)) shall be set prior to contract signing based upon verification by the LTO of the project cost estimates and financing plan contained in the winning bidder’s technical and financial proposal and subject to the conditions stipulated above. Moreover, the time schedule of the adjustments shall be agreed upon prior to contract signing.

The weights shall be reviewed on the tenth (10th) year of operation by the Proponent and the Government and modified accordingly. Provided, that if no agreement is made, the old weights shall remain in force.
Article 15
Insurance

SEC. 15.1 The CONTRACTOR shall be responsible to ensure that there is effected insurance as provided in the Tenth Schedule (Insurance) and shall provide DOTC/LTO certified true copies of all policies of insurance effected by it. Unless DOTC/LTO has failed to perform any of its payment obligations hereunder and such failure continuing, the proceeds of claims against such insurance, except third party liability and workmen’s compensation insurance, with respect to damage or other casualty to the IT Facilities shall be applied by the CONTRACTOR to the extent necessary to repair or restore the IT Facilities to its previous condition.

SEC. 15.2 In the event that the contract is revoked, cancelled, or terminated by the Government through no fault of the project proponent or by mutual agreement, in which case the Government shall compensate the said project proponent for its actual expenses incurred in the project plus a reasonable rate of return thereon not exceeding that stated in the contract as of the date of contract termination, provided that the interest of the Government in these instances shall be duly insured with the Government Service Insurance Commissioner, provided further that the cost of the insurance coverage shall be included in the terms and conditions of the approved contract.

Article 16
Acceptance of an IT Facility

SEC. 16.1 TESTING PROCEDURES. The parties shall meet and agree on procedures, standards, protective settings and a program to be followed by the CONTRACTOR for the testing of the IT Facilities.

SEC. 16.2 NOTICE OF TESTING. The CONTRACTOR shall give to DOTC/DOTC/LTO not less than 14 days notice, or such lesser period as the parties hereto may agree, of its intention to commence any testing of the IT Facilities.

SEC. 16.3 ATTENDANCE AT TESTING. DOTC/LTO and/or its duly appointed representative shall be entitled to be present at any testing of the IT Facilities. Provided that proper notice has been given pursuant to the above conditions, tests may be conducted validly at a specified time in the absence of representatives of DOTC/LTO.

SEC. 16.4 After at least 14 days of smooth operations of the IT Facility and upon application by the CONTRACTOR, the DOTC/LTO shall issue to the CONTRACTOR a Certification of Acceptance of an IT Facility, herein referred to as “CAIF,” pursuant to Milestone Schedule which is a document which certifies that the IT Facility has conformed to the applicable acceptance test procedures and schedules and are in compliance with the technical requirements and specifications as stated in the appropriate portions of the Contract Documents herein.

SEC. 16.5 If an application for a CAIF by the CONTRACTOR has not been granted by the DOTC/LTO because the application has not passed the applicable acceptance test procedures, the DOTC/LTO will notify the CONTRACTOR in writing, within 15 calendar days from the receipt of the application by the DOTC/LTO, stating the reason for not issuing the CAIF. The CONTRACTOR will have an Adjustment Period which is at least 90 calendar days, or for a period as may be agreed upon by the CONTRACTOR and the DOTC/LTO, from the receipt of the notification from the DOTC/LTO that the IT Facilities have not passed the test procedures. Upon conformity by the CONTRACTOR with the applicable acceptance procedures the provisions of Sec. 16.4 herein will apply.

SEC. 16.6 If the CONTRACTOR has not conformed with the applicable acceptance test procedures for the issuance of a CAIF upon the expiration of the Adjustment Period, the applicable provisions on Disputes herein will apply.
SEC. 16.7 The DOTC/LTO shall not unreasonably withhold the issuance of the CAIF. If the DOTC/LTO does not act upon the application for a CAIF within 15 days from the receipt of the application, the application shall be deemed as if it had been issued as a CAIF and the CONTRACTOR may act accordingly. However, DOTC/DOTC/LTO may request for an additional 15 days to act upon the application for a CAIF.

SEC. 16.8 Final CAIF shall be issued upon completion of the project as defined in Sec. 1.4.

Article 17
Force Majeure

SEC. 17.1 FORCE MAJEURE. No failure or omission to carry out or observe any of the terms, provisions or conditions of this Agreement shall give rise to any claim by any party against any other party hereto, or be deemed to be a breach of this Agreement if the same shall be caused by or have arisen out of:

a. Other than as referred to in paragraph (b) below, any war, declared or not or hostilities, or of belligerence, blockade, revolution, insurrection, riot, public disorder, expropriation, requisition, confiscation or nationalization, export or import restriction by any governmental authorities, closing of harbors, docks, canals, or other assistance to or adjuncts of the shipping or navigation of or within any place, rationing or allocation, whether imposed by law, decree or regulation by, or by compliance of industry at the insistence of any governmental authority, or fire, earthquake, unusual flood, volcanic activity, storm, tychoons, lightning, tide (other than normal tides), tsunamis, perils of the sea, accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals, or other assistance to or adjuncts of the shipping or navigation, epidemic, quarantine, strikes or combination of workmen, lockouts or other labor disturbances or any other event, matter or thing, wherever occurring, which shall not be within the reasonable control of the party affected thereby; or

b. war, declared or not or hostilities occurring in or involving the Republic of the Philippines, or of belligerence, blockade, revolution, insurrection, riot, public disorder, expropriation, requisition, confiscation or nationalization by or occurring in or involving the Republic of the Philippines, export or import restrictions by any governmental, regional or municipal authorities of or within the Republic of the Philippines, closing of harbors, docks, canals, or other assistance to or adjuncts of the shipping or navigation of or within the Republic of the Philippines, rationing or allocation, whether imposed by law, decree or regulation by, or by compliance of industry at the insistence of any governmental authority of or within the Republic of the Philippines, or any other event, matter or thing, wherever occurring, which shall be within the reasonable control of DOTC/LTO or the government of the Republic of the Philippines or any agency or regional or municipal authority thereof each of the foregoing events, matters or thing being called “Force Majeure” in this Agreement.

SEC. 17.2 EXCEPTIONS. Notwithstanding Article 17.1 DOTC/LTO (i) shall not be entitled to claim for itself Force Majeure in case of any Force Majeure mentioned in sub-paragraph (b) of Article 17.1; and (ii) shall not be relieved of its obligation to make payments of fees as provided in Article 14 by the occurrence of any Force Majeure mentioned in sub-paragraph (b) of Article 17.1 whether affecting DOTC/LTO or the CONTRACTOR:

SEC. 17.3 PROCEDURE. The party invoking the Force Majeure shall:

a. notify the other parties as soon as reasonably possible by facsimile or cable of the nature of the Force Majeure and the extent to which the Force Majeure suspends the affected party’s obligations under this Agreement; and

b. resume performance of its obligations as soon as possible after the Force Majeure condition no longer exists and formally notify the other party of such resumption.
SEC. 17.4 REVISED TIMETABLE. If Force Majeure applies prior to the In Service Date the parties will meet to discuss a revised timetable for the completion of the Project indicating the proposed completion dates of the IT Facilities. If the Force Majeure has applied for a period in excess of 180 days and such Force Majeure falls under sub-paragraph (b) of Article 17.1, then the provisions of Section 17.5 shall apply.

SEC. 17.5 CONSULTATION. The parties hereto will consult with each other and take all reasonable steps to minimize the losses of either party resulting from Force Majeure.

SEC. 17.6 If an occurrence of an event of Force Majeure results in damage to the IT Facilities, the CONTRACTOR shall be responsible for taking such actions and precautions as may be required or necessary to mitigate any resulting damage or loss. Insurance proceeds should first be applied to the restoration of the facilities.

SEC. 17.7 If the CONTRACTOR serves notice on the DOTC/LTO that the CONTRACTOR is unable to raise funds for any required reconstruction, replacement and or repair work on the damaged IT Facilities, the DOTC/LTO may either call an event of default or undertake or perform such reconstruction, replacement and or repair work in order to reinstate the damaged IT Facilities to the condition prior to the occurrence of the Force Majeure, subject to reimbursement by the CONTRACTOR.

SEC. 17.8 In order to avoid any doubt, the Parties agree that upon occurrence of any event of Force Majeure affecting the CONTRACTOR’s obligations relating to the operation, maintenance and or management of the IT Facilities the CONTRACTOR shall nonetheless continue to be responsible for the performance such of its obligations relating to the operation, maintenance and or management as are still possible of performance, whether wholly or partially. Irrespective of the occurrence of an event of Force Majeure, the CONTRACTOR shall continue to be responsible for the safety of the IT Facilities and its users. Unless otherwise agreed upon by the Parties, the occurrence of an event of Force Majeure affecting the CONTRACTOR’s obligations relating to the operation, maintenance and management of the IT Facilities shall not result in the closure of the damaged IT Facilities, provided that if a temporary closure is unavoidable so as to make possible the performance or any required reconstruction, replacement and or repair work, the affected IT Facilities shall be made operational as soon as possible by taking such measures and precautions as are necessary under the circumstances.

Article 18
Default

SEC. 18.1 CONTRACTOR’S DEFAULT. The occurrence of any of the following events shall constitute a CONTRACTOR’s Default:

a. The CONTRACTOR shall fail to perform any material covenant, agreement or obligation hereunder within 45 days after receipt by CONTRACTOR of a notice of default specifying the same: provided, however, that such period shall be extended if the matter complained of in such notice may be corrected but cannot reasonably be corrected within 45 days and the CONTRACTOR begins to correct such matter within 45 days and thereafter pursue the correction to completion with reasonable diligence.

b. The CONTRACTOR in its reports to be submitted to DOTC/LTO shall have unknowingly and unintentionally misrepresented or omitted any material information required to be included in such reports and shall fail to correct the same within 45 days after receipt by CONTRACTOR, of the notice of default; provided, however, that such period shall be extended if the matter complained of in such notice may be corrected but cannot reasonably be corrected within 45 days and CONTRACTOR begins to correct such matter within such 45 days and thereafter pursue the correction to completion with reasonable diligence.
c. An involuntary case or other proceeding shall be commenced against CONTRACTOR seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts, or other relief with respect to CONTRACTOR or CONTRACTOR’s debts under any bankruptcy, insolvency, or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian, or other similar official of CONTRACTOR or any substantial part of CONTRACTOR’s assets, or like relief, or the issuance of the writ of attachment, execution, or similar process and such involuntary case or other proceeding shall not be contested by CONTRACTOR in good faith or shall remain undismissed and unstayed for a period of ninety days.

d. In case of a delay in construction in excess of 20% of the stipulated construction period or failure of the contractor to finish the IT Facility in accordance with the Project Scope and Specifications.

e. A pattern of continuing or repeated non-compliance, willful violation, or non-performance of other terms and conditions hereof which is hereby deemed a material breach of this Agreement.

f. Any representation or warranty made by CONTRACTOR and relied upon by DOTC/LTO to its detriment shall be false in any material respect.

SEC. 18.2 DOTC/LTO’s DEFAULT The occurrence of any of the following events shall constitute a DOTC/LTO Default:

a. The DOTC/LTO terminates or cancels this Agreement or any other Agreements executed pursuant to this Project without valid cause.

b. Any representation or warranty made by the DOTC/LTO and relied upon by CONTRACTOR to its detriment shall be false in any material respect.

c. DOTC/LTO shall fail to perform any material covenant, agreement or obligation hereunder or under any related Agreement within 45 days after receipt of a notice of default specifying the same; provided, however, that such period shall be extended if the matter complained of in such notice may be corrected but cannot reasonably be corrected within 45 days and DOTC/LTO begins to correct such matter within 45 days and thereafter pursue the correction to completion with reasonable diligence.

d. The promulgation of any laws or regulation of the Republic of the Philippines, or any agency or other body under the control of the Government of the Republic of the Philippines or any regional or municipal authority thereof coming to effect after 1997, or as a result of any such laws or regulations (including any official interpretation thereof which the CONTRACTOR has relied upon in entering into this Agreement) in force at the date hereof being amended, modified or repealed, the interest of the CONTRACTOR in the IT Facilities and/or the CONTRACTOR’s economic return (net of tax or other imposition, including, without limitation any withholding or remittance tax on the payment of dividends) on its investment is materially reduced, prejudiced or otherwise adversely affected (including without limitation, any restriction on the ability to remit fluids in foreign currency outside the Philippines) then parties hereto shall meet and endeavor to agree amendments to this Agreement and if after 90 days no such agreement has been reached the provisions of Article 21 (Disputes) shall apply.

Article 19 Termination

SEC. 19.1 In case a party commits an act constituting an event of default, the non-defaulting party may terminate this Agreement by serving a written notice to the defaulting party specifying the ground for termination and giving the defaulting party a period of 45 days within which to comply with the requirements to the satisfaction of the non-defaulting party. If the default is
not remedied within this period to the satisfaction of the non-defaulting party, then the latter will serve upon the former a written notice of termination indicating the effective date of termination.

SEC. 19.2 If this BOO Agreement is terminated by reason of the CONTRACTOR's Default, DOTC/LTO shall have the following options:

a. The DOTC/LTO may allow the CONTRACTOR's Unpaid Creditors who hold a lien on the IT Facility to foreclose on the Project and this Agreement and/or designate a new CONTRACTOR for the Facility, provided the designated CONTRACTOR is qualified under existing laws and acceptable to DOTC/LTO. This new CONTRACTOR shall hereinafter be referred to as the “Substitute Contractor”. The Substitute Contractor shall assume all of the CONTRACTOR's rights and privileges as well as all of the CONTRACTOR's obligations, duties and responsibilities thereunder; provided, however, that the DOTC/LTO shall at all times, and at its sole option, have the right to invoke and exercise any other remedy which may be available to the DOTC/LTO under any applicable laws, rules and or regulations which may be in effect at any time and from time to time.

b. If the Creditors waive their rights to foreclose the IT Facilities and this Agreement and jointly with DOTC/LTO appoint a Substitute Contractor or exercise any other remedy under the financing agreements, then DOTC/LTO may take over the Project and assume all remaining liabilities. In this regard, the CONTRACTOR shall assign all its rights and interests to the Project and under this Agreement to DOTC/LTO. After said assignment, the CONTRACTOR shall have no other obligation to the DOTC/LTO.

The DOTC/LTO shall cooperate with the Creditors with a view to facilitating the choice of a Substitute Contractor, who shall take-over the operation, maintenance and management of the IT facilities, within 3 months from the CONTRACTOR's receipt of notice of termination from the DOTC/LTO. If for any reason whatsoever, the DOTC/LTO and the Creditors should fail or be unable to select the Substitute Contractor within the 3-month period contemplated herein, the DOTC/LTO may select a Substitute Contractor. The Substituted Contractor shall have all the rights and obligations of the previous CONTRACTOR as contained in this Agreement.

SEC. 19.3 If this BOO Agreement is terminated by the CONTRACTOR by reason of the DOTC/LTO's Default, the DOTC/LTO shall:

a. Be obligated to take over the IT Facilities on an “as-is-where-is” basis, and shall forthwith assume all attendant liabilities thereof; and

b. Pay liquidated damages to the CONTRACTOR equivalent to the following amounts, which may be charged to the insurance proceeds, referred to in Section 15.2 hereof:

i. In the event of a termination prior to completion of the construction of the IT Facilities, damages shall be paid equivalent to the Value of the Completed Construction, plus 10% thereof minus the aggregate amount of the attendant liabilities assumed by the DOTC/LTO. The amount of such compensation shall be determined as of the date of the notice of termination and shall become due and demandable 90 days after the date of the notice of termination. Under this BOO Agreement, the term “Value of the Completed Construction” shall mean the aggregate of all reasonable costs and expenses incurred by the CONTRACTOR in connection with, in relation to and or by reason of the IT Facilities, including without limitation all interest and capitalized interest and other reasonable financing costs.
and expenses incurred by the CONTRACTOR in connection with the Financiers, as certified by a reputable accounting firm to be appointed by the CONTRACTOR subject to the approval by the DOTC/LTO and such approval shall not be unreasonably withheld.

ii. In the event of a termination after completion of construction of the IT Facilities, Just Compensation shall be paid equivalent to the present value of the net income which the CONTRACTOR expects to earn or realize during the unexpired or remaining term of this BOO Agreement using a discount rate of 15% as shown in the financial projections of the CONTRACTOR hereby attached as Annex “E”;

SEC. 19.4 The respective obligations of DOTC/LTO and the CONTRACTOR, with respect to the termination of this BOO Agreement as set forth in Article 19 herein shall survive the termination hereof.

SEC. 19.5 Upon the expiration of earlier termination of this BOO Agreement and without prejudice to any obligations of the relevant Party under Article 19 herein or to any claims which any Party may have against the other Party prior to the termination date, all rights and entitlement of the CONTRACTOR with respect to the Construction of the IT Facilities shall revert to, vest in or remain vested in the CONTRACTOR as the case may be and:

a. In case of termination of this BOO Agreement prior to the completion of the IT Facilities, the CONTRACTOR shall cease all Construction of the IT Facilities and remove from the areas of the Construction all its workmen, employees, agents and CONTRACTORs and vacate it completely; and

The CONTRACTOR shall surrender to the DOTC/LTO control and physical possession of the completed portions of the IT Facilities.

Article 20
Requisition

SEC. 20.1 In the event of a Requisition, this BOO Agreement shall be legally terminated and such termination shall become effective upon fulfillment by the DOTC/LTO of its obligations as set forth in Article 19 Section 3 herein. Under this BOO Agreement, the term “Requisition” shall mean the taking by governmental action of the ownership and or control of the CONTRACTOR, and or a majority of the CONTRACTOR’s shares which may be issued and outstanding at any time and from time to time, as by nationalization, expropriation, sequestration, confiscation, and or other equivalent judicial process.

Article 21
Disputes

SEC. 21.1 Any dispute or controversy of any kind whatsoever between the DOTC/LTO and the CONTRACTOR, and such dispute or controversy being referred to herein as a “Dispute”, which may arise out of or in connection with this BOO Agreement, in the first instance shall be settled within 60 days through amicable means, such as, but not limited to mutual discussion.

SEC. 21.2 If the Dispute cannot be settled amicably within 60 days by mutual discussion as contemplated under Article 21 Section 1 herein, the Dispute shall be settled with finality by an arbitral tribunal operating under International Law, hereinafter referred to as the “Tribunal”, under the UNCITRAL Arbitration Rules contained in resolution 31/98 adopted by the United Nations General Assembly on December 15, 1976 and entitled “Arbitration Rules on the United
Nations Commission on International Trade Law”, The DOTC/LTO and the CONTRACTOR undertake to abide by and implement the arbitration award. The place of arbitration shall be Quezon City Philippines, or such other place as mutually agreed upon by both parties. The arbitration proceeding shall be conducted in the English language.

SEC. 21.3 For the purpose of ensuring the effectiveness of this Contract, each party waives any right which it may now or hereafter have to commence or maintain any suit or legal proceeding concerning a Dispute until the same will have been determined in accordance with the arbitration proceeding provided for herein, and then only for the enforcement of the award or decision rendered in such arbitration proceeding.

SEC. 21.4 The award rendered in any arbitration proceeding commenced thereunder shall be final and conclusive and the award or decision rendered pursuant to such proceeding may be registered with any court having jurisdiction for its enforcement. Each party covenants that it will not contest or appeal from any such award or decision, unless the same is vitiated by fraud, accident, mistake or excusable negligence.

SEC. 21.5 The cost of arbitration shall be funded initially by the claimant, provided that the Tribunal may reallocate the liability for such cost to the losing Party or apportion such cost among the Parties as the Tribunal may consider reasonable. Without prejudice to the foregoing, each Party shall each fund its own legal and other expenses relating to such arbitration including the cost for the arbitrator appointed by each Party.

Article 22
Miscellaneous Provisions

SEC. 22.1 This BOO Agreement shall come into force and become effective upon and as of the date of the approval hereof by the authorized signatories of the DOTC/LTO and the CONTRACTOR.

SEC. 22.2 None of the parties shall, at any time, before or after the expiration or sooner termination of this BOO Agreement, without the consent of the other, divulge or suffer or permit its officers, employees, agents or CONTRACTORs to divulge to any person, other than to any of its or their respective officers or employees who require the same to enable them properly to carry out their duties, any of the contents of this BOO Agreement or any information relating to the negotiations concerning the operations, contracts, commercial or financial arrangements or affairs of the other parties hereto. Documents marked “CONFIDENTIAL” or otherwise, providing that such material shall be kept confidential, shall constitute prima facie evidence that such information contained therein is subject to the terms of this provision.

SEC. 22.3 The restrictions imposed in Article 22 Section 2 herein shall not apply to the disclosure of any information:

a. Which may now or hereafter come into the public otherwise than as a result of a breach of an undertaking of confidentiality or which is obtainable with no more than reasonable diligence from sources other than any of the Parties hereto;

b. Which is required by law to be disclosed to any person who is authorized by law to receive the same;

c. To a court, arbitrator or administrative tribunal in the course of proceedings before it to which the disclosing party is a party; or

d. To any consultants, banks, financiers or advisors of the disclosing party.

SEC. 22.4 No public announcement or statement regarding the signature, performance or termination of this BOO Agreement shall be issued or made, unless prior thereto all Parties have been furnished with a copy thereof and have approved the same. Such approval shall not be unreasonably withheld or delayed.
SEC. 22.5 Each party shall at all times and from time to time take all such legal steps, do all such further acts and execute all such further deeds, documents and or instruments as may be required, necessary and or appropriate in order to give full effect to and carry out the terms of this BOO Agreement.

SEC. 22.6 At any time during the term of this BOO Agreement, upon agreement of both parties, the DOTC/LTO and the CONTRACTOR shall consult with each other to determine whether in light of all relevant circumstances, the provisions of this BOO Agreement need revision. Such revision shall ensure that this BOO Agreement operates equitably and without major detriment to the interest of any of the Parties. Any consultation among the Parties pursuant to this Article shall be carried out in a spirit of cooperation with due regard to the intent and objectives of this BOO Agreement.

SEC. 22.7 This BOO Agreement shall not be modified, amended or varied in any manner unless such modification, amendment or variation is in writing and executed by the Parties.

SEC. 22.8 The documents forming this BOO Agreement are to be taken as mutually explanatory of one another.

SEC. 22.9 Each Party shall upon request promptly provide to the requesting Party any and all documents which such requesting Party may reasonably request for the purposes of or in connection with this BOO Agreement.

SEC. 22.10 The declaration of any provision of this BOO Agreement as void, invalid or otherwise unenforceable shall not invalidate the remaining provisions hereof, and the Parties shall promptly amend this BOO Agreement and or execute such additional documents as may be necessary and or appropriate to give legal effect to the void, invalid or otherwise unenforceable provision in such a manner that, when taken with the remaining provisions, will achieve the intended commercial purpose of the void, invalid or otherwise unenforceable provision.

SEC. 22.11 Any notice, request, report, approval, consent, or other communication required or permitted to be given or made under this BOO Agreement shall be in writing in English and delivered to the addresses of the Parties at the beginning of the Contract; or to such other address, telex or facsimile numbers as each Party may have notified the other parties.

SEC. 22.12 Such notice shall be deemed to have been duly given or made if (a) in case of delivery in person or by facsimile transmission, as of the date of actual delivery to the recipient at such address or facsimile number which is duly acknowledged, or (b) in case of telex, on receipt by the sender of the answer back code of the recipient, at the end of transmission.

SEC. 22.13 Any and all costs incurred by the Parties in relation to and or by reason of the preparation and closing of this BOO Agreement, including without limitation stamp duties, shall be borne and paid exclusively by each Party.

SEC. 22.14 The failure of any Party to enforce any provision of this BOO Agreement shall not be construed as a waiver of its right to enforce such provision or any other provision in this BOO Agreement or as a waiver of any continuing, succeeding or subsequent breach of any such provision or other provision of this BOO Agreement.

SEC. 22.15 This BOO Agreement shall be deemed made under and be governed by and construed in accordance with the laws of the Republic of the Philippines.

IN WITNESS WHEREOF, the parties have caused their respective representatives to execute this BOO Agreement on the date at the place first set out above.

DEPARTMENT OF TRANSPORTATION CONTRACTOR AND COMMUNICATION

ARTURO ENRILE Secretary

SIGNED IN THE PRESENCE OF:

(Witness)  (Witness)
ACKNOWLEDGEMENT

Republic of the Philippines
______________________
______________________

BEFORE ME, a Notary Public for and in the ______________________
Philippines, on this _______ day of, 1997, personally appeared and known to me to be the same persons
who executed the forgoing BUILD-OWN-OPERATE AGREEMENT for the computerization of the Land
Transportation System, which instrument consists of pages including the page on which this acknowledg-
ment is written, and signed at the left hand margin of each and every pages by the parties executing this
instrument and their witnesses, and sealed with my notarial seal and aforesaid parties acknowledged to me
that the same is their free act and deed. The community Tax Certificates of the parties were exhibited to me,
the same bearing No._____________, issued at__________________on _________________,1997 and
No._____________, issued at__________________on _________________,1997, respectively.

NOTARY PUBLIC
Until Dec. 31, 199_
PTR NO.
Issued at __________
Issued on__________

Doc. No.
Page No.
Book No.
About infoDev

infoDev is a global development financing program among international development agencies, coordinated and served by an expert Secretariat housed at the World Bank Group, one of its key donors and founders. It acts as a neutral convener of dialogue, and as a coordinator of joint action among bilateral and multilateral donors—supporting global sharing of information on ICT for development (ICT4D), and helping to reduce duplication of efforts and investments. infoDev also forms partnerships with public and private-sector organizations who are innovators in the field of ICT4D. The infoDev Secretariat is housed in the Global ICT Department (GICT) of the World Bank Group.

For additional information about this study or more general information on infoDev, please visit www.infodev.org/innovation or contact Seth Ayers, infoDev (email: sayers@worldbank.org or tel: +1.202.473.4868).

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