

10 Increasing Probity in Capital Projects

Capital projects are major capital works commissioned by or for an electricity service provider. As discussed in Section 6, most corruption in capital projects involves reductions in quality or inflations in price (or both), in part to cover the costs of bribes or kickbacks from a private contractor to a government official. In this way, capital projects create opportunities for contractors or officials to capture resources from taxpayers, donors, or customers (who ultimately pay for the works).

When quality reductions or cost inflation in capital projects is suspected, it makes sense to target the areas where opportunities for misappropriation arise—that is, in project planning, selection and evaluation, in procurement, and in project supervision.

This section first discusses steps that can be taken to promote probity in project planning, selection and evaluation (Section 10.1), procurement (Section 10.2) and project supervision (Section 10.3). Section 11 sets out more general guidance for providers planning and implementing projects. This section ends (in Section 10.5) by looking at a special type of procurement: procuring contracts for private sector participation.

Increasing probity in a capital project often requires a multi-faceted, multi-stakeholder approach. Box 10.1 describes a fairly comprehensive approach taken by a World Bank team working with the Government of Paraguay on a roads project.

Box 10.1: Improving Probity in Capital Projects in Paraguay

A World Bank team preparing the “Paraguay Road Maintenance Project” saw that corruption risk was high (the Country Assistance Strategy signaled an “inherent risk” of corruption in Paraguay) and incorporated a good governance and anti-corruption approach into project development. The team:

- Getting other teams’ insights and perspectives on the corruption problem (that is, not just road sector experts, but others working in different sectors or at the country level)
- Identifying government sector priorities through a process of both high-level government discussion and meetings with local communities, local government, and civil society representatives
- Supporting the Government of Paraguay in designing and entering into a “social contract” as a commitment to delivery on government promises, and
- Linking government sector budget to identified priorities

The project also includes performance-based contracts for maintenance work on roads (with indicators that are easily understood by the general public), and includes ongoing monitoring of actual against expected results, and of socio-economic impacts.

Source: World Bank (2006) *Project Appraisal Document on a Proposed Loan to the Republic of Paraguay for a Road Maintenance Project*, Washington, DC: The World Bank

10.1 Sound Planning and Evaluation

This section sets out how good planning and project evaluation can reduce opportunities for corruption, by reducing bias and discretion. It describes a good quality planning process, as well as the challenges in implementing such a process. It then provides a list of sources on effective sector investment planning.

Good practice in capital projects start with planning and project selection. Projects and planning in the electricity sector can be divided into three distinct levels:

- Generation
- Transmission
- Distribution.

The different levels are often handled by different entities, and clearly this can affect how good planning and project selection processes can be implemented. For the purposes of this Sourcebook, it is enough to distinguish between three stylized sector structures:

- **Vertically integrated**—a single utility owns and operates all the generation, transmission and distribution. This model is traditional in small countries such as Malawi and Samoa. Over the last decade or so it has become common for the vertically integrated utility to buy some of its power from independent power providers, as happens in Jamaica and Guyana
- **National transmission and generation, regional distribution**—in this model one entity is responsible for planning and implementing all generation and transmission projects. This entity then supplies power to a number of local distributors, who deliver the power to the final consumers. This model is common in larger countries. It was the model in the UK, New Zealand and the Philippines before those countries brought in competitive power markets and fully disaggregated systems. A good current exemplar is Thailand, which has a national Electricity Generating Authority of Thailand (EGAT) that supplies regional distribution companies
- **Vertically disaggregated competitive power market**—in this model, generation is the responsibility of a several generating companies. There is a single national transmission company, while distribution is handled by a number of regional or local distribution companies. This model has become popular around the world since it was introduced in the United Kingdom in 1990. Beside the Philippines, emerging markets to have adopted (variations of) this model include Chile, Argentina, Brazil, Bolivia, Colombia and Peru.

A less competitive variation of the disaggregated model is one in which a single buyer or purchasing agency encourages competition between generators by choosing its sources of electricity from a number of different electricity producers. The agency on-sells electricity to distribution companies and large power users without competition from other suppliers. This model is prevalent in many Asian, Central American, and Caribbean countries.

A more competitive variation of the disaggregated model allows all customers to choose their electricity supplier, which implies full retail competition, under open access for suppliers to the transmission and distribution systems. This model is now used in England, Wales, and Norway, but not yet in any developing countries.²⁸

²⁸ Electricity sector models are compared and contrasted in Bacon & Besant-Jones. (2001). Global Electric Power Reform, Privatization and Liberalization of the Electric Power Industry in Developing Countries. *Annual Review: Energy and the Environment*. 26:331-359

In the vertically integrated model, clearly planning at all levels will be done by the utility. In the second model, transmission and generation planning are done by the national generation and transmission company, while distribution planning is done by the regional distribution utilities.

In the vertically disaggregated competitive power market, there is generally no generation plan. Rather, individual generation companies decide what power plants to build according to their views on what demand will be and what other competing generation companies will be doing. Transmission planning is done by the national transmission company (although its job is complicated by the fact it does not know where the power plants will be built). Distribution planning is again done by the regional distribution utilities.

Regardless of who is doing the planning and project selection, and at which level, developing a sound integrated expansion plan, and ensuring that the plan is implemented, can reduce opportunities for corruption, in at least three ways:

- **Prevent crises.** In most developing countries, demand for power is growing rapidly. If the providers do not invest in enough generation (and associated transmission) to keep up with demand, the result will be power cuts. Widespread and prolonged power-cuts will create a national crisis, in which normal planning and procurement processes are short-circuited in a justifiable rush to end the crises. Of course, short-cutting the normal processes creates opportunities for corruption, as deals are negotiated quickly and without scrutiny
- **Prevent over-building.** Some providers have invested in excess generation capacity simply because of the corruption opportunities afforded by building more power plants. Perversely, this can follow a crisis, as patterns of doing business established during the crisis then provide a power incentive to continue building more power plants long after the crisis is over, as the example of the Philippines illustrates (see Box 10.2).

Box 10.2: Philippines Power Crisis Feeds Alleged Corruption and Eventual Over-building

In response to wide-spread blackouts resulting from a massive under-investment in generation capacity, the Philippines Congress passed an Electric Power Crisis Act in 1993. This Act authorized the executive to negotiate IPP contracts on a fast track basis, bypassing the usually long and tedious process required to bid out government projects.

In terms of addressing the power shortage, this law was an immense success—several thousand megawatts of generating capacity was installed in the country in the first 18 months, a power surge that would have taken years in other circumstances.

The IPP contracts the government entered through direct negotiations came with attractive incentives and guarantees. Most IPPs were funded by foreign loans secured with a form of government guarantee or performance undertaking (PU). This meant that the Philippine government would pay for the loans if the IPPs defaulted.

The government agreed to shoulder many of the risks by introducing provisions (such as “take-or-pay” guarantees of 70 to 100 percent) in the contracts that ensured the IPP's profitability over a span of 15 to 25 years—whether or not the plant operated. The nature of the fast track IPPs (which utilized technology that had short construction lead times, low initial capital cost, but high operating costs) was such that it was clear at the time they

would be inefficient suppliers once generation capacity caught up to demand. In addition, all of the contracts were quoted in US dollars so that all exchange-rate fluctuations were borne by the government. Thus, the state-owned electricity company's obligations to IPPs ballooned from P170 billion in 1996 to P244 billion in 1997, the year of the Asian financial crisis.

The Government continued signing IPP contracts even after the power crisis had been considered solved by the end of 1993. The World Bank questioned the ambitious projections of the government on economic growth and power demand from 1994 to 1998. It warned that the power generated by private utilities' IPPs could duplicate those of the state-owned electricity company and create an overcapacity. Despite these warnings, 12 more IPP contracts were signed from 1995 to 27 June 1998. This led to situation of extensive over-supply, and allegations of corruption in the government administration that signed the IPP deals.

Source: Woodhouse, E. (2005) *The IPP Experience in the Philippines*, Program on Energy and Sustainable Development, Stanford University, Working Paper No 37.

- **Reduce technology bias.** In some cases decision-makers will attempt to favor a particular supplier by specifying locations, technologies, or fuel sources that the only that supplier can provide. Whenever particular projects or technologies are mandated without a clear demonstration that they fit into an overall least cost plan, there is a risk of corruption (see Box 10.3 below).

Box 10.3: Electricity Blackouts in Nairobi, Kenya in 2000

Residents of Nairobi are facing severe water rationing on top of 12-hour electricity blackouts on six days of the week because of drought. Small businesses cannot function. Residents even find they cannot pay their electricity bills because most post offices have no power. "Islands of power" continue, so that the President's residence is unaffected, and when the President spoke on television electricity was supplied for the duration of his speech, but when he sat down it was turned off again. Officials blamed the drought, but many Kenyans believe that corruption lies at the root of the crisis. Diplomatic observers query why it is that Kenya should rely on hydroelectric power when it has always been susceptible to drought. "The answer lies in the lucrative business contracts for government officials generated by such large projects," they say.

Source: "Nairobi's water is rationed in drought", Daily Telegraph, 13 July 2000.

To ensure that the "best" projects—those that represent true value for money, and provide customers with the services they desire—are consistently selected, the planning process used by providers needs to be sound. A good project planning process for the electricity sector involves three basic steps:

1. **Forecasting demand for services.** This should ideally involve a combination of realistic projections (based on valid assumptions about growth) and the periodic collection of data from the customer base (such as information on willingness to connect to services, willingness to pay for services, and preference for different service types)

2. **Developing a least-cost expansion plan for satisfying demand.** An effective planning and implementation process selects least-cost solutions for meeting sector objectives. The clearer or less ambiguous the criteria for developing the least-cost plan, the more likely that the best projects will be consistently selected. Generation planning can generally be done using computer applications such as WASP. Planning software for transmission systems is now also widely used, and is available for distribution systems as well (see Source List 10.1 at the end of this section)
3. **Implementing that plan.** Once the plan is developed, it should be implemented. All projects on the plan should be built, and none that are not on the plan should be built. Where some time has elapsed since the plan was developed, it will generally make sense to update the planning process or review major projects to make sure they still make sense, but this should be done through an organized approach of updating the plan, not through *ad hoc* adjustments.

Provider management and practitioners may understand the importance of a sound planning process in principle, but may have difficulty in moving from an existing, inefficient system (in which, for example, utility staff strategically develop plans including only those projects that they know senior management will favor or that will enable corrupt firms to participate in) to a planning process which identifies relevant and efficient solutions. The reasons such a shift may be difficult are diverse—the utility may lack capacity or support of senior management in a range of areas, or may be opposed by special interest groups with incentives to maintain the status quo. General strategies for increasing capacity and creating incentives for change include:

- Engaging external experts (as an initial measure, to help establish and train people in the use of thorough, least-cost planning techniques)
- Building up expertise and integrity in the planning function over time
- Involving stakeholders in the planning and project selection process (to increase transparency and create incentives for the utility to be more accountable to other stakeholders in project selection).

Sources of further information on project planning, evaluation and selection are listed in Source List 10.1 (beginning on page 136).

10.2 Procurement Procedures

Procurement refers to the process through which suppliers of capital services are selected and contracted. In many countries, public procurement of works and services is among the most corrupt areas. Poor procurement processes create opportunities for bribery, kickbacks, collusion, and fraud. This section sets out information for improving probity in procurement.

10.2.1 Standardized government and donor procurement rules

Most governments have developed fiduciary requirements for procurement processes. Similarly, most donors have a standard set of safeguards that countries must use for donor-financed projects. Each donor and government agency has slightly different rules, but the basic concepts are similar: procurement processes must be transparent, ensure a level playing field for all participants, and lead to the award of contracts that represent the best value-for-

money given a government's requirements. Details of these procurement rules are available on donor and government websites. A reference to the World Bank's guidelines is included in Source List 10.1 (beginning on page 136).

Just having procurement rules, however, is not enough to ensure that procurement for a capital project is well-run. The rules may not be sufficiently detailed, may not be properly tailored to country circumstances, or may otherwise be inadequately designed to prevent fraud and corrupt practices. Even if the rules are well-designed, bidders and procurement agents may find ways around them, or may subvert standard procedures to carry out corrupt activity "behind the scenes".

Applying the rules effectively is critical. Three techniques that are generally useful include:

- **Strictly enforcing bid validity and contract negotiation periods.** Practitioners may be hesitant to declare mis-procurement when the process of selecting a winning bidder and awarding a contract takes too long, especially if a reasonable excuse is offered. However, long decision and negotiation periods can be indicative of poor and potentially corrupt practice, and should not be tolerated
- **Ensuring good record-keeping.** Good record keeping reflects the kind of discipline that is required to minimize the prospects for fraud and corruption. Project procurement files should include, at a minimum, the records of advertisements, a copy of all prequalification bidding documents (including the bidders excluded in the prequalification process losing bids, not just the winning bid), a copy of the minutes of the bid opening meeting, the report from the bid evaluation committee—including a clear statement of the rationale for any bids that are disqualified, the contract award, and a copy of the signed contract
- **Reviewing bids for unusual patterns.** Once a number of bids have been run, and the government has collected information on the procurement packages and winning bids, practitioners should review this information for unusual patterns such as repeated packages just below certain procurement thresholds, similar bids submitted by losing bidders, and bid awards being "revolved" between a small number of bidders. If practitioners are untrained in spotting such unusual patterns, they can hire a fraud specialist or forensic accountant to assist in bid analysis. Such analysis should be repeated on a regular basis, and used to feed-back in to future procurement design.

Yet, in the context of a specific project, it is difficult to change (or improve) general procurement rules. Accordingly, practitioners may wish to target their efforts on tightening up the way that the procurement process works. A number of tools for improving procurement processes are discussed below. Many of these can be implemented within the existing rules and systems. Others, such as eProcurement, need changes to the system and possibly to procurement rules and processes also.

10.2.2 Regulatory scrutiny of major investments

A regulatory agency may be able to provide a useful check that the utility or ministry proposing power projects has planned and evaluated them properly. An economic regulator's job is generally to ensure that the required electricity service is provided at least cost. Since as much as 50 percent of the cost of power supply can be due to the capital

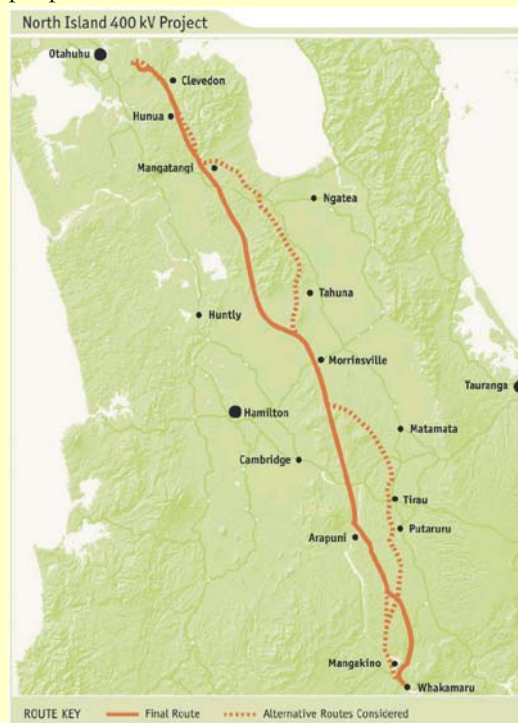
investment required, regulators generally scrutinize utility investments to make sure that they are the least cost way of delivering the required service.

Regulators are most commonly used when the electricity utility is private. Where the utility is private, over-spending on investments does not generally indicate corruption (for reasons explained in Section 6), but either inefficiency or an attempt by the utility to extract additional profits (see Box 10.5).

Increasingly, regulators are being tasked with overseeing decisions made by publicly owned utilities. In Tanzania, for example, Energy & Water Utilities Regulatory Authority (EWURA) regulates the Tanzania Electric Supply Company (TANESCO). Similarly, the Energy Regulatory Commission in the Philippines regulates the National Power Corporation (NAPACOR), the state-owned generation company, and a number of local authority and cooperative owned distribution companies. Where there is a regulator of a publicly-owned company, applying standard regulatory approaches to the utility's investment plan can help to ensure it is least cost. Box 10.4 provides a good example of this process at work in New Zealand.

Box 10.4: Regulatory Scrutiny of Major Transmission Upgrade in New Zealand

Transpower—New Zealand's state-owned national transmission company—wanted to put in a new 400KV transmission line from the south of the country into Auckland, the country's largest city, arguing that it was necessary for security of supply and to meet growing demand. The proposed route is shown below



Transpower argued that with most of the country's power demands coming from hydro-power plants in the south of the country, this investment was required.

New Zealand's newly-created Electricity Commission was charged with reviewing the investment. The statutory test the Commission was required to apply—the so-called 'Grid

Investment Test²⁹—requires the Commission to satisfy itself that:

- The proposed investment maximizes the expected net market benefit, compared to a number of alternative projects
- The expected net market benefit of the proposed investment is greater than zero
- If it is concluded that the above two test are met, that conclusion is sufficiently robust when subjected to sensitivity analysis.

Transpower was convinced that its plan was justified and least cost. But scrutiny by the Commission showed that the planning process had been inadequate, with a number of alternative technical options not considered. While the Commission did approve Transpower's basic proposal eventually, it found a number of low-cost intermediate improvements—such as phasing in transformer capacity in line with demand, and making greater use of capacitors for reactive power compensation—that could help delay large parts of the capital investment originally proposed by Transpower, thereby identifying potential savings to the project of up to US\$160 million. A longer term benefit was making Transpower realize that it needs to be more rigorous and accountable in its planning.

New Zealand is generally rated as one of the least corrupt countries by Transparency International and other surveys, so it is unlikely that the excess costs in this case were a product of corruption. To some extent that doesn't matter. Whatever the cause of the excess costs, a thorough scrutiny of the planning process can help to eliminate them. (At the same time, one must be alert to the risk that the supervising agency may use its veto power to demand illicit payments from private suppliers, as it is alleged has happened in Bangladesh, for example).

Source: New Zealand Electricity Commission and Castalia

10.2.3 Public and community participation in project selection and procurement

Power plants and transmission systems are complex, so many technocrats in the sector question whether public participation would have any value. Certainly the average man or woman on the street will know little about the choice of power plant technologies, for example.

International evidence shows that public participation can sometimes provide effective scrutiny of large power projects and their justifications. This scrutiny tends to work well when independent people with technical knowledge—such as academics, professional engineers in private practice, and retired utility and government officials—combine with citizen groups that are concerned about tariffs, service and corruption, to question government and utility plans.

In the United States such public participation is achieved through regulatory hearings (see Box 10.5). In Barbados, which has a regulatory process patterned after the US quasi-judicial model, for many years a professor at the University of the West Indies engineering school performed a valuable public service by reviewing and objecting to the utility's applications before the Barbados Public Utilities Board. Yet in many countries it seems that regulation has been introduced without the degree of openness to the public seen in the USA²⁹ and Barbados. In these countries, bringing in greater public consultation and access to information could be a good step in increasing both performance and probity.

²⁹ Plast, G., Oppenheim, J. and MacGregor, T. *Democracy and Regulation: How the Public can Govern Essential Services*, London: Pluto Press

Box 10.5: Public Scrutiny of Utility's plans in Virginia

Dominion Power—a power utility serving Virginia in the USA—wanted to build a 230kV transmission line from Meadow Brook (West Virginia) into the Loudon County (the Washington area's fastest growing county).³⁰ The utility argued that the transmission line was needed to meet growing demand for power, especially from the burgeoning Dulles high-tech corridor to the west of the city.

In April 2005, Dominion Power applied to the Virginia State Corporation Commission (SCC) to build the 15.7 mile power line. Citizens groups and academics united to question the utility's proposals, on a variety of grounds, including:

- **Environmental**—the utility wanted to build coal plants and import the power, while environmental groups said wind power located closer to the load center would be better, and could reduce the need for ugly and intrusive transmission lines in the landscape
- **Cost**—while the utility claimed the power line was the least cost option, consumer groups claimed it was an unnecessary expense (the estimated cost was US\$243 million), aimed at boosting the utility's rate base and so increasing both power prices and utility profits.

Dominion Power met frequently with Loudon County officials and residents, including a two night workshop that resulted in Dominion Power dropping its plans to use the Washington & Old Dominion Trail for the power line. Five different routes were explored, ranging from 12 to 15.3 miles in length. On 15 February 2008, the SCC issued a final order approving the transmission line. The final route includes 1.8 miles of underground transmission line (placed within the Washington & Old Dominion Trail property).

Source: Dominion (2005) Electric News Release: *Dominion Applies for Electric Transmission Line in Loudon County, Virginia, the Fastest Growing US County*

It seems likely that similar public enquiry process could be helpful in other countries. Even where there is no regulator, another government body—such as a planning Ministry or Commission—could run a public consultation. To make such a consultation effective, it might be helpful to adopt rules of process for the consultation.

For smaller, more community-based projects, such as rural electrification schemes, local community involvement in designing the scheme and overseeing its implementation can be helpful. When communities are involved in selecting projects and identifying appropriate project specifications, there is less opportunity for officials and bidders to benefit from inappropriate project design. In Nigeria, communities have been involved in selecting electricity or other infrastructure projects based on community priorities, and in implementing and monitoring the success of these projects. The large degree of community participation is seen as a key factor behind the successful delivery of improved community outcomes for reasonable levels of investment.³¹

³⁰ Loudon County is projected to grow from a population of 169,600 in 2000, to 300,400 in 2010 (or 77 percent).

³¹ World Bank (not dated) *Nigeria Community Based Poverty Reduction Project*, Washington, DC: The World Bank

10.2.4 Strengthening bid evaluation teams

The team evaluating the bids should have appropriate training and expertise, and should be cleared for conflicts of interest. Training provided to evaluation committee members should also be made available to third party observers, to increase their effectiveness.

10.2.5 Opening bids in public

Requiring that all bids are submitted confidentially and only opened under public scrutiny helps to decrease the likelihood of late bid alternations or secret negotiations (see Box 10.10 on page 124)

10.2.6 Registering Complaints

This can help to minimize the risk of inappropriate specifications (either so narrowly defined as to exclude all but the designated winner or so vague as to allow for inappropriate latitude by the bid evaluation committee in rejecting bids or in the evaluation process itself, see Box 10.6).

Box 10.6: Specification of Technology in a South East Asian Independent Power Producer was a Red-flag for Corruption

A fast-growing South East Asian country was continuing with its IPP program. The bid specification appeared to be normal and industry standard. However, the aspects of the specification of the turbine size were in fact slightly different from the industry norms. While there are multiple suppliers of the industry standard sizes, there were only one or two suppliers of the size specified in the tender documents. Moreover, there was no apparent reason for this specification—it seemed the government’s objectives could be achieved just as well with more standard sizes and equipment.

One of the bidders complained. The bidder believed that the unusual specification was a way to ensure that bidders had to purchase turbines from one of the only two companies that produced turbines of this unusual size. This would allow those suppliers to charge excessive prices for the turbines, with part of that excess kicked back to the officials who had insisted on the unusual specification.

In this case, IFC was involved in the transaction. IFC agreed with the bidder that there was no reason for the unusual specification, and that it would simply increase costs unnecessarily. IFC’s intervention led the government to change the specifications to the industry standard, thus removing this avenue for corruption.

Source: Personal communication

For most contracts, however, and especially for the hundreds of contracts that may be involved in distribution projects, such oversight may not be possible, and other techniques may be needed.

10.2.7 Collecting (confidential) complaints

Complaints from losing bidders and public observers can highlight faults in the procurement system. Even the threat of a complaint can help to increase the likelihood that complaints are followed. Although a specific complaints “hotline” could potentially be established for a large project, it would be more feasible and effective for practitioners or the government to establish a sector-wide procurement hotline. Sector-wide data would also help practitioners to identify patterns of similar complaints across different projects.

10.2.8 Using probity advisors and auditors

A probity advisor is an expert advisor who can advise on and approve procurement plans at the outset and during the selection process. An auditor checks on how the plan is implemented. Probity advisors and auditors can be appointed to oversee a number of procurement processes in a sector, or across sectors. They have been used successfully in Australia in “Partnerships Victoria” and other state and federal government procurement approaches (see Box 10.7)

Box 10.7: Victoria, Australia: Rules for Project Procurement

The Government of Victoria, Australia, has a clear “Probity Policy” that outlines procedures that must be followed and enforced by all Government departments involved in procuring goods and services. Along with outlining anti-corruption principles to be incorporated in internal departmental processes, the Probity Policy provides for two key types of probity surveillance:

- **Probity Advisors**—These Advisors can be departmental staff or external consultants. They are generally individuals with experience and expertise in tendering and contracting, and with good practical knowledge of probity issues. Probity Advisors can play a key role in developing probity plans (required under the Policy) and other key procurement documents, and may provide training for staff on probity principles and guidelines
- **Probity Auditors**—These are independent consultants with extensive experience in probity evaluation. They are generally hired for high value transactions, or for procurement where the services involved are complex or contentious, or the nature of the market place makes bidder grievances more likely. The Probity Auditor can advise the Government on probity-related issues during a tendering process, and independently scrutinizes (and reports on) whether the tendering process adheres to the prescribed probity processes.

Source: *Best Practice Advice on Probity*, Department of Treasury and Finance, Government of Victoria

10.2.9 Using e-procurement

E-procurement is the term used to describe the use of electronic methods in every stage of the procurement process, from identification of requirements through to payment, and potentially to contract management. For capital projects in the electricity sector, e-procurement generally involves the advertising of bid opportunities, acceptance, and award of bids via the internet.

The use of the internet for advertising helps to ensure that the bidding process is transparent—all parties have access to the same information, all of which must be posted on a publicly-accessible site. Many e-procurement systems enable bidders to ask questions (via the website, or by emailing the transaction manager), and publish the answers to these questions on the site for public viewing. The use of the internet for accepting bids reduces opportunities for transactions, and establishes a fair and readily documented process for bid submission. Box 10.8 below illustrates how to take simple first steps towards transparency through the internet.

Box 10.8: Simple First Steps Towards Transparency through the Internet

The first priority should be the creation of a Web site where all information about the contracting principles and procedures of the utility, details of forthcoming contracts, and progress in the contracts already awarded are regularly shown and updated. Use of a Web site for such purposes has been found to be more transparent and more cost effective than other methods such as publicity through newspapers or notice boards...

For each contract, the Web site should put out clear and unambiguous information on the prequalification criteria for taking part in that contract; the quantities, specifications, and milestones for completion of different phases of the work; any other information about the worksite such as access to the site, survey maps, soil, and topographical details; and a complete set of contract documents that will eliminate the need to visit the office of the utility. It is important that tender documents are available online and that online documents be treated the same as the documents collected manually from the utility. Publication of all contract-related information on the Web site will provide a built-in safeguard against changing the rules of the game after the process has started. Adoption of the standards laid down by the relevant bureau of standards, third-party inspection of works and equipment before making payments, assistance from qualified consultants in the various stages of complex contracts, the provision of funds to complete the work within schedule, timely payments to contractors, and regular review of the works by senior management are a few other steps that can bring additional transparency to contract procedures.

Source: Gulati, M. and Rao M.Y. "Corruption in the Electricity Sector: A Pervasive Scourge" in Campos, J. and Pradhan, S. (2007) *The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level*, Washington, DC: The World Bank, page 141–142

E-procurement can be successful if introduced as part of a government-wide initiative as in Singapore and Chile (see Box 10.9), or as a utility or sector-specific approach, as in Philippines (see Box 10.10).

Box 10.9: ChileCompra

To promote transparency and efficiency in its purchases, the Government of Chile launched ChileCompra for government procurement in 2000. All suppliers must register on the website, and anyone can participate, no matter the size of the business. In its first year of operation more than 60,000 companies registered, with about 250,000 currently registered. ChileCompra has increased the number of bids per business opportunity from 1.7 to 5.7 and more than 15,000 procurement officers have been trained. This public procurement system has been used as a reference point for good practice in Latin America and other countries around the world.

Source: www.chilecompra.cl

Box 10.10: National Power Corporation E-Procurement System, Philippines

The Philippines' Republic Act No. 8792—E-commerce Law of 2000—directed government agencies to undertake electronic public bidding. In 2000, the National Power Corporation (NAPOCOR) initiated a sophisticated electronic bidding system for NAPOCOR's coal requirements. The e-bidding process is carried out as follows:

- Bidders submit a financial and technical proposal, in separate envelopes.
- Technical proposals are evaluated, and financial proposal locked in a bidding box
- The price in the financial proposal serves as the ceiling price of the bidder
- Technically complying bidders are entitled to participate in e-bidding
- Bidders are given an identification using biometrics, and a confidential username and password
- For a given period of time, bidders can enter bid prices at a computer assigned to them
- Once bids are placed, bids are sorted and information displayed to all bidders
- Once the winning bid is confirmed, NPC announces the real identity of the winning bidder.

Source: Napocor website: <http://www.napocor.gov.ph/npc5.asp>

10.2.10 Outsourcing procurement

Instead of running every aspect of the procurement process, the government agency responsible for procurement can outsource some or all of the procurement functions (potentially including defining project specifications) to an outside entity with greater expertise or independence. For example, the Philippines Department of Energy used the UNDP to help it procure and manage consultancy contracts under a World Bank funded project on rural electrification, as part of national program (see Box 10.11).

Electricity utilities could also outsource procurement to specialized procurement agents, or to engineering consultants charged with both planning and procuring capital works under long-term out-sourcing contracts. Where a utility is considering a management contract, outsourcing of procurement to the management contractor (and thus removing the utility staff and board from procurement decisions) may be effective in increasing probity in some cases.

Box 10.11: Procurement Outsourcing to the United Nations Development Programme in the Philippines

The UNDP Philippines Country Office set up a Development Support Services Center (DSSC) to support national executed projects by ensuring project inputs are converted to project outputs. Executing agencies can turn to the DSSC for support in:

- Procurement of goods
- Comprehensive and high quality assistance to publicly-bid contracts
- Sub-contracting of services in various fields of expertise
- Recruitment of local professionals and other project personnel, and
- Other project-related and work plan-based activities.

Source: <http://www.undp.org.ph/?link=25>

10.2.11 Integrity pacts

Integrity pacts have been developed to create a common commitment to avoid corruption, along with agreement on processes and sanction. The Mexican chapter of Transparency International, *Transparencia Mexicana*, has done about 30 Integrity Pacts over the last four years. A clean and open bidding process instigated by the *Comisión Federal de Electricidad* (Federal Electricity Commission) and monitored by *Transparencia Mexicana* showed how the application of a Integrity Pact could be applied to contract a company to build the El Cajon hydroelectric dam. The Mexican Integrity Pact emphasized the importance of an Independent Monitor (or “Social Witness”) that physically witnesses the entire bidding process.³² For more information on such approaches, refer to Source List 10.1.

10.3 Project Supervision

Once a contract has been awarded, weak supervision of physical implementation may also allow for corruption.

Effective project supervision includes monitoring, technical support, evaluative review, and reporting. Most project executing agencies have rules on how projects should be supervised. However, as with procurement rules, the mere presence of guidelines on supervision is not enough—practitioners must apply the rules intelligently and consistently, and adapt their methods to suit the project context. This section describes a number of possible techniques.

10.3.1 Third party and community oversight

Large power projects require detailed technical expertise to be able to assess whether the works are being completed in line with the specifications. When project supervision is done by utility staff, the staff may accept below standard work in exchange for a share of the payments.

In most donor-financed projects, and many utility and government-financed projects, the government or utility delegates the job of construction supervision to the Project Engineer—usually a private engineering consultancy. However, even these external supervision arrangements are not a guarantee against corruption. Bringing in a second line of supervision, for example, allowing scrutiny by a university engineering department or an NGO with the requisite expertise, might help. Another option would be to engage technical auditors that would check the work of both the contractor and the Project Engineer. These auditors could be engaged to work across a number of organizations and projects, in this way reducing the risk that they too would be captured.

Informing non-governmental organizations and media on the outputs that should be expected from a given contract can increase their ability to monitor project supervision, and to hold the utility to account if the planned outputs are not delivered.

For rural and slum upgrading projects, working with community groups has sometimes proved to be effective (see Box 10.12). In addition to technical oversight, community members can be given responsibility (with corresponding threat of penalties) for financial supervision. For smaller projects with high community relevance, community members have natural incentives to ensure the money is well spent (see Box 10.12 below).

³² *Transparencia Mexicana* (2006) *Defense against Corruption project Background paper: Application of Integrity Pacts (IPs) in the Public Sector in Mexico – how they work*

Box 10.12: Slum Networks Supervise Construction in Ahmedabad

In a study of the Slum Networking Project (SNP) in Ahmedabad, contractors interviewed reported that there were far fewer opportunities to “fudge” contracts under the SNP than other contracts with the Ahmedabad Municipal Corporation. NGO staff monitoring the project included engineers that could supervise the contractors work, and NGOs trained community leaders to measure and weigh pipes and evaluate the quality of work.

One foreman explained:

The community have been told to watch us. At first we ignored them. Then they would report to the [NGO] and they would tell [the SNP staff]. They have taught them how to test the materials ... [E]ven when there is a small mistake now, they are all coming to shout at us”.

In this case, educating community members on what should be delivered by contractors reduced the contractors’ opportunities for corrupt behavior.

Source: Davis (2004) “Corruption in Public Service Delivery: Experience from South Asia’s Water Sector” *World Development*, 32(1) pp. 53–71

10.3.2 Monitoring of project variations

Frequent and uncontrolled project variations creates opportunities for forms of bid-rigging such as firms submitting low-ball bids at the procurement stage in order to win the project, and then increasing the contract value later, or officials running a procurement under a certain threshold (for example, a threshold for sole-source local bids) and then increasing the contract value subsequently through change orders. More simply, contract variations can increase the contractor’s profit, and since the value scrutiny on bid variation is generally less than on the initial award, this can become an easy way for an official to get a kickback from a contractor.

If the rules regarding permissible reasons for, and types of, contract variations are clear from the outset, this may discourage such bid-rigging. The more stringently such rules are monitored and enforced, the harder it will be to use contract variations as an avenue for corruption.

In complex construction contracts, some bid variations are genuinely necessary. The challenge is to find a way to allow flexibility when needed, while limiting use of the resulting discretion for corrupt purposes. Options to consider include creating an independent board or external supervisor to vet contract variations, or auditing variations on a sample of all contracts, after the fact.

10.3.3 Provider scores and disqualification

Increased supervision only deters corrupt activity if the penalties for such activity are certain, consistent, and significant (with the certainty and consistency of application being most important). Effective deterrents include debarring or disqualifying providers that perform poorly or fail to follow procurement and contract rules. As a less extreme measure, providers could also be awarded scores for their performance, on the basis of agreed technical parameters and public feedback. Providers that consistently score below a set threshold may be debarred or disqualified over time.

For more information on these approaches, refer to Source List 10.1.

10.4 Performance Based Payments to Increase Probity in Projects

Incentives to deliver the contracted project outputs at reasonable cost will be higher if the contractor's payment is contingent on those outputs being delivered on time and at specified qualified standards. This principle is captured in performance-based payments (such as "output-based aid" (OBA) schemes) which link payment to measurable outputs.

Output-Based Aid is an approach that uses explicit performance-based subsidies to support the delivery of basic services (where policy concerns justify public funding to complement or replace user-fees). The OBA approach delegates service delivery to a third party (usually a private company, but also NGOs, public utilities, and community based organizations) tying disbursement of the public funding to services or outputs delivered.³³

Provided that adequate oversight is provided for output delivery and quality, performance based payments may help to improve probity in capital projects by:

- **Increasing accountability.** The transfer of performance risk to the service provider maintains incentives to deliver the pre-specified outputs
- **Improving transparency.** Explicit recognition and identification of subsidy flows reduces scope for corruption
- **Increasing value for money.** Competitive award of OBA subsidies can increase the value for money.

Box 10.13: Output Based Aid in Rural Electrification in the Philippines

The Philippines introduced an OBA scheme to improve electricity supply to remote islands. The excess cost of public power generation (compared to the private bids) was widely thought to be due to corruption in fuel procurement contracts. Private generators were selected through competitive bidding to replace the public generators, and the International Finance Corporation worked with the government to establish a framework to ensure the delivery of electricity supply, and transparency in subsidy payments. The OBA scheme not only made it likely that decent equipment would be installed and made to work, but also cut out corruption in fuel supply.

Source: Grewal, S. *et al* (2006) *Output-based aid in the Philippines: Improving electricity supply on remote islands*, OBA Approaches, Washington, DC: GPOBA

For more information on OBA, refer to Source List 10.1.

10.5 Promoting Probity in Private Participation Procurement and Regulation

A special case of procurement involves the procurement not just of particular project-related works or advisory services, but of operators or managers for entire electricity service systems—that is, the introduction of private sector participation (PSP) in service provision. The numerous types of private participation in the electricity sector can be grouped for the purposes of the Sourcebook into three main categories:

³³ For more information on OBA, please see GPOBA (2005) *Output-based aid: Supporting infrastructure delivery through explicit and performance-based subsidies*, Washington, DC: Global Partnership for Output Based Aid

- Contracting with independent power producers (IPPs)
- Privatization of state-owned companies
- Contracts with private firms for the management or operations of a public utility.

Ways to increase probity and promote good governance in each category of transaction are discussed in the following sections.

10.5.1 Independent power producer programs

Private participation in electricity services has most commonly involved IPPs. Many government-owned utilities have turned to private firms to generate power for them, from the United States to Jamaica, Pakistan, Tanzania and Sierra Leone.

While IPPs have had many successes (see Box 10.14 for an example in Bangladesh), they have also been an avenue for corruption, as Box 10.2 illustrated. Independent power producer projects are typically very large transactions. In Net Present Value terms, the contract value is equal to not only the cost of a power plant, but the cost of fuel supply over a decade or two as well.

Box 10.14: Bangladesh’s Success with Independent Power Producer Contracts

Bangladesh has been successful in awarding independent power producer contracts through transparent international competitive bidding based on the price of electricity supplied. This has resulted in prices of less than US\$0.03 a kilowatt-hour, roughly half the price of directly negotiated deals in such countries as Indonesia and Pakistan.

Source: Lovei, L. and McKechnie, A. (2000) “The costs of corruption for the poor”. *Energy Services for the World’s Poor*. Chapter 8.

General recommendations to minimize corruption in an IPP project include:

- Defining exactly the capacity and merit order position the government wants to procure from an IPP
- Drafting a power purchase agreement (PPA) and associated documentation that reflects the capacity and merit order position, using international advisors to ensure the documentation is of an international standard
- Running a competitive bidding process using international transaction advisors.

While these steps may seem very simple, Box 10.15 illustrates how effective they can be in achieving an efficient, high-integrity result.

Box 10.15: Thailand compared to Laos in Independent Power Producer Procurement

A survey of private sector stakeholders and investors in South East Asia was carried out as part of the ADB project to develop a regional energy strategy for the Greater Mekong Sub-region. The survey focused on investors' perceptions of the investment environment in the countries comprising the region, and the region as a whole.

Thailand

Thailand offers an excellent example of a well designed and competitive process delivering good results for the country. In the most recent round of IPP bids, 20 firms bid to supply at least 3,200MW of generation. Four companies won the bidding and an additional 1,000MW was procured due to the lower than expected bidding prices. The winners of the bidding round were:

- Siam Energy (subsidiary of J-Power) 1600MW
- Power Generation Supply (subsidiary of J-Power) 1600MW
- Gheco-One (subsidiary of Glow Energy) 660MW
- National Power Supply (subsidiary of Advance Agro) 540MW³⁴.

The bid price has not been disclosed, but it is rumored to be a record-breaking low tariff, thus benefitting EGAT and Thai electricity consumers.

Respondents to the stakeholder survey said that the main reasons for the exceptionally good prices obtained were:

- A clear and competitive bidding process
- Clear, comprehensive, international standard contractual documents
- Thailand's track-record, built up from experience in bidding out IPPs starting in the early 1990s, and the country's history of honoring contracts and treating investors fairly even during the 1997 Asian currency crisis.

Lao PDR

Investors were also very interested in deals to develop hydro power in Lao PDR for export to Thailand. However, all IPP projects in Lao are negotiated, rather than bid. To some extent this may be because of the inherent difficulties in designing a competitive system for award of export hydro-power projects. However, a number of fundamental problems impede Lao PDR from maximizing the benefits of its hydro resources:

- There was a lack of clarity about who could award hydro concessions (as a result of many agencies seeking to control award perhaps not least because of the lucrative corruption potential).
- US-affiliated investors are concerned about the level of corruption in the country and that investment could run afoul of the Foreign Corrupt Practices Act (1977).

As a result of these concerns Lao PDR's hydro resources are less well developed than they could be, with many concessions awarded but not realized in actual projects

Source: Castalia (2008) *Developing the Greater Mekong Energy Sector Strategy: Promoting Greater Cooperation*, Report to the Asian Development Bank.

However, there are some situations in which it is difficult to write clear contracts and follow a competitive process for procuring IPPs. Some such difficult situations may include:

³⁴ International Financial Law Review, "Thailand: New financial legislation", January 2008
<http://www.iflr.com/?Page=10&PUBID=33&ISS=24462&SID=700168&TYPE=20>

- **When there is a power crisis.** In times of crisis, new plants may need to be procured immediately. This can place pressure on the government to take “short-cuts” in preparing the PPA, or to run an accelerated competitive process with less of the usual advertising and scrutiny. Provided that the government clearly defines a limit on the emergency capacity to be purchased, or places a cap on total contract amounts, such short-cuts or accelerated processes may present the most suitable approaches for responding to the crisis (of course, averting the crisis by installing adequate capacity well in advance is likely to lead to the least-cost solution overall). However, without such precautions, the crisis response can result in costs spiraling out of control, as in Pakistan (see Box 10.16 below)

Box 10.16: Set Tariffs for Independent Power Producer Contracts Can Avert Crisis but Lead to Over-Capacity

In the beginning of the 1990’s, Pakistan was in an urgent need of additional capacity to avoid a power crisis. The Government was willing to rapidly procure new plants. Rather than proceed through competitive bidding, the Government instead set a tariff ceiling for investors in an effort to accelerate the private power program. The ceiling price set in the 1994 Private Power Policy (US\$0.061/kWh as an average for the first ten years and US\$0.055/kWh over the life of the project on a levelized basis) was competitive with other developing countries at the time.

The set tariff approach proved very successful in terms of enabling projects to reach financial close in a relatively short period. Under the 1994 Policy, 19 IPPs reached financial close in record time, adding 3,400 MW in capacity. While Pakistan’s first IPP, Hub Power, took almost eight years to reach financial close, the IPPs under the 1994 Policy closed on average in two years.

Aspects of the IPP deals under the 1994 Policy that helped to attract investors included (i) a clear policy framework; (ii) attractive fiscal incentives; (iii) standardized security package; and (iv) a “one stop shop” for investors.

However, the deals only presented a short-term success, and led to the government agreeing to purchase more power than it needed. As a result, by 1998 the Government had issued notices of intent to terminate 11 IPPs, and four projects totaling 435 MW were eventually terminated.

One of the problems identified with Pakistan’s IPP program was that the Government did not set a limit on the quantity to be procured, and this resulted in excess capacity for several years. Had the implementation of the 1994 Policy been limited to about 2,000 MW the Water and Power Development Authority (WAPDA) may have been better able to absorb the capacity charges under the long term power purchase agreements, even as demand for power increased at a slower pace than anticipated. A clear mechanism to prioritize least cost projects would have helped. The basis on which projects were selected and accorded attention was not transparent and subject to political influence, which led to perceptions of corruption by successive governments.

Source: Julia Fraser, World Bank, “Lessons from the Independent Private Power Experience in Pakistan”, Energy and Mining sector Board Discussion Paper, 2005.

- **When the government wants market signals on an optimal plant mix.** Rather than sinking considerable resources into researching and pre-planning capacity expansions for the sector, the government may wish to let market

participants signal the next least-cost source of generation and optimal plant configuration. Such signals can come through a more open or flexible tender, in which the form of the IPP is not tightly specified, and bidders are invited to submit a proposed generation plant mix. Although such a tender can lead to a lower-cost solution for meeting capacity requirements being developed, it also presents a difficulty: how to evaluate and compare different tenders.

10.5.2 Privatization transactions

In some countries, governments have sold formerly state-owned power utilities. Often this has taken place in conjunction with establishing a competitive power market, as in Brazil. However, in some cases the privatized company has remained vertically integrated, as for example in Guyana and Jamaica.

General “best practice” for privatization transactions involves the government:

- **Being clear about its objectives for privatization.** For example, where cash collections fall far short of the revenues that should be collected by the incumbent provider from consumers, the priority for the privatization strategy could be to improve sector revenue by privatizing the distribution and supply functions first. This could help attract potential bidders for the upstream generation facilities by signalling that the distributors and suppliers will become creditworthy buyers of power from the generators
- **Designing a transaction that achieves those objectives.** Good transactions present a business opportunity that is attractive to private investors, whilst also ensuring that the investors will have incentives to act in a way that meets government objectives. In order to attract private sector interest, the transaction will need to be set in the context of a sound regulatory and legal framework for private sector participation is in place, and assure reasonable security of asset ownership rights. Skilled international advisors will be essential for preparing well-structured tender documents
- **Run a transparent and competitive process** to select the private investors. Provided that sufficient interest can be attracted from bidders, governments and utilities can obtain better terms under competitive bidding for proposals from IPPs than under non-competitive negotiated deals. Likewise, a transparent and soundly structured process for the sale of stakes in power entities will yield the best terms for the long-term efficiency of the power sector.

Further guidance on good privatization processes can be found in the sources in Source List 10.1

Sometimes a competitive selection process is not the best approach. This would be the case where only one quality firm is interested in the opportunity, or where the government wishes to deal directly with a firm that has proposed an innovative and beneficial arrangement. In such cases, transparent processes and adherence to pre-agreed principles guidelines are particularly important for ensuring probity in the negotiation process. It may also be possible for the government to expose the unsolicited proposal to a competitive process, for example through a Swiss Challenge. Further guidance on dealing with unsolicited proposals and direct negotiations is provided in Source List 10.1.

10.5.3 Management and concession contracts

In some countries, governments choose to introduce private sector participation not through full privatization, but through concession contracts (which were widely adopted in, for example, Argentina) or management contracts (which have been popular in countries less enthused about full privatization in the electricity sector, such as Tanzania—see Box 10.18).

Concession contracts

In concession contracts, the government selects a private operator to run the electricity business, operate and maintain the utility's assets, and collect revenue from customers for a set period of time. In return, the private operator pays the government a fee for the management rights throughout the concession period. The private operator plans and finances new capital investment, but does not actually own the infrastructure assets—these must be “returned” to the government at the end of the concession period.

In many ways, the concessionaire is similar to a fully private provider. For example, because the concessionaire bears the responsibility for, and cost of, planning and implementing capital projects, and is likely to take steps to reduce the potential for misappropriation of value.

In practice, however, even under a concession senior public officials may retain an implicit or explicit role in relation to capital projects, in particular in relation to the planning stage. For example, if a Master Plan already exists, the government may let the concession on the condition that the concessionaire adopts that plan. The government may include a requirement in the concession contract that the Minister is consulted on proposed capital projects. Even where this is not the case, officials may seek to influence the concessionaire's process for planning capital investment for their own benefit.

Accordingly, the key areas for concern in concession contract procurement are not only following a competitive and transparent procurement process, but also designing a contractual arrangement that makes the planning process as transparent as possible. If the government is likely to continue to play a part in project planning, then this role can be made explicit by, for example, including contractual provision for a “social fund” that is collected from consumer revenues and can be spent on an investment project of the government's choice. The government could choose to support a project from the utility's existing master plan, or be required to publicly provide an explanation of an alternative project choice.

Box 10.17: Successful Electricity Concession Contract in Cote d'Ivoire

Following the bankruptcy of the state-owned power utility, in 1990 Côte d'Ivoire granted a 15-year operating concession for the entire power sector to the privately owned Compagnie Ivoirienne d'Electricité (CIE). Service quality improved markedly after CIE took over operations. Outages were reduced from an annual average of about 26 hours per consumer in the mid-1980s to about 14 hours in the late 1990s. Metering, billing, and revenue collection performance improved dramatically. Ninety percent of all private consumers now settle their bills on time, and irrecoverable arrears are less than 1 percent. Nontechnical losses at the low-voltage level in 1999 were only 3 percent of billings. Total energy losses in 2000 were less than 15 percent, much lower than in many other electric utilities. In addition, there was a rapid expansion in access to electricity: the number of low-voltage consumers nearly doubled between 1990 and 2000 to 763,000, with only a modest 7 percent rise in the number of staff.

The increase in productivity has been substantial: the number of consumers per employee rose from 121 in 1990 to 209 today. CIE staff have gained better remuneration, improved working conditions, and substantial skills upgrading. The development of institutional capabilities in CIE has been impressive, and far beyond what had been achieved in many years of donor-funded technical assistance and training support to other African public utilities. Virtually all senior management positions are in Ivorian hands. Equally important, CIE's record in cleaning up distribution opened the door to private investment in both power generation and gas production.

Source: Manibog, Dominguez, and Wegner. (2003) *Power for Development* Washington, DC: The World Bank.

Management contracts

Under a management contract, the contractor does not take operating risk—the private sector firm is only responsible for supplying management services to the utility, in return for a fixed fee (plus bonuses for good performance). As a result, the contractor does not necessarily have a role in project planning, and has few incentives to ensure that the assets are developed in a least-cost fashion.

Box 10.18: Management Contract in Tanzania

The Government of Tanzania decided to contract a private provider under a management contract with TANESCO. Eleven companies initially responded to the request for proposals, with three submitting a full bid. The winning bidder proposed an arrangement somewhat different from that set out in the RFP, but the government quickly agreed to this. The media criticized the government for a perceived lack of transparency, and workers protested in concern that the utility would be privatized.

The contract successfully led to a doubling of utility revenues over a two year period. However, it failed to lead to longer-term, sustainable improvements in technical performance. The contract also had little emphasis on customer service. As a result, electricity consumers faced tariff increases despite a lack of tangible improvements in services. The utility has also suffered from a lack of investment in maintenance and infrastructure.

The contractors' primary job was to increase revenues—there were few incentives for other improvements in utility planning or performance. The government was still in charge of the procurement of generation, and secured a particularly costly IPP deal (in which corruption is alleged to have taken place, Box 7.1) that contributed to rising prices for consumers.

Source: Ghanadan, R. and Eberhard, A. (2007) *Electricity Utility Management Contracts in Africa: Lessons and Experience from the TANESCO–NET Group Solutions Management Contract in Tanzania*, Management Programme in Infrastructure Reform & Regulation

10.5.4 Summary on probity in private participation procurement

Regardless of the type of private participation chosen, a general approach likely to promote probity would go as follows:

- **Be clear about the objectives** for private participation. This involves identifying what public sector problem the transaction is expected to solve, what services the private firm would be expected to provide, and what outcomes these services should achieve. If these objectives are clear from the outset, it is easier for the government to be held accountable for ensuring that the objectives are met, and in turn to design mechanisms for holding the private firm accountable for achieving them
- **Design a transaction and regulatory arrangement that achieves those objectives.** An effective transaction design and regulatory arrangement is conceptually sound and sufficiently detailed in order to set the right incentives for the private contractor to meet the government's objectives. Making well-informed decisions about contract type and risk allocation and enabling transparent and open feedback from the private sector to develop workable contract terms are techniques that help to ensure that a competitive number of well-qualified private firms are interested in the PSP opportunity, and are transparently involved in shaping its design
- **Run a transparent and competitive process** to select the contracting partner. Many of the techniques described for general procurement (see Section 10.2) are relevant for this process, although the larger size of the contract means that more stringent rules and oversight may be required in order to reduce opportunities for bid-rigging, bribery, fraud and other forms of corrupt activity.

Once a private sector contract is awarded, regulation becomes a key sector governance concern. Good practice in regulation is discussed further in Section 12.3.3.

Source List 10.1: Improving Project Planning, Selection, and Evaluation

Source	Description
<i>Good Practice in Project Planning, Selection, and Evaluation</i>	
<p>Bacon, R. W. and Besant-Jones, J. (2001) "<u>Global Electric Power Reform, Privatization and Liberalization of the Electric Power Industry in Developing Countries</u>," <i>Annual Reviews Energy & the Environment</i>, 26, pp 331–359</p>	<p>This paper explains that many developing countries have sought to privatize and liberalize their power sectors because of the poor performance of state-run electricity companies and lack of investment. Power reforms are generally designed to introduce competition where feasible, which is in the upstream production and downstream supply functions of the industry structure, and to use economic regulation of the wholesale and retail power markets to promote competition and protect consumer interests. The paper reviews the success of reforms in a range of countries, based on levels of investment and sector performance data, and highlights the need to adapt reform processes to country circumstances. For example, the paper cautions that bid-based competitive power pools are unlikely to work in all but the most advanced developing countries, and that levels of investment are unlikely to be high where the regulatory and policy environment is unstable. The paper highlights the need for proper sequencing of reforms to ensure that investor confidence and government competence is built over time.³⁸</p>
<p><u>Integrating Indigenous Knowledge in Project Planning and Implementation</u></p>	<p>Integrating Indigenous Knowledge (IK) in project planning and implementation is important to better adapt global knowledge to local conditions, and plan projects to serve the communities actual (rather than perceived) needs. The World Bank created a database that provides access to a collection of indigenous practices and case studies sector practitioners can learn from, as well as the opportunity to contribute new cases.³⁹</p>
<p>Khatib, H. (2003) <i>Economic Evaluation of Projects in the Electricity Supply Industry</i>, London: The Institution of Electrical Engineers</p>	<p>This book is an updated edition of Khatib's previous "Financial and Economic Evaluation of Projects in the Electricity Supply Industry". It is intended to help people working in the electricity sector (on either the engineering or management side) to understand the methodology behind evaluating projects, in order to comprehend and analyze investment proposals and decisions. It introduces tools and techniques of financial analysis and evaluation.</p>
<p>The Lines Company Limited (2007) "<u>The Lines Company Limited Asset Management Plan</u>"</p>	<p>The Lines Company Asset Management Plan is an example of good distribution planning.⁴⁰</p>
<p>Shrestha, R. & Bhattarai, G. (2003) "Electricity planning with demand-side management in Nepal Economics and environmental implications" <i>Energy Policy</i> 21:7</p>	<p>This paper discusses the results of using different residential sector demand-side management programs for an electric utility in Nepal. The paper notes that each of the different management and planning programs leads to the development of a somewhat different expansion plan, with different environmental and social impacts. The paper discusses how these different plans can be objectively compared to select an approach in line with local policy.</p>

Source	Description
<p>Victoria Electricity Transmission Network Planning Criteria, VENCorp, Australia</p>	<p>This document clearly sets out the planning approach and criteria used by VENCorp, a transmission network service provider in Victoria, Australia. One of VENCorp’s responsibilities is to plan and direct the expansion of Victoria’s electricity transmission network, managing a key link in the supply chain to the State’s 2.2 million electricity customers. VENCorp’s planning approach is aimed at ensuring that system security and performance obligations are fulfilled in the most economic way. To achieve this, the approach assesses each potential network development on its own merits by weighing up the development costs against the benefits to the system of undertaking the development.</p> <p>Although the examples provided are specific to the Victorian network requirements, the overall approach set out in the document present a useful example of good practice in planning and project selection</p>
<p>WASP Model</p>	<p>WASP is one of the most widely used tools for electricity system planning. The model determines the least-cost generating system expansion plan that adequately meets demand for electrical power while respecting user-specified constraints on system reliability. WASP uses probabilistic simulation to calculate production costs for a large number of possible future system configurations and dynamic programming to determine the optimal expansion plan for the electric power system considered.</p> <p>One of the advantages of this model is that it can be extremely flexible (for instance, for integrated resource planning when looking at the supply side, efficiency improvements, and demand side projects together). It is able to deal with externalities and use tariff impact as a deciding criterion.</p> <p>WASP is distributed by the International Atomic Energy Agency (IAEA)</p>
<p>The World Bank (1998), <i>Handbook on Economic Analysis of Investment Operations</i>. Washington, DC: The World Bank.</p>	<p>The World Bank’s <i>Handbook on Economic Analysis of Investment Operations</i> provides tools for economic analysis from the point of view of the implementing agency, the fisc, the beneficiaries, and society. This is aimed at practitioners interested in different techniques for appraising their projects. A second part of the Handbook is a Technical Appendix to guide sector practitioners in determining the social opportunity costs or shadow prices.</p>
<p><i>Good Practice in Capital Project Procurement</i></p>	
<p>Gilroy, J. “Procurement Outsourcing” ICG Commerce</p>	<p>Transferring specific procurement activities is one option for reducing overall costs and allowing a company to focus on its core competencies. This article, by the Vice President of Outsourcing for ICG Commerce, tries to answer the top 10 questions companies have about procurement outsourcing.⁴¹</p>
<p>Kramer, W. “Combating corruption and fraud in international projects”</p>	<p>This website begins with a brief overview of the “problem” of corruption, followed by sections on findings from recent cases, a description on how common schemes operate, red flags for common schemes (including red flags in contracts and procurement), a description of countermeasures and controls, and a brief summary of legal remedies.</p>

Source	Description
<p><i>“Integrity in public procurement: Good practice from A to Z”</i> (2007) OECD Publishing.</p>	<p>This publication offers practical insights into how the profession of procurement is evolving to cope with the growing demand for integrity, drawing on the experience of procurement practitioners as well as audit, competition, and anti-corruption specialists.</p> <p>The book provides a comparative overview of practices meant to enhance integrity throughout the whole procurement cycle, from needs assessment to contract management. It also includes numerous “elements of good practice” identified not only in OECD countries but also in Brazil, Chile, Dubai, India, Pakistan, Romania, Slovenia, and South Africa.</p>
<p><i>“Bribery in Public Procurement: Methods, Actors and Counter-Measures”</i> (2007) OECD Publishing</p>	<p>This report addresses the growing complexity of bribe schemes in today’s globalized markets. It describes how bribery is conducted at various stages of government purchasing; how bribery in public procurement is related to other crimes, such as fraud and money laundering; and how to prevent such crimes. The typical motivations and conduct of the various corrupt actors is highlighted. The report contains 10 case studies.</p>
<p><i>“Fighting Corruption and Promoting Integrity in Public Procurement”</i> (2005) OECD Publishing</p>	<p>This document comprises papers that were presented at a Global Forum on Governance intended to identify “weak links” in the public procurement process, explore ways to improve transparency and accountability, and identify actions to prevent, detect, and sanction corruption. It includes various case studies on mechanisms to improve transparency and accountability in procurement (14 studies), and case studies on preventing, detecting, and penalizing corruption (14 studies). The case studies are mostly from Europe, Asia, and Latin America.</p>
<p>Transparency International (2000) <i>“TI Source Book 2000”</i> Chapter 22: Public Procurement: Where the Public and Private Sectors do Business</p>	<p>This chapter outlines principles of fair and efficient procurement, discusses where corruption can happen in the procurement process, and advises on methods to reduce corruption in procurement.⁴²</p>
<p>Transparency International’s Project Anti-corruption Systems</p>	<p>Transparency International’s Project Anti-corruption Systems (PACS) were designed to prevent corruption in construction projects. The PACS is made up of two parts:</p> <ul style="list-style-type: none"> ▪ The PACS Standards recommend anti-corruption measures which should be used on construction projects, and ▪ The PACS Templates provide the tools by which the measures recommended in the PACS Standards can be implemented. <p>The PACS can be used to assess existing anti-corruption measures (against the PACS Standards), modify existing measures (to meet PACS Standards), or PACS Templates themselves can be used—appropriately customized—as its anti-corruption measures.⁴³</p>

Source	Description
<p>Transparency Macedonia (not dated) <i>Report on the transparency of the privatization process of the Electrical Company of Macedonia</i></p>	<p>This document describes how an Integrity Pact was successful in improving the transparency of the privatization of the Macedonian electric energy company, and how Transparency Macedonia educated journalists to follow the process and keep the public informed.⁴⁴</p>
<p>World Bank Procurement Website</p>	<p>This website contains four main topics:</p> <ul style="list-style-type: none"> ▪ Information for Borrowers—A repository of information, documents, and guidance for government agencies responsible for implementing World Bank-financed projects ▪ Bidding/Consulting Opportunities—A portal for the business community seeking to participate in business opportunities that are generated from World Bank-financed projects ▪ Public Procurement—Knowledge and information on public procurement systems, including Country Procurement Assessment Reports ▪ Policies and Procedures—A listing of World Bank procurement policies and procedures. The sections also provide short cuts that take you directly to the most frequently requested procurement documents and pages.
<p><i>E-Tendering Requirements for MDB Financed Procurement (October 2005)</i> The World Bank</p>	<p>Increasingly, countries that borrow from multilateral development banks (MDBs) are using electronic procurement systems. Accordingly, the World Bank, the Inter-American Development Bank, and the Asian Development Bank joined forces to create e-tendering requirements for MDB financed procurement. These requirements list the minimum features required for system access, advertising, correspondence, amendments, substitutions, and clarifications, bidding documents, submission of bids and proposals, bid securities, public bid openings, bid evaluation and contract award, information security management, authentication, and payment.</p>
<p><i>Procurement Reform in the Philippines: Changing the Rules of the Game</i> (not dated), the World Bank</p>	<p>This presentation provides an overview of the procurement reform in the Philippines. In 2001, a survey found that government procurement was a major source of corruption, partially due to a chaotic legal framework (with over 100 laws and regulations governing procurement). A non-government organization called PWI was established in February 2001 to fight corruption in public procurement. PWI ensured it partnered with reform minded government officials to carry out training, networking, and advocacy in public procurement with the hope of reforming the system. In 2003, the procurement law proposed by PWI was passed into law.⁴⁵</p>

Source	Description
<p><i>“Fighting Corruption through Collective Action: A Practical Guide for Business”</i>, developed by the World Bank Institute, UN Global Compact, Center for International Private Enterprise, Global Advice Network, Grant Thornton, and Siemens</p>	<p>This guide aims to strengthen the capacity of business leaders to reduce or eliminate corruption in large scale commercial projects through collective action by voluntarily joining together in various forms of coalitions to counter corruption in the areas of procurement, contracting, and supply chain management. As an integral part of this program, the WBI is developing a toolkit and accompanying Web portal offering tailored implementation resources on the design and practical execution of collective anti-corruption actions. This Web portal will have country- and industry-specific sections. This Web portal is forthcoming.</p>
<p><i>Integrity in Selecting a Private Partner</i></p>	
<p>Manibog, Dominguez, and Wegner (2003) <i>“Power for Development”</i> Washington, DC: The World Bank.</p>	<p>This paper reviews the World Bank’s experience with introducing private sector participation in the electricity sector. It identifies the need for country-specific solutions, rather than a blueprint approach, and discusses different forms of private sector participation and their degree of success in different countries. For example, the paper notes that few management contracts have been successful in improving utility performance.</p>
<p><u>Partnerships Victoria’s Guidance Materials</u></p>	<p>The Partnerships Victoria website has many useful resources on good practice in public procurement. The “Resources” section shows a list of training course that are available for practitioners on PPPs. The “Policies and Guidelines” section includes Partnerships Victoria’s Policy, a Practitioner’s Guide (setting out approaches to key commercial issues like bid evaluation, and public process issues, like probity and disclosure). There is also a guide for risk allocation, contract management, and standard commercial principles.</p>
<p><i>Good Practice in Project Supervision</i></p>	
<p>Calkins, D. (2007) <i>“Fighting Corruption: A Matrix of Sector and Project Options”</i> EASUR Anti-Corruption Initiative, the World Bank</p>	<p>The document presents a matrix of options for elements of an Anti-Corruption Action Plan for projects in East Asia and the Pacific. It divides these potential elements into three categories: prevention, detection, and deterrence, all of which contain elements of tightening up on procurement.</p>
<p>Calkins, D. (2007) <i>“Guidelines for Supervising ‘High Corruption Risk’ Projects”</i> EASUR Anti-Corruption Initiative, the World Bank</p>	<p>Normal World Bank Supervision practices do not necessarily reveal “red flags” for corruption. This document, prepared by the World Bank’s East Asia and Pacific Department, offers guidance on supervising high corruption risk projects.</p>

Source	Description
<p><u>OP 13.05 Project Supervision</u> (revised in 2004), the World Bank</p>	<p>The World Bank’s Article’s of Agreement require the World Bank to ensure that any loans or grants are used for the purposes for which they were provided. While implementing projects is the borrowing countries’ responsibility, the World Bank does supervise implementation of projects it has financed. This supervision includes monitoring, evaluative review, reporting, and technical assistance.⁴⁶</p>
<p><u>“Guidance Note for Project Management: Strengthening Institutional Capacity during Project Implementation”</u> (2005) the World Bank</p>	<p>While the World Bank does supervise the implementation of its projects (see above), helping countries achieve sustainability is also a core part of the Bank’s mission. As such, integrating project management skills into existing government institutions is an important goal to move towards using country (rather than Bank) system in lending. This Note provides guidance on how practitioners can (and should) move away from the default stand-alone Project Implementation Units (PIUs) and instead build capacity within existing institutions to perform this role.⁴⁷</p>
<p><i>Output-Based Aid as a way to increase probity in projects</i></p>	
<p>Brook, P. and Smith, S. (2001) <u>“Contracting for Public Services: Output-Based Aid and its Applications.”</u> Public-Private Infrastructure Advisory Facility, The World Bank.</p>	<p>Designed as a guide to aid practitioners and policymakers in developing countries, the book gathers cases of innovative, output-based approaches from across the infrastructure and social sectors, including construction of schools and IT learning facilities, energy, primary health care, roads, telecommunications, and water. These cases illustrate some of the key challenges in channeling tax and donor funds to target services and beneficiaries, and creating incentives for the efficient delivery of these services. The book concludes with a checklist for project implementation: including how to choose beneficiaries, how to choose service suppliers, how to define performance, how to link payments to performance and how to administer the schemes.⁴⁸</p>
<p>Ehrhardt, D. and McKinlay, A. (2003) <u>“Designing OBA When There is an Incumbent”</u>, GPOBA Working Paper Series</p>	<p>This paper aims is to provide practical guidance to Government officials and other who are asked to design Output Based Aid (OBA) projects in situations in which there is an existing supplier. Initially, OBA was only used as part of a PSP transaction for a utility, or in situations where there was no existing provider. This note provides guidance on how to design OBA to modify or augment existing infrastructure PPP arrangements (for instance, to finance new connections in low-income areas, or for enhanced sanitation targets) even when there is an existing concessionaire. This paper analyses and discusses the regulatory, competition, negotiation, and implementation issues for designing OBA when there is an incumbent provider.⁴⁹</p>

Source	Description
<p>Grewal, S., Venkataraman, S., Bayking, J., Guzman, A. and O'Connor, S. (2006) <i>Output-based aid in the Philippines: Improving electricity supply on remote islands</i>; OBA Approaches, Note Number 10</p>	<p>The Philippines introduced an OBA scheme for subsidizing electricity supply on remote islands. The subsidy, to come from a national fund financed by a surcharge on all electricity users, is paid to private generators selected through competitive bidding, and disbursed on the basis of the energy they supply. These generators have taken over from the government provider, entering into a supply agreement with the cooperatively owned distribution utility on each island. The use of a competitive bidding process resulted in a lower cost of supply than previously experienced under the public provider. The use of OBA ensures that consumers are able to benefit from the lower costs of supply and receive improved services, as the private generators are only paid the difference between their cost of supply and local tariffs when the electricity is actually generated and distributed.⁵⁰</p>
<p>Mumssen, Y. and Kenny, C. (2007) <i>Output-Based Aid in Infrastructure: A Tool for Reducing the Impact of Corruption</i>; OBA Approaches, Note Number 16</p>	<p>Explains how OBA can help reduce corruption in projects by improving transparency and competition, and reducing discretion. OBA project designs can help to ensure that desired service standards are met, and allow auditors and stakeholders time to uncover malfeasance before funds are disbursed. The risk of financing white elephants—infrastructure with no economic value—is also considerably lower than in traditional aid models.⁵¹</p>
<p><i>Promoting probity in private sector participation and regulation</i></p>	
<p>APEC Energy Working Group (1997) <i>Manual of Best Practice Principles for Independent Power Producers</i>; Edmonton: APEC</p>	<p>Section 9 of Best Practice Principles (page 13) sets out best practice for Power Purchase Agreements (PPAs) and associated tariff structures. Starting on page 23, the Annex provides more detail on this best practice, including: setting retail tariffs, mechanisms to allow the transition to competitive electricity markets, and allocation of risks.⁵²</p>
<p>Castalia (2005) <i>Sample Bidding Documents for Management Contracts</i> (DRAFT)</p>	<p>Guidance material on procurement of management contract services in infrastructure. Includes sample prequalification and bidding documents applicable to the electricity sector.</p>
<p>Gausch, J. (2004) <i>Granting and Renegotiating Infrastructure Concessions: Doing it Right</i> Washington, DC: The World Bank</p>	<p>Analyses a large number of electricity and other concession contracts in practice, and finds that many are renegotiated within a few years of contract award. Discusses ways to make PSP contracts and competitive selection effective in light of this finding.⁵³</p>

Source	Description
<p><i>Ghanadan, R. and Eberhard, A. (2007)</i> <u>Electricity Utility Management Contracts in Africa: Lessons and Experience from the TANESCO–NET Group Solutions Management Contract in Tanzania, Management Programme in Infrastructure Reform & Regulation</u></p>	<p>This paper tells the story the TANESCO-NET Group Solutions Management Contract in Tanzania, including elements of the contract and the institutional arrangements. Section 6 is a useful summary of the lessons learned for private sector participation and power sector reform in Africa.⁵⁴</p>
<p>Hodges, J. and Dellacha, G. <u>“Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency”</u></p>	<p>This paper reviews three current systems for approving and tendering unsolicited proposals (Bonus system, Swiss Challenge system, and Best and Final Offer system). It provides summaries of country or state practices that have introduced competition and transparency (including: Argentina, Australia, Canada, Chile, Cost Rica, India, Indonesia, Korea, the Philippines, South Africa, Sri Lanka, Taiwan, and the United States. Links to applicable laws and regulations are contained in Appendix C.⁵⁵</p>
<p>Partnerships Victoria Guidance Material</p>	<p>The Partnerships Victoria website—www.partnerships.vic.gov.au—has numerous resources on competitive selection, including: the <i>Partnerships Victoria</i> policy, a Contract Management Policy, Risk Allocation Guide, Contract Management Guide, and so on. It also provides technical notes on such topics as public sector comparator, determining the inflation rate, and the interactive tender process.</p>
<p>PPIAF and the World Bank (not dated) <u>“Toolkit: A Guide for Hiring and Managing Advisors for Private Participation in Infrastructure”</u> Washington, DC: The World Bank</p>	<p>Describes how governments can contract effective advisors for a range of reform situations, including for introducing private sector participation in the electricity sector. Sets out general guidance on policy development and objective setting, provides sample terms of references and details representative costs of advisors, and gives examples from other country experiences.⁵⁶</p>
<p><u>UK Treasury, Private Finance Initiative, Standardised Contracts</u></p>	<p>Standardization of Private Finance Initiative Contracts (Version 4, March 2007) provides the standard wording and guidance used by public sector bodies in the UK when drafting private finance contracts.⁵⁷</p>