

6 PPP Preparatory Work

The sector strategy and road map (updated based on the PPP option selection) outline the work to be done to create the enabling environment and structure the PPP transaction. In general, the preparatory work falls within the same categories as the sector diagnostic, and addresses the constraints identified through sector analysis:

- legal, regulatory, and policy frameworks;
- technical issues;
- institutional and capacity building; and
- commercial, financial, and economic issues.

The preparatory stage culminates in the achievement of an environment conducive to sustainable reform and in a well-defined, documented, and agreed-upon PPP process.

6.1 Establishing Appropriate Legal, Regulatory, and Policy Frameworks

The potential PPP project will exist with a public policy framework, which includes specific legal and regulatory settings.

The legal analysis will have resulted in an inventory of existing laws, regulations, contracts, and other legal documents that define the characteristics of PPP or those that have to be changed. Gaps are also identified where new legal instruments are required. These may relate directly to PPP (privatization law, sector licensing, etc.)—or be of more broad and general relevance (company law, labor laws, environmental laws, foreign exchange regulations, etc.). It may be possible to change the “direct” ones to facilitate the PPP, but the “general” ones typically simply need to be recognized and followed.

As such, the PPP structure has to reflect the prevailing tax regime, concession rights, dispute resolution procedures, public service laws, labor laws, etc. Corporate structures have to adhere to company laws and other legal requirements. To the extent that laws have to be changed to accommodate the desired PPP, the timetable should reflect a realistic period for this. The legal work continues as the PPP process progresses.

Similarly, the regulatory regime including oversight arrangements for pricing, customer service, operations, and market structure may need to be changed or newly created. The desired PPP option has to be contrasted with the existing regulatory arrangements and capacity and regulatory gaps should be filled or the PPP structure should be changed. The gaps may include the need for (i) more explicit regulations and requirements of the operator (to be

embedded in contract, regulations, or statute); (ii) developing actual regulatory institutions (such as an independent regulator, a regulatory unit within government, and contracting of regulatory capacity); (iii) training regulators; and (iv) developing procedures whereby the regulator requests and receives information.

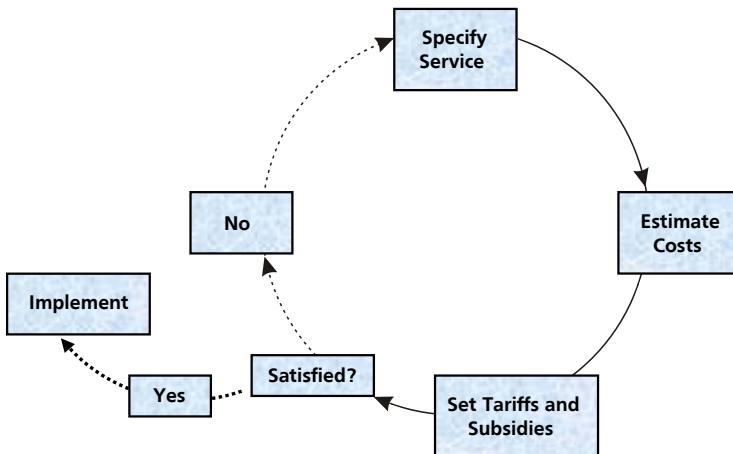
The roles of each entity involved in performance monitoring (boards, ministries, auditors, monitors) and regulation (ministries, regulators) should be described and justified by assigned authorities.

6.2 Technical Preparation

The technical specifications of the proposed PPP project need to be defined and documented in the terms of reference, and ultimately enshrined in the PPP contract. The preparation stage is the time to develop the preliminary specifications. Development of the final technical specifications of a project is an iterative process which builds on feedback from the market and the affordability of the project at each design stage.

The technical design of a project starts with identification of desired coverage targets and service standards. From these starting points, estimating the cost of these desired services (factoring in presumed efficiency gains) and cost recovery tariffs is possible. Government has the option of putting these cost recovery tariffs in place, subsidizing cost-recovery, or revisiting the initial targets and service standards. Figure 10 illustrates the balancing of service and costs.

Figure 10: Balancing Service and Costs



The technical preparation builds on (and refines) the analytical work that has been done in preparing the sector analysis and road map, including demand analysis, asset inventory, and investment analysis.

Technical terms of reference need to strike a balance between being too narrow/restrictive and too loose. Technical specifications that are too narrow may mean that a bidder is prohibited from using the most economical technical solution. Too loose terms may lead to proposals that diverge significantly from each other and are hard to compare and rank. A strategy for dealing with this dilemma is to focus on defining the technical outputs expected rather than dictating the inputs to be employed, thus allowing the bidders some reasonable latitude to determine the most efficient way to achieve outputs.

The technical terms of reference enable bidders to understand required outputs, quantify necessary investment, and estimate resulting operating performance.

Below are two samples, Boxes 10 and 11, of the type of specifications that might be contained in the technical portion of a request for proposals:

Box 10: Example of Performance Specifications in Railway PPPs

Performance Specifications – Railway PPPs

Key technical specifications to be detailed in a railway PPP might include:

Availability of service:

- Stations: locations, opening hours, passenger throughput

Trains:

- Journey time, frequency, passenger capacity

System:

- reliability, safety, degraded mode operation

Ambience – quality of journey:

- Quality of finishes, seat/standing ratio, lifts and escalators, customer information, fare collection

Capability:

- system architecture, external interfaces

Transfer:

- return conditions, maintenance manuals and records, final years issues

Source: Dr. Higton, Nick. *Using Public Private Partnership to Deliver Successful Rail Projects*. Ove Arup & Partners Ltd.

Box 11: Example of Performance Specifications in Water PPPs**Performance Specifications – Water Service PPPs**

Key technical specifications to be detailed in a water and sanitation PPP might include:

Coverage Targets:

- Number of new direct household connections, or the percentage of households to be connected
- Percentage of roads with tertiary pipes
- Geographic area to be served through direct connections, kiosks, standpipes, or other nonpiped delivery systems (for water services), and public latrines or other improved sanitation options (for sanitation services).

Quality Standards:

- Availability of service
- Pressure
- Water quality
- Effluent treatment
- Customer service

Source: World Bank and PPIAF. 2006. *Approaches to Private Participation in Water: A Toolkit*.

6.3 Institutional Structures and Capacity Building

When restructuring sector roles is part of the PPP process, the private sector is engaged to undertake activities that were in the public domain and the public sector becomes a regulator or monitor, playing a limited role in actual service provision, if any. Most countries initially lack the institutions and institutional capacity required to organize, manage, and implement a PPP process. Existing institutions need to build capacity to be able to take on new roles and new institutions often have to be created. Some key institutional arrangements used to support PPP are:

- PPP units,
- project implementation office/project implementation unit, and
- technical assistance.

6.3.1 PPP Unit

A PPP unit is established as a point of coordination, quality control, accountability, and information related to PPPs either within a single sector or across a range of sectors. These units are created as a new agency or within a ministry such as the finance ministry, which is seen to be at arms' length from the sector to be reformed. For private proponents, the units provide transparency and consistency. For public stakeholders and the public at large, the units are able to disseminate information and provide specialized management of a specialized process. (See Box 12 for PPP units in Australia and the Philippines.)

Box 12: Public–Private Partnership (PPP) Units in Australia and the Philippines

Australia—State of Victoria

State governments in Australia are mainly responsible for most infrastructure sectors. In the State of Victoria, individual government departments are ultimately responsible for concession design and award. Project responsibility is assigned to a single minister in each case. This minister is then responsible for facilitating consultation with the other government departments involved in the project. The minister will also work with the Department of Treasury and Finance. To guide and promote consistency in analysis and procedures, the Victorian government has formulated an Infrastructure Investment Policy for Victoria, a description of which was published in June 1994 by the Department of Treasury and Finance. That department also acts as a reference center when guidance is required by other government entities.

Source: www.treasury.vic.gov.au/

The BOT Center of the Philippines

The Government of the Philippines created an institutional structure to support the country's large private infrastructure program. Each sectoral agency has a specialist build–operate–transfer (BOT) unit responsible for coordinating the design and implementation of its projects. National, provincial, and municipal authorities select and award projects under the framework. The authorities prepare a list of priority projects, which must be approved by either the Investment Coordination Committee of the National Economic and Development Authority (NEDA), the NEDA Board, or by local or regional councils. As part of its program, the government created a BOT Center to perform the following tasks:

- Keeping an updated national inventory of all nominated projects eligible for development under the BOT framework,
- Providing general advice to foreign investors doing business in the Philippines,
- Developing infrastructure projects,
- Providing technical assistance and training to central and local government officials on the design and implementation of projects, and
- Spearheading promotional activities for the Philippine BOT program and specific projects through brochures and road shows.

Initially, the Center was mainly involved in marketing the BOT concept to private investors. It now spends more time training national and local government officials.

Source: www.botcenter.gov.ph/

The units serve to ensure that the key stakeholders relevant to a PPP adhere to a consistent methodology and agreed guidelines:

- project identification and prioritization,
- encouraging competition,
- due diligence of opportunities,
- adherence to transparent bidding processes,
- ensuring the appropriate treatment of employees and government assets, and
- ensuring the most effective use of government resources.

PPP units have typically focused on the identification, development, and bidding of projects. However, focus is increasing on the potential role units may play in the oversight of a contract once launched. This may include ensuring that the proper systems are in place for monitoring and reporting.

There is also increased attention to the structure and location of these units. Specifically, the units should command the right level of authority and should be led by a well-respected and competent executive. Further, there is increased support for the establishment of these units as akin to project developers with a pay structure that is linked to successful transactions. The units need not be large; in fact, large units can be seen to undermine the intent of PPPs to promote efficiency. The units often require initial or ongoing technical assistance from PPP specialists.

A final consideration is of the links between the PPP unit and the line ministries and, possibly, other levels of government. PPP activity may occur on a national or subnational level and the location of the PPP units should correlate to the market activity.

There must also be coordination with the sector ministry associated with a particular PPP, particularly the project implementation unit (PIU).

6.3.2 Project Implementation Unit

A PIU is a vehicle to plan and implement a project or projects. At times, it is linked with a line ministry, but it can also be quasi-independent of the ministry. Most PIUs are established to support large capital investment projects (typically donor-funded) and the life span of the PIU is linked with the project life cycle. The precise structure and role of a PIU will depend on the requirements of the funding agency and the executing agency, the type of project, and the local context.

PIUs have been used as a vehicle to dedicate staff to important projects. They are staffed with internal government staff, with external resources or a mixture of both. Recent analysis

has questioned whether PIUs have been effective in the broader development of project management capacity within governments, particularly when staffing is external.

The advantages to developing a PIU are the creation of a central point of accountability and management. The PIU typically monitors and reports on project progress, performs financial management and accounting, and handles project procurement.

Where both PIU and PPP units exist, close and regular coordination is needed.

6.3.3 Technical Assistance

Unless the government is deeply experienced in contracting PPPs, there will be occasion to hire transaction advisors and/or specialist advisors such as lawyers, financial analysts, financiers, economists, sociologists, and sector specialists to support the government. These advisors can be procured as a team or recruited individually, in which case coordination among the team members should be ensured. Advisors will play an important role in maintaining momentum, developing strategies for government consideration, helping develop public messages and information, performing analysis of PPP options, and supporting the bidding and negotiation processes.

The specialist advisors should be brought into the process early and should be paired with government counterparts. As PPP is considered, government should be identifying potential local counterpart staff, developing a PPP unit or PIU, and should be training staff to take on new responsibilities. The local capacity building should be supported through working relationships with any advisor.

Ideally, technical advisors would continue support through to contract signing and possibly beyond. The bid and negotiation process involves repeated clarifications and iterations of the bid documents, often occurring swiftly. The process must be well organized, politically defensible, and must lead to a good outcome. If external support (financial, legal, and technical) to the government is not available at this stage, key government officials must have received training in negotiation and be completely familiar with the content and intent of the bid package (the contract, bid documents, and bid forms).

Similar technical assistance may also be necessary to build capacity at the entity charged with monitoring contract compliance and progress targets.

6.4 Commercial, Financial, and Economic Preparation

In designing and preparing PPP, there must be a process to balance service levels with the tariff levels, creating a package of price and service which is acceptable to customers and

sustainable for the utility. Critical to this analysis is the structure of payments to and revenues for the private partner, including any subsidies that might be required.

This iterative process will encompass:

- technical analysis—to determine the cost of service;
- market and social research—to determine what people are willing and able to pay for certain service levels;
- financial analysis and modeling—to determine the cost recovery tariff required to support the desired coverage targets and service levels; and
- consultation and trade-offs—to agree any transitional subsidies until cost recovery is achieved or ongoing subsidies, e.g., to low-income customers. If the subsidies are not available, coverage and service targets may need to be reduced.

As described in section 3.5, the financial model must be flexible enough to accommodate a range of variables, allowing for an iterative process between the financial modeling and the PPP design. A key objective will be to ensure the financial sustainability of the utility through efficiency gains and through balancing of income and expenses. The financial model is a tool that helps achieve the right balance of affordability, cost recovery, and investment. The model will help prioritize investments and inform decisions on who should pay for investments, depending on the respective cost of capital. Some countries also find it useful to use a public sector comparator (PSC) model which helps government test whether a private investment proposal offers value for money compared with the most efficient form of public provision.

In preparing the transaction, three important considerations will be (i) the source of financing, (ii) the design of the appropriate tariff structure and tariff levels, and (iii) design and application of subsidies.

6.4.1 Project Financing

Infrastructure PPP's typically require financing; that is, external funds are required for the initial investment costs that are recovered over time from future revenue streams. The funds may be sourced from the public sector or the private sector. Regardless of the source of finance, such funds have a cost and, therefore, impact the project's economics and required tariffs (and thus affordability). Fundamental to the question of project financing is the correlation between perceived credit risk (resulting from various technical, commercial, and other risks associated with the project) and the cost of finance.

A government's cost of funding is typically lower than that of a private operator even of the same originating country. Providing private financing may therefore increase the financial costs of PPP. However, the efficiency gains from PPP are expected to outweigh this

additional cost and result in net savings and efficiency gains, with an ultimate benefit to consumers. In addition, public sector financing is usually scarce, creating one of the initial drivers for PPP.

The operator will typically establish a project company for implementing the contract, often called special purpose vehicle (SPV). The company owners may be a consortium of companies or a single large company. The company owners will not usually finance all project requirements; instead, they will provide a proportion as equity and borrow the remainder of the required financing from financial institutions or place debt securities in the capital market.

The creditworthiness (“bankability”) of a project depends on a number of factors, some of which are within the control of the government when designing PPP. They include commercially attractive project design and tariffs (shorter payback and, hence, financing periods) as well as strong off-take arrangements to reduce market/revenue risk (predictability of cash flows), together with the level of certainty and transparency of regulatory settings, which affect future cash flows.

Infrastructure project financing in general, whether from banks or bond markets, faces a number of challenges including (i) long-term debt maturities to match project cash flows, (ii) limits to the availability of local currency debt financing to match local currency revenue streams, (iii) limited available equity and resulting high degree of leverage, and (iv) no security/guarantee except for project assets available (“nonrecourse financing”).

As a result, project finance is a specialized activity and, depending on prevailing market conditions, may or may not be available at any time. To make financing possible or to secure better borrowing rates, the operator may seek credit enhancement through insurance or guarantees. These might include (partial) credit guarantees (e.g., from the government itself or from a development finance institution) or political risk guarantees (from insurers or development finance institution) against the government or regulator not adhering to agreements (e.g., take-or-pay off-take agreement, concession agreement, etc.).

To determine the amount of debt finance the project can sustain, lenders perform their own calculations related to project performance and cash flow. These include debt service cover ratios, loan life coverage ratios, and project life coverage ratios. Project financing requires a very thorough appraisal process because of the sole reliance on project cash flows. Lenders will undertake due diligence exercises to get comfort that the project assumptions and risks are reasonable.

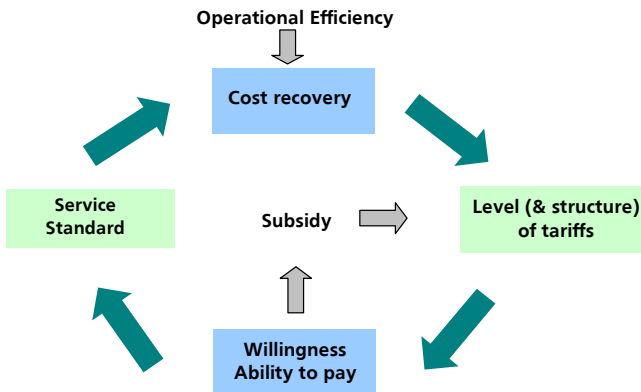
It is critical to understand that the bidders may not fully know the prospective financing arrangements until the last stage of the contracting process. The bidders will have potential financiers lined up, but the final arrangements and risk allocations will only be put in place

when the contract is near certain. At this late stage, the lenders may impose their requirements on the project. This creates the risk that a winning bidder fails to complete financing and may have to withdraw. This highlights the importance of critically assessing the financial resources and borrowing capacity of potential bidders during prequalification. A useful tool is the imposition of a bid bond or a deposit payment by the bidder that is forfeited in case the winning bidder withdraws.

6.4.2 Tariff Design

Tariffs need to balance a number of objectives: (i) stipulated service standard and associated costs, (ii) customers' willingness and ability to pay, (iii) resulting cost recovery, (iv) required economics (return on investment) for private operator, and (v) need for/availability of subsidies. The right combination of factors must be determined through an iterative optimization process using the project model (see Figure 11).

Figure 11: The Iterative Process of Designing Tariffs



Source: Heather Skilling and Nils Janson. 2006.

This process is made more complex if differentiated/complex tariff structures (e.g., unit price as a function of consumption to help low-income users) or tariff adjustment mechanisms (e.g., for input cost changes, exchange rate changes) are used. It is critical to employ qualified and experienced specialists for this modeling and optimization task.

The following objectives provide an appropriate starting point for designing tariffs:

- cost recovery/return on investment,
- incentives for efficiency,
- fairness and equity, and
- simplicity and comprehensibility.

Cost recovery/return on investment

The combination of service standards (costs) and tariffs (revenues) determines the commercial viability of a project. Beyond that, the private operator has the chance to improve the ultimate financial outcome by being particularly efficient in investment and operations. Therefore, a private operator will only get involved in a project if it sees a fair chance to make a profit given a predetermined set of service standards and tariffs.

The internal rate of return (IRR) and return on equity (RoE) are the most commonly used measures to assess the financial attractiveness from a private operator's perspective (as described in section 3.5). A private operator will assess the potential IRR of a project against its own cost of equity, adjusted for the perceived risk of the project. A private operator may be willing to accept a lower IRR if some risks are reduced or mitigated through government actions or otherwise. Revenues are considered adequate if they enable an operator to maintain, replace, modernize, and expand its services and assets. (See Box 13 for Chile's experience in electricity pricing.)

Box 13: Electricity Pricing In Chile

Chile's method of electricity pricing is distinctive because of the innovative approach to rate of return regulation. The price system includes regulated rates for consumers with peak demand of less than 2 megawatts and freely negotiated rates for the rest. The final price to regulated consumers has two components: a node price at which distribution companies buy power from generators and from the transmission grid, and the value-added of distribution. The value-added of distribution is calculated every 4 years. The procedure involves determining the costs of an optimally operated firm and setting rates that provide a 10% real return over the replacement value of assets. These rates are then applied to the real companies to ensure that the average return falls between rates of return on assets of 6% and 14%. If the average actual return falls outside this range, the rates are adjusted to reach the upper or lower limit, depending on whether they fall above or below. The operating costs of the benchmark "efficient firm" and the replacement value of assets are based on a weighted average of estimates made by the industry and the regulatory agency.

Source: Kerf, Michel. 1998. *Infrastructure Concessions: A Guide to Their Design and Award—Privatization Tool Kits*. Washington, DC: World Bank.

As a starting point for determining fairness, tariffs should reflect costs and different customer groups/classes should observe tariffs that reflect the cost of supplying them. For example, people in similar circumstances pay similar amounts or people accepting lower quality of services should have their bills lowered. However, some services, like water and wastewater services, are often considered a public service, and no customer should be denied access to water on the grounds of poverty (see section 6.4.4 on Subsidies). Specific subsidies or cross-subsidies built into the tariff system can address this situation.

Simplicity and comprehensibility

The objective of simplicity and comprehensibility means that tariffs should be easily accessible and understandable to employees and consumers of the utility. For example, if a tariff structure is too complex, customers may not understand the implication of changes in consumption for their bills or the range of options available to them. However, over simplification may result in incentives being lost or a negative impact on fairness.

Balancing the objectives

There is a need to balance these above objectives against one another. For example, the objective of incentives may conflict with the objective of simplicity at times because on cost grounds it may make sense to have a very complex tariff structure. A similar conflict could arise with the fairness objective. There is a further requirement that certain fundamentals be in place including a definition of a reasonable rate of return, an understanding of how assets will be valued, and whether any additional returns are to be allowed.

After evaluating these factors and determining the appropriate allocation of risks in PPP, the initial tariff rates and tariff structure are set in place until an adjustment is warranted.

6.4.3 Tariff Adjustments

To expect one set of tariffs, or even a tariff structure or regime, to remain viable and appropriate over the typical life of a PPP project is unrealistic. It is therefore essential to define practical rules for adjustments. This requires defining:

- The triggers or drivers for a price adjustment, such as changes in raw material prices (such as oil prices for power), inflation, and exchange rate fluctuations (where the operator had to assume unhedged foreign currency exposure);
- The mechanisms by which the adjustment will be made, including cost plus and price-cap regulation; and
- The frequency of adjustments including cost pass-throughs, tariff indexation, tariff resets, and extraordinary tariff adjustments.

Mechanisms

There is a difference between the regulatory requirements of utilities, such as waste management, electricity, water, and telecommunications, and other forms of public infrastructure, such as roads.

Tariff adjustment mechanisms for utilities are discussed below within two basic categories: cost-plus mechanisms and price-cap mechanisms.

Cost-plus or rate of return mechanisms permit regulated firms to pass all operating expenses and capital costs on to the consumer, including an after-tax return on investment. Under this system, there is no adjustment unless the operator applies to the regulatory authority and requests a review and reset.

The regulator reviews the operator's overall cost base in response to any proposal that higher (or lower) prices are needed to cover their full costs. In theory, this approach provides the best match of prices to incurred costs, but delivers weaker incentives for efficient operation and development since the recovery of a rate of return is assured.

Cost-plus regulation has the potential to encourage firms to inflate operating costs, rather than pursue efficiency. It nevertheless has a strong element of certainty from an investment perspective, which may mitigate risk.

Revenue or price-cap regulation, on the other hand, provides a more direct incentive for efficiency. Revenue or price caps are put in place to control the quantum of revenue over a period or specific prices, but the firms are given leeway to increase earnings through performance improvements. Under this mechanism, a firm can change its price level and its tariff structure according to an index that typically includes an inflation measure and a "productivity offset" (commonly called the X factor). This approach may provide a stronger incentive to improve efficiency and reveals the true costs of providing services.

The choices of regulatory approach is driven by many factors, including the economic expertise available, the accounting and auditing system, investment requirements of a sector, and motivation for efficiency. During the early stages of development when regulatory capacity is being developed, price caps may be a better choice. Prices can be set high enough to attract capital. At a more mature stage of regulation, cost-plus mechanisms might be appropriate to attract large-scale investment.

Many regulatory systems encompass aspects of revenue or price-cap and cost-plus mechanisms in a hybrid, tailored approach, as well as methodological approaches to sector-specific issues.

Nevertheless, the form of regulatory system should be subject to detailed analysis and consideration, which takes account of country, sector, industry, and infrastructure capital investment profiles.

Regulation of nonutility infrastructure PPPs takes a slightly different form and is typically articulated through the PPP contract. Under an infrastructure PPP, the fundamental goal of regulation is to allocate risks rationally and maintain stability between risk and expected return.

Frequency of Adjustments

There are different procedures for enacting adjustments in tariffs. In some cases, there is agreement that the costs of certain inputs (energy, for instance, or bulk water) are to be immediately reflected, passed-through, in the tariff charged to and collected from consumers. In this way, the risk of the input price increase is immediately passed on to consumers. Other pass-throughs might include a change in tax rates, or a change in the quality standards imposed by government. The mechanism is appropriate when the service provider has no control over the input. The pass-through may reduce the service provider's incentive to use the input more efficiently, yet the provider is also wary of increasing tariffs beyond what consumers are willing and able to pay.

Tariff indexation. This mechanism is similar to a cost pass-through but uses a different tool to make the adjustment. Rather than the actual costs of the service, the tariffs are adjusted to reflect a change in an index of prices (such as the consumer price index), on a regular timetable. While indexation may protect the provider from price increases that are predictable and within normal limits, the provider is still vulnerable to changes outside the norm or outside the index. In some cases, the indexation formula is based on a basket of prices most relevant to the service being provided.

Tariff reset or periodic tariff adjustment. A more tailored mechanism for adjusting tariffs is the tariff reset. For a long-term PPP, an indexation or pass-through will likely be insufficient to accommodate all sector changes over the life of the contract. Therefore, the rules for tariff resets are defined before PPP is implemented and will be a topic of discussion among all parties relevant to the discussion of allocating risk.

The discussion of tariff resets has to cover:

- the objectives of the reset,
- the methodology for the reset, and
- triggers for a review and potential reset.

The objectives of the adjustment can include allowing a reasonable rate of return to the operator, encouraging efficiency through a rate of return, or restoring the financial position of the operator who has confronted an unanticipated (and uncontrollable) change in the operating environment such as an exchange rate change.

Depending on the objective of the reset, different methodologies may be used. For instance, there might be an attempt to determine what the most efficient operating costs would be through benchmarking or obtaining expert advice. If the reset is to restore financial standing to the operator, only key cost variables may require review.

Such a tariff adjustment might be triggered by a request for a review or by a specified event. Typically, these adjustments are allowed on a predetermined periodic basis, such as every 5 years.

In some cases, highly unusual circumstances such as strife or bankruptcy might trigger an extraordinary price review.

6.4.4 Subsidy Design

Government subsidies can be used to make a project commercially viable from the perspective of the private operator even if the desired combination of service and tariff levels does not result in sufficient cost recovery. This will only make sense if the aggregate cost to the government under PPP (including subsidy) is lower than the cost to the government of operating the service fully under the public sector or the cost of not providing the service at the required service levels.

Government subsidies can be “general”, i.e., applying to the overall project, or “specific”, in which case they are tied to service provision to deserving (low-income) consumer segments. Some subsidies are designed as community service obligations and mandated in regulatory or license standards or paid for by direct and indirect public sector transfers to beneficiaries.

Cross-subsidies do not involve government payments but are a compensation mechanism built into the tariff structure. They serve as a means of reducing average tariff charged to one group of customers by increasing the average tariff charged to another group of customers. The most common forms of cross-subsidies include subsidies from nonhousehold to household customers, and subsidies from high-volume customers to low-volume customers, through rising block tariff structures. Subsidies can be established for access (connection charges) or for consumption.

Governments typically provide subsidies to reduce tariff levels for the purposes of helping the poor, addressing public health issues, addressing environmental issues, and/or because of political constraints on raising tariffs.

In many cases, the subsidy is already effectively in place before PPP, though hidden. To the degree that unprofitable service activities are provided by a public sector institution are loss making, they are reliant on budget support, essentially a public subsidy. As such, implementing an efficient PPP with short- or medium-term subsidies may still result in a net

improvement relative to the status quo. However, the subsidies enhance the overall value of the project and do not remove incentives for efficiency or serve to perpetuate services of limited value.

Different types of subsidies can be used to address different issues. Options are cash subsidies, including output-based aid, unremunerated bearing by the government of business risks, cheap capital, and in-kind grants and tax exemptions. Each of these options is described further below.

Cash subsidies, including output-based aid

Cash subsidies involve cash payments by the government to the private operator or project company. Payments may be made to cover a portion of investments or can be related to service delivery. Clearly, subsidies should be designed to ensure that the private operator has an incentive to achieve the desired public policy outcome. This is not always easy as subsidies may create perverse incentives for inefficient operations or other undesirable outcomes.

Where there are political constraints to increasing tariffs, a general cash subsidy could be paid to the private service provider to reduce the average tariff required from customers to cover the utility's operating expenses. In this case, setting the size of the subsidy in advance is essential. Not doing so will ensure that the private operator has little incentive to minimize operating expenses. In setting the size of the subsidy in advance, provision might be made for a gradual phasing out of the subsidy, through annual reductions in its size, as operating efficiencies are realized and tariff increases are phased in.

Where the rationale for the subsidy is to increase service coverage, rather than cushion the impact of increased tariffs, it may be more appropriate to link payment of the subsidy to an indicator, such as the number of new connections.

A fixed subsidy for each new connection, however, might be expected to provide the operator with an incentive to connect those premises, which would maximize the sum of expected revenues, less connection costs. Such a structure may limit the incentive to connect the poorest households. An alternative would be to subsidize the cost of new connections only in certain areas, such as in areas where poor households are concentrated.

Cheap capital

This refers to a reduction in the required rate of return on equity or a lowering of the effective cost of borrowing for the private operator. Governments can subsidize the cost of debt to a utility by lending it money at concessional rates (i.e., below its own debt servicing costs). Subsequent write-offs of these loans by government may represent a further subsidy

to a utility although this is likely to cause significant problems later when further borrowing may be required. Governments may also subsidize the cost of debt to the utility by providing guarantees or by taking responsibility for exchange rate risk, which can be a significant cost to utilities in developing countries.

In-kind grants and tax exemptions

Governments may also provide subsidies to privately operated utilities through in-kind grants and tax exemptions. In-kind grants may take a variety of forms, such as water abstraction rights, which would otherwise be subject to some form of charging regime, or land grants. Tax exemptions are commonly applied to publicly operated utilities and these may be extended once the utility is privately operated.

Again, these subsidies are not targeted to service delivery outcomes or to those customers most in need of assistance. As a result, there will be a leakage of benefits to nonpoor households, assuming that these benefits are passed on to customers and are not captured by the operator itself in the form of offsetting cost increases.

In case subsidies are necessary, these forms of subsidy should be evaluated by making comparable estimates of the benefits and costs of each subsidy and assessing how well they achieve their stated objectives, such as targeting the poor.

6.5 Labor Considerations

Public sector workers often oppose projected PPP arrangements. There should be early and constant dialogue among the government, the labor unions, and public employees to set out the objectives and strategy for PPP. Information on worker issues should be proactively shared to allay speculation and unfounded concerns. Workers need to be dealt with fairly and either provided with employment opportunities in the new company or given acceptable severance packages.

In working through the labor issues associated with PPP, a legal review is critical. This includes public service acts and regulations, laws specific to the sector and the enterprise, collective bargaining agreements, and any precedents in other sectors.

For employees and unions, the key issues will be:

Redundancies or severance payments. This would include the terms under which employees would be laid off and the opportunity to join a new company if one is being created. Public service employees should be advised whether they are to be transferred to any new entity (and thus, potentially ineligible for severance), whether all employees are eligible for severance

and possible rehiring, or whether only certain employees will be eligible for severance and/or opportunity with the new company.

Terms of employment with a new company. Employees will need to know the employment terms, including salary, reporting lines, benefits, security of tenure, and whether accrued pensions and benefits will be transferred.

Retraining. Whether an employee is severed or retained, there will be questions about training opportunities being offered. As soon as possible, an explicit program to retrain severed workers, allow for spin off of certain functions, and/or improve the capacity of retained staff should be implemented.

The way in which worker issues are handled depends almost entirely on local labor law and local precedent. There should be an attempt to clarify, early in the process, what the law does and does not provide for. Otherwise, speculation will be considerable. Workers should be represented in the process as soon as possible and information should be proactively disseminated.

6.6 Including Local Partners

From the government’s perspective, including local private and public partners in the PPP process as much as possible is generally desirable. There are a variety of ways to achieve this:

- **Local private partners.** Local companies are often qualified to be the private partner in PPPs and to develop, improve, and operate infrastructure. Contracts with local partners can range from service contracts to BOTs and may apply to big and small projects. Local partners may be particularly effective for smaller, localized projects, e.g., to reach small towns and peri-urban areas, which demonstrate a viable market, but which are remote from the core infrastructure. Competent utilities or construction firms may enter into competitive tenders to perform discrete services or to construct new facilities. To encourage and regulate local participation, government should predetermine a policy on the inclusion of local companies, ensuring against unfair access to procurement officials, safeguarding against corruption, and setting appropriate and realistic evaluation criteria to enable local companies to compete, while assuring appropriate project quality.
- **Local subcontractors.** In sectors such as water and energy where small-scale service providers are prevalent and necessary to fill gaps in the service provided by the dominant utility at least for the short to medium term, PPP partners may be encouraged to integrate such providers into their strategies. This would not replace intentions to ultimately provide service through formal arrangements, but would prevent the PPP from displacing small-scale providers until such time as replacement services are available.

- **Local government units.** Many joint venture arrangements include municipal or other local public partners. This can be an effective way to bring government decision makers and local stakeholders into corporate governance of the company, transforming their role into one of ownership. There are also conflicts of interest possible in such arrangements, which need to be recognized and mitigated against.

6.7 Stakeholder Involvement

The early involvement of all stakeholders in the PPP process helps develop an enabling environment. The stakeholders provide valuable information on the points of concern, the performance expectations, and potential risks. This input is also critical to assess whether key business assumptions of the proposed PPP (in particular tariffs/fees) are realistic and enforceable. Avoiding consultation invites the risk of later opposition, which slows or derails the process. Ongoing consultation with stakeholders is important at every stage.

Consultation with potential bidders and partners is also critical to ensure that the proposed PPP design meets their requirements. Otherwise, there is a risk that the PPP design includes an unrealistic combination of (politically) desirable features (high-level service, low prices, no redundancies, no subsidies, and short concession periods) that will make the project unattractive to bidders or unsustainable. Collecting informal feedback from the market during the preparation stage is therefore critical. More formal consultations can take place during project implementation as described in section 7.1.