

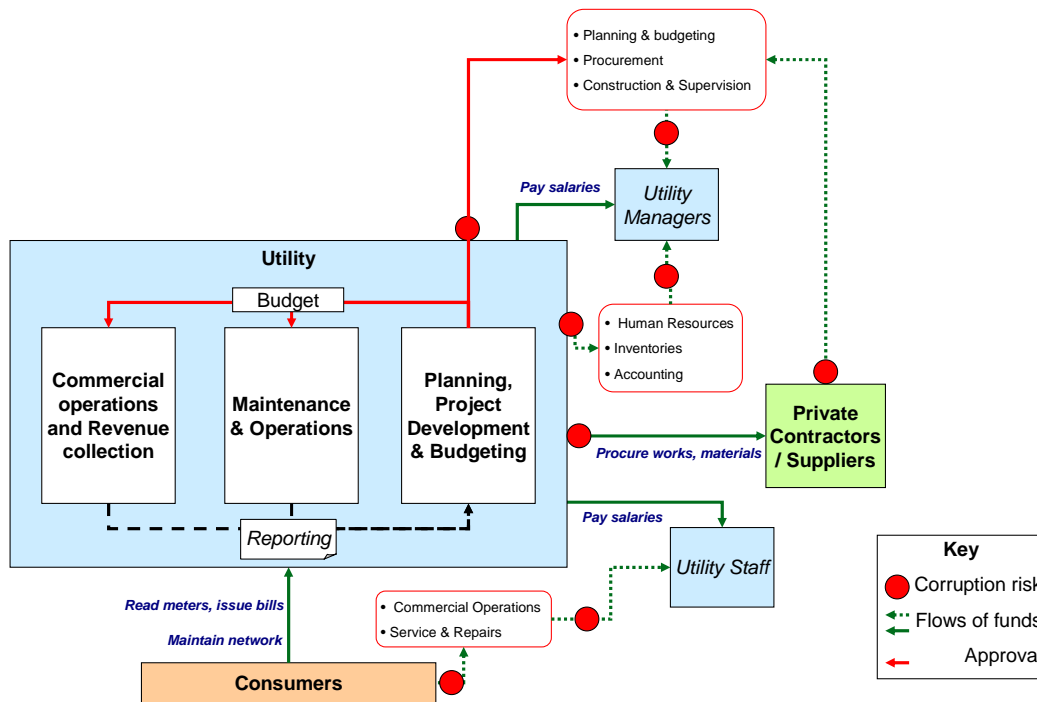
11 Increasing Probity at the Provider Level

This section sets out ways to reduce corruption in electricity service providers. Providers are those organizations that provide electricity services to customers. As outlined in Section 4.5, corruption can happen at numerous “locations” or hotspots within a provider’s institutional and operational structure. These hotspots include:

- **Commercial operations**, including revenue collection, services and repairs. These areas may be at risk of petty corruption (such as extracting bribes from consumers in return for providing services that should be free, or in return for decreasing bill amounts) by utility staff
- **Procurement** of capital projects, services, fuel, and other supplies. Procurement may be at risk of corruption (such as bribery and kickbacks) by private suppliers and utility management
- **Human resources and inventories**. Such resources may be at risk of corruption (such as illicit use of utility resources, or collection of salaries for people who are no longer working) by utility managers
- **Planning**. Similar to sector level but in fact natural “plans” are often simply aggregations of municipal plans.

Figure 11.1 illustrates these and other hotspots of corruption risk in a vertically integrated provider’s operations, expenditure and decision-making. (Note: corruption in capital projects is discussed in Section 10).

Figure 11.1: Corruption Risk Areas Requiring Improved Management Controls



Vertically integrated and disaggregated sectors share similar qualities

Although Figure 11.1 is focused on a vertically-integrated utility, the corruption problems—and management solutions—are similar in a disaggregated system. The two main differences between a vertically integrated and a disaggregated sector lie in the locale of corruption risk in fuel of energy procurement, and corruption risk in commercial activities.

Typically, fuel procurement is a key corruption risk, but is obviously only a risk for firms that generate power. Distributors and retailers may have an analogous risk in procurement of wholesale energy for on-sale to customers. Most functioning spot markets present a good barrier to corruption, but prudent retailers will hedge their spot price exposure. These hedge contracts may be an avenue for corruption.

Similarly, corruption in commercial activities is generally only a risk for companies selling direct to final customers. Vertically disaggregated generators selling their output in the wholesale market may face a different kind of risk.

Learning from the private sector—adopting effective management controls

Section 4.5 explained how sector practitioners can test whether corruption is (or may be) happening at the hotspots illustrated in Figure 11.1. Practitioners can use the information collected during the detection and mapping process as the basis for selecting effective management control systems that help providers to decrease corruption risks. As we explain in this section, such control systems are based on good corporate management principals, and comprise several interlocking elements that work together to address a range of corruption risks.

Many of the hotspots arise from basic principal-agent problems. Utility employees' incentives are not directly aligned with the incentives of the company owners, so some

employees may be inclined to appropriate company money for their own benefit. To address such problems, utility managers put in place management controls that detect and penalize behavior that harms the utility's performance, and that reward behavior that benefits the utility's goals.

Unsurprisingly, many of these controls were first developed in private sector firms. Owners of private firms have always been highly motivated to stop misappropriation by staff, as every act of misappropriation reduces their own profit. These systems, together with other social developments, have been so successful in reducing misappropriation of company funds in developed countries that the original motivation for the systems is often forgotten. But in fact, putting in place standard corporate management controls will often be the key to exposing, and then reducing, corruption and enforcing enterprises.

Linking management controls to corruption risks

Management control systems are integrated wholes intended to strengthen probity across the organization. Thus there is not a one-to-one relationship between corruption in a particular area and a control system for that area. Rather, reducing corruption in any one area may require several interlocking systems to be implemented, while any given management control system can contribute to reducing corruption across several hotspots. For example, an accounting system that works properly and is externally audited can reduce misappropriation of company funds, theft of inventory, and petty corruption in the commercial operations. Similarly, instituting identity tags and access controls can both reduce theft of fuel and stores, and indirectly increase accountability to customers.

The remainder of this section looks at seven areas of management controls that can help decrease corruption risks:

- Accounting controls
- Financial management and budgeting
- Commercial functions
- Procurement of fuel
- Wholesale power procurement
- Human resources
- Procurement of other supplies and services
- Stores
- Employee use of company resources.

Good practice for provider probity largely amounts to implementing standard modern management systems. These providers will be able to call on consultants and experienced managers to help design the reforms recommended.

For other utilities, implementing standard modern management controls may seem like a daunting challenge—an injunction to remake themselves entirely, in a situation in which they have neither the resources nor the political support to do so. This will be especially the case for small utilities, and many utilities in poor and post-conflict countries. Section 13 suggests ways in which provider level probity can be increased in even the most difficult circumstances, through intelligent adaptation of the basic ideas outlined in this section.

All of these reforms focus on the provider level, and so would need the support of the Board and Chief Executive of the provider. In that sense, this section can be thought of as a set of how-to materials for utility managers who want to reduce corruption risk in their utility.

11.1 Accounting Controls

The financial and accounting systems are the “spine” to which many of the other control systems attach.

Poor accounting processes mean that the chances of detecting corruption are low, creating opportunities for staff and managers to engage in corrupt behavior. Conversely, good accounting processes help to ensure that the utility managers keep track of the utility’s finances and inventories, and is able to detect and deter corruption and theft.

Specific “tools” aimed at promoting probity in providers include:

- Modern accounting (computerized, double-entry accrual accounting)
- Bank reconciliations
- Internal audits
- External audits
- Discussion
- Prompt production of unqualified accounts
- Accurate information on fuel and other stores integrated with the accounting system
- Accurate information on billing and collections integrated with the accounting system.

Box 11.1: Use of an Internal Auditor to Reduce Staff Corruption in Municipal Electricity Department, Namibia

The Office of the Chief Internal Auditor (OCIA) of Windhoek reports directly to the Chief Executive Officer of the city and undertakes the audit functions of the city’s nine major departments, including electricity.

As part of this restructuring, the government recognized that an internal audit function was needed reporting directly to the CEO, with strengthened powers. Alleged malfeasance within some of the council departments, including alleged collusion with service users, seemingly resulted in substantial losses of revenue, particularly through theft of water and electricity, meter tampering, or simple non-payment of fees. The OCIA has been able, through internal auditing to pinpoint a number of the common practices and to assist departments to improve their procedures. The OCIA also has a customer hotline to enable residents of Windhoek and city employees to report any cases of a suspicious nature.

Source: Transparency International (2004) *“Tools to support Transparency in Local Governance”* Urban Governance Toolkit Series

11.2 Financial Management and Budgeting

Financial management is more than accounting. It also includes budgeting, financial approval, and managerial accountability systems. These systems generally work to develop a well-functioning utility in which budgets are well-managed, managers are held accountable, and expenditure is controlled.

In well-managed utilities, “budget holders” are appointed for each key area of expenditure. These holders are informed of their budget and expected results for their area, are given full discretion over spending their budget, and are held accountable against the performance targets. This process helps to ensure that all expenditure is linked to results, thus creating incentives for managers to reduce or eliminate unproductive, corruptly-influenced expenditure.

Another feature of well-run utilities is that the “person who pays” is separate from the budget holder who approves expenditure. This simple de-coupling of decision-making and access to funds helps to reduce opportunities for managers to embezzle or otherwise misuse utility resources.

11.3 Fuel Procurement and Management

The biggest single cost for a vertically integrated electricity provider is fuel. The example of the small power utilities group in the Philippines (see Box 10.13) illustrates the extent to which corruption and poor procurement can increase the price of fuel. Avoiding corruption in fuel supply would seem relatively simple—a public competitive procurement of fuel should work in most cases. Besant-Jones notes that investors in generation prefer to use the fuel of their choice, especially in competitive power markets:

Experience in Poland, Hungary, and Ukraine indicates that investor interest is reduced by saddling the generation units with the ownership of associated coal or lignite mines or saddling them with the obligation to use allocated fuel supplies (bowing to the pressures of the coal mining lobby).

Box 11.2 below provides an example of successful competitive procurement in Sierra Leone.

Box 11.2: Fuel Procurement in Sierra Leone

The National Power Authority (NPA) in Sierra Leone has a history of poor performance with a cost of service well above its already high tariffs. One of the main contributors to this poor performance has been a series of expensive fuel supply contracts, most of which have been arranged through informal negotiations with a traditional supplier.

One reason for these expensive contracts is that the NPA has very poor credit—because its cost of service is higher than tariffs it often struggles to pay its fuel bill. Another reason is that a fuel barge was sunk outside the fuel terminal during the civil war, making supply of fuel difficult until the wreck is removed. Corruption in fuel procurement may have been another reason for the high prices.

Recently the National Commission for Privatization (NCP) initiated a competitive tender for the supply of fuel for electricity generation. This tender adhered to “best practice” in competitive procurement, including public advertisement of the tender, public opening of the tenders, and selection based on the lowest price offered.

To reduce the fuel supplier’s risk and make the tender possible, the NCP arranged for the

Government of Sierra Leone to guarantee payment for the fuel. The competitive tender was a success—the price of fuel was reduced significantly. There is hope that the lower fuel price will reduce the NPA’s cost of service and break its cycle of deterioration.

Source: Castalia interviews with National Commission for Privatization staff and sector practitioners

But in many cases utilities will argue that competitive procurement is not possible for a number of reasons. For example, the utility may not have the required fuel handling and storage facilities, and so requires a long term relationship with a fuel supplier who can also handle these logistics. In this case, it may be necessary for the utility to invest in its own fuel handling and storage equipment in order to make competition possible (see Box 11.3 below).

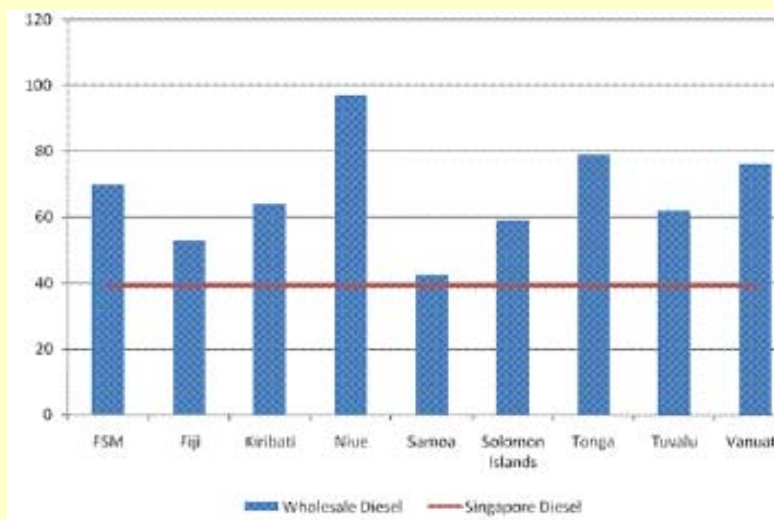
Box 11.3: Publicly-owned Fuel Handling and Storage Equipment can Help the Government Reduce Fuel Costs

When other oil companies are unwilling to supply fuel because of the investment it would require, an effective way to introduce competition is to have an independently owned storage facility and periodically tender out the contract for fuel supply to the cheapest supplier.

One downside of this approach is that it is a significant investment, and requires a significant amount of time.

However, there are also obvious advantages. For example, American Samoa and Samoa own national fuel terminals and tender out national fuel supply every three to five years. Samoa restricts the tender to one supplier, while American Samoa tenders out to two suppliers. Both countries have monitoring regimes to ensure that supply contracts are adhered to. The benefit of an independently-owned storage facility is shown in the figure below by the low price of diesel in Samoa, which is only marginally above the average spot price in Singapore.

Diesel Prices in the Pacific Region, July-August 2005



Alternatively, if no national facility were built, an electricity utility could invest in its own storage facility to store fuel for electricity generation only. This approach is used in the

Marshall Islands, where the Marshall Islands Electricity Company owns its own storage facility.

Source: Pacific Islands Forum Secretariat, 2005. Pacific Fuel Price Monitor, Edition 13, Trade and Investment Program, Pacific Islands Forum Secretariat, Suva.

Alternatively, it may be the case that the specifications of the utility's equipment means that the fuel must meet certain narrowly defined and somewhat unusual specifications. This problem can often be overcome through technical analysis to establish the true specification range, followed by a tender designed to allow the supplier to deliver fuel to these specifications.

Box 11.4: Narrow Fuel Specifications Need Not Lead to Narrow Bidding Options

The Jamaica Energy Partners (JEP) IPP project requires heavy fuel with a low sodium to vanadium ratio for its medium speed diesel engines—optimally, 100 ppm of sodium and 300 ppm of vanadium. Low-cost, Venezuelan-sourced crude oil usually has about 450 ppm but sometimes as high as 600 ppm vanadium, and 100-200 ppm sodium, so it doesn't meet the JEP requirements. A further problem is that the quantities of fuel required by JEP are small, so many suppliers find it uneconomical to deliver the fuel. Together, these restrictions could make the number of potential suppliers for bids very small, and push prices fairly high.

However, with careful tendering design and planning JEP has managed to overcome some of these problems. JEP procures the cheaper Venezuelan-sourced fuel in reasonable quantities, and manages to meet the engine manufacturers' specification by blending this fuel with that from another source which is low in both these compounds, and using fuel additives or cleaning and filtering (or both) before storage.

Source: JEP advisor, Jamaica

Beside kickbacks in fuel procurement, theft of fuel is another common problem (see Box 5.2). Given that fuel is such a large part of the total cost of power generation, it is well worth investing in series of control systems to reduce the risk of theft.

Box 11.5: Good Practice in Fuel Management with Diesel Generation

For many years the Commonwealth Development Corporation (CDC)—a kind of development oriented private equity fund previously owned by the British Government—held strategic stakes in the power utilities on the Eastern Caribbean islands of Dominica, Montserrat, St Lucia, St Vincent, and Grenada. As a specialist investor in several such small, diesel-powered utilities, CDC developed a management system to increase integrity in fuel handling. The main elements of this system as it was practiced in the 1970s included:

- Metering at each step of the way. The amount of fuel delivered by truck or pipeline was checked by dipping storage tanks before and after delivery to determine amount of fuel delivered and comparing total fuel stocks with the fuel consumed in the station as determined by totaling the reading on the fuel gauges attached to each engine. These gauges were periodically calibrated, and the calibrations were also checked if discrepancies showed up in the process of reconciling fuel deliveries with the amounts

consumed as recorded on the engine meters

- Record-keeping. Detailed records were kept of all fuel deliveries and usage, and records were also kept of the amount of lubricants used by each engine. Fuel and lubricant sticks were monitored periodically by the company's auditors, as were stocks of other materials and consumable spares
- External supervision. In addition to the statutory accounting audit each year, there was an annual Technical Audit in each of the five utilities which served as a cross check on certain aspects of the operations. This activity examined whether technical practices were being followed and, *inter alia*, examined whether the procedures for recording fuel deliveries and record keeping for fuels and lubricants and other consumable spares at the power stations were being adhered to. The fuel and lubricant storage methods and record keeping in relation to the movement of these items into and out of storage were also spot checked.

Although these measures might seem simply common-sense, it is striking that they are not employed even today in many government-owned diesel dependent utilities—including the utilities in Antigua, St Kitts, and the Small Power Utilities Group in the Philippines.

Source: Personal communication with former Commonwealth Development Corporation Technical Auditor in the Caribbean

11.4 Procurement of Wholesale Power

This section applies to publicly owned distribution companies which buy power in a wholesale power market. For these companies, wholesale power is their biggest single cost. Moreover, the distribution company often has a monopoly on supply (at least to some of its consumers), and may be allowed by regulation to pass on the costs of wholesale power purchases to its customers. Corruption in wholesale power markets, and how it might be prevented, is discussed in sections 8 and 12.3.4 respectively.

11.5 Commercial Functions and System Losses

Poorly run commercial operations allow utility staff and managers to extract value from consumers or intercept the money that customers pay. Well-run commercial operations ensure that consumers receive the services they are entitled to, and make the appropriate payments for those services, enabling the utility to recover its costs of operation.

Improving the commercial function and reducing system losses (which are often a symptom of corruption), involves a number of management initiatives, discussed below.

11.5.1 An integrated system loss measurement and reduction campaign

A first step will generally be to measure system losses and commercial losses comprehensively, and develop an integrated strategy for their reduction. This will require regular energy audits, as described in Box 11.6.

Box 11.6: Regular Energy Audits

A business process that reconciles quantities of energy generated and sold with the money collected from consumers will reduce the scope for fudging and help fix responsibility on the staff at various levels. A four-step reconciliation of generation, billing, collection, and remittance to the treasury should be a standard management control system. Accurate and regular metering at the interfaces between generation, transmission, and distribution, also at consumers' premises is a precondition for such reconciliation. The cost of such metering (integrated with a fairly basic but effective MIS) will vary depending on many factors, but experience shows that the payback period for such investment is typically under two years. Estimation of losses by an independent auditor, contracted by the regulator and making all its reports public, can be used to set tariffs and benchmark the utility's performance, putting pressure on both the utility and the government to improve their accountability.

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 145

11.5.2 Promoting probity in meter reading

Probity in meter-reading can be achieved by simple reforms that limit each meter reader's ability to develop a corrupt "relationship" with households, in which the reader extracts personal payments from the household in return for reducing the amount of the bill (for example, by threatening to submit a higher meter reading in the future, or to arrange for a disconnection of services). Such reforms include:

- Updating cadastre of customers and tariff categories
- Changing meter readers' routes on a regular basis, so that readers do not regularly visit the same households
- Expanding coverage of meters
- Removing past billing information from meter readers' books, so that readers cannot repeatedly submit "average" bill readings
- Automating meter reading, to eliminate the need for personal household visits (see Box 11.7 on Andhra Pradesh, below)
- Installing pre-pay meters, to enable households to pay for only the electricity that they use (and to only use electricity that they pay for)
- Giving meter readers and bill collectors incentives to improve the accuracy of readings and collections.

Box 11.7: Improving State-Owned Suppliers in Andhra Pradesh

In 1999, the state government of Andhra Pradesh unbundled the generation, transmission and distribution functions of the state electricity utility with the transmission company acting as a holding company for the distribution companies. Each entity thus formed was given responsibility for managing its operations as a corporate entity.

The state government also launched a campaign in January 2000 to control theft of electricity from the state-owned power companies and to improve their revenue collection.

The campaign focused on four measures: enacting a new law to address electricity theft, strengthening enforcement mechanisms, reorganizing the anticorruption function in the utilities, and reengineering businesses processes to improve management control and customer service. The distribution companies installed modern bulk metering and data logging equipment and millions of digital meters, and they automated meter reading and reduced billing cycles. They also consulted extensively with their customers and communicated with the general public about their reforms—a major change from previous practice. Under this campaign, the distribution companies regularized large numbers of consumers and prosecuted extreme cases of theft of electricity with the support of the legal system. As a result, they reduced losses from 38 percent in 1999 to 26 percent in 2003, and increased the collection rate to 98 percent.

Source: Bhatia and Gulati (2004) Reforming the Power Sector: Controlling Electricity Theft and Improving Revenue”, Public Policy for the Private Sector, Note 272. Washington, DC: The World Bank

11.5.3 Promoting probity in billing

Probity in billing may be achieved by simple reforms that improve the accuracy of the link between the amount metered, the electricity consumed, and bills issued. Such reforms include:

- Updating cadastre of customers and tariff categories to which they apply
- Incentive-based contracting-out of billing and collection functions, to isolate these activities from the provision of utility services and improve incentives for billing to be as accurate as possible (see Box 11.8 for an example of outsourcing billing and collection functions, and the importance of continuing to monitor these functions)
- Computerizing the billing system, to reduce the opportunity for human error or manipulation of figures
- Creating an interface between the billing and accounting systems, to reduce the opportunity for human error or manipulation of figures, and improve the efficiency of data transfer and ease with which billing discrepancies can be detected.

Box 11.8: Outsourcing without Monitoring Is No Solution

Some utilities in India turned to computerized billing as the first step toward the introduction of a management information system (MIS). Because of internal resistance to computerization, many utilities decided to outsource this activity. The terms of engagement provided many safeguards against malpractices, but because of slack supervision, a disconnect developed between the consumer databases maintained by the utility and those used by the computer firms. The firms established a nexus with the consumers and provided them “concessions in billing” without the knowledge of the utility. When the utility tried to terminate the contract, the firms blackmailed them into giving them concessions in exchange for their database.

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 129

11.5.4 Promoting probity in collections

More effective collections can be achieved by contracting out the collections function to improve incentives, as described above, and by other methods that reduce opportunities and incentives for utility staff to misappropriate consumer payments (see Box 11.11 below for an example on reducing commercial losses). Such methods include:

- Providing many ways for consumers to pay bills, including through banks, cell phones, and kiosks
- Consistently issuing receipts for all consumer payments, and keeping corresponding records of payments received
- Establishing an accessible complaints system to enable problems to be quickly identified and empower consumers to hold the utility accountable
- Using information technology (IT) solutions to improve collection efficiency.

Institutional changes, such as transforming utilities into cooperatives or privatizing them, have often proved to be successful in improving collections, as Box 11.9 and Box 11.10 illustrate.

Box 11.9: Private Utilities Improve Collections in India

Private utilities have been serving the cities of Kolkata and Mumbai, in India, for decades. Despite changes in management, their commercial procedures are much better than those in state-owned utilities. Accountability is enforced and theft is strongly discouraged. Commercial losses, including losses from theft, are about 12–15 percent, half as large as those incurred by the state-owned utilities, which typically are in the range of 30–35 percent. The public recognizes this better performance and treats the private utilities quite differently from the way they treat the state electricity boards (SEBs) that serve adjoining areas. Even the government respects the private companies’ operational imperatives, and as a result, political interference in their working is minimal. In sharp contrast with SEBs, these utilities are profitable.

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 129

Box 11.10: Cooperatives Outperform Public Provider on Collections

Rural electricity cooperatives in Bangladesh charge higher tariffs than the large, national provider, but have much higher collection rates (averaging about 95 percent). When rural cooperatives have taken over towns previously supplied by the national power board and replaced the board's workers with their own staff, they have achieved huge reductions in losses and increases in collections. Cooperatives have developed management practices to reduce theft, such as not allowing staff to be meter readers for more than three years and staffing billing departments with women, who have a better reputation for integrity in these jobs than men do.

Source: Lovei, L. and McKechnie, A. "The costs of corruption for the poor". *Energy Services for the World's Poor*. Chapter 8.

11.6 Human Resources

Poor human resource management creates opportunities for utility management to corruptly appoint unqualified staff, or to draw salary payments for "ghost" staff. This in turn creates an environment in which staff members have limited incentives to perform well (see Box 11.11), as rewards are not linked to performance. Good human resource management ensures that the utility has an efficient number of staff per connection, that staff members are appropriately qualified to perform their assigned roles, and that staff are given more rewards and incentives for integrity and good performance (and fewer incentives to engage in corrupt behavior).

Box 11.11: Lack of Labor Reforms has Restricted Reform of Power Markets

The lack of labor reforms has restricted reform of power markets. In most countries labor forces in the power supply industry are highly regulated based on old legislation for protecting workers' interests. An example of a restriction is the requirement that all but the smallest companies must obtain government permission prior to laying off employees or closing plants. Over decades the state-owned power utilities built up extremely large work forces who view their jobs as permanent government entitlements. Labor productivity is several times below international norms, and it is hardly offset by low wages. The underemployed, underpaid, and under-motivated employees of the power utilities themselves participate in providing illegal connections to the power supply network and facilitating nonpayment of bills by electricity consumers. In addition to theft, the rampant culture of dishonesty and side-dealing often leads to collusion in bidding for contracts and parts.

Source: Besant-Jones, J. (2006) "Reforming Power Markets in Developing Countries: What Have We Learned?", Washington, DC: The World Bank, page 39

Some "tools" aimed at promoting probity through human resource management include:

- Methods that help to ensure managers or staff are not collecting additional funding or salary payments for "ghost workers" (a potential problem with large providers). These methods include:

- Holding roll calls and staff inspections
- Issuing photo identification cards to all staff, and requiring these to be shown for inspection
- Requiring that staff collect paychecks in person, and sign for receipt of their check.

Box 11.12: Solving the Problem of Ghost Workers

Engagement of ghost workers in large utilities is fairly common. Implementing ID Cards can help solve the problem of ghost workers, by using a clocking system, and human resource software to manage official working times.

However, ICT solutions must be applied wisely. An Indian Public Works’ Department used Information and Communications Technology (ICT) to reduce the problem of “ghost workers”. This appeared to work initially, until it was discovered that the ICT manager was taking bribes. In short, though ICT can certainly help with the problem of “ghost workers” a one-off intervention will not solve the problem.

Source: Bagga, R. *et al* (2005) *The State, IT and Development*, Sage Publications.

- Methods that increase the likelihood that staff are correctly skilled for their jobs. These include:
 - Clear, well-specified job descriptions for each position that detail all the tasks that a staff member with such a position should be held accountable for completing competently, as well as clear, well-specified person specifications for each position that detail all the skills, experience and qualifications that a staff member with such a position should have
 - Transparent recruitment processes with clear rules and processes for advertising positions, reviewing applications and selecting staff
 - Appraising staff performance, and directly and transparently linking performance to salaries, bonuses and promotions
 - Appeals process that staff can use if they believe an appraisal or recruitment decision was unfair or was not made through an appropriate process.
- Clear policies against corruption and unethical behavior, tools for investigating and detecting whether these policies have been adhered to, and swift and certain punishments for “rule breakers”.

11.7 Procurement of Supplies and Services

Weak controls over the procurement of supplies and services can enable staff to engage in corrupt behaviors such as bid rigging and bribe-taking (as with procurement of capital works—see Section 10.2). Utilities can use management systems (in particular, budgeting and financial control systems) to reduce the likelihood of “leakage” through poor procurement. This will support improved procurement processes. Systems that detect potentially corrupt

behavior, by identifying and “flagging” unusual bid, price, and supplier patterns, can act as a deterrent for corruption, and enable corrupt behavior to be punished.

11.8 Stores

Poor monitoring of utility stores (effectively, all assets that are not fixed) creates opportunities for staff, management and the public to steal from the utility. In practice, many utilities do not have a proper inventory system. If stores are properly monitored and accounted for, such theft can be detected and deterred. Tools that assist in monitoring and accounting for stores, and preventing theft, include:

- **Appropriate security for store rooms.** This would involve locking store rooms, restricting access to staff member who need access to do their jobs, requiring identification before any staff member can take stores out, and inspections of vehicles leaving premises
- **Human Resource controls** such as identification cards, to ensure that members of the public are not able to freely frequent utility premises, and security cards with access controls to areas in which more sensitive information and higher value stores are kept
- **Record keeping systems.** For instance, requiring all staff to record any stores taken out, and comparing this record against the results of regular physical stock-takes will help detect misappropriation. The utility should also regulatory reconcile these stores records with corresponding records held in the account systems
- **Accounting controls**, such as:
 - Including a stores module in the general ledger, so that all store movements are recorded
 - Running regular stock-takes to ensure physical levels of stores accurately match the accounting records
 - Regular external (financial) audits.
- **Budgeting and management** responsibility systems, which make qualified staff and management directly accountable for stores
- **Security and checks for the utility’s sites**, to prevent staff from taking company property offsite.

11.9 Use of Company Property and Funds

Aside from directly removing stores from the utility, staff may effectively “steal” from the utility by inappropriately using company property and expense accounts. Such inappropriate use can be deterred through effective:

- **Budget and responsibility systems** in which qualified members of the management team are given responsibility for expenditure management in different departments, expenditures must be authorized through approved processes and systems, and expenditures must be verified through a bank reconciliation process

- **Company policies** that clearly define permissible uses for utility property and expense accounts, processes for obtaining permission, and penalties for misuse
- **Internal and external audits** of compliance with utility policies on property and expense account use.

11.10 Conclusions: Promoting Probity at the Provider Level

Promoting probity at the provider level means having a well-run utility, with good management systems in all areas, appropriately skilled and motivated staff, and a healthy corporate culture. The sections above have outlined some of the most important elements in creating such a well run provider. However, it is not the role of a Sourcebook on promoting good governance and reducing corruption to provide detailed guidance on all aspects of running a utility. Rather the Source List below aims only to provide places where practitioners can look to find additional material on improving provider performance and management, and references to case-studies of electricity utilities that have achieved significant improvements in service, efficiency or probity.

Source List 11.1: Improving Provider Governance and Management

Source	Description
<i>General Sources for Increasing Probity and the Provider Level</i>	
<p>Bhatia, B. and Gulati, M. (2004) "<i>Reforming the Power Sector: Controlling Electricity Theft and Improving Revenue</i>" Public Policy for the Private Sector Note 272, Washington, DC: The World Bank</p>	<p>This Note summarizes the steps the government owned power utility in Andhra Pradesh (India) took to control the theft of electricity and improve revenue collection. The utility introduced new business procedures (like centralizing the customer database to analyze metering, billing, and collection) and amended the Electricity Act to introduce stricter penalties for electricity theft, which has led to reduced losses, increased revenues, and better customer service.⁵⁸</p>
<p>Campos, E. and Pradhan, S. (2007) <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i>, Annex 4B</p>	<p>Annex 4B of the Many Faces of Corruption (beginning on page 154) provides a good summary of the California Power Crisis described in Box 8.4 on page 95.⁵⁹</p>
<p>ESRI (2007) "<i>GIS Best Practices: Municipal and Cooperative Electric Utilities</i>"</p>	<p>This article explains how cooperative and municipal electric utilities can use geographic information system (GIS) software to better manage and serve their customers. It provides case studies on how GIS software has been used by electric utilities (including the Middle Georgia Electric Membership Corporation, Saint John Energy in Canada, Lexington, North Carolina, and the Truckee Donner public Utility District).⁶⁰</p>
<p>Objectives-Oriented Project Planning</p>	<p>Objectives Oriented Project Planning (ZOPP) is a method for planning and managing projects that encourages participatory planning through a series of stakeholder workshops. The ZOPP method is a powerful tool for combining joint analysis and planning throughout the project cycle. For more information, please see:</p> <ul style="list-style-type: none"> ▪ Gesellschaft fur Technische Zusammenarbeit (GTZ) (1991) <i>Methods and Instruments for Project Planning and Implementation</i>, Eschborn: Germany ▪ GTZ (1998) <i>ZOPP: An Introduction to the Method</i> Eschborn: Germany ▪ GTZ (1998) <i>ZOPP in Brief</i>, Eschborn: Germany