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# Detering Corruption and Improving Governance in the Electricity Sector A Sourcebook

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& Water Department



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## Preface

In 1996, then World Bank President James Wolfensohn appealed to the international development community to fight the “cancer of corruption”, bringing corruption to the fore of the World Bank’s agenda. A year later, in 1997, the Executive Board endorsed the paper *Helping Countries Combat Corruption: the Role of the World Bank*, which “fundamentally reformed the way the World Bank thinks about and acts against corruption”, and set policies for how the World Bank would tackle corruption.

In March 2007, the Executive Board unanimously endorsed a new strategy and set of policies to improve governance and fight corruption: *Strengthening World Bank Group Engagement on Governance and Corruption*. The strategy essentially confirmed the 1997 commitment to fight corruption, but with an important difference in emphasis: “reducing corruption by strengthening governance” rather than simply “stopping corruption”.

Six months later, in September 2007, the World Bank finalized the *Implementation Plan* for the strategy. A key element of the *Implementation Plan* is to develop sector-level diagnostics and interventions, specifically signaling the need to “mainstream governance and anticorruption [activities] in **sectors** ... where opportunities for interventions are often more immediate”.

This Sourcebook is part of a broader program on governance and corruption in the electricity sector. The Sourcebook is meant as a resource to sector practitioners to assess the extent and risks of corruption in the sector and to improve governance in ways that reduce corruption. As this is an emerging field, the sourcebook is not intended to be a manual, nor a set of directives but rather to organize and illustrate approaches and tools which sector practitioners may find useful.

The program of work on governance and corruption of which these sourcebooks are a part includes an extensive database of academic and operational literature on governance and anti-corruption, a review of global knowledge and of World Bank practice that was presented and reviewed by sector and governance specialists.

## Acronyms and Abbreviations

ADB	Asian Development Bank
BEEPS	Business Environment and Enterprise Performance Survey
CAS	Country Assistance Strategy
CoST	Construction Sector Transparency Initiative
CPI	Corruption Perception Index
CPIA	Country Policy and Institutional Assessment
CRC	Citizen Report Card
DFID	Department for International Development
DIR	Detailed Implementation Review
Electricity sector	Electricity generation, transmission, and distribution in grid-based power systems
EBRD	European Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
INT	Department of Institutional Integrity
IPP	Independent power producer
IT	Information Technology
KDP	Kecamatan Development Project
MDB	Multilateral Development Bank
MIS	Management information system(s)
NGO	Non-governmental organization
PACS	Project Anti-Corruption System
PIP	Performance Improvement Plan
PMU	Project Management Unit
PSP	Private sector participation
QSDS	Quantitative Service Delivery Survey

# Table of Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	What's in the Sourcebook	1
1.2	How to Use the Sourcebook	2
1.3	A Sourcebook, not a Toolkit	3
<b>2</b>	<b>Understanding Corruption and Governance</b>	<b>4</b>
2.1	Definition of Corruption	4
2.2	Dynamics of Corruption	7
2.3	Persistence of Corruption	8
2.4	To Reduce Corruption, Improve Governance	9
2.5	Four Levels of Governance Analysis	11
2.6	Dealing with Second (and Third) Best Solutions	17
<b>Part I</b>	<b>Assessing Corruption Risks</b>	<b>22</b>
<b>3</b>	<b>Country Level Scan for Corruption Risk</b>	<b>24</b>
<b>4</b>	<b>Sector Assessment</b>	<b>30</b>
4.1	Sector Performance and Efficiency Indicators	30
4.2	Stakeholder Complaints, Dialogue, and Media Reports	32
4.3	Surveys of Corruption in Infrastructure Sectors	34
4.4	Asset Observation	35
4.5	Mapping Corruption Risk across the Electricity Sector	36
<b>5</b>	<b>Detecting Corruption at the Provider Level</b>	<b>52</b>
5.1	Fuel Procurement	52
5.2	Suppliers and Contractors	55
5.3	Commercial Operations	57
5.4	Human Resources	64
5.5	Company Property and Money	67
<b>6</b>	<b>Planning and Implementing Capital Projects</b>	<b>70</b>
6.1	Corruption Risk in Planning	72
6.2	Corruption Risk in Implementing Capital Projects	78
<b>7</b>	<b>Detecting Corruption Risk with Independent Power Producers</b>	<b>85</b>
7.1	Corruption Risks in Independent Power Producer Awards	85

7.2	Detecting Corruption in Independent Power Producer Awards	88
<b>8</b>	<b>Detecting Corruption Risk in Wholesale Market Operations</b>	<b>91</b>
8.1	Single Buyers	91
8.2	Competitive Wholesale Markets	92
<b>9</b>	<b>Corruption and Private Participation</b>	<b>99</b>
9.1	Privatization Transactions	100
9.2	Corruption Risk with Management Contracts	101
9.3	Regulation and Supervision of Private Participation Arrangements	102
9.4	Contract Renegotiation and Extension	105
	<b>Part II Increasing Probity and Improving Governance</b>	<b>110</b>
<b>10</b>	<b>Increasing Probity in Capital Projects</b>	<b>112</b>
10.1	Sound Planning and Evaluation	112
10.2	Procurement Procedures	116
10.3	Project Supervision	125
10.4	Performance Based Payments to Increase Probity in Projects	127
10.5	Promoting Probity in Private Participation Procurement and Regulation	127
<b>11</b>	<b>Increasing Probity at the Provider Level</b>	<b>144</b>
11.1	Accounting Controls	147
11.2	Financial Management and Budgeting	148
11.3	Fuel Procurement and Management	148
11.4	Procurement of Wholesale Power	151
11.5	Commercial Functions and System Losses	151
11.6	Human Resources	155
11.7	Procurement of Supplies and Services	156
11.8	Stores	157
11.9	Use of Company Property and Funds	157
11.10	Conclusions: Promoting Probity at the Provider Level	158
<b>12</b>	<b>Strengthening Electricity Sector Governance to Promote Probity</b>	<b>160</b>
12.1	How Governance Works—or Doesn't	160
12.2	Empowering Citizens	163

	12.3	Holding Providers Accountable	168
<b>13</b>		<b>Application under Varied Country Circumstances</b>	<b>201</b>
	13.1	Adapting to Sector Structures	202
	13.2	Combining and Sequencing Governance Interventions	209
<b>Part III</b>		<b>Learning from Experience</b>	<b>217</b>
<b>14</b>		<b>Reviewing Progress</b>	<b>217</b>
	14.1	Defining Expected Improvements	218
	14.2	Choosing Suitable Indicators	219
	14.3	Establishing a Baseline	222
	14.4	Monitoring Progress	222
	14.5	Evaluating Results and Drawing Conclusions	225

## Appendices

	Appendix A : Glossary	229
	Website References	232

## Tables

	Table 1.1: How to Use this Sourcebook	2
	Table 2.1: Definitions of Corruption	4
	Table 2.2: A Sectoral Focus and Process	13
	Table 4.1: Corruption and Sector Performance Indicators	31
	Table 4.2: Corruption and Poor Governance “Hotspots”	44
	Table 5.1: Vulnerability to Corruption: Theft of Fuel and Electricity	62
	Table 5.2: Vulnerability to Corruption: Customer-Interfacing Activities	63
	Table 12.1: Types of Ownership and Corporate Form	176
	Table 13.1: Categories of Power Sector and Corruption Perceptions Index	203
	Table 13.2: Summary of “Second-Best” Approaches in cases of Limited Political Support or Low Capacity	205

## Figures

	Figure 2.1: Understanding Causes of Corruption	7
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Figure 2.2: The Long Route of Accountability in the Electricity Sector	10
Figure 2.3: Embedding Sector Governance Targets within a Country Strategy: Example from Bangladesh	15
Figure 2.4: Levels of Corruption Risk Assessments	22
Figure 4.1: Financial Flows that May Be Subject to Corruption in a Vertically Integrated Utility	38
Figure 4.2: Financial Flows that May Be Subject to Corruption in a Competitive Electricity Market	39
Figure 4.3: Government and Generation Sector Hotspots	40
Figure 4.4: Transmission Sector Hotspots	41
Figure 4.5: Distribution Sector Hotspots	42
Figure 5.1: Corruption in Procuring Suppliers and Contractors	56
Figure 6.1: Corruption in Capital Projects	71
Figure 6.2: Responsibility for Planning under Different Sector Structures	73
Figure 7.1: Simple Illustration of an Energy Conversion Contract	89
Figure 8.1: Corruption in a Single-Buyer Market Model	92
Figure 9.1: Illustration of a Related Party Contract	105
Figure 11.1: Corruption Risk Areas Requiring Improved Management Controls	144
Figure 12.1: The Governance System: a Cycle of Accountability	161
Figure 13.1: Narrow (Top) versus Broad, Systems-based (Bottom) Approaches	211
Figure 13.2: Strengthening Governance from a Simple Foundation.	213
Figure 14.1: Monitoring and Evaluation	218
Figure 14.2: Recognizing Variability in Country's Abilities and Circumstances	219
Figure 14.3: The Art of Choosing Monitoring Indicators	221

## **Boxes**

Box 2.1: Focusing on Probity	5
Box 2.2: Governance in the Literature	6
Box 3.1: Country Assistance Strategies and Corruption Risks	24
Box 3.2: Correlation of Country Corruption and Electricity Utility Inefficiency	24

<b>Box 3.3: Changing Political Economy and Changing Perceptions in Indonesia</b>	<b>25</b>
<b>Box 4.1: An Example of a Commissioned Survey of Corruption</b>	<b>34</b>
<b>Box 5.1: Defining Bribes, Kickbacks, and Bid Rigging</b>	<b>53</b>
<b>Box 5.2: Stealing Fuel from State-Owned Power Companies in India</b>	<b>53</b>
<b>Box 5.3: Payments or Gifts for Electricity Connections—Data from the Enterprise Surveys</b>	<b>58</b>
<b>Box 5.4: Under-reporting Consumption</b>	<b>58</b>
<b>Box 5.5: Corruption in the Power Sector in South Asia</b>	<b>59</b>
<b>Box 5.6: Theft of Electricity in State-Owned Power Utilities</b>	<b>60</b>
<b>Box 5.7: The Market for Transfers</b>	<b>65</b>
<b>Box 6.1: Construction Sector Transparency Initiative (CoST)</b>	<b>71</b>
<b>Box 6.2: Vulnerability to Corruption—Different Stages of Project Development</b>	<b>77</b>
<b>Box 6.3: Corruption in Capital Project in South Asia</b>	<b>79</b>
<b>Box 6.4: Red Flags in Procurement of Capital Projects</b>	<b>79</b>
<b>Box 6.5: Explaining High Basic Input Costs in Eastern Caribbean Infrastructure</b>	<b>81</b>
<b>Box 7.1: Cost of Poor Investment Decisions and Less than Transparent Procurement</b>	<b>86</b>
<b>Box 7.2: Review of Questionable Practices in Independent Power Producer Procurement</b>	<b>87</b>
<b>Box 8.1: Corruption as One Barrier to Electricity Market Liberalization</b>	<b>91</b>
<b>Box 8.2: Cash Flow Problems in Ukraine’s Wholesale Electricity Market</b>	<b>93</b>
<b>Box 8.3: China’s Experiment with Competition in the Wholesale Power Market</b>	<b>94</b>
<b>Box 8.4: California Power Crisis—Corporate Fraud and Regulatory Failure?</b>	<b>95</b>
<b>Box 9.1: Privatization Lessons from Eastern Europe</b>	<b>101</b>
<b>Box 9.2: Alleged Bid Rigging in Trade Privatization of Eletropaulo</b>	<b>103</b>
<b>Box 10.1: Improving Probity in Capital Projects in Paraguay</b>	<b>112</b>
<b>Box 10.2: Philippines Power Crisis Feeds Alleged Corruption and Eventual Over-building</b>	<b>114</b>
<b>Box 10.3: Electricity Blackouts in Nairobi, Kenya in 2000</b>	<b>115</b>
<b>Box 10.4: Regulatory Scrutiny of Major Transmission Upgrade in New Zealand</b>	<b>118</b>

<b>Box 10.5: Public Scrutiny of Utility’s plans in Virginia</b>	<b>120</b>
<b>Box 10.6: Specification of Technology in a South East Asian Independent Power Producer was a Red-flag for Corruption</b>	<b>121</b>
<b>Box 10.7: Victoria, Australia: Rules for Project Procurement</b>	<b>122</b>
<b>Box 10.8: Simples First Steps Towards Transparency through the Internet</b>	<b>123</b>
<b>Box 10.9: ChileCompra</b>	<b>123</b>
<b>Box 10.10: National Power Corporation E-Procurement System, Philippines</b>	<b>124</b>
<b>Box 10.11: Procurement Outsourcing to the United Nations Development Programme in the Philippines</b>	<b>124</b>
<b>Box 10.12: Slum Networks Supervise Construction in Ahmedabad</b>	<b>126</b>
<b>Box 10.13: Output Based Aid in Rural Electrification in the Philippines</b>	<b>127</b>
<b>Box 10.14: Bangladesh’s Success with Independent Power Producer Contracts</b>	<b>128</b>
<b>Box 10.15: Thailand compared to Laos in Independent Power Producer Procurement</b>	<b>129</b>
<b>Box 10.16: Set Tariffs for Independent Power Producer Contracts Can Avert Crisis but Lead to Over-Capacity</b>	<b>130</b>
<b>Box 10.17: Successful Electricity Concession Contract in Cote d’Ivoire</b>	<b>133</b>
<b>Box 10.18: Management Contract in Tanzania</b>	<b>134</b>
<b>Box 11.1: Use of an Internal Auditor to Reduce Staff Corruption in Municipal Electricity Department, Namibia</b>	<b>147</b>
<b>Box 11.2: Fuel Procurement in Sierra Leone</b>	<b>148</b>
<b>Box 11.3: Publicly-owned Fuel Handling and Storage Equipment can Help the Government Reduce Fuel Costs</b>	<b>149</b>
<b>Box 11.4: Narrow Fuel Specifications Need Not Lead to Narrow Bidding Options</b>	<b>150</b>
<b>Box 11.5: Good Practice in Fuel Management with Diesel Generation</b>	<b>150</b>
<b>Box 11.6: Regular Energy Audits</b>	<b>152</b>
<b>Box 11.7: Improving State-Owned Suppliers in Andhra Pradesh</b>	<b>152</b>
<b>Box 11.8: Outsourcing without Monitoring Is No Solution</b>	<b>154</b>
<b>Box 11.9: Private Utilities Improve Collections in India</b>	<b>154</b>
<b>Box 11.10: Cooperatives Outperform Public Provider on Collections</b>	<b>155</b>
<b>Box 11.11: Lack of Labor Reforms has Restricted Reform of Power Markets</b>	<b>155</b>
<b>Box 11.12: Solving the Problem of Ghost Workers</b>	<b>156</b>

<b>Box 12.1: The Pamaron Experience in Indonesia</b>	<b>162</b>
<b>Box 12.2: Possible Roles for Ombudsmen in Ensuring Consumer Rights</b>	<b>164</b>
<b>Box 12.3: Information Disclosure in Distribution Companies</b>	<b>164</b>
<b>Box 12.4: Engaging Consumers in Regulatory Decision-making in Karnataka</b>	<b>165</b>
<b>Box 12.5: Citizen Participation Creates a New Clean Energy Model in the Negros Province of the Philippines</b>	<b>165</b>
<b>Box 12.6: Alternative Providers Fill the Supply Gap and Improve Accountability to Consumers in Cambodia</b>	<b>167</b>
<b>Box 12.7: Philippines Transco Concession Contract</b>	<b>170</b>
<b>Box 12.8: Shareholder Performance Contract in South Africa Improves Eskom Performance</b>	<b>171</b>
<b>Box 12.9: Advantages and Disadvantages of Mixed Ownership</b>	<b>174</b>
<b>Box 12.10: Community Participation and Good Governance</b>	<b>175</b>
<b>Box 12.11: Contrasting Forms of Corporatization</b>	<b>177</b>
<b>Box 12.12: Corporatized Electricity Provider Out-performs Municipal Water (Hydraulic Engineer's) Department in Mumbai</b>	<b>178</b>
<b>Box 12.13: Mixed Ownership Results in Good Performance for Electric Utilities in the Eastern Caribbean</b>	<b>180</b>
<b>Box 12.14: Investors Create Pressure to Adopt Good Corporate Governance</b>	<b>180</b>
<b>Box 12.15: Private Power Operators Saved Governments from Providing Heavy Operating Subsidies</b>	<b>182</b>
<b>Box 12.16: Rural Electric Cooperatives in Bangladesh</b>	<b>183</b>
<b>Box 12.17: Outcomes of Power Sector Privatization in Chile and Argentina</b>	<b>184</b>
<b>Box 12.18: Experience with Management Contracts</b>	<b>184</b>
<b>Box 12.19: Regulatory Options for Accountability</b>	<b>185</b>
<b>Box 12.20: An Oversight Body in Vanuatu</b>	<b>186</b>
<b>Box 12.21: The Role of the Single Buyer Model in Eastern European Power Markets</b>	<b>189</b>
<b>Box 12.22: OPCOM Power Exchange Improving Governance of Public Utilities in Romania</b>	<b>189</b>
<b>Box 13.1: Five Key Elements of an Anticorruption Strategy</b>	<b>201</b>
<b>Box 13.2: First World Reform Package Failed in Ukraine</b>	<b>202</b>
<b>Box 13.3: Six Key Areas of Intervention Recommended for Indonesia</b>	<b>212</b>
<b>Box 14.1: Choosing Indicators in Uganda</b>	<b>220</b>

<b>Box 14.2: Social Audit to Gather Baseline Indicators on Governance and Services</b>	<b>222</b>
<b>Box 14.3: Good Governance Review Process in Bangladesh</b>	<b>223</b>
<b>Box 14.4: Electricity Regulatory Reporting Helps Monitor Improvements</b>	<b>223</b>
<b>Box 14.5: Assessment of Impact of Report Cards in India</b>	<b>226</b>

# 1 Introduction

*“The remainder of the state will continue to be on 8 hour rota cuts” the newsreader intones. He is only heard because the radio is battery powered. The computer, the TV, the fan are all idled for lack of power. The throb of diesel back-up generators can be heard all over the better parts of the city. But the small businesses do not have generators, and their staff are idle too. It’s been going on for three months now. The emergency power projects are being started, but the papers say it will be months more before regular supply is restored, and when it is, the power will be expensive.*

*The power company had warned the government four years ago that something needed to be done. But there had been no agreement on what kind of power plant to build, and anyway, there was no money to pay for it. The utility was starved of cash. In recent times more and more people were able to connect illegally to the system, and there was never the political backing to disconnect them. Fuel costs had risen sharply—partly, it was rumored, because the kickbacks on the fuel supply contracts had been ramped up to fund the last election campaign. Lack of money meant maintenance of the distribution system was neglected, but that was a false economy—in time more fuel had to be burned to meet the same load, with the energy wasted in overloaded transformers and lichen-encrusted lines.*

*What had gone wrong? Once the power utility had been the most efficient agency in the country, its engineers among the best trained in the newly independent nation, driven by a sense of national purpose. Everyone in the country knew how important power was for development. How had self-interest and jockeying for advantage reached the point where this vital national mission was stalled? The answer is corruption, lack of accountability, and the way decisions in the sector are made.*

Electricity providers fail to serve citizens for many reasons. The ultimate cause is poor governance at the utility, sector, and government levels. Corruption is among the serious symptoms of poor governance—corrosive in its effects, causing more harm in waste and bad decisions than even the money that changes hands as bribes and kickbacks would suggest. This Sourcebook aims to help sector practitioners to:

- Assess the extent and risk of corruption in sectors in which they work
- Improve governance in ways that will reduce corruption.

## 1.1 What’s in the Sourcebook

This Sourcebook is in four parts:

- Section 2 is about **understanding corruption**. What is it, what sustains it, how it relates to governance, and how might it be reduced
- Part I is about **assessing the risk**, extent, and locales of corruption in any particular country
- Part II turns to ways to **reduce corruption by improving governance**
- Part III is about **monitoring and evaluating** measures implemented to improve governance, to allow learning from experience.

In each section corruption and governance are considered at three levels:

- **The sector**—who does what, how are decisions made, and how can citizens hold government and providers accountable?

- **The provider**—how is the service operated and maintained, and how are bills issued and collected?
- **Capital projects**—these are the largest expenditure item in the sector and a traditional focus for governance and corruption concerns.

## 1.2 How to Use the Sourcebook

Table 1.1 below gives some examples of how best to use it in various circumstances.

**Table 1.1: How to Use this Sourcebook**

If you are ...	... then read
Understanding what causes and sustains corruption	Section 2
Assessing the risk that corruption is undermining electricity sector performance	Part I
Advising on reforms in sector governance, provider management, and capital project selection and implementation	Part II
Preparing a Country Assistance Strategy	Sections 2, 3, and 4
Working on a project for a provider. For example, strengthening a state owned electricity utility	Sections 10 and 11. Ideally, you would also read Sections 2, 12, and 14
Advising on a capital works project	Sections 6 and 10. Bearing in mind that sustainable improvements may require changes in governance, ideally you would also read Section 12 as well
Diagnosing strengths and weaknesses in sector governance, against the framework described in Section 2	Sections 2, 3, and 4. Ideally you would also read Section 12
Concerned that the material and ideas presented will not be relevant to your situation because of the unusual sector structure, level of capacity, or provider ownership arrangements	Section 12 and 13
Advising on installing quality processes that increase the integrity of a utility's operations	Section 11
Advising on regulatory and accountability systems	Section 12
Advising on ways to empower citizens to enable them to influence providers and government, and ways to hold providers accountable (for instance, for service targets)	Sections 12.2 and 12.3
Identifying improvements in governance, mechanisms for monitoring progress and evaluating what works and what does not	Section 14

This Sourcebook is a set of modules with a coherent framework. Part I on assessing corruption risk, and Part II on reducing corruption, are divided into modules on particular

topics of interest to practitioners engaged in program design and implementation. Section 2 provides the framework that shows how component parts interrelate, and will be most useful to those with a remit or influence that extends to overall sector development.

### **1.3 A Sourcebook, not a Toolkit**

This is a Sourcebook. It is not a Toolkit setting out how to approach everything, it is not a Cookbook with a collection of recipes for every occasion, and it is not a Best Practice Manual. The state of knowledge in this area is not well enough developed yet to prescribe best practices—and in any case, good practice is always context dependent, never universal.

As a Sourcebook, it aims to explain and illustrate approaches and instruments and how they can fit together, and refer the reader to more in-depth material that may be helpful. More than an annotated reading guide, it is nevertheless a starting point, not the end point, for a practitioner understanding of how to reduce corruption and improve governance in the urban electricity sector.

It would be a mistake for anyone to imagine that “I must do what it says in here or I will be taken to task”. The specific approaches and instruments in the Sourcebook are suggestions. Practitioners need develop their own, context-specific strategies for improving governance and reducing corruption.

The only firm guidance this Sourcebook would give is that such a process should follow the three basic steps of:

1. Assessing the extent of corruption problems in the sub-sectors and providers they are working with
2. Analyzing the likely causes of those problems, including the incentive structures and political economy that sustains them
3. Developing a strategy to ensure that their engagement contributes to increased probity in the sector, and is not itself easily susceptible to corruption.

## 2 Understanding Corruption and Governance

*[S]tate sectors [are unable] to finance needed expenditures on new investment and maintenance. Many power utilities are financially distressed because of their poor governance environment comprising endemic corruption, rampant theft of power, political interference, and an inability by stakeholders to work toward long-term solutions. In the middle-income developing countries, power supply has been scaled up to the extent that the financing and management needs of the sector have generally outgrown the capacity of state institutions.<sup>1</sup>*

Studies have found that corruption is pervasive in the electricity sector, and has significant costs. For example, Gulati & Rao (2006) estimate that annual electricity sector losses to corruption in developing countries are equal to US\$8 billion in capital expenditure and US\$33 billion in electricity theft (involving staff colluding with consumers).<sup>2</sup> Clearly, developing effective strategies to reduce corruption is as important as it is difficult.

An effective strategy for detecting and deterring corruption must be built on a solid understanding of what it involves, why it takes place, and how improvements in governance can reduce corruption. This section aims to help practitioners develop such an understanding, by presenting a framework for thinking about corruption in the electricity sector. It defines corruption and discusses the factors that influence its incidence and perpetuate a corrupt “equilibrium”. Finally, the framework indicates how corruption can be reduced through targeted actions to improve governance.

### 2.1 Definition of Corruption

Corruption means different things to different people. Examples of definitions used by leading institutions and academics are summarized in Table 2.1.

**Table 2.1: Definitions of Corruption**

ADB	Abuse of public or private office for personal gain.
Leys (1965)	Behavior that breaks some rule, written or unwritten, about the proper purpose to which a public office/institution has been put.
Transparency International	Corruption involves behavior on the part of officials in the public sector, whether politician or civil servants, in which they improperly and unlawfully enrich themselves, or those close to them, by the misuse of the public power entrusted to them.
World Bank	Corruption is the abuse of public funds and/or office for private or political gain.

<sup>1</sup> Besant-Jones, J. (2006) “Reforming Power Markets in Developing Countries: What Have We Learned?” Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank.

<sup>2</sup> Gulati, M. & Rao, M. (2006). “Corruption in Electricity Sector”. Presentation to World Bank staff, April 2006. <http://www1.worldbank.org/publicsector/anticorrupt/bbagdetails.cfm?ID=262>

This Sourcebook adopts the World Bank definition, namely that “*Corruption is the abuse of public funds and/or office for private or political gain*”.

In this definition, “abuse” of office can be taken as equivalent to breaking the written or unwritten rules of how the powers of public office should be exercised. This emphasis on “rule-breaking” is intended to provide a bright line that distinguishes corruption from other kinds of poor governance. For example, corruption is clearly distinct from interest group and pork-barrel politics (forms of poor governance which do not generally involve rule-breaking, and may be tolerated in many countries).

The Sourcebook further distinguishes between two kinds of corruption: “personal” and “campaign finance”. **Personal corruption** is behavior on the part of officials in the public sector<sup>3</sup> in which they improperly and unlawfully enrich themselves or those close to them (or both), or induce others to do so, by misusing the position in which they are placed. **Campaign finance corruption** is the abuse of public funds or public office (or both) for political party financial gain.

### **Related concepts: probity and good governance**

When thinking about corruption, it helps to focus not just on the “negative” behavior that needs to be deterred and reduced, but also on the positive behavior that needs to be encouraged and increased. This means it is important to define the opposite of corruption.

Useful antonyms for corruption are **probity** and **integrity**—in other words, honest, proper, fair, and ethical conduct. As Box 2.1 explains, once practitioners have identified that corruption exists and needs to be addressed, there are important marketing benefits to using a strategy that focuses on probity improvements. Accordingly, Sections 10 to 13 of this Sourcebook focus on improving probity and integrity.

#### **Box 2.1: Focusing on Probity**

Using the term “pro-probity” in place of the term “anti-corruption” has two important benefits:

- **It highlights a positive attribute to aspire to**, rather than an unsavory act to avoid. Government officials may feel more confident in supporting “pro-probity” measures than “anti-corruption” activities, as the latter implies the existence of corruption. For example, many government and international institutions have chosen to institute a “probity unit” or “integrity division”; fewer have an “anti-corruption team”.

Similarly, Vittal (2002) explains that the use of the term “probity perception index” was important in his work in India, because:

*...there was a feeling of hesitation that openly branding and listing government organisations, banks and public sector undertakings under the corruption perception index would have a counterproductive effect. It may demoralise public servants...It was therefore decided not to use the word ‘corruption’ but look at the positive side and call the index as the probity perception index.<sup>4</sup>*

Although corruption is—and should be—widely recognized as a problem, it is still a politically sensitive topic

<sup>3</sup> Private sector behavior is not corruption, unless it also involves rule-breaking by a public official. Employees of private corporations may also steal company funds or abuse their position—this is wrong, but not corruption on our definition

<sup>4</sup> Extract from speech delivered at Probity Perception Index Seminar by N. Vittal, Kolkata, 2002.

▪ **It helps shift the conceptual focus from an absolute elimination of corruption to a gradual improvement of probity.** This is important from both a public opinion and an economic perspective. Taking an anti-corruption stance implies zero-tolerance for corruption (that is, success will be attained when the system is no longer corrupt); this is admirable, but not practical in the context of deeply institutionalized corruption. Furthermore, the optimal amount of corruption, from an economic view point, is unlikely to be zero. The marginal cost of reducing corruption may increase as the level of corruption falls, while the marginal benefit of reducing corruption may decrease as the level of corruption falls. The optimal amount of corruption reduction will be where the marginal costs and benefits of reduction are equal, which may be at some low level of corruption, rather than at a point of no corruption at all. Taking a pro-probity stance provides a more reasonable yard-stick for measuring progress—success will be attained if continuous and incremental improvements in probity are made.

A similar, but broader concept to probity is good governance. Good governance can be defined as the presence of:

- General adherence to rule of law
- Transparency, predictability, and accountability in government decision making
- Decision-making that consistently achieves effective and efficient outcomes for society
- Decision-making processes that consistently allow for public participation, responsiveness, consensus orientation, equity, and inclusiveness.

Box 2.2 lists some definitions of governance from the literature. Obviously, achieving good governance will solve more problems than just corruption. However, it is still a central concept for any anti-corruption effort, as improvements in governance will usually promote probity.

**Box 2.2: Governance in the Literature**

Governance has been defined as:

- “The people, policies and processes that provide the framework within which managers make decisions and take actions to optimize outcomes related to their spheres of responsibility.” (Australia Government Department of Finance and Administration-website)
- “The exercise of political, economic and administrative authority in the management of a country’s affairs at all levels...a neutral concept comprising the complex mechanisms, processes, relationships and institutions through which citizens and groups articulate their interests, exercise their rights and obligations and mediate their differences.” (World Health Organization, based on UNDP definition)
- “The process by which stakeholders articulate their interests, their input is absorbed, decisions are taken and implemented, and decision-makers are held accountable.” (Bakker, 2003)
- “The extent to which governments are responsive to citizens and provide them with certain core services, such as secure property rights and, more generally, the rule of law; and the extent to which the institutions and processes of government give government

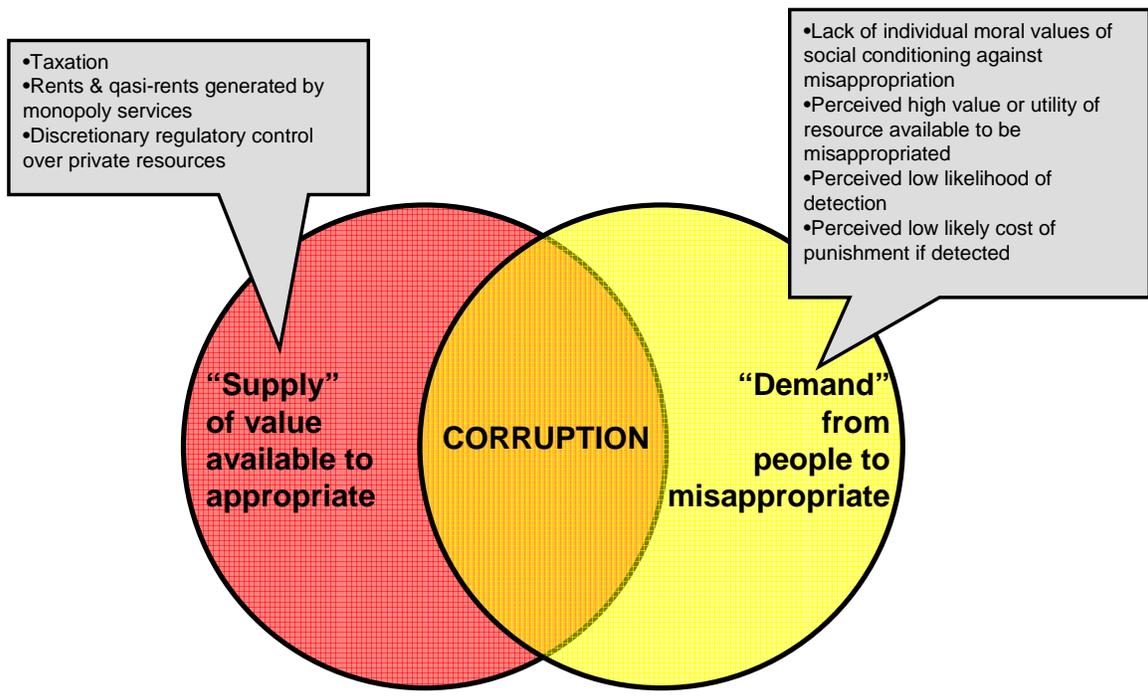
decision makers an incentive to be responsive to citizens.” (Keefer, 2004)

## 2.2 Dynamics of Corruption

The conclusion that “corruption is bad” has led many governments, advocacy groups, and international agencies to dedicate substantial resources to identifying, and deterring, corruption. However, a focus on addressing the causes of corruption has often been lacking.

Understanding the factors that perpetuate corruption is critical for formulating an approach to reducing it. Infrastructure sectors, including electricity supply, have natural monopoly characteristics. These monopolistic characteristics, together with government willingness to provide tax-payer funding and governmental powers to essential services, create a “supply of value” available for appropriation. This supply of value leads to corruption when it interacts with a social “demand” to wrongfully extract that value for private or political purposes. This interaction between supply and demand is illustrated in Figure 2.1.

Figure 2.1: Understanding Causes of Corruption



### Supply of value

As Figure 2.1 indicates, valuable resources can flow into public sector control through taxation, the rents and quasi-rents that monopoly services generate, and discretionary regulatory control over private resources. This creates a supply of appropriable value. For example:

- Economies of scale in power generation are such that efficient, grid-provided power generally costs only a half or a quarter as much as it would a customer to generate their own power. The gap between the cost of grid-provided power and

the cost of alternatives is a monopoly rent—people will pay more than the efficient cost of supply, and since the extra they pay is not necessary to cover the cost of the service, it can be skimmed-off through corruption

- Governments often use budgetary resources (raised from taxpayers) to pay for the big capital goods electricity supply needs, such as power plants and transmission lines. The budgetary resources become a source of appropriable value—if the cost of the power plant can be inflated a few percent, the taxpayer will pay the few percent without necessarily noticing, and a government minister or official can skim off the inflated cost for himself
- Tax-payer resources are often pledged to support the electricity sector not just for large capital projects, but more generally to keep the price of power down overall—since power prices rises are generally politically sensitive. Perversely, this policy can in effect give the power company the ability to incur excess costs in the knowledge the government will eventually foot the bill. In this way, taxpayers supply more value to the sector, which officials and decision-makers can then appropriate through corruption.

### **Demand for value**

Having a supply of value to misappropriate is not enough to prompt corrupt behavior—there must also be people who want to misappropriate this value. People are more likely to try to wrongly appropriate this value if:

- They believe that the benefits to them outweigh the costs. This entails that:
  - They value the resource available to be stolen
  - They believe they are unlikely to be detected
  - They believe that the likely cost of punishment if detected is low.
- There are few individual moral values (or little social conditioning) against such appropriation.

Corruption often involves a “moral slippery slope”—if a person breaks a rule once, she or he finds it less morally difficult to break the rule again. The initial rule-breaking may be stimulated by a sense of need (such as particularly low salaries, which make the benefits of corruption particularly high), or greed (desire to accumulate more and more wealth and power), while later rule-breaking may be reinforced by the development of cultural norms—if others are corrupt, then the potential costs of corruption are low for an individual, whereas the cost of honesty may be high.

Obviously, these conditions of “demand” are likely to vary significantly from country to country, even where the conditions of “supply” within any country’s electricity sector are similar.

### **2.3 Persistence of Corruption**

The simple “supply meets demand” explanation of corruption’s causes, presented above, seems to suggest equally simple solutions. These simple solutions could include:

- Reducing the supply of value available to be misappropriated by reducing the resources and powers of the public sector to a necessary minimum
- Reducing the demand to misappropriate value by:
  - Developing stronger social mores against corruption
  - Increasing the likelihood that misappropriation of resources will be detected
  - Increasing the severity of punishment when such misappropriation is detected.

Although each of these approaches can be effective in certain contexts, stopping corruption is seldom easy. There are at least three factors that make corruption difficult to stop, namely:

1. The benefits of corruption are typically concentrated on relatively few, while the costs of corruption are spread across many. This means that those who benefit from corruption each individually have a powerful interest in perpetuating it, while each individual who suffers from corruption will rationally (because their individual suffering is small) invest little in fighting corruption
2. Corruption flows from the powers of public office. It follows that those who benefit from corruption are often among the most powerful, while those who suffer from it are typically less powerful
3. Corruption can take many forms, most of them difficult to detect. So any move to reduce corruption can often be circumvented by those who benefit, and this circumvention may go unnoticed by the reformers fighting corruption.

Thus, practitioners need to understand the practical difficulties of applying theoretically-sound “solutions” to corruption. Countries with high levels of corruption are often at a stable (corrupt) equilibrium that has evolved over time. Such equilibrium will be supported by power relations and social context as well as economic incentives. To move from this corrupt equilibrium to an equilibrium in which less corrupt behavior is the norm, practitioners and country governments need to identify points in the system where it is possible to make sustainable changes.

## **2.4 To Reduce Corruption, Improve Governance**

A review of the history of anti-corruption efforts shows that many externally imposed solutions are not sustainable. For example, donor-imposed rules on procurement, accounting, and auditing may be effective in increasing probity and integrity during the period that the donor is monitoring compliance, but often fall into abeyance once donor-leverage and scrutiny is removed. Similarly, such rules may be applied to donor resources in a specific project; but because these donor resources constitute only a small share of total sector resources, the project-specific rules do little to ensure good financial management at the sector level (that is, throughout the sector and beyond the project boundaries).

While a temporary increase in integrity may be better than nothing, the goal is to establish systems that sustain integrity and probity. This means that reformers must consider the forces that make a governance system stable or shift it from one state to another.

The fact that electricity is a service with monopolistic characteristics and great social importance is at the heart of governance problems in the sector. In markets for normal goods and services, competition makes providers directly accountable to customers. If a

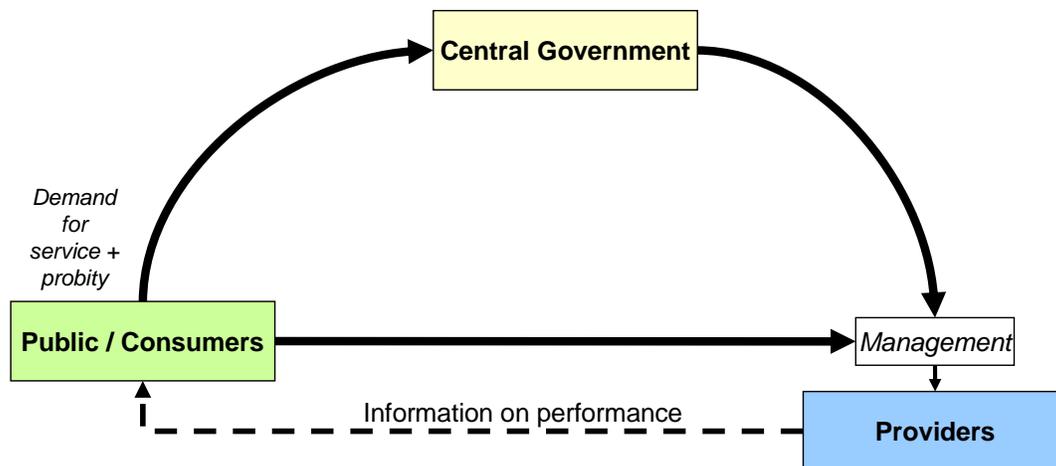
baker offers poor quality bread, most people will switch to another baker. If a vegetable supplier over charges, customers will seek out another, more reasonably priced supplier. Customers choose between competing suppliers, and in this way ensure that all suppliers either provide good service at efficient cost, or go out of business.

This direct route of accountability works less well in electricity. In many countries, a single company is the sole electricity supplier, so customers cannot hold one provider accountable by threatening to switch to another. In response, some countries have made their power markets competitive, partly in an attempt to improve governance in the sector. For instance, competition can help overcome one of the biggest governance problems in the electricity sector, namely the difficulty in really assessing the performance of generation plant operators.

However, even in these reformed markets, distribution and transmission remain regional monopolies. Especially for households, real choice between electricity suppliers remains rare, while in almost all countries government control over the electricity sector continues to be substantial.

As Figure 2.2 indicates, where direct accountability through competition fails, customers must rely on the “long route” of accountability through government to try to get the services they desire, at reasonable prices.

**Figure 2.2: The Long Route of Accountability in the Electricity Sector**



Source: Based on World Development Report 2004 framework “Paths of Accountability”

For this “long route” of accountability to work well, at least four elements are needed:

1. A public that demands accountability, probity, and good infrastructure services from their leaders and electricity providers
2. Political actors or utility operators who are motivated to respond to this demand
3. Sufficient information for the public to gauge the levels of service and probity being delivered by political actors and utility operators

4. Functional “feedback” systems through which the public can reward (or punish) political actors and utility operators according to their behavior. Good governance will inevitably break down without “effective mechanisms and institutional arrangements in the country to hold administrators accountable for their actions.”<sup>5</sup>

When these conditions hold, a virtuous cycle of probity can develop: people increasingly demand probity, can see whether or not it is delivered, and can reward the political actors that deliver probity. Without these conditions, apparent “solutions” such as externally mandated procurement rules, will simply be circumvented or allowed to lapse. Section 12 returns to this question, showing how project and provider level rules need to be embedded in a governance system that rewards senior decision-makers for delivering probity.

This understanding of corruption, and its essential link to governance, suggests a good practice approach for practitioners to follow when intervening in country electricity sectors. This approach is fleshed out in Parts II and III of this Sourcebook, which focus on first identifying corruption risks, and then on reducing these risks through well-designed approaches to improve probity and governance.

## 2.5 Four Levels of Governance Analysis

Accountability arrangements at the sector level are crucial for good governance, but governance issues range all the way from how individual projects are procured to national level decisions on how citizens hold their government accountable. Table 2.2 illustrates one approach used in this Sourcebook to make this analysis tractable, given the complex issues. The four rows of the matrix represent four different levels of analysis:

- **Country level**—analysis and recommendations across multiple sectors
- **Sector level**—analysis and recommendations targeted to a specific sector, and applying broadly across that sector<sup>6</sup>
- **Provider level**—analysis and recommendations targeted to a specific service provider, applying to the provider’s structure and the full range of that provider’s activities and interactions.
- **Project level**—analysis and recommendations specific to a particular project and to specific project activities (regardless of whether the project is acting at the provider, sector or country level).

The four columns of the matrix represent four different aspects or stages for assessing and addressing weak governance and corruption:

- **Assessing risk**—assessing the likelihood and severity of corruption risk, what types of corruption occur, and who suffers from corruption (and how much)
- **Understanding the problem**—analyzing how corruption happens (for example, who pays whom, for what, and when), how it is sustained, and why it is difficult to stop

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<sup>5</sup> Myint (2000)

<sup>6</sup> Sector level means the level where the ministry responsible for energy, the electricity regulator, the planning agency, and so on, play a role.

- **Promoting probity**—specific interventions to increase probity
- **Reviewing progress**—clearly identifying how the impacts of governance interventions are to be assessed, and the strengths and weaknesses of past interventions (“lessons learned”).

The cells offer examples of how practitioners can look for and reduce corruption. For instance, at the sector level, looking for corruption will focus on sector level indicators such as coverage, or the ways in which senior sector officials are appointed. At the provider level, the focus would be on utility indicators, such as system losses, or the relations between customers and utility staff. Similarly, for reducing corruption, sectoral level recommendations would focus on topics such as how the government holds providers accountable, while provider level recommendations might focus on improved commercial systems, or better procurement procedures.

**Table 2.2: A Sectoral Focus and Process**

	Assessing risk	Understanding the Problem	Promoting Probity	Reviewing Progress
<b>Country level</b>	<ul style="list-style-type: none"> <li>✓ Review Governance Indicators</li> <li>✓ Identify at risk sectors</li> <li>✓ Complete surveys</li> <li>✓ Estimate costs</li> </ul>	<ul style="list-style-type: none"> <li>✓ Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Improve public expenditure and accounting</li> <li>✓ Improve public procurement rules</li> <li>✓ Introduce anti-graft rules and commission</li> <li>✓ Increase disclosure requirements</li> <li>✓ Align decision-making and accountability</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assess impact of activities on general governance</li> </ul>
<b>Sector level</b>	<ul style="list-style-type: none"> <li>✓ Review indicators relevant to this level (for instance, coverage, blackouts, prices)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Map “hotspots”</li> <li>✓ Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Align decision-making and accountability</li> <li>✓ Reduce multiple layers of approval</li> <li>✓ Create accountability for service standards</li> <li>✓ Promote more customer information</li> <li>✓ Separate roles and define roles clearly</li> <li>✓ Competition/regulation (for efficient costs)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assess success of sector reforms in increasing probity</li> </ul>
<b>Provider level</b>	<ul style="list-style-type: none"> <li>✓ Review indicators relevant to this level (for instance, losses, blackouts)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Strengthen utility procurement procedures</li> <li>✓ Improve financial management and require thorough, clean audit</li> <li>✓ Improve commercial management and planning</li> <li>✓ Improve human resources management</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assess success of utility reforms in improving governance and performance</li> </ul>
<b>Project level</b>	<ul style="list-style-type: none"> <li>✓ Review indicators relevant to this level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Discuss underlying causes of poor governance and corruption at this level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Project supervision and capacity building</li> <li>✓ Procurement and financial controls</li> </ul>	<ul style="list-style-type: none"> <li>✓ Assess success of specific project interventions</li> </ul>

Each of the four “levels” of action is important. However, in general, anti-corruption work at the country level and the project level has been more developed. This has, up to now, resulted in a “missing middle”, with inadequate attention paid to reducing corruption through sector and provider-level arrangements to improve governance.

A review of World Bank operations carried out as background for this Sourcebook found, for example, that in 100 percent of the cases reviewed the country-level strategy developed by the World Bank contained measures intended to promote probity and good governance, and similarly 100 percent of projects had measures intended to ensure probity in project implementation. However, 30 percent of the cases reviewed had no measures intended to improve probity at the sector level, while 63 percent had no measures intended to increase probity at the provider level.

This suggests that sector practitioners should work within an overall country framework, applying the tactics and insights developed at the country level, and adapting these to the electricity sector. Figure 2.3 provides an example of how infrastructure sector governance targets were embedded within a comprehensive, governance-focused Country Assistance Strategy (CAS) developed by the World Bank and the Government of Bangladesh. Further sources on country-level governance and anti-corruption strategies are provided in Source List 2.1 on page 19.

Figure 2.3: Embedding Sector Governance Targets within a Country Strategy: Example from Bangladesh

Longer term development agenda for Bangladesh-PRSP		Outcomes influenced by the CAS Program during the 4-year period		World Bank and Development Partners' Assistance
Development Outcomes (PRSP)	Issues and Challenges	CAS Outcomes	Milestones/Intermediate Indicators	World Bank Group, ADB, DFID, Japan
<b>1.B Remove Trade Restrictions and Reduce Administrative Barriers</b>				
<b>Improve access to and infrastructure services, by strengthening sector governance and encouraging greater private sector participation</b>	<b>Improve governance and efficiency in infrastructure services</b>			<b>WORLD BANK GROUP:</b> <b>Ongoing IDA Lending</b> Private Sector Infrastructure Development (closes in FY07); Rural Electrification Renewable Energy Development (closes in FY08); Bangladesh Telecommunications TA (closes in FY08); Rural Transport Improvement (closes in FY09); Power Sector Development TA (closes in FY09)  <b>Proposed IDA Lending:</b> Road Sector Reform (Reserve); “Crash Power Rehab” (incl. Siddhirganj (FY07); South Zone Power (FY08); Bangladesh Railways (Reserve); Dhaka Chittagong Sewerage & Drainage (FY07); Export Infrastructure Development (FY08); Inland Water Transport (FY09); Rural Electrification and Renewal Energy II (Reserve); Padma Bridge (FY09)  <b>IFC:</b> Loans/equity investments and advisory services as opportunities arise  <b>Proposed AAA:</b> Urban Strategy (FY07);
	<ul style="list-style-type: none"> <li>▪ Large unmet demand for critical infrastructure services-power, transport, water supply, and telecom</li> <li>▪ Infrastructure provision dominated by state monopolies with low quality service and weak financial positions</li> <li>▪ Weak regulatory and distorted price environment that deters private investment</li> <li>▪ Urban congestion and over-concentration in Dhaka, leading to high transaction costs and negative productivity</li> </ul>	<ul style="list-style-type: none"> <li>▪ A regulatory and pricing framework more conducive to greater private sector participation established</li> <li>▪ Progress toward corporatization and commercialization of public utility agencies, and publicized service delivery standards and performance targets in power, telecom, and water sectors</li> <li>▪ Private sector participation in infrastructure provision increased</li> <li>▪ Dhaka-Chittagong Transport Corridor</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Progressive alignment of domestic energy prices and power prices adjusted to reflect changes in underlying costs</b></li> <li>▪ <b>Bangladesh Power Development Board restructured and successors corporatized</b></li> <li>▪ <b>Conclude at least two deals for new privately financed base-load power plants following competitive and transparent procurement and applying the generation financing strategy</b></li> <li>▪ <b>New Mooring Container Terminal in Chittagong Port completed and</b></li> </ul>	

	<ul style="list-style-type: none"> <li>improved</li> <li>▪ Urban planning and management improved</li> </ul>	<ul style="list-style-type: none"> <li><b>concessioned for the private sector</b></li> <li>▪ <b>Increased quality and number of urban municipal investments implemented</b></li> </ul>	<p>Inland Water Transport ((FY07); Legal &amp; Judicial Review (incl. Land Policy and Admin. (FY07); Urban Transport Financing and Management Study (FY08)</p> <p><b>ADB:</b> Dhaka Clean Fuel; Gas Sector Dev't Project I; Gas Sector Development Project II; Dhaka Power System Upgrade; West Zone Power Development Project II; Dhaka Power System Upgrade; West Zone Power Development; Power Sector Development Program II; Power Sector Development Program III; Southwest Road Network Development; Road Network</p>
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Source: Reproduced from the World Bank "Bangladesh Country Assistance Strategy" (2006), Washington, DC: The World Bank

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## 2.6 Dealing with Second (and Third) Best Solutions

The foregoing sections may appear to offer a counsel of perfection—as though to say “*Reform the electricity sector to improve the accountability of governments to people, and make providers more accountable to government, all within an overall country strategy for improving governance, that joins up seamlessly from the level of national politics down to village level projects.*”

In the real world, such perfection is seldom attainable. More often, practitioners must strive to make incremental improvements within their limited sphere of influence.

The comprehensive framework for thinking about corruption and governance presented earlier is not meant to suggest that all initiatives to increase probity must be equally comprehensive. Rather, it aims to help practitioners to judge which of the changes they *are* able to effect would be most likely to contribute to better governance over time. In making this assessment, practitioners need to consider:

- Their sphere of influence
- The capacity of sectoral institutions to implement reforms
- The political economy that may support or nullify any given reform initiatives (as shown in Figure 14.2 on page 219).

This means considering second best solutions:

- In a country where much of the political power is held by a small number of interest groups, who between them control many of the nation’s resources, attempts to create and empower civil society organizations may be doomed to fail (at least in the short term). Yet governance can be improved, and corruption reduced, if the leading families or business organizations can come to see that they all benefit from better electricity services, and can be given the monitoring role that (in a first-best solution) might be held by a broader consumer organization
- Many electricity utilities have powerful unions dedicated to protecting utility employees. Anti-corruption reforms that target utility workers engaged in petty corruption, without tackling corruption at managerial or political levels, may be resisted as an attack on workers. An approach that involves unions and workers through consultation, and even-handed treatment of corruption at all levels, may be more likely to succeed. Reforms may even give workers and unions an interest in the success of the utility—for example through performance-based bonuses for staff, contracting out services to labor-owned businesses, or granting shares in the utility to employees. Such changes can enlist workers and unions efforts to reduce or resist corruption and so improve utility performance
- A donor working with a single local utility may lack the influence or standing at a national level to improve governance structures. Yet, by supporting reform of information systems, and the provision of more information locally, the donor may have put in place one key building block for a better accountability system. The provision of such information locally may indeed help to spur increased local demand for accountability, which in time may achieve what the donor, with its limited influence, was not able to.

The Sourcebook returns to the notion of second-best solutions—workable responses given the constraints of limited influence, capacity, and political will—in Section 13. Source List 2.1 sets out further readings on the concept of second best in policy reform generally, and electricity sector governance in particular.

**Source List 2.1: Framework for Thinking about Corruption**

Source	Description
<p><b>Schliefer, A. and Vishny, R. (1993) “Corruption” <i>Quarterly Journal of Economics</i> 108 (3) 599–617</b></p>	<p>This article puts corruption into an economic framework, explaining corruption as a product of individual incentives. It shows how different ways of organizing government may lead to different types and levels of corruption. It also provides a framework for thinking about which kinds of corruption are most damaging. It provides an explanation for why in corrupt environments officials may prefer unnecessarily advanced technologies. It also suggests increasing competition in government services as a fruitful avenue to explore in reducing corruption.</p>
<p><b><i>Placing the Sector within a Country Governance Strategy</i></b></p>	
<p><b>Castalia (2007) “<i>Survey and Assessment of World Bank Practice</i>”</b></p>	<p>A review of World Bank practice in helping its client country governments reduce corruption and poor governance in the water, electricity, and transport sectors. It serves to point staff towards existing good practices and advises on adopting new strategies and approaches. Reviews country reports, cross-sector reports, and project-specific documents for the following eight countries: Azerbaijan, Bangladesh, Chile, Colombia, Indonesia, Lesotho, Philippines, Romania, Tanzania, and Vietnam</p>
<p><b>Country-level Anti-Corruption Strategies</b></p>	<p>Many countries have national anti-corruption strategies. These typically describe the problem of corruption in a given country, and the rules, regulations, and policies in place to promote probity. Some examples include:</p> <ul style="list-style-type: none"> <li>▪ <a href="#">Estonia</a><sup>1</sup></li> <li>▪ <a href="#">Ghana</a><sup>2</sup></li> <li>▪ <a href="#">Pakistan</a><sup>3</sup></li> <li>▪ <a href="#">Sierra Leone</a><sup>4</sup></li> <li>▪ <a href="#">Tanzania</a>.<sup>5</sup></li> </ul>
<p><b>Doig, A. and Riley, S. (1998) “<i>Corruption and Anti-Corruption Strategies: Issues and Cases from Developing Countries</i>”, Corruption and Integrity Improvement Initiatives in Developing Countries, United Nations Development Program</b></p>	<p>Using case studies from Botswana, Ecuador, Hong Kong, Tanzania, Mali, and Senegal, this section of the UNDP guide illustrates the ways in which universal approaches can fail, and the improved results that can be obtained by using individually-tailored strategies.</p>

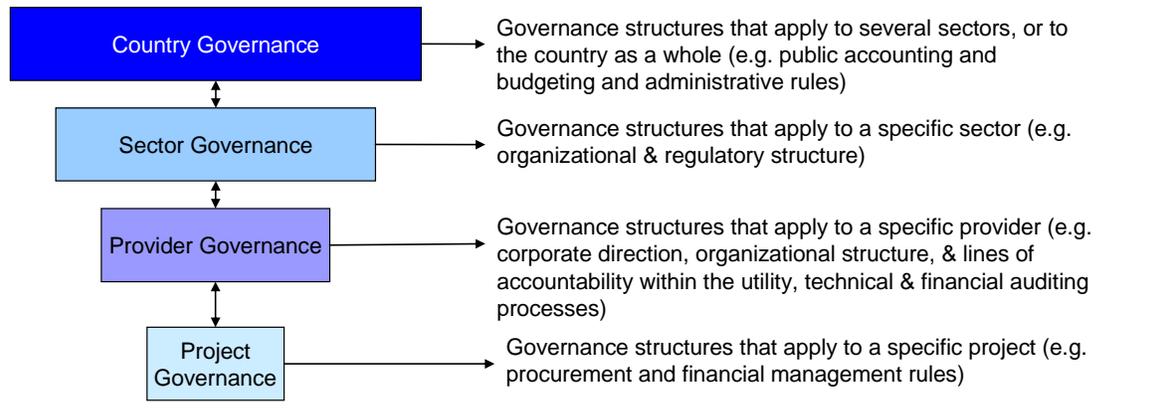
Source	Description
<p>Pope, J. (2000) <i>“Confronting Corruption: The Elements of a National Integrity System”</i>, Transparency International</p>	<p>This paper describes the need for national anti-corruption strategies, and the elements necessary for this strategy to be effective. It begins with an analytical framework (Part I), followed by the needed institutional pillars of a national integrity system (Part II). Part III lists the rules and practices for the institutional pillars, and Part IV, the lessons learned. Part V describes emerging best practice in combating corruption.</p>
<p>World Bank, (various dates) <i>Country Assistance Strategies with specific anti-corruption plans</i></p>	<p>These three Country Assistance Strategies incorporate comprehensive anti-corruption plans:</p> <ul style="list-style-type: none"> <li>▪ Bangladesh Country Assistance Strategy, 2006–2009</li> <li>▪ Indonesia Country Assistance Strategy, 2003–2007</li> <li>▪ Philippines Country Assistance Strategy, 2006–2008.</li> </ul>
<p>World Bank Institute (not dated) <i>“Country-Specific Technical Assistance to Develop Anticorruption Strategies”</i>, Washington, DC: The World Bank</p>	<p>A guide for assisting countries to develop national anti-corruption action plans. Describes the different stages of developing and implementing national anti-corruption strategies.<sup>6</sup></p>
<p><b><i>Second Best and Political Economy Strategy</i></b></p>	
<p>Levy, B. (2007) <i>“Governance Reform: Bridging Monitoring and Action</i>, Washington, DC: The World Bank</p>	<p>Lays out a broad framework for analyzing and monitoring governance in developing countries. Lists fourteen core indicators for governance monitoring (both broad measures of overall patterns and specific “actionable” measures that can be used to guide reforms and track progress). Highlights improvements in transparency as a relatively low-cost method for deepening government accountability to civil society.</p>
<p>Rodrik, D. (2007) <i>“One Economics, Many Recipes: Globalization, Institutions and Economic Growth”</i> Princeton University Press</p>	<p>For a good background on second best policies in development generally, see Chapter 1, which sets out how the “Washington Consensus”—a comprehensive set of reforms often considered to be “first best”—could be adapted to develop reform paths that were both more politically sustainable and effective, in countries as varied as China and Mauritius. As in Levy (2007), the focus is on identifying binding constraints and fixing those, rather than reforming everything in line with preconceptions of best practice. Chapters 5 and 6 consider institutions of economic governance generally, again demonstrating the merits of developing tailored institutional solutions that are responsive to local conditions and political economy constraints, in particular the need to ensure that reforms do not create a set of powerful losers who will unite to undermine reforms that would otherwise increase welfare overall.</p>

Source	Description
<p><b>Rose-Ackerman, S. (1978) “Corruption: A Study in Political Economy”</b> Institute for International Economics</p>	<p>A good overview of the political economy of corruption, including a discussion of the economic opportunities of corruption, and some “solutions” for preventing corruption. Rose-Ackerman concludes that second best solutions may be the only realistic option:</p> <p><i>Corruption can never be entirely eliminated. Under many realistic conditions, it will simply be too expensive to reduce corruption to zero. Furthermore, a single-minded focus on corruption prevention can have a negative effect on personal freedoms and human rights. Such a focus could produce a government that is rigid and unresponsive. Thus, the aim is not to achieve complete rectitude but rather a fundamental increase in honesty—and the efficiency, fairness, and political legitimacy—of government.</i></p>
<p><b>World Development Report (1997) Summary, The State in a Changing World, Washington, DC: The World Bank</b></p>	<p>This summary of 1997’s World Development Report focuses on the evolving role of the state. Chapters that are particularly relevant to the information in this Sourcebook include building institutions for a capable public sector, restraining arbitrary state action and corruption, bringing the state closer to the people (particularly through elections), and the challenge of initiating and sustaining reforms.</p>

# Part I Assessing Corruption Risks

Practitioners want to put their effort into fixing the serious problems, while supporting what works well. One needs to know how serious corruption may be, and where it occurs. Figure 2.4 illustrates the four levels at which practitioners may review governance arrangements and the associated risk of corruption.

**Figure 2.4: Levels of Corruption Risk Assessments**



This section outlines methods and indicators that can be used to assess governance and the risk of corruption. These methods and indicators cascade down the levels of:

- **Country**—A country level scan looks at governance and corruption risk across multiple sectors, or across the country as a whole. **Section 3** identifies indicators that can assist in assessing risk at the country level
- **Sector**—A sector level scan considers these issues across the electricity sector as a whole). Governance and corruption risks in this sector may differ from those in other sectors, or from the level and severity of risk identified for the country as a whole. **Section 4** identifies sources and indicators practitioners can use to see where in the sector corruption may be occurring. These include:
  - Sector performance indicators such as system losses (Section 4.1)
  - Complaints from, and dialogue with, stakeholders (Section 4.2), and
  - Sector surveys (Section 4.3).

Section 4.5 outlines how practitioners can use information gathered from the sector scan to map out “corruption hotspots”

- **Provider**—**Section 5** discusses assessments targeted to a specific service provider. Such assessments can include the provider’s structure, and the full range of the provider’s activities and interactions, including:
  - Fuel procurement (Section 5.1)

- Suppliers and contractors (Section 5.2)
  - Commercial operations (Section 5.3), and
  - Human resources (Section 5.4), and
  - Company property and money (Section 5.5).
- **Project**—Capital projects can offer particular opportunities for corruption, and so merit special attention. **Section 6** suggests ways of detecting corruption risk in capital projects, and identifies factors that can influence the level of risk in relation to capital projects.

**Sections 7, 8, and 9** discuss the implications of different sector structures for corruption risk. Most of the discussion in this Part of the Sourcebook assumes a “typical” electricity utility—a publicly owned corporate entity. In reality, the extent of corruption risk—and where these risks lie—will differ under different sector structures, for example where:

- The electricity utility is run by a private operator, through some form of private participation arrangement
- Electricity services are provided by a government department or other non-incorporated entity
- The electricity sector is vertically and horizontally disaggregated, with some form of competition for generation or wholesale power.

### 3 Country Level Scan for Corruption Risk

In assessing corruption risk in the electricity sector, it is useful to start by looking at the country as a whole. A picture of the quality of governance and corruption at a national level can indicate whether corruption is likely to be a serious problem in the electricity sector. In other words, perceptions of corruption at the country level will often set initial assumptions—or “priors”—for sector level corruption risks.

Various development banks and non-governmental organizations (NGOs) have developed tools to assess corruption risks and how to tackle corruption (Box 3.1).

#### **Box 3.1: Country Assistance Strategies and Corruption Risks**

World Bank CASs increasingly include information on corruption risks at a country level. For instance, the latest CAS for Indonesia includes sections dedicated to “The Special Problem of Corruption” and “Managing Risks”. Because of Indonesia’s high country-wide corruption risk, the CAS translates these risks into a requirement for specific anti-corruption strategies for each project.

CASs can draw attention to high levels of corruption risk in a given country, and even to specific risk areas. If the relevant CAS indicates high country-level corruption risks, it would be sensible to assume that the electricity sector is also at risk of corruption.

World Bank CASs are available from the World Bank web site (go to <http://worldbank.org/>, select the “Countries” section, and click on the particular country of interest).

Other agencies—such as the Asian Development Bank (ADB) or Inter-American Development Bank (IDB)—also have “country strategy” documents that cover these issues.

Development institutions and NGOs have developed country-level governance and corruption indicators that are easily accessible (see Source List 3.1 beginning on 26). As Box 3.2 explains, there is some evidence suggesting that national level indicators of corruption are correlated with indicators of electricity utility inefficiency.

#### **Box 3.2: Correlation of Country Corruption and Electricity Utility Inefficiency**

A study of 80 electricity distribution firms from 13 Latin American countries for the years 1994 to 2001 found that more perceived corruption in the country is strongly associated with more inefficient firms, in the sense that they employ more (labor) inputs to produce a given level of output. The study also applies a model where efficiency is measured in terms of operation and maintenance expenditures, rather than in terms of labor. The significant negative association between perceived corruption and efficiency persists.

The economic magnitude of the effect is large. For example, if the median country in the sample (Brazil) had the corruption level of the country perceived to be least corrupt in the sample (Costa Rica), the firms in the former country would use 18 percent fewer workers.

Source: Dal Bó, R. and Rossi, M. (2006) “*Corruption and Inefficiency: Theory and Evidence from Electric Utilities*”, University of California at Berkeley

That said, the interpretation of national indicators needs to be treated with care. Many country-level indicators and surveys are not based on objective measures. Transparency International's Corruption Perception Index—the best known of the country level surveys—is often criticized because it is perception based, and is not based on objective or observable data.

**Box 3.3: Changing Political Economy and Changing Perceptions in Indonesia**

Corruption perceptions (as recorded by the Political Risk Services Corruption Assessment) rose in Indonesia with the advent of democratic elections on June 7, 1999 and the demise of the Suharto government. The paradox here is acute: the Suharto regime was widely regarded as among the most corrupt in the world, and no observer doubts that the absolute value of bribes going to the government has fallen precipitously, despite worsening corruption perceptions.

One explanation for this paradox is that corrupt transactions became less credible after Suharto's departure, suggesting that voice and accountability (at least as generated by new and imperfect democracies) may also diverge from government credibility. Under Suharto, businesses believed that if they paid a \$1,000,000 bribe they would get a high return on their investment because the underlying agreement was credible (in another governance indicator term, political stability was high). They could be confident that they would, in fact, receive the rents conferred by the monopoly or regulatory privilege provided in exchange for the bribe. The political uncertainty of the post-Suharto era lowered the credibility of these transactions. Consequently, even if the bribe-price of entry or regulatory privileges fell since the end of the Suharto regime, the effective value of the privileges may have fallen by even more. Although total corrupt payments may have fallen, the perceived damage of corruption might have risen.

Source: Keefer, P. (2004). "A review of the political economy of governance: From property rights to voice," World Bank Policy Research Working Paper 3315, May 2004

The link between national corruption perceptions, sector-specific corruption perceptions, and sector-specific corruption realities is also somewhat obscure. The evidence we have suggests a weak relationship between national level perception measures and survey evidence recording either petty corruption in utility provision or grand corruption in construction. In turn, evidence on petty corruption appears to be weakly related to sector structure and other elements we would expect to influence the extent of corruption.<sup>7</sup>

Measures of accountability and the quality of governance are often subjective, and there is always a risk that the formal structures that can be observed by outsiders do not reflect real practice.

Source List 3.1 summarizes some of the useful country indicators, as well as articles that discuss their limitations.

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<sup>7</sup> Kenny, Charles (forthcoming) "Is There an Anticorruption Agenda in Utilities?", *Utilities Policy*, available now from: <http://charleskenny.blogspot.com/weblog/files/up.pdf>

**Source List 3.1: Country Level Governance Indicators and their Limitations**

Source	Description
<i>Useful country-level indicators</i>	
<b>Cavill, S. and Sohail, M (not dated) “A note on Research Methodology for Combating Corruption”</b>	This document describes a research methodology that can be used for custom surveys of corruption in infrastructure. It outlines the research process, and describes research techniques for detecting and assessing corruption including interviews, informal discussion, and focus groups. The note provides examples of the following research instruments: corruption diary; observation checklist, guide for focus group discussions, semi-structured interviews for service providers, and a household questionnaire.
<b>Kalnins, V. (2005) “Assessing Trends in Corruption and Impact of Anti-Corruption Measures”, the Anti-Corruption Network for Transition Economies, OECD</b>	This paper discusses various methods for detecting and measuring corruption, and both a national and provider level. These include “direct” measures of corruption (for instance, perception, experience, beliefs and values, service and sector assessments, and governance indicators) as well as “indirect” measures of corruption (such as risk assessment, checklists, statistics and formal reporting, analysis of governments’ implementation of anticorruption measures). The document includes a number of useful real world examples.
<b>Political Risk Services Group, <a href="#">International Country Risk Guide</a></b>	The Guide includes a corruption index that focuses on political-level corruption, for over 100 countries, with a long time series. <sup>7</sup>
<b>Transparency International, <a href="#">Corruption Perception Index</a></b>	The most well-known of the various corruption surveys and indicators is Transparency International’s Corruption Perception Index (CPI). The CPI ranks 180 countries by their perceived levels of corruption, as determined by opinion surveys. The CPI combines multiple surveys from different institutional sources, allowing it to draw on a larger pool of respondents. Like other perception surveys, the CPI cannot precisely identify corruption with any degree of precision, but rather serves as a useful “red flag” that corruption may be occurring. <sup>8</sup>
<b>World Bank, <a href="#">Country Policy and Institutional Assessment indicators</a></b>	Country Policy and Institutional Assessment (CPIA) rates countries that are eligible for IDA-funds against 16 criteria under four headings. The fourth heading, “public sector management and institutions”, includes the criterion of “transparency, accountability, and corruption in the public sector”. This assesses “the extent to which the executive can be held accountable for its use of funds and the results of its actions by the electorate and by legislature and judiciary, and the extent to which public employees within the executive are required to account for the use of resources, administrative decisions, and results obtained. Both levels of accountability are enhanced by transparency in decision-making, public audit institutions, access to relevant and timely information, and public and media scrutiny”. A low accountability score might indicate a higher susceptibility to corruption, and certainly suggests poor governance generally. <sup>9</sup>

Source	Description
<b>United Nations Development Programme (not dated) <a href="#">“Sources for Democratic Governance Indicators”</a></b>	This document was prepared for governance practitioners in the United Nations Development Program’s Country offices, and can be used by anyone working on governance and development issues. It provides a user-friendly overview of internet-accessible governance indicators and what each of these means. <sup>10</sup>
<b>World Bank and International Finance Corporation, <a href="#">“Doing Business”</a> &amp; <a href="#">“Enterprise Surveys”</a></b>	The “Doing Business” surveys provide objective measures of business regulations and their enforcement across 178 countries and selected cities at the sub-national level. The economies are then ranked on the ease of doing business (from 1 to 178, with 1 being the best). In 2009, both “infrastructure” and “transparency” are expected to be added as topics. The “Doing Business” results are useful for thinking about corruption risks, since the red-tape and bureaucratic discretion that make doing business difficult are often breeding grounds for corruption. <sup>11</sup> The World Bank’s “Enterprise Survey” is a cross-country business survey that analyzes key investment climate data in emerging markets and provides indicators on the quality of the business environment. This includes a number of specific indicators of corruption, such as the percentage of firms expected to offer a payment to get things done, or to secure a government contract; and percentage of firms who see corruption as a major obstacle for their business. Fifty-five country profiles are available on the “Enterprise Surveys” website. <sup>12</sup>
<b>World Bank Institute, <a href="#">Worldwide Governance Indicators</a></b>	The WBI’s Worldwide Governance Indicators report aggregate and individual governance indicators for 112 countries, based on six dimensions of governance: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption. These are based on the perceptions or views of enterprises and citizen and expert survey respondents in both developed and developing countries, and can be useful red flags that corruption may be occurring. <sup>13</sup>
<b>World Bank and EBRD, <a href="#">Business Environment and Enterprise Performance Survey</a></b>	The Business Environment and Enterprise Performance Survey (BEEPS), developed jointly by the World Bank and the European Bank for Reconstruction and Development, is a survey of over 4000 firms in 22 transition countries conducted since 1999-2000 that examines a wide range of interactions between firms and the state. Based on face-to-face interviews with firm managers and owners, BEEPS is designed to generate comparative measurements in such areas as corruption, state capture, lobbying, and the quality of the business environment, which can then be related to specific firm characteristics and firm performance. <sup>14</sup>

Source	Description
<i>Limitations of country-level indicators</i>	
<p>Arndt, C. and Oman, C. (2006) <a href="#"><i>“Uses and Abuses of Governance Indicators”</i></a>, OECD Development Centre</p>	<p>Chapter 4 analyses the World Bank Institute’s World Governance Indicators. It outlines four core problems with these indicators:</p> <ol style="list-style-type: none"> <li>1. Likelihood of correlation of errors among the 37 sources from which the WGI is constructed limits its statistical legitimacy</li> <li>2. Unable to compare over time</li> <li>3. Biased sample</li> <li>4. Insufficient transparency.<sup>15</sup></li> </ol>
<p>Galtung, Fredrik (2005) <i>“Measuring the Immeasurable: Boundaries and Function of (Macro) Corruption Indices”</i></p>	<p>Galtung reviews and critiques Transparency International’s Corruption Perception Index. He argues that the failings of the Corruption Perception Index can be grouped under six general headings:</p> <ul style="list-style-type: none"> <li>▪ Only punishing the takers, not the givers or abettors</li> <li>▪ Irregular and uncontrolled country coverage</li> <li>▪ Biased sample: more than 90 percent of the world is missing</li> <li>▪ Imprecise and sometimes ignorant sources</li> <li>▪ Too narrow and imprecise a definition of corruption</li> <li>▪ Does not measure trends and so cannot reward genuine reformers.</li> </ul>
<p>Kenny, C. (2007) <i>“Construction, Corruption, and Developing Countries”</i> World Bank Policy Research Working Paper 4271</p>	<p>Kenny uses country-level indicators (like Transparency International’s CPI and the Business Environment and Enterprise Performance Survey) to examine corruption in the construction industry. He describes variations in measures of corruption at the country and sector level, concluding that “general country level corruption indicators may be poor tools to uncover particularly corrupt construction industries, but also that corruption within the industry may differ markedly by sub-sector or location within a country”.</p>
<p>Kenny, C. (2006) <a href="#"><i>“Measuring and reducing the Impact of Corruption in Infrastructure”</i></a>, World Bank Policy Research Working Paper 4099</p>	<p>This paper investigates the different tools or approaches that are used to identify and measure corruption. Kenny argues that perception measures are not good indicators of corruption in the infrastructure sector, mainly because these perception surveys mostly measure petty, not grand, corruption. Kenny argues that survey evidence is more reliable than perception measures, but still not reliable enough to guide policy recommendations. The paper then recommends some priorities for infrastructure corruption research, in particular regarding disaggregated and actionable indicators of weak governance and corruption.<sup>16</sup></p>
<p>Soreide, T. (2006) <i>“Is it wrong to rank? A critical assessment of corruption indices”</i>, CMI Working Paper</p>	<p>Provides a useful discussion of information about corruption, and of the limitations of measures such as the Corruption Perception Index (for instance, the expectation that perceptions are reliable).</p>

Source	Description
<p>UNDP (2007)  <a href="#"><i><u>"Governance Indicators: A User's Guide"</u></i></a></p>	<p>Guide to understanding assumptions behind indicators, how data is collected, and how to best use data for various purposes. On how to use the data, the guide recommends three "golden rules":</p> <ol style="list-style-type: none"> <li>1. Use a range of indicators</li> <li>2. Use an indicator as a first question—not a last</li> <li>3. Understand the indicator before you use it.<sup>17</sup></li> </ol>

## 4 Sector Assessment

This section introduces ways of assessing the risk of corruption across the electricity sector of a country. Since corruption involves specific individuals and organizations, a “sector level” assessment is an attempt to sum or average the level of corruption across organizations in a sector. As such, sector level indicators can be misleading since the differences between the organizations involved are too great to make averages useful. For example, in a sector where, say, the regulator and the local distribution utilities are very corrupt, while the Ministry and the national transmission company are not at all corrupt, a statement that the sector as a whole is moderately corrupt would not be useful.

Therefore the objective of this section is simply to help practitioners understand risks of corruption across the whole sector, identify risk levels in specific key agencies, and detect general patterns. In this section we review some indicators that can be used to assess the level and risk of corruption. These are:

- Sector performance and efficiency indicators
- Asset observation, that is evidence of specific individuals living beyond their means
- Stakeholder complaints and other stakeholder feedback
- Surveys of corruption in infrastructure sectors.

Using this information we then outline a “mapping” approach sector practitioners can use to understand where corruption is occurring in the electricity sector.

### 4.1 Sector Performance and Efficiency Indicators

Four key sector performance indicators can provide first order signals on the possible level of corruption in the sector:

- Coverage
- System losses
- Collections ratios
- Cost recovery.

Table 4.1 describes these indicators and their possible relationship to poor governance and corruption. These sector performance indicators should be interpreted in the context of structure, as different structures create different incentives.

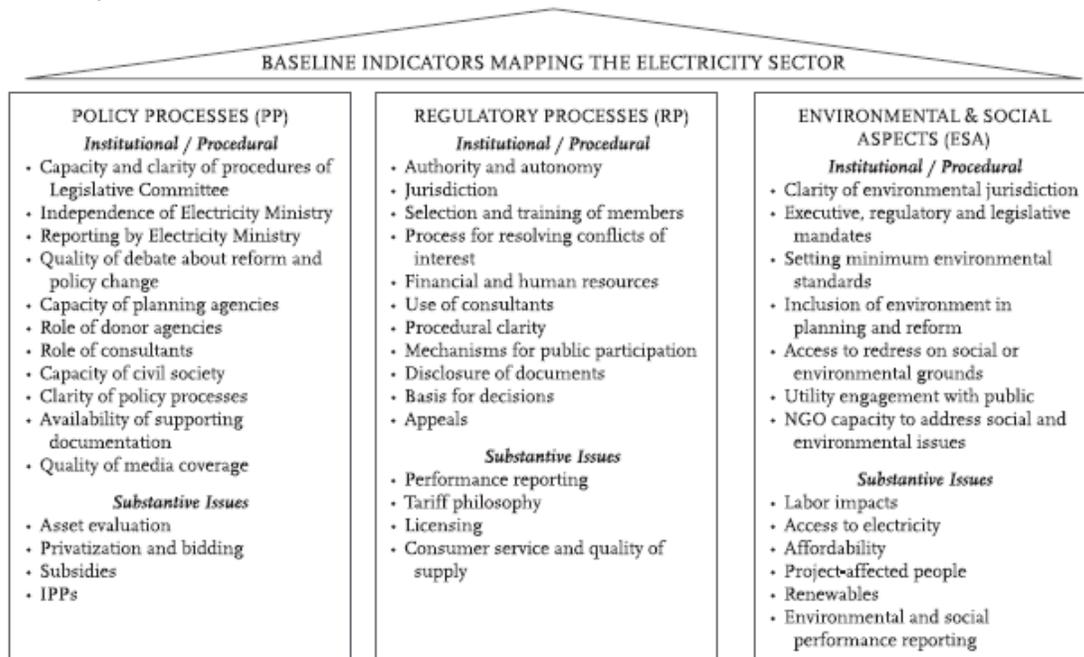
**Table 4.1: Corruption and Sector Performance Indicators**

Indicator	Description	Possible relationship to poor governance or corruption (or both)
<b>Electricity coverage</b>	Electricity coverage refers to the percentage of the population served by electricity utilities, as a percentage of the total population. (An alternative definition of electricity coverage is total electricity connections as a percentage of the total number of households.)	In general “good” coverage indicates that the sector is putting resources to good use, while “poor” coverage indicates the opposite. Whether a given level of coverage is “good” or “poor” depends on various factors, including the overall wealth of the country, and local geography. So rather than using absolute levels of coverage as an indicator of possible corruption, sector practitioners should focus on how far actual coverage is from where one might expect it to be, given the country’s income and geography.
<b>Systems losses</b>	Electricity that has been generated and is “lost” before it reaches the customer. Losses can be “physical” losses (for instance, through transmission losses) or “commercial” losses (for instance, through theft or metering inaccuracies).	High physical losses may indicate corruption risk. Lack of attention to transformer maintenance and loadings, cleaning lines, and so on may indicate: <ul style="list-style-type: none"> <li>▪ A tendency to misuse resources generally</li> <li>▪ Poor quality of construction and repair work</li> <li>▪ A bias toward large capital projects over maintenance and incremental upgrades of transformers and the like.</li> </ul> High commercial losses show a chaotic commercial system, which often allows corruption to thrive.
<b>Collection ratio</b>	Percentage of bills collected.	A low collection ratio indicates lack of discipline in commercial and financial systems in the sector. This lack of discipline will allow corruption to thrive.
<b>Cost recovery</b>	The capture—through fees, subsidies, or other explicit transfers of funds—of the cost of providing electricity services.	Sectors which recover some margin above operating and maintenance (O&M) costs tend to be less corrupt than ones where tariff revenue is less than or equal to O&M costs. This may be because sectors or providers which are recovering their costs are more likely to have effective processes for financial management and accountability in place. Alternatively, if a utility isn’t recovering costs, employees are less likely to feel pressure for any kind of commercial discipline—that will allow corruption to thrive. Finally, research suggests that utilities that recover a majority of costs from their customers are more likely to be accountable to their customers. <sup>8</sup>

<sup>8</sup> Managing Public Water Utilities: An assessment of bureaucratic and New Public Management models in the water supply sectors in low- and middle-income countries, Klaas Schwartz 2006, UNESCO-IHE Institute for Water Education

The Electricity Governance Indicators (EGIs) also provide a framework for evaluating governance in the electricity sector (see Figure 4.1 below).

**Figure 4.1: The Electricity Governance Indicators**



Source: Nakhooda, S. et al (2007) *“Empowering People: A Governance Analysis of Electricity”*, World Resources Institute, page 9.

## 4.2 Stakeholder Complaints, Dialogue, and Media Reports

Stakeholder complaints, media reports, and dialogue can help to identify corruption and poor governance.

### Customer complaints

The utility itself may have a complaints service, which may be a useful source of information. In addition, the sector regulator, a government department responsible for the electricity sector, or a consumer affairs bureau may also run a complaints service. In evaluating the reliability of information from these complaints services, sector practitioners may consider factors such as:

- How independent the complaints office is, for example from the utility’s management or other staff members
- Whether the complaints service is widely known to the public, and whether it is well publicized
- Whether the service is respected, and considered to be effective by other stakeholders

- What arrangements are in place to protect “whistle-blowers” against retaliation, and whether complaints be made anonymously.

National anti-corruption agencies also often have complaints registers where stakeholders can expose corruption, or draw attention to practices they believe are corrupt. These are valuable resources for identifying corruption (see Source List 2.1 on page 19 for some examples of national anti-corruption strategies).

### **Media reports**

Some media services scan for corruption related stories in the electricity sector. For instance, Transparency International’s “corruption in the news” service scans international news services for corruption related stories, and publishes links to these stories on the Internet.<sup>9</sup>

Media coverage of corruption can serve as a tentative “red flag”, by alerting sector practitioners to areas where corruption is allegedly occurring. Some care needs to be taken in interpreting media coverage of corruption. On the one hand the media may have an interest in scandalizing the problem, and so overstate the actual extent or frequency of corruption. Alternatively the media may be influenced or controlled by the state, or by powerful interest groups, and so may have an interest in understating or covering up problems.<sup>10</sup>

### **Stakeholder dialogue**

Electricity sector stakeholders outside the government have differing perspectives on problems within the sector. They may also have less to lose, and more to gain, in exposing corrupt practices. It is therefore useful to talk to leading non-government stakeholders to learn their views on sector problems, and specifically on corruption.

There is considerable literature on the topic of consulting with sector stakeholders.

The first step in opening a stakeholder dialogue is generally to identify which groups of individuals to approach. Groups that may be able to provide valuable information include:

- Consumer organizations
- Neighborhood associations
- Chambers of Commerce and other industry associations
- Professional associations whose members work in the sector (for example consulting engineers, lawyers)
- NGOs working in the electricity sector
- Unions operating in the sector.

Care is sometimes required in identifying those individuals or groups that are useful to talk to—they may not always be obvious, and may not come forward to assert an interest in the sector.

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<sup>9</sup> Transparency International’s “corruption in the news service”, [http://www.transparency.org/news\\_room/corruption\\_news](http://www.transparency.org/news_room/corruption_news)

<sup>10</sup> See Soreide (2006) *Business Corruption: Incidence, Mechanisms, and Consequences*.

### 4.3 Surveys of Corruption in Infrastructure Sectors

Finally, surveys can provide information on the strength of governance arrangements, and extent of corruption, in the electricity sector. Practitioners can:

- Review existing surveys that deal with governance and corruption
- Commission special surveys, to gather information on service delivery or perceptions of corruption (or both) in a particular country or region.

#### 4.3.1 Existing surveys of infrastructure sectors

Existing surveys, that already collect some limited information on corruption in the electricity sector, can be a useful starting point. For example, Business Environment and Enterprise Performance Surveys (BEEPS) include information relating specifically to the electricity sector. Source List 2.1 on page 19 provides further detail on these.

If warranted, sector practitioners may commission special surveys. There are broadly two options for commissioned surveys:

- **Quantitative surveys**, to collect data on key measures of service delivery. The objective of a tailored quantitative survey would be to highlight any areas of the utility's business where poor service delivery indicates that there may be, at best, a problem with governance and accountability arrangements or, at worst, corruption,
- **Perception surveys**, to canvas the views of stakeholders both within and outside the electricity sector. Stakeholders surveyed could include government officials, utility staff, customers, and non-government organizations. As well as directly gathering views on the extent of any corruption, and where corruption might be taking place, perception surveys can gather information on other aspects of the business, which may highlight problem areas (for example, quality of service, staff integrity, the appropriateness and effectiveness of business procedures).

Box 4.1 provides an example of the type of data practitioners can obtain from commissioned surveys of corruption.

<b>Box 4.1: An Example of a Commissioned Survey of Corruption</b>				
<p>In 2002, Transparency International conducted a citizen feedback survey across five countries in South Asia (Nepal, Pakistan, India, Bangladesh, and Sri Lanka). Electricity was one of the sectors covered by the survey. The survey found corruption in the connection process, and post-connection (for example bribes to maintain a proper power supply, bribes to reverse over-billing). Data from the survey on modes of corruption, parties engaging in corrupt practices, and the average level of bribes are provided in the table below.</p>				
<b>Percentage of respondents reporting irregular connections processes and form of corruption</b>				
	<b>Bangladesh</b>	<b>India</b>	<b>Nepal</b>	<b>Pakistan</b>
Percentage reporting irregular connection process				
	36	14	24	65

Types of aberrations				
Had to pay the office staff	98	50	45	44
Through political influence	06	10	06	09
Through relatives	05	05	17	15
Repeated visits to the office	08	48	36	21
Other	03	—	07	03
Percentage reporting corruption in ongoing interactions with the utility				
	Bangladesh	India	Nepal	Pakistan
Percentage reporting corruption				
	32	30	12	96
Types of corruption				
Bribes paid to get proper power supply	28	10	24	18
Bribes paid to reduce billing	10	02	—	32
Bribes paid to get illegal connections	02	08	05	05
Bribes paid to correct over billing	20	08	16	20
Bribes paid to prevent disconnection of power lines	10		08	11
Other	42	10	—	09
Average amount of bribes reported				
	Bangladesh	India	Nepal	Pakistan
Average amount of bribe	BDT950	INR669	NR531	PR1087
Source: Transparency International, <i>Corruption in South Asia Insights &amp; Benchmarks from Citizen Feedback Surveys in Five Countries</i> , December 2002				

#### 4.4 Asset Observation

Evidence that individuals working in the sector are enjoying living standards beyond what their wages could support is another indicator of corruption. If wages from an individual's job are insufficient to pay for apparent extravagancies, then where is the money coming from?

“Red flags” could include observations of:

- Parking lots full of expensive cars, especially when official salaries are known to be low

- Other obvious displays of wealth such as gold watches
- Frequent overseas trips by counterparts or sector officials
- Asset declarations from senior officials and politicians that reveal assets well beyond what those individuals' official salaries would support.

Sector practitioners will not be able to definitively determine if such observations are indeed a sign of corruption. However, such observations can serve as useful indicators that corruption may be occurring within the electricity sector. Further dialogue with sector staff and stakeholders can help to determine whether observed assets are indeed a sign that corruption is occurring, or whether there is a legitimate explanation.

Source List 4.1 on page 48 lists useful sources for further information on detecting corruption through asset observation.

## 4.5 Mapping Corruption Risk across the Electricity Sector

The above sections describe sources of information that can indicate whether and where corruption may be occurring in the electricity sector. If these indicate that a problem may exist, the next question is where in the sector to look to confirm whether there is a corruption problem.

Opportunities for corruption arise where there is a supply of value without a strong owner. Lack of a clear owner means that value becomes available for appropriation. It makes sense to look for corrupt activity in the places where such value is being shifted between agents—for example between the government and the utility, or between the utility and its suppliers or contractors. These places can be thought of as corruption “hotspots”—points in sector processes where money or contracts change hands, or discretionary decisions are made.

In the electricity sector, there are a number of corruption “hotspots”. They occur where control over this value is concentrated in particular individuals, or where key decisions affecting value are made. To understand where in the electricity sector corruption may be occurring, it is useful to map out:

- The major flows of value in the electricity sector
- Which organizations control that value, at each point in the flow, and
- The mechanisms through which such value might be misappropriated.

This information can be represented in the form of a diagram. Clearly, each sector and country is different; practitioners can draw a similar picture reflecting the structure and characteristics of the sector in which they are working. To illustrate, we provide two examples below:

- Figure 4.1 maps out possible corruption hotspots for a “typical” vertically integrated national electricity utility
- Figure 4.2 shows the flow of value in a competitive electricity market with:
  - A national generation company
  - A national transmission company
  - A competitive wholesale electricity market

- Private generation companies
- Independent power producers.

Figure 4.3, Figure 4.4, and Figure 4.5 provide alternative versions of the “whole sector” diagram in Figure 4.2. These figures focus respectively on corruption hotspots occurring:

- In the government, and in the generation sector
- In the transmission sector
- At the level of individual distributors.

For simplicity, the five figures below just identify flows of value associated with corruption hotspots. The diagrams do not show all flows of value in the electricity sector.

In doing the sector-level assessment, practitioners will already have gathered information that can be located on the map, to help identify those hotspots where corruption may be occurring. For instance, low collection rates typically indicate a problem with the electricity provider’s commercial systems. This problem may simply be a matter of poor governance or incompetence, or it may be an instance of corruption.

Figure 4.1: Financial Flows that May Be Subject to Corruption in a Vertically Integrated Utility

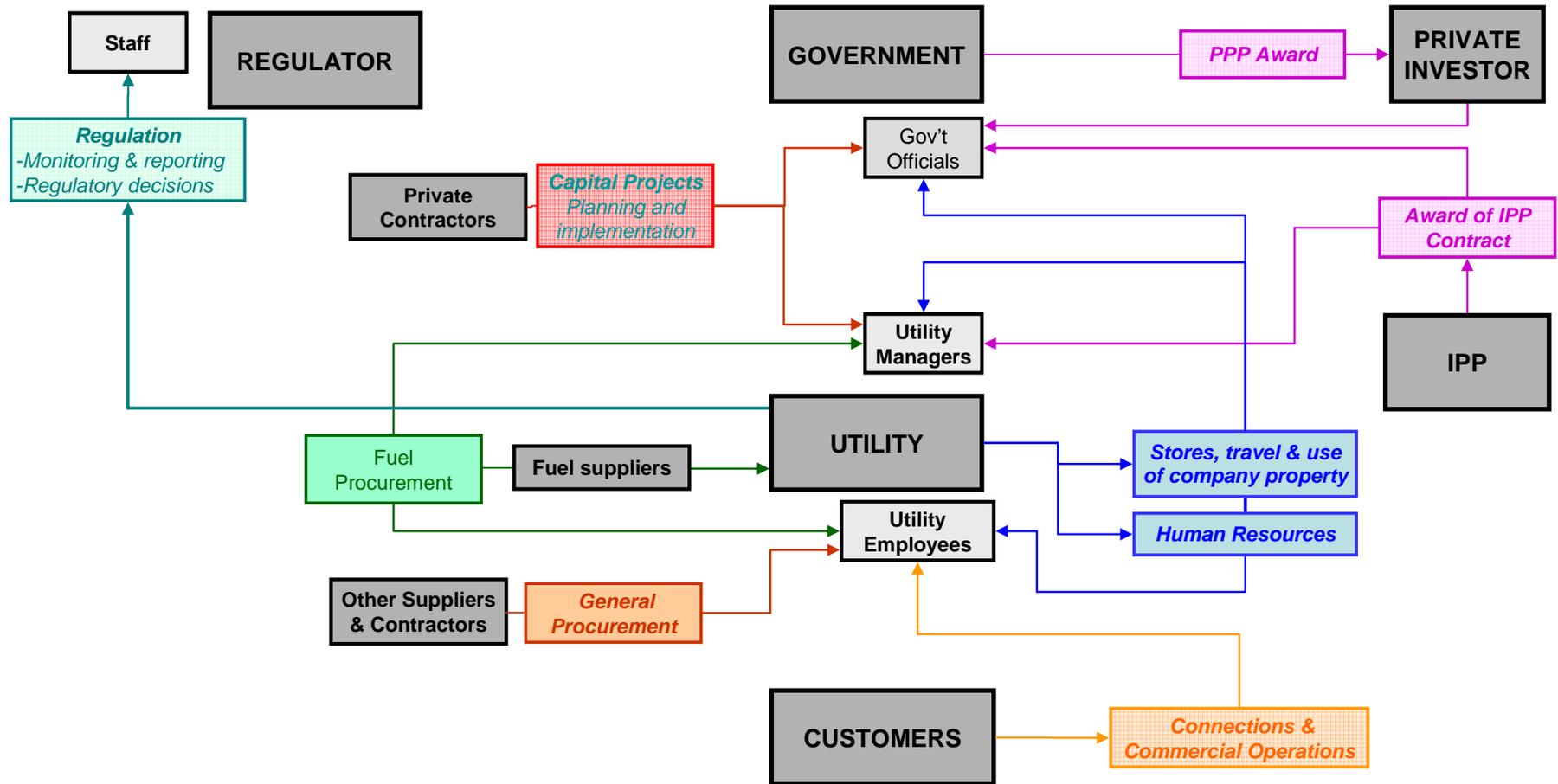


Figure 4.2: Financial Flows that May Be Subject to Corruption in a Competitive Electricity Market

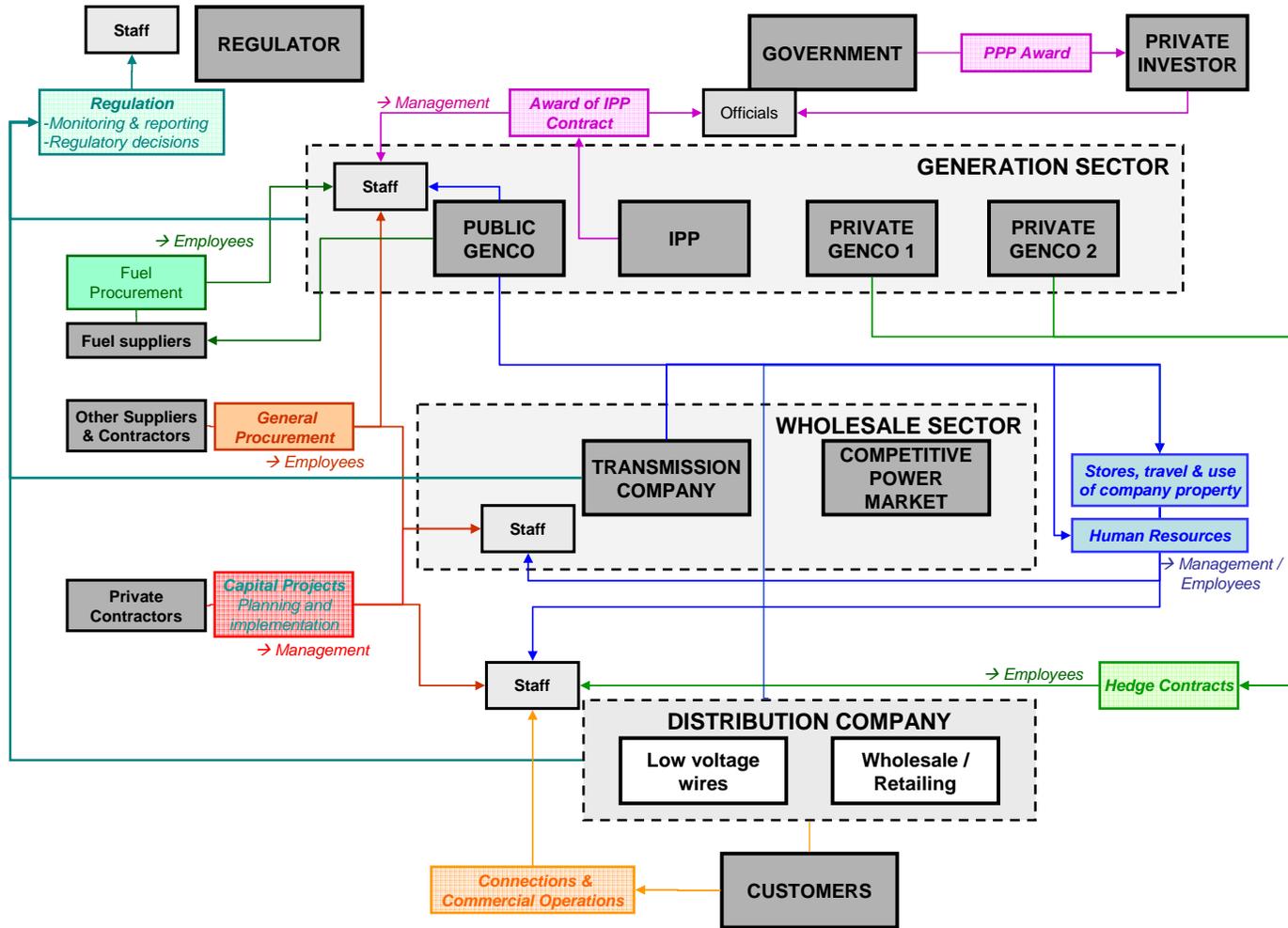


Figure 4.3: Government and Generation Sector Hotspots

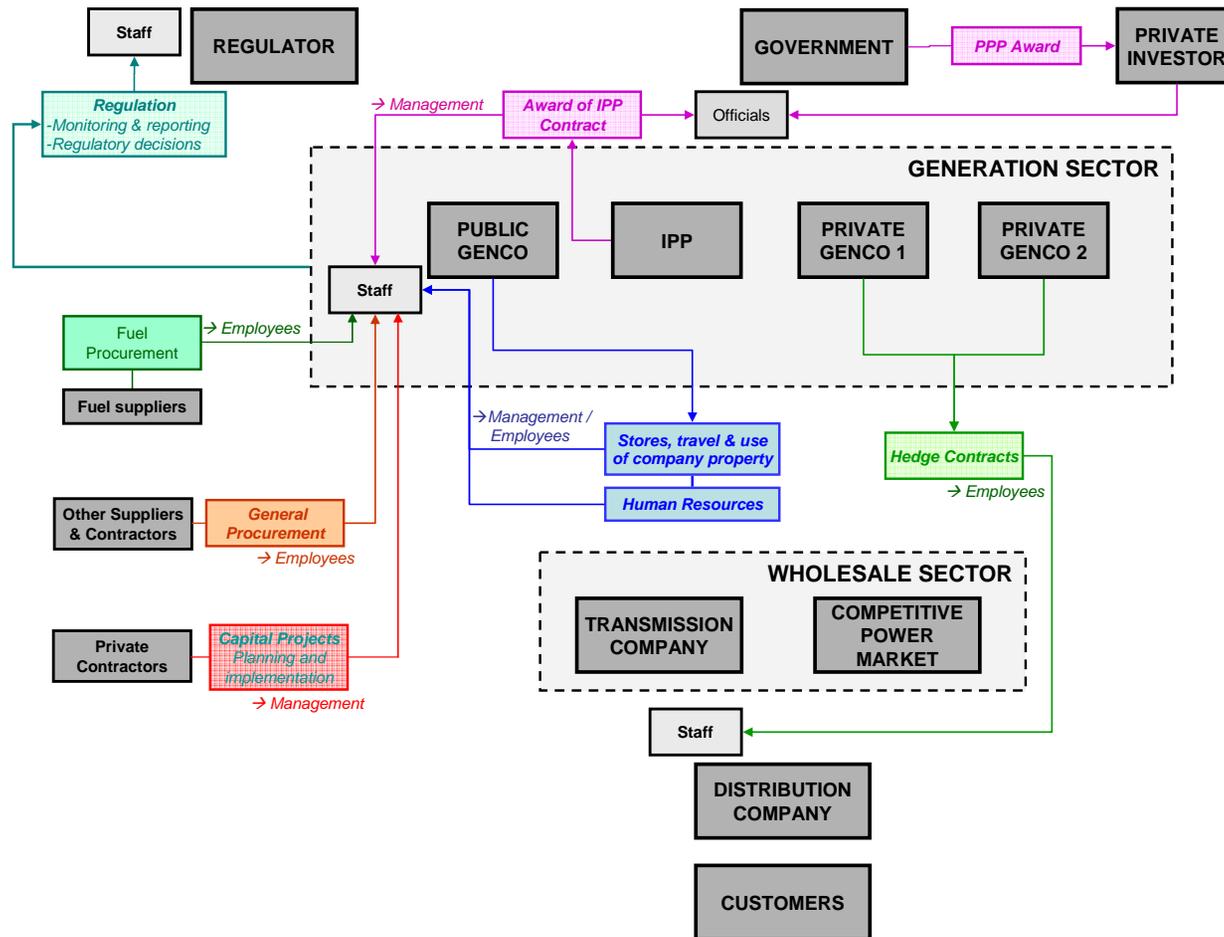


Figure 4.4: Transmission Sector Hotspots

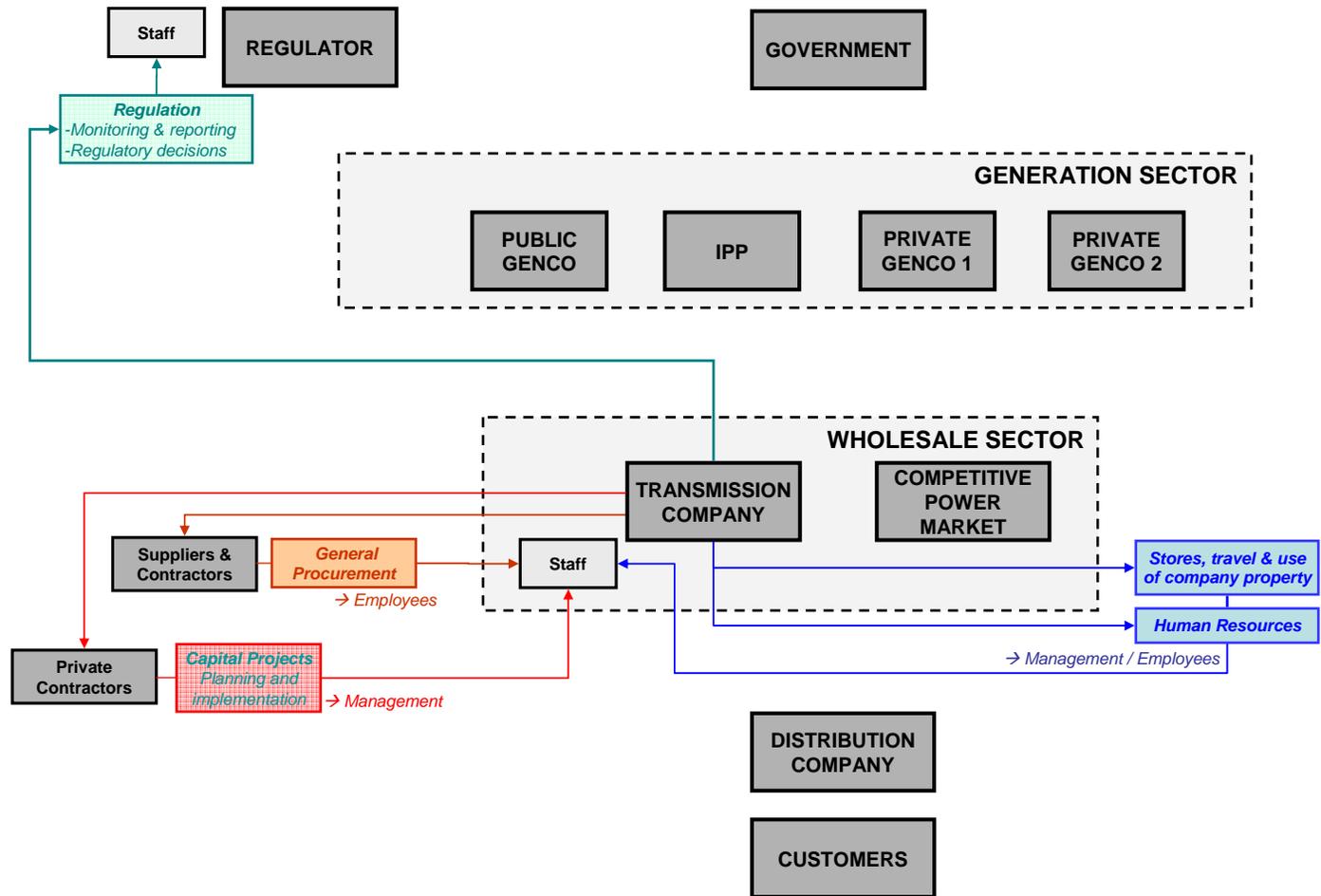




Table 4.2 identifies and defines the most common corruption and poor governance “hotspots” in the electricity sector. The table also indicates the modality of corruption in relation to each hotspot—that is, the mechanisms that may be used to misappropriate value. Sections 5 and 6 discuss approaches for more detailed assessment of corruption in each hotspot: at the provider level and at the project level respectively (Table 4.2 indicates which specific sections to refer to for each hotspot). The discussion in these sections assumes a typical vertically integrated electricity utility (as illustrated in Figure 4.1). This “typical” utility is, publicly owned and managed, operates under a corporate model (as opposed to operating as a government department), and operates as a vertically integrated operation (covering generation, transmission, and distribution of electricity). The utility may also purchase additional power from independent (private) power producers (Section 7 discusses corruption risk in relation to Independent Power Producers, or “IPPs”).

Clearly, this “typical” model will not reflect the actual situation in many countries and sectors. The “map” of financial flows for a particular sector, and the extent to which each of the hotspots is a problem, will vary depending on a range of factors. In particular, a number of countries have introduced electricity sector reforms under which:

- The sector is disaggregated, with generation, transmission, and distribution/retailing functions being undertaken by separate companies
- Generators sell electricity through a competitive wholesale electricity market. Typically the market determines a “spot” price and provides for real time balancing of the electricity load
- Generators and their customers (distribution companies or large electricity users) may also enter into hedge contracts to provide certainty over electricity prices.

Section 8 discusses corruption risks in wholesale electricity markets. Finally, Section 9 discusses the implications of different sector structures for assessing corruption risk, particularly private sector involvement in the sector, and issues arising from sector regulation.

**Table 4.2: Corruption and Poor Governance “Hotspots”**

Hotspot	Definition	Modality	Section Reference
<p>Planning and implementing capital projects</p>	<p>Forecasting, planning, tendering, contract and project management of major capital works commissioned by or for the electricity utility (e.g. additional generation capacity, new transmission or distribution lines)</p>	<p>Corruption in capital projects generally operates by inflating the price or reducing the quality (or both) of the work, so that the public sector pays more to a private contractor than the work is worth. Officials who can influence award of construction and equipment contracts get a kickback of a percentage of the contract value.</p> <p>May be associated with cartelization or bidding rings, in which the suppliers who nominally compete for the contract in fact collude to share contracts between them, at inflated prices. This allows the contractors to add the cost of the kickback to the contract price (and possibly increase its own profits as well).</p>	<p>Section 6</p>
<p>Fuel procurement</p>	<p>Electricity utility purchasing fuel (such as gas, oil, or coal) for generation plant</p>	<p>Fuel is a major procurement item for any utility involved in electricity generation, and so deserves particular attention, as the potential gains from corruption are substantial. Fuel suppliers may pay a kickback (usually a percentage of the contract value) to officials who use their influence to award the supply contract to that supplier. To fund the kickback the supplier inflates prices, provides fuel that does not meet required specifications, or supplies less fuel than was paid for. This may be associated with cartelization or bidding rings. Officials who work in the sector may own companies that supply fuel, and use their influence and relationship to direct the contract award to their companies.</p>	<p>Section 5.1</p>

Hotspot	Definition	Modality	Section Reference
Other suppliers and contractors	Electricity utility purchasing supplies and contracting for services, such as maintenance of generation plant or distribution lines	As for procurement of fuel, above, officials who can influence award of supply contracts get a kickback of a percentage of the contract value—prices are inflated to fund the kickback, or quality specifications are not met, or lower volumes are supplied than were paid for. May be associated with cartelization or bidding rings. May also involve officials who work in the sector owning suppliers and contractors, and using their influence and relationship to direct contract award to their companies.	Section 5.2
Connections and commercial operations	Connections refers to the process by which would-be customers apply for, and receive, a connection to the electricity system. Commercial operations refers to metering, meter-reading, the issuing of bills, and collection of payment	Utility staff may demand bribes to install connections, or may be paid to turn a blind eye to illegal connections. Customers may pay meter readers to under-record their consumption, or may bribe someone in the commercial section to wipe their debts in the utility's system. Staff sent to disconnect a customer may accept payment for leaving the customer connected, while reporting back to the utility that the disconnection has been done.	Section 5.3
Human resources	The way the utility deals with its staff, including hiring, firing, setting pay and conditions, assessments and incentives, work assignments, promotions and movement between positions	Typical techniques include officials collecting payment for fictitious employees, or requiring that workers pay a superior for recruitment, promotion or just to retain a job. In some cases workers may pay to be transferred to posts that offer greater opportunities for personal enrichment through corruption.	Section 5.4
Company property	Everything the utility owns, including the money in its bank accounts, its inventory and stores, vehicles and equipment	Typical ways of misappropriating company property include: check and bank fraud by officials; theft of stores such a fuel and chemicals; and use of company equipment for private business, such as a small scale electricity generation business, or a construction business. Abuse of utility property can also include the utility providing vehicles for senior government officials and Ministers for their personal use, payment for travel for such people, or allowing utility staff and equipment to be used to maintain the houses and other property of senior managers and officials.	Section 5.5

Hotspot	Definition	Modality	Section Reference
Independent Power Producer (IPP) awards	The process of contracting with the owners of independent generation capacity to purchase electricity	Typically corruption would involve officials influencing the tender process to award electricity supply contracts to particular IPPs, either in return for a kickback, or because they have an ownership stake in the IPP. May involve renegotiation of the supply contract following a competitive award to inflate the price.	Section 7
Wholesale market operations	Wholesale electricity markets provide a venue for generators to sell electricity and retailers (or large users) to purchase electricity. They generally operate “spot” markets, that set short term prices for electricity, and in some cases determine the order in which generation plant will be used. There are usually also longer term contracts, which in many cases are negotiated between generators and offtakers, rather than traded in formal markets.	Corruption risk in wholesale electricity markets appears highest in the negotiation of hedge contracts between public distributors of electricity and private generators. These negotiations are generally not transparent, and resulting prices are often treated as confidential. Staff responsible for negotiating hedge contracts could take the opportunity to influence which generator the distribution contracts with, in exchange for a kickback. Detecting corruption in this area is made more difficult by general the lack of transparency around hedge contracts, and the complexity of determining “appropriate” hedge prices.	Section 8
Privatization or private participation transactions	The process of engaging a private firm to take on substantial responsibility for aspects of the utility’s management or operations, either through sale of a government-owned company, or through the government contracting to give a private company certain management, operational and financial responsibilities.	Private firms may pay a government official to influence the award of a private participation contract or asset sale. Contracts, licenses and government-owned power assets are valuable, but the appropriate value is difficult to specify—thus, private utilities have an opportunity to inflate their price (or acquire assets for less than they are worth), and kickback some of the value to the public official. Sometimes this is done by the private utility giving shares in the project-company to influential officials or politicians, or through consulting contracts or other forms of payment.	Section 9

Hotspot	Definition	Modality	Section Reference
Relationship with regulator or contract monitoring authority	The way in which the utility deals with the government entities which set, monitor, and enforce tariffs and service standards, or other parameters and that have an important influence on the utility's financial performance.	Regulatory decisions, in particular on resetting tariffs, can have large financial consequences for a utility. Therefore, private firms may bribe regulators to give them favorable awards. Since the regulatory decision often involves considerable judgment, detecting that the decision has been influenced in this way can be difficult. Something similar may happen in private participation contracts such as management contracts and leases, where the private firm may pay the public official responsible for managing the contract in order to get more favorable treatment.	Section 9.3

## Source List 4.1: Sector Assessment

Source	Description
<b><i>Sector Performance and Efficiency Indicators</i></b>	
<a href="#">Electricity Governance Initiative Indicator Toolkit</a>	The Electricity Governance Initiative (EGI) Toolkit presents a framework for assessing and promoting good governance. It assesses the extent to which decision making processes in the electricity sector are transparent, allow for community participation, and are accountable to the public interests. <sup>18</sup> There are also reports on the applications of the EGI Toolkit in India, Indonesia, the Philippines, and Thailand available online.
Utility financial and operational statements	Looking directly at a utility's financial and operational statements, assuming they are available, is an essential first step at analyzing performance and efficiency indicators.
<b><i>Sources on Stakeholder Complaints, Dialogue, and Media Reports</i></b>	
National Anti-Corruption Agencies complaints registers	Many countries are now developing anti-corruption action plans (see Source List 3.1 on page 26) and anti-corruption agencies. Most agencies have complaint registers where stakeholder grievances are recorded.
Pezzullo, D. (1998) " <a href="#">Journalist training to curb corruption</a> ", <i>Economic Perspectives</i> , Vol 3(9)	Makes a strong case for training journalists to better enable them to investigate and report on corruption, rather than publish rumors. <sup>19</sup>
Soreide (2006) " <a href="#">Business Corruption: Incidence, Mechanisms, and Consequences</a> "	Discusses limitations in relying on media reports. For instance, on page 26, it points out that "Whereas regular media coverage of corruption might inform on freedom of speech, the media can be biased and interested in scandalizing the problem, or it may be controlled by the state". It also points to the influence the media will have on individuals' perceptions, particularly when these perceptions are used in corruption perception indices. <sup>20</sup>
Transparency International's " <a href="#">Corruption in the News</a> "	Scans international news services for corruption related stories, and publishes links to these stories on the Internet. <sup>21</sup>
Utility or regulator complaints register	Typically, utilities and regulators will have a channel for consumers to record official complaints. This is a useful place to start looking for stakeholder complaints.
<b><i>Surveys of Corruption in the Electricity and Related Sectors</i></b>	
Anti-Corruption Resource Centre, " <a href="#">Designing a Taxpayer Baseline Survey in Uganda</a> "	This paper explores how the Uganda Revenue Authority (URA) could design and conduct a taxpayer survey to gather taxpayers' perception of the integrity of URA officials, and information on the incidence of corruption. It describes the major "causes" of corruption, a list of indicators that could suggest corruption may be taking place, and examples of tax revenue corruption assessment tools. <sup>22</sup>

Source	Description
<p>Davis, J. (2003) <b>“Corruption in Public Service Delivery: Experience from South Asia’s Water Sector”</b> <i>World Development</i></p>	<p>Pages 54 and 55 of this articles focus on a description of the methodology used to survey corruption among several public water bureaucracies in South Asia. While focused on water utilities, the survey provides a useful illustration of what practitioners can achieve from commissioned surveys of corruption.</p>
<p>Dehn, J. (2001) <b>“<a href="#">Basic Service Delivery: A Quantitative Survey Approach</a>”</b> Washington, DC: World Bank</p>	<p>This paper discusses the main features, strength, limitations, and potential uses of Quantitative Service Delivery Surveys.<sup>23</sup></p>
<p><a href="#">Enterprise Survey</a></p>	<p>The Enterprise Survey collects data on various investment climate indicators. These include indicators of corruption, such as the percentage of firms expected to give gifts to get an electricity connection. The Survey also collect general information on the electricity sector, including percentage of firms reporting electricity as a major barrier to business development, days/year of power outages reported, delays in obtaining electricity connections.<sup>24</sup></p>
<p><a href="#">Quantitative Service Delivery Survey</a></p>	<p>The Quantitative Service Delivery Survey (QSDS) determines the efficiency of service provision, and gathers information on public expenditure management reforms, service delivery reforms, reforms to improve efficiency of public expenditures, and cross-cutting sector reforms.</p> <p>This is a useful tool for examining the efficiency of public spending and incentives, and various dimensions of service delivery in provider organizations. It is also useful for quantifying the factors affecting quality of service such as incentives, accountability mechanisms, and the relationships between agents and principals.</p>
<p>Reinikka, R. and Svensson, J. (2001) <b>“<i>Explaining Leakage of Public Funds</i>”</b>, Washington, DC: The World Bank</p>	<p>This article describes using Public Expenditure Tracking Surveys (PETS) as a tool for assessing the leakage of public funds in education in Uganda. Whilst it does not deal with infrastructure services, it provides a detailed example of PETS, and how evidence of public funds leakage had a direct impact on policy.</p>
<p>Sohail, M and Cavill, S. (not dated) <b>“<i>Combating corruption in infrastructure services: A toolkit</i>”</b>, WEDC Institute</p>	<p>This document is intended to provide tools for combating corruption in infrastructure services for policy makers, professional staff of utilities, regulators of infrastructure services, and consumers of these services. It is separated into three sections with tools for users, operators, and regulators. Many of the “tools” provide examples of where it could be used, pointing to red flags for identifying corruption that a certain tool can help combat. It also provides case studies of different types of corruption practitioners can look out for. This toolkit includes tools to assist practitioners in working with communities, NGOs, media, and other outside stakeholders, and a discussion on anti-corruption agencies.</p>

Source	Description
<p>Transparency International, (2002) “<a href="#"><i>Corruption in South Asia Insights &amp; Benchmarks from Citizen Feedback Surveys in Five Countries</i></a>”;</p>	<p>This document presents the findings of a survey of corruption in five South Asian countries: Nepal, Pakistan, India, Bangladesh, and Sri Lanka. The survey covered households’ experiences of corruption in a range of sectors (health care, education, power, land administration, taxation, police and the judiciary). Section 4.3 of the report presents results for the power sector across the five countries surveyed, including details on the mode of corruption, types of sector staff involved, and cost of corruption (value of payments required).<sup>25</sup></p>
<p>UN Habitat, <a href="#"><i>The Urban Corruption Survey</i></a></p>	<p>The Urban Corruption Survey is a tool designed to help stakeholders understand the existing reality of corruption, transparency, and quality of governance in a given city. With a better understanding of the current state of corruption in a city, stakeholders will be better equipped to develop systems that encourage probity in the future. While not focused on the electricity sector, this resource does provide relevant advice on preparing corruption surveys.<sup>26</sup></p>
<p><a href="#"><i>WBI Country Diagnostic Surveys</i></a></p>	<p>The WBI’s Country Diagnostic Surveys allow countries to map and measure critical public sector governance issues. Using this information, countries can plan participatory and targeted reform. Countries with diagnostic surveys include: Benin, Bolivia, Brazil, Burundi, Colombia, Ecuador, Ghana, Guatemala, Guinea, Haiti, Honduras, Kenya, Madagascar, Malawi, Mozambique, Paraguay, Peru, Sierra Leone, and Zambia.<sup>27</sup></p>
<b>Mapping Corruption Risks</b>	
<p>Gulati, M. and Rao M.Y. “Corruption in the Electricity Sector: A Pervasive Scourge” in Campos, J. and Pradhan, S. (2007) <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i>”, Washington, DC: The World Bank</p>	<p>This chapter of <i>The Many Faces of Corruption</i> focuses on the electricity sector. Tables on pages 127 and 127 list areas in the electricity sector that are vulnerable to corruption in customer-interfacing activities, and theft of electricity.</p>
<p>Kalnins, V. (2005) “<i>Assessing Trends in Corruption and Impact of Anti-Corruption Measures</i>”, Anticorruption Network for Transition Economies</p>	<p>This paper provides a useful analysis of different types of governance indicators and includes a “wheel” for identification of corruption risks. This wheel distinguishes between five “zones” of corruption risk:</p> <ol style="list-style-type: none"> <li>1. Supervision or control function</li> <li>2. Authority to deal with financial means and property of state or local government</li> <li>3. Making of decisions, which are binding upon other persons</li> <li>4. Authority to carry out investigation and administration of punishment</li> <li>5. Authority to deal with classified information.</li> </ol>

Source	Description
<b>World Bank (2006–2007) <i>Detailed Implementation Review: India Health Sector</i>, Washington, DC: The World Bank</b>	The World Bank’s Department of Institutional Integrity carried out a Detailed Implementation Review (DIR) of projects in India’s health sector. This review searched for “red flags”, or indicators, of corruption in project implementation units, procurement agencies, suppliers, contractors and other who could divert or misuse project funds. The DIR found “significant” indicators of corruption in all five projects it investigated.
<b><i>Asset Observation</i></b>	
<a href="#">Assets disclosure by public officials</a>	Some countries have laws and rules that require public officials to declare their assets, thereby reducing the chance of corruption. Most laws prescribe: the coverage of the requirements (that is, which public officials must make asset declarations); what officials must include in the declaration; frequency and method for declaration; and punishments for breaches. The full text of asset disclosure laws from 18 countries is available on the Internet, on the World Bank’s website. <sup>28</sup>
<b>Philippine Center for Investigative Journalism’s “<i>Investigation Corruption</i>”</b>	This paper provides a sample checklist of what to look for, and the types of questions to ask, when investigating corruption. <sup>29</sup>

## 5 Detecting Corruption at the Provider Level

Corruption at the provider level can take a number of forms. The most obvious form is public utility staff simply taking company property or other things of value. This form of corruption does occur, but is also generally more obvious, and so perhaps easier to detect and deter, particularly where substantial value is misappropriated. Thus it is generally easier for staff or officials to capture the utility's resources at the point where those resources have been transferred into private hands outside the utility, than it is to steal them from the utility directly. Sector practitioners therefore need to look for various forms of provider level corruption other than direct theft.

This section of the Sourcebook discusses corruption risk in electricity sector operations. By operations we mean:

- Operations proper—generating, transmitting and distributing electricity
- Maintenance—whether of generation, transmission, or distribution assets
- Commercial functions (sometimes referred to as “retail”, or “supply” functions). These include new connections, metering, billing, and collecting money from customers.

Corruption hot spots in these areas include:

- Fuel procurement
- Procurement of other suppliers and contractors
- Commercial operations.

### 5.1 Fuel Procurement

Fuel procurement is a corruption risk in any sector with a state-owned generator or vertically integrated utility. Fuel costs typically account for around 50 percent of the total cost of generation, and over 25 percent of the final delivered cost of electricity. Thus any cost inflation from corruption in fuel procurement can have a large impact on the cost of electricity to end users, with flow on effects for businesses and the wider economy. On the other hand, if the costs of corruption in fuel procurement are not fully passed on to consumers, the electricity utility's financial performance may deteriorate substantially leading to poor services for consumers, as in Sierra Leone (see Box 11.2 on page 148).

Other situations in which fuel costs may be passed through to consumers—such as in IPP contracts with fuel-pass-through—may also be vulnerable to this type of corruption, since under these contracts a government agency remains responsible for procuring the fuel for the privately operated power plant.

There are broadly two mechanisms for corruption in fuel supply:

- Manipulation of the award of fuel supply contracts
- Theft of fuel for resale.

#### 5.1.1 Corruption in the award of fuel supply contracts

Officials or managers who can influence the award of a fuel supply contract may obtain a kickback of the percentage of the contract value from the successful supplier (see Box 5.1

for a definition of “kickback”) in exchange for awarding the contract. To fund the kickback, the fuel supplier provides fuel that is worth less than the price it charges the utility, by

- Inflating the price of the fuel
- Supplying fuel that does not meet quality specifications
- Supply a lower volume than the utility paid for.

Figure 5.1 in the next section illustrates this mechanism.

#### **Box 5.1: Defining Bribes, Kickbacks, and Bid Rigging**

For the purpose of the discussion in this section, we use the following definitions:

- “Bribes” are payments to an official or utility staff member, paid in advance in return for a promise to act in a certain way. (For example, award a supply contract to a particular firm, or install a connection within a particular timeframe)
- “Kickbacks” are similar to bribes, but are paid after the fact, for example once the supply contract has been awarded to a particular firm
- “Bid rigging” occurs where officials or managers rig or interfere with the contract award to favor a particular bidder, or bidders (usually in return for a bribe or kickback payment).

Alternatively, officials who work in the sector may own a fuel supplier, and may use their influence and relationship to ensure the utility awards the contract to their company. The supplier then uses the above strategies to misappropriate value from the utility, which the official who owns the supplier pockets. (Under this scenario, the supplier may still need to pay a bribe or kickback to other officials or utility staff, to keep them from reporting the corruption.)

This form of corruption is similar to corruption in relationships with suppliers and contractors more generally (see Section 5.2 below) and to corruption in capital projects (see Section 6).

#### **5.1.2 Misappropriation of fuel**

An alternative form of corruption involves direct theft of fuel from a public utility, typically for resale. This can involve either theft by utility staff, or theft by a third party who bribes staff members to fail to report the theft (see Box 5.2).

#### **Box 5.2: Stealing Fuel from State-Owned Power Companies in India**

In India state-owned coal companies supply coal to state-owned power companies. The coal is transported by government-owned railways. The fuel is stolen at various points along the way. For example, people climb on the train when it is going up an incline and shovel out the coal, for later collection by hand from the side of the line. There are allegations that railway staff are paid to turn a blind eye to this. At other points--whether at the mine, or in transit, coal may be taken by employees of the government companies in quite an organized way. Because the coal is weighed at various points to protect against theft, the thieves will replace the stolen coal with an equivalent amount of rock. This is much worse for the utility than if they simply took the coal. The reason for this is that on

arrival at the plant the coal is generally crushed so it is easier to handle and burns more evenly. However, when the rocks go through the crushing machine, they tend to break it. Lessons of this story include:

- Where the power plant is an integrated part of a government-owned energy industry, corruption in the upstream organizations can affect the power sector just as badly as corruption in the power sector itself
- People's ingenuity in stealing even a relatively low value fuel like coal knows no bounds. It can be hard for outsiders to conceive of the way in which this takes place
- Simple attempts to detect--and so deter--such corruption can be counterproductive, simply diverting the corrupt behaviour into other, possibly more harmful channels.

Source: Personal communication from a manager at an Indian State Electricity Board

### 5.1.3 Indicators of corruption in fuel procurement

In general, it is good practice for a power utility is to award fuel supply contracts through competitive tenders, and to retender these contracts at relatively frequent intervals—for example, on a quarterly, six-monthly or annual basis, depending on the quantity of fuel to be provided. The term of the supply contract, and whether it is fixed or indexed (against the price at a hub like Singapore or Rotterdam, for example), is generally determined in line with the regulatory regime for passing fuel costs through to consumers. The degree of competition for provision is also an important factor—for example, in some small countries such as Tonga, fuel storage facilities are limited so a single oil company has an effective monopoly on fuel provision.

In principle competitive tender processes should reveal the lowest cost supplier, and make instances of corruption easier to detect. In practice, corrupt officials may seek to manipulate the tender process.

Indicators or “red flags” of corruption in fuel procurement include the following:

- Fuel costs which are high compared to costs achieved by other purchasers of the same fuel in the same country, or in nearby countries
- Reluctance on the part of utility manager to retender the supply contract, or repeated extensions of the contract
- Utility managers insisting on the use of a particular supplier
- Unusual or unexplained delays in the procurement process (these delays may be to allow utility managers to canvas bidders to attempt to extract bribes or kickbacks)
- Utility managers responsible for fuel procurement living beyond their means
- Reports of close association or socializing between utility managers and fuel supplier staff, or reports of gifts or gratuities to utility managers
- Disqualification of firms bidding for the fuel supply contract for dubious reasons
- Unjustifiable disqualification of the bidder offering the most responsive proposal, or a recommendation to award the supply contract to a firm other than the lowest priced firm, without adequate justification

- Unreasonable pre-qualification requirements for the tender, that appear to exclude legitimate suppliers
- Bid prices drop when new bidders begin to participate in tenders
- Selection of a low priced bidder, followed by a change order increasing the price or reducing the volume of fuel to be supplied.

## 5.2 Suppliers and Contractors

Similar corruption mechanism to those described above in relation to the award of fuel supply contracts may apply in the supply of *any* goods or services to a publicly-owned utility. A recent survey of corruption in the electricity sector summed up the problems of corruption in supply and contracting as follows

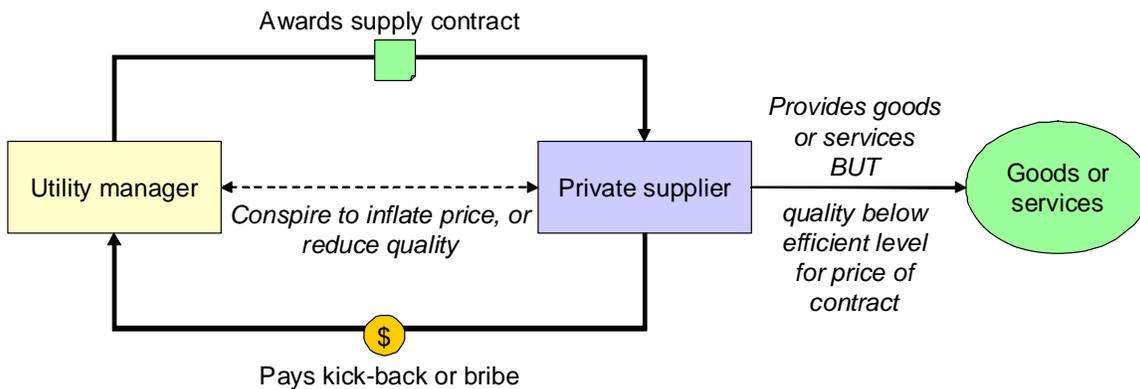
*Despite elaborate rules and procedures in most utilities, procurement of equipment, spare parts, and consumables is vulnerable to corruption for many reasons. The technology is growing more complex, and utility managers making decisions about a tender are generally one step behind private contractors and suppliers who are able to access better technical expertise. Procurement managers may deliberately keep the technical specifications and the bidding documents ambiguous, impose unrealistic schedules on the bidding process and contract execution, and use subjective or nontransparent qualification and evaluation criteria for the bidders. During contract execution, the certification of quality, delivery, and stage payments also offer opportunities for corruption.<sup>11</sup>*

Figure 5.1 illustrates this mode of corruption. A utility manager with influence over the procurement process awards the supply contract to a particular supplier, in return for a kickback. This arrangement results in inflated prices for the goods or services supplied, given the quality or volume actually provided. The utility manager may capture the resources for personal gain, or may divert the resources to benefit his or her political party.

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<sup>11</sup> 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 130

**Figure 5.1: Corruption in Procuring Suppliers and Contractors**



Box 6.4 on page 79 describes a range of practices that can indicate corruption in procurement processes. While the focus of those examples is on procuring capital works, similar problems can arise in procurement more generally.

### 5.2.1 Lack of competitive bidding and poor process

A lack of competitive bidding could indicate preferential treatment to particular suppliers. Warning signs include multiple sole sourced contracts, or multiple contracts let just below thresholds for competitive procurement. Another sign may be a few suppliers receiving most of the contracts, especially if awards appear to be “rotated” among suppliers, or if other reputable firms are being excluded.

Poor processes could be due to incompetence, or could be due to corrupt officials influencing the bidding process to favor a particular set of bidders. Examples of poor process include:

- Unexplained delays in the procurement process
- Unreasonable prequalification requirements
- Unjustifiable disqualification of the winning bidder
- Selection of the lowest bidder followed by changed orders increasing the price, or changing the specs, or reducing the quality or volume of goods and services.

A useful tool for detecting corruption in the utility’s procurement of goods and services is to conduct regular bid reviews, to look for corrupt patterns in supply contract awards (see Section 6.2.1 for more detail on this approach).

### 5.2.2 Numerous suppliers

Large numbers of suppliers also can indicate corruption in procurement. For example, many of the suppliers may not be legitimate, but may be “fronts” that provide an avenue for utility staff to transfer utility funds to themselves or others, or they may actually be controlled by a single firm.

### 5.2.3 Problems with quality

Poor quality can also be symptomatic of fraud in the award process. If a service contractor (for example a maintenance contractor) misrepresented the qualifications of the firm or its staff in bidding for the work, it may seek to prevent proper inspections, or may pay relevant officials to ensure inadequate supervision.

An equipment supplier may be contracted to provide goods, say concrete pylons, to meet agreed engineering specifications and then actually supply pylons that do not meet the specification (and are lower value). The supplier would pay a kickback to relevant utility staff. Suppliers or utility staff (or both) may also attempt to falsify quality tests to prevent detection of any disparity between the contract specifications and quality of the goods supplied.

### 5.2.4 High unit prices

If the cost of inputs is unreasonably high this may be due to corruption. The supplier may inflate unit costs and kick some or all of the extra profit back to the officials awarding the supply contract.

The best way to assess whether unit costs are high is compare them against unit costs in bids for the same products

- From other (private) firms in the same country
- In other countries in the same region.

## 5.3 Commercial Operations

The commercial function is where the electricity sector interacts with the final customer. This function involves providing connections, metering consumption, billing customers, and collecting money from them. In disaggregated sectors this may also be referred to as the “retail” or “supply” function.

Corruption is a risk in the commercial function of any publicly-owned electricity provider. Corruption in connections and commercial operations involves employees and officers of the utility extracting money from utility customers for their private benefit. Sector practitioners need to distinguish this form of corruption from commercial losses caused by customer action **without** involvement by utility staff. For example, if a customer makes an illegal connection to the system, or tampers with the meter to make it under-register, this is theft by the customer but not corruption. It only becomes corruption if the utility’s staff is knowingly involved and benefiting from the activity.

Mechanisms for corruption in the commercial function include:

- Side payments for connection
- Side payments for under-billing
- Side payments for writing-off debts or recording fictitious payments
- Side payments for not enforcing collection.

### 5.3.1 Side payments for connection

Utility staff may extract side payments for providing connections in a number of ways, including:

- Demanding bribes to install connections (or to install connections within a reasonable timeframe)
- Turning a blind eye to illegal connections in return for payment.

**Box 5.3: Payments or Gifts for Electricity Connections—Data from the Enterprise Surveys**

The World Bank’s Enterprise Surveys collect data on delays in obtaining electricity connections. Of the countries covered by the Enterprise Surveys, businesses in 72 countries have reported that they expect to give gifts or informal payments in order to get a new electricity connection. The proportion of businesses reporting this expectation range from 0.99 percent in South Africa to 75 percent in Syria.

Source: <http://www.enterprisesurveys.org>

In some cases, organized groups may provide illegal connections to users in return for payment, with collaboration from utility staff. In return, the organized group would provide a kickback of some sort to the utility staff or officers involved.

**5.3.2 Side-payments for under-billing**

Users may pay utility staff or officers to understate their consumption for billing purposes. This can include understating actual consumption, or tampering with the metering or billing system, for example:

- Paying a meter-reader to under-report metered consumption (see Box 5.4 below)
- Paying a utility employee or contractor to tamper with the meter, or in some other way cause under-registration of actual consumption
- Paying a utility employee to drop a customer from the billing system
- Where an illegal connection has been discovered, bribing a utility employee to fail to regularize that connection (so the user can continue to steal electricity from the utility).

**Box 5.4: Under-reporting Consumption**

The state-owned Baku Electricity Company in Azerbaijan reported a household payment collection rate of 12 percent in the second half of 1999, despite employing 1,000 meter readers and payment collectors. Only part of the payments collected were officially recorded, but consumers did not seem to mind, since the meter readers in return allegedly reduced their reported consumption by 50 percent. The indifference of the consumers was replaced by anger, however, when the low payment collection rate repeatedly led to electricity blackouts due to the lack of fuel at power stations.

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

A Transparency International survey of users' experience of corruption in the power sector in countries in South Asia found that meter readers and billing officers were among the sector actors most frequently involved in corruption in the electricity sector.

**Box 5.5: Corruption in the Power Sector in South Asia**

A survey of corruption in South Asian countries carried out by Transparency International found that power consumers faced endemic petty corruption. The survey found that more than 60 percent of the electricity users surveyed reported irregular connection processes, and that direct payment to office staff was the dominant irregular practice. Bribes paid to get a proper supply, and overbilling, were the most common forms of corruption, with meter readers and linesmen identified as the key facilitators by means of direct extortion (see table below). Users considered the power suppliers' lack of accountability and monopoly of service provision to be the major contributors this corruption. The table below shows the main actors identified as engaging in corruption.

**Major Actors in Power Sector Corruption**

	Bangladesh	India	Nepal	Pakistan
Meter Readers	26	23	24	36
Billing Employee	07	22	22	24
Officers	20	24	13	12
Linesmen	12	37	36	09
Repairmen	—	05	—	01
Electricians	—	07	—	03
Other	—	—	—	03

Notes: Table shows percentage of respondents reporting corruption with each type of actor. Multiple responses were permitted.

Source: Transparency International

### 5.3.3 Side payments for tampering with the accounting system

Customers may bribe utility employees to amend a customer's record in the utility's financial system by:

- Wiping any debts recorded against the customer's account
- Entering false payments.

### 5.3.4 Side payments for not enforcing collection

Staff sent to disconnect a customer may accept payment for leaving the customer connected, while reporting back to the utility that the disconnection has been done.

### 5.3.5 Detecting corruption in connections and commercial operations

Indicators of corruption risk here include:

- **Long waiting lists for connections:** If utility staff demand bribes in order to provide connections, then potential customers unable or unwilling to pay the

bribe will remain on the waiting list. A long waiting list increases the values to customers of by-passing the waiting list, and hence the willingness of the public to pay bribes

- **High levels of non-technical losses:** This may indicate that utility staff are allowing high numbers of illegal connections to persist, or may be due to persistent under-recording of users' consumption. Studies have shown that corruption in the electricity sector manifests itself in high non-technical energy losses, for example due to high levels of unauthorized connections, and low rates of revenue collection (see for example Smith, 2004)
- **Billing and collection systems that are disorganized:** Poorly organized billing and collection systems may be simply due to incompetence. However, disorganization could mask tampering with the billing system or under billing
- **Utility unable to link billing system to accounting system:** Outputs from the billing system (such as figures for kilowatt hours sold, revenue, and accounts receivable) should equal the corresponding numbers in the accounting system. Ideally, a utility's billing and accounting systems should exchange information to check that this is the case. If numbers in these two systems consistently do not match, or if the utility appears reluctant or unable to link these two critical systems, this could be an indication that corruption is taking place
- **Qualifications in audit reports as to revenue and receivables figures:** for example to reflect unexplained discrepancies between the financial statements and the utility's billing system
- **High levels of receivables:** High levels of receivables may indicate that utility staff are failing to enforce collection, possibly in return for bribes
- **Low collection ratios:** Collection ratios are the ratio of actual revenue collected to total sales billed. If the ratio is low, this indicates a significant failure by the utility staff to collect bills. This could be due to corrupt activity, such as writing off debts in the billing system, recording false payments, or failure to enforce collection, in exchange for payment from customers (see Smith, 2004).

Box 5.6 below explains the importance of organized billing and collection systems for electricity utilities, and how this can be corrupted.

#### **Box 5.6: Theft of Electricity in State-Owned Power Utilities**

State-owned power utilities that suffer from power theft are generally slack in measuring and billing for electricity. Generally, power from the generating plant is measured and delivered to the high-voltage transmission network at the grid substation. This power is then stepped down at distribution substations and released into distribution feeders. It is often at the distribution substations that the first major theft of power takes place. All substations should have meters to measure the flows of energy into the feeders, but these meters are often erratic and unreliable. Replacement of defective meters is deliberately delayed, with utility officials citing various problems such as lack of finances, need for "bulk purchase" to obtain competitive rates, and elaborate tendering procedures. There is anecdotal evidence in some countries that utility employees and their union leaders

steadfastly resist efforts to put meters on feeders.

Measuring the energy received and sold is the starting point in curbing power theft. Not many utilities have reliable reporting and monitoring systems, however. As a result, there is usually no way of reconciling the energy received against energy billed against the amount paid by customers.

**Example from India: Who Wants Accountability?**

One distribution utility in India took a series of steps to tighten procedures and plug the leakage of revenue. Metering was given high priority on this agenda. Utility staff enthusiastically supported the purchase of about 400,000 meters to be installed in consumer premises. The process of drawing up specifications, issue of tender notices in newspapers, choice of turnkey contractors, and visits abroad to inspect the meters before they were shipped was completed promptly. But when it came to buying about 600 meters to be installed at the feeders, troubles started. Unions of linemen and section officers saw the step as a move to victimize their members by making them specifically responsible for the energy received and sold. They argued that accountability should be ensured across the utility at all levels and not confined to a few low-level employees. It took the utility another two years and a change in the management to get all the feeders metered.

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 127–128

Table 5.1 lists some of the main ways in which people steal energy from electricity systems, while Table 5.2 provides some areas vulnerable to corruption in commercial operations.

**Table 5.1: Vulnerability to Corruption: Theft of Fuel and Electricity**

Activities	Mode of Theft	Possible Beneficiaries of Corruption
Generation	<ul style="list-style-type: none"> <li>▪ Theft of fuel camouflaged as auxiliary consumption in thermal generation plant</li> <li>▪ Unauthorized use of fuel or electricity in the homes of generation plant staff</li> </ul>	<ul style="list-style-type: none"> <li>▪ Staff of the generation plant</li> <li>▪ Labor union leaders</li> </ul>
Transmission	<ul style="list-style-type: none"> <li>▪ Tapping of overhead transmission lines by large consumers</li> <li>▪ Defective meters</li> </ul>	<ul style="list-style-type: none"> <li>▪ Large consumers</li> <li>▪ Politicians</li> <li>▪ Bureaucrats</li> <li>▪ Utility managers</li> <li>▪ Transmission line staff</li> </ul>
Distribution	<ul style="list-style-type: none"> <li>▪ Tapping of distribution lines</li> <li>▪ Unauthorized supply of energy</li> <li>▪ Organized resistance to paying for electricity</li> <li>▪ Non-billing and under-billing of energy</li> <li>▪ Tampering with or bypassing meters</li> <li>▪ Billing the consumer at a lower rate</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consumers</li> <li>▪ Distribution utility staff</li> <li>▪ Consumers</li> <li>▪ Utility managers</li> <li>▪ Distribution utility staff</li> <li>▪ Labor union leaders</li> <li>▪ Politicians</li> <li>▪ Groups of consumers acting in concert (farmers, industries, residential areas, and the like)</li> <li>▪ Local mafia with political protection</li> <li>▪ Consumers</li> <li>▪ Billing staff</li> <li>▪ Consumers</li> <li>▪ Linemen</li> <li>▪ Consumers</li> <li>▪ Billing staff</li> <li>▪ Utility managers</li> </ul>

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 127

**Table 5.2: Vulnerability to Corruption: Customer-Interfacing Activities**

Activities	Areas vulnerable to corruption	Red flags
New connection, additional load	<ul style="list-style-type: none"> <li>▪ Information on procedure not clear or not available</li> <li>▪ Harassment by utility staff.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Undue delays in giving connections</li> <li>▪ Lack of periodic data reconciliation between new connections, meter reading book, and consumer ledger.</li> </ul>
Meter reading	<ul style="list-style-type: none"> <li>▪ Poor quality of meters</li> <li>▪ Irregular meter reading.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Tampered-with meters</li> <li>▪ Meters not tested according to norms</li> <li>▪ Wide variations in consumption by similarly placed consumers</li> <li>▪ High electricity losses in some feeder lines</li> <li>▪ High incidence of broken meter seals.</li> </ul>
Payment and correction of bill	<ul style="list-style-type: none"> <li>▪ Errors in bill</li> <li>▪ Collusion between utility staff and consumer</li> <li>▪ Billing based on factors other than actual use (such as average consumption or load factor).</li> </ul>	<ul style="list-style-type: none"> <li>▪ High incidence of billing disputes or bill corrections</li> <li>▪ Fall in collection while consumption remains the same.</li> </ul>
Repair service, fuse call	<ul style="list-style-type: none"> <li>▪ Supply interruptions caused by accidents</li> <li>▪ Routine maintenance work.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Poor maintenance of complaints record</li> <li>▪ Undue delay in attending to complaints</li> <li>▪ Frequent burning of transformers.</li> </ul>
Meter installation, replacement of defective meters	<ul style="list-style-type: none"> <li>▪ Inadequate protection devices for meters</li> <li>▪ Delay in issuing and installing meters.</li> </ul>	<ul style="list-style-type: none"> <li>▪ High volume of complaints regarding quality of service</li> <li>▪ High incidence of burnt meters of large consumers (who may be charged a flat rate for consumption during the period the meter is not replaced).</li> </ul>
Disconnection	<ul style="list-style-type: none"> <li>▪ Nonpayment of bill</li> <li>▪ Delay in receipt of bill</li> <li>▪ Pilferage by consumer.</li> </ul>	<ul style="list-style-type: none"> <li>▪ High level of receivables</li> <li>▪ Frequency and amount of default in bill payment.</li> </ul>
Reconnection	<ul style="list-style-type: none"> <li>▪ Delay even after rectification of cause of disconnection.</li> </ul>	<ul style="list-style-type: none"> <li>▪ High incidence of deviation from the normative standards of service.</li> </ul>

## 5.4 Human Resources

“Human resources” encapsulates the way the utility deals with its staff. This includes processes for hiring, firing, setting and amending pay and conditions, undertaking performance assessments, providing incentives for staff, assigning work, deciding on promotions and movement between different positions within the utility. Essentially this comes down to processes for setting the level of effort or value employees are to provide to the utility, and the salary and other benefits the employees receive in return. (Other benefits can include the level of seniority, or level of managerial discretion individual employees have, which in turn can offer them opportunities to benefit from corrupt activity).

Staff salaries are a source of value within a utility, and can be diverted for personal financial gain, or for financial gain of family members or political supporters. This form of corruption is difficult to detect as

- Utility management tends to treat salaries as a bulk expense item
- Management often has high discretion over recruitment.

These two factors make it difficult for outside observers to review recruitment methods, or to see whether at the individual level the value of salary payments is appropriate given visible outputs. That is, is the amount and value of work an individual does for the utility worth what that person is paid?

Typical avenues for corruption in human resources include:

- **Ghost workers:** These are people—real or fictitious—who are on the payroll and receive a salary, but do not actually do any work for the utility. Utility or union officials collect the salary notionally paid to the “ghost”
- **Stand-ins:** Using a stand-in is similar to the ghost worker method. In this case, someone who is on the utility’s payroll does not himself do any work for the utility, but pays someone else to work in their stead. The “owner” of the job makes a margin on the difference between what he is paid and what he pays the stand-in
- **Job-selling:** This is similar to a stand-in—someone who is on the utility’s payroll sells their job to someone else. The “purchaser” of the job does the actual work and receives a salary, but pays some of that salary back to the “seller” of the job
- **Payment for hiring or promotion:** Managers in the utility with the right to hire, promote, or fire people (or with influence over these decisions) demand payments from staff in return for using this influence. The payment could be in return for recruitment, for a promotion, or simply for keeping the staff member on. This may be a one-off payment, or may be arranged as a continuing contribution of a percentage of that staff member’s weekly or monthly pay check. A variant of this form of corruption is a staff member paying relevant managers to be transferred

to a post that offers that individual greater opportunities to engage in corruption themselves

- **Staff used for non-utility business:** Senior utility officials may use utility staff to work on that official's own personal or business projects, rather than on utility business. This is equivalent to diverting other company resources such as inventory or money for that official's personal benefit.

**Box 5.7: The Market for Transfers**

Davis (2003) found a sophisticated market for transfers in a number of South Asian water sector utilities, which has developed from a common policy of transferring professional staff every two to three years. Staff pay to secure a transfer to a desirable post. In most cases the payment was made to politicians or unelected local leaders, who would use their influence with senior officials (and possibly share part of the fee) to secure the transfer. Very few staff in Davis's study reported paying their superiors within the utility for a transfer.

Davis found that staff had sophisticated methods for estimating the value of a particular post (its extra-salary revenue generating potential), and therefore the maximum amount they were prepared to pay to secure the transfer. She found that "in state-level agencies where the range of possible transfers is comparatively larger, a 'plum' post (e.g., to a construction division within a desirable geographic location) costs the equivalent of four months' salary. The price of a position in construction or procurement located in a less desirable part of the state was 2.5 months' salary."

As well as cash payments, staff provide favors for in exchange for influence. Davis reports that "one mid-level engineer described his authorizing water supply connections to a group of households on unregistered land (where public services are prohibited by law) in exchange for an assembly member's assistance with a transfer request. Another said that he provided several tankers of water without charge to a wedding celebration for a local leader, who in turn helped the staff member keep his post for a period beyond the typical three-year transfer threshold. Interviews with staff suggest that this form of exchange is more common than direct payments to influential individuals for their assistance with transfers." While this example is from the water sector, issues are similar in state-owned electricity companies.

Source: Davis, Jennifer "Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector" *World Development* Vol. 32, No. 1, 2004. See page 60.

#### 5.4.1 Detecting corruption in human resources

Sector practitioners can use several methods to assess corruption risk in the area of human resources. These include:

- Benchmarking against other similar utilities
- Reviewing available utility specific information
- Externally auditing or reviewing staff positions.

## **Benchmarking**

Benchmarking human resources expenditure measures and staff efficiency measures against comparable utilities in similar countries can help to highlight any significant problems. Indicators to benchmark include:

- Number of staff per connection
- Proportion of utility costs spent on salaries.

If the utility performs poorly on either of these measures relative to other similar utilities (that is if both measures are relatively high), this can simply be due to inefficiency. However, it *may* be an indication of human resources corruption. For example, widespread use of ghost workers would increase the number of positions on the payroll for a given level of output, thus inflating both of the above measures. Similarly, if senior officials regularly divert staff time away from utility business to their own personal or business projects, this will reduce the utility's output for a given number of staff/salary spend.

## **Utility specific information**

Sector practitioners can review actual or anecdotal information on the utility's human resources function, to look for any evidence of corrupt activity.

A good starting place is to review the utility's records of current personnel. If these records appear to contain irregularities, or appear to be out of date or poorly maintained then this is a "red flag" that corruption may be occurring. Poor record keeping *may* be a deliberate ploy to hide human resources corruption (or may reflect incompetence).

Complaints from staff or union leaders can be another useful source of information. For example, if utility managers regularly demand payments from staff to retain their job or get promoted, staff may seek to alert outside observers to this practice. Staff complaints could be gathered through surveys, or from some other complaints system. Any system for reporting staff complaints must include protections from retribution by utility officers who are accused of corrupt activity. This may include procedures for maintaining staff anonymity. In using this information sector practitioners must also be alert to the possibility of false complaints.

## **Independent audits or reviews**

If warranted, sector practitioners can take proactive steps to detect human resources corruption, with cooperation from the utility. Options include:

- A survey of staff at work in all sites of the utility, to confirm whether:
  - All the jobs on the payroll are filled by actual people
  - All the jobs on the payroll are being done by the individual recorded on the payroll, and
  - Jobs are actually being done in line with specification.
- Introducing a requirement that all staff pick up their pay checks in person, and that staff must present identification before receiving their pay.

## 5.5 Company Property and Money

Corruption in the use of company property and money differs from the other types of provider level corruption. In contrast to the various schemes described in Sections 5.1 to 5.4, here the individual simply steals property or other things of value directly from the utility. Under the definition of corruption this Sourcebook uses (see Section 2.1), misappropriation of property and money from a **public** utility for private gain is a form of corruption. The same action in a **private** utility would not fall within the definition of corruption, as no public funds are involved, although it would still clearly be theft and therefore illegal.

For the purposes of this discussion, corruption involving company property and money covers misappropriation of any asset owned by the utility, including the money in the utility's bank accounts, the utility's inventory and stores, or its vehicles and equipment. Misappropriation might include any of the following:

- Fraud or embezzlement that takes money out of the utility's bank accounts
- Direct theft of property, for example theft of company stores that are then resold, diesel taken out of trucks and used for personal benefit, and so on
- Use of utility vehicles for personal travel
- Provision of utility vehicles to Ministers or other senior officials outside the utility for their personal or business use
- Business travel by utility staff to expensive resorts, or for private purposes
- Travel by Ministers or other senior officials, at the utility's expense, where the travel is not necessary to the business of the utility.

Utility resources are valuable, and staff managers often have discretion over how these resources are used. It may be difficult for management to distinguish between legitimate and illegitimate resource use. It is also difficult for outsiders to detect whether the level of resources used by the utility is appropriate for the utility's level of output.

In some countries, utilities or state-owned enterprises have a tradition of supporting Ministers and senior government officials. This would include some of the items listed above, such as the utility providing a car for the Minister's use, or paying for travel for the Minister that is not related to the business of the utility. This may also extend to other areas, such as the utility providing stores and personnel to maintain the houses and other property of the Minister or other senior officials. Sector practitioners need to be sensitive to this type of tradition. In countries where this type of practice is (or has been) common, control of utility property and expenditure will warrant extra attention in assessing corruption risk.

### 5.5.1 Detecting corruption in stores, travel, and use of company property

A well managed utility will have internal controls in place to prevent misappropriation of company property. The absence of such procedures is a "red flag" for corruption in that it may reflect management's desire to cover up misappropriation of company property. Indicators of corruption in the use of company property and money include:

- Poor control of bank account authorities, check-books and credit cards
- Lack of a proper inventory control system
- Stores records are not reconciled with accounts, and not audited

- Lack of a proper asset register
- Company vehicles not accounted for
- Unexplained shortages of supplies.

If the utility is running a proper accounting system, that system should include an inventory module that records inventory by location, by unit, and by value. The system should provide a record of the number units of each item that should be in stores at any point in time (say, the number of meters, the volume of fuel, and so on). Good practice would involve regular audits to compare the numbers in the inventory system against a physical stock-take of the utility's stores.

**Source List 5.1: Detecting Corruption at the Provider Level**

Source	Description
<p><b>Campos, J.E. (2007) “<a href="#">A Practical Approach to Combating Corruption: The Value Chain Methodology</a>” <i>The Governance Brief</i>, ADB, Issue 16.</b></p>	<p>This paper describes a value chain methodology for detecting and combating corruption. The paper highlights the prevalence of corruption in procurement, and discusses the three most common manifestations of corruption here: kickback schemes, front companies, and bid rigging.<sup>30</sup></p>
<p><b>Kalnins, V. (2005) “<i>Assessing Trends in Corruption and Impact of Anti-Corruption Measures</i>”, the Anti-Corruption Network for Transition Economies, OECD</b></p>	<p>This paper discusses various methods for detecting and measuring corruption at both a national and provider level. It includes a discussion of various “red flags” of corruption at the provider level, and methods for identifying corruption, including tests for fraud and audits (financial, general performance, or specifically focused on ethics or corruption), and a framework for risk assessment. The document includes a number of useful real world examples.</p>
<p><b>Kenny, C. (2008) “<i>Is There an Anticorruption Agenda in Utilities?</i>”</b></p>	<p>Emphasizes the difficulty in measuring not just corruption, but the extent of damage done by corruption, petty or grand. To that extent, the “new” anticorruption agenda provides renewed justification for the “old” focus on institutions at the level of utilities management.</p>
<p><b>Sohail, M and Cavill, S. (not dated) “<i>Combating corruption in infrastructure services: A tool-kit</i>”, WEDC Institute</b></p>	<p>This document provides tools for combating corruption in infrastructure services for policy makers, professional staff of utilities, regulators of infrastructure services, and consumers of these services. It is separated into three sections with tools for users, operators, and regulators. This toolkit identifies various “red flags” of corruption, and matches them with “tools” or “interventions” to reduce that particular type of corruption. It also provides case studies of different types of corruption practitioners can look out for.</p> <p>The toolkit includes tools to assist utilities put in place policies and procedures to combat corruption.</p>

## 6 Planning and Implementing Capital Projects

Section 5 identified a number of “hotspots” where corruption may occur in the process of planning and implementing capital projects. This section provides information on how to assess whether corruption is taking place in planning, procuring, and implementing capital projects.

Broadly, corruption or governance problems in relation to capital projects in the electricity sector can be grouped into:

- Problems in **planning** capital projects, including selecting which projects to implement, and evaluating their feasibility and financial viability
- Problems in **implementing** and **procuring** capital projects, and
- Problems in **supervising** project implementation.

Following a brief overview of corruption in capital projects below, the remainder of the section discusses corruption risk in these three areas.

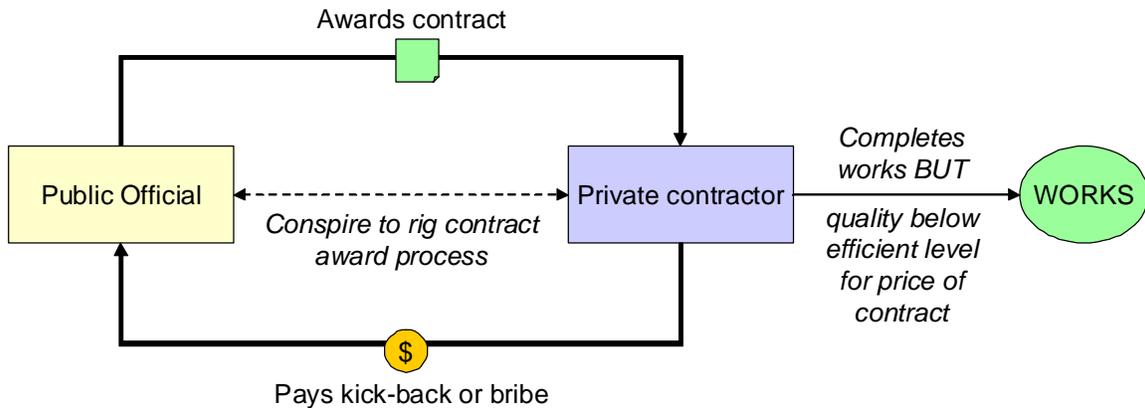
Where this Sourcebook refers to capital projects, it means major capital works commissioned by or for the electricity utility. Capital works provide substantial opportunities for corruption, due largely to the significant amounts of value involved. Indeed, the construction sector is consistently ranked as one of the most corrupt sectors internationally.<sup>12</sup> (Box 6.1 discusses the Construction Sector Transparency Initiative (CoST), which aims to address this problem.)

Corruption in capital projects generally operates by **inflating the price** or **reducing the quality** (or both) of the work, so that the public sector pays more to a private contractor than the work is worth. Thus, value is transferred from the public to the private contractor. The private contractor then may kick back some or all of that value to the public officials who control the contract award (see Figure 6.1).

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<sup>12</sup> See Kenny, Charles “Construction, Corruption, and Developing Countries”, World Bank Policy Research Working Paper 4271, June 2007.

**Figure 6.1: Corruption in Capital Projects**

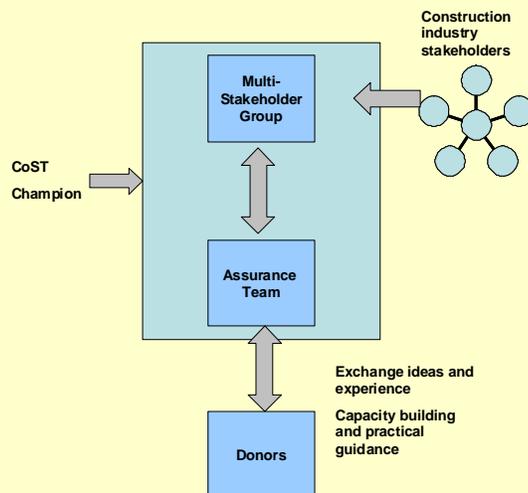


It is not the capital project itself that generates the corruption. Rather, the capital project offers the opportunity to **capture resources** from taxpayers, donors, or customers (who ultimately pay for the works). By passing those resources out of the public domain the captured resources can then be diverted to sector decision-makers.

**Box 6.1: Construction Sector Transparency Initiative (CoST)**

DFID and the World Bank are supporting a pilot to support and promote transparency and probity in the construction sector. CoST is a two year pilot program in at least four countries (four already selected are Tanzania, Zambia, the Philippines, and the UK). The CoST initiative aims to increase transparency in the construction sector through three main channels:

- Regular disclosure and publication of selected project information related to all projects above a certain threshold (determined in each country)
- Quality assurance and analysis/interpretation of the disclosed technical information to ensure comparability and clarity to a non-technical audience, and
- Multi-stakeholder consultations, led by government, to scrutinize disclosed information



While CoST acknowledges the importance of transparency through all stages of construction project cycle, its initial focus will be the period between contract award and completion. At the end of the two year pilot phase, the CoST forum will evaluate the pilots and the lessons learned in each to further develop methods for

increasing transparency in the construction sector.

Source: World Bank (2008) Construction Survey Transparency Initiative, Washington, DC: The World Bank

The electricity sector essentially comprises three distinct levels: generation, transmission, and distribution. These three levels are often handled by different entities. This clearly affects that way in which sector participants plan for, procure, and implement capital projects.

For the purposes of this Sourcebook, we distinguish between three stylized sector structures:

- **Vertically integrated**—a single (usually public) utility owns and operates all the generation, transmission and distribution. This is a traditional model for small countries, such as Malawi and Samoa. The vertically integrated utility may buy some of its power from independent power providers (see Section 7 on page 82)
- **National transmission and generation, regional distribution**—one entity is responsible for planning and implementing all generation and transmission projects. This entity then supplies electricity to a number of local distributors, who deliver the electricity to end users. This model is common in larger countries (for example Thailand, or the Philippines before the reforms introduced by the Electric Power Industry Restructuring Act)
- **Vertically disaggregated**—several generating companies supply electricity. There is a single national transmission company, while distribution is handled by a number of regional or local distribution companies. This model tends to be used in larger countries and those that have been more ambitious in sector reform, such as the UK, Australia, and the Philippines following the reforms introduced by the Electric Power Industry Restructuring Act.

## 6.1 Corruption Risk in Planning

This section covers the following material:

- Implications of sector structure for planning
- Modes of corruption in planning capital projects
- Detecting corruption in capital projects
- Corruption at the policy level.

### 6.1.1 Implications of sector structure for planning

The location of corruption risk in planning capital projects will vary depending on the sector structure, in particular:

- The extent to which the sector is vertically integrated, or disaggregated
- The extent of private sector involvement.

Regardless of whether it is responsible for the whole sector, or only a segment, a well functioning electricity provider should have a logical plan setting out how it can meet demand for electricity. In checking corruption risk, therefore, practitioners should look hard at the planning processes of any publicly-owned electricity provider.

The type of planning will vary according to sector structure. In general, the more disaggregated the sector is, the more disaggregated (and less coordinated) planning for capital investment will be. Figure 6.2 illustrates this. For each of the three general models described above the figure shows where responsibility lies for planning capital investments, at each level of the sector. Each shaded area represents a single entity.

**Figure 6.2: Responsibility for Planning under Different Sector Structures**

	<b>Model 1: Vertically integrated sector</b>	<b>Model 2: Regional distribution utilities</b>	<b>Model 3: Vertical disaggregation</b>
<b>Generation</b>			
<b>Transmission</b>			
<b>Distribution</b>			

Note: Each shaded area represents a distinct power sector entity

### **Planning under a vertically integrated model**

As Figure 6.2 shows, under a vertically integrated model, responsibility for planning at all levels of the sub-sectors falls within one organization. To meet sector demand, this company must plan and implement system expansion in generation, transmission and distribution. With all capital projects for the sector under the control of a public utility, all projects afford opportunities for corruption for those with decision-making power in the utility.

A vertically integrated utility should have an integrated expansion plan showing the generation plants that can supply the necessary energy and capacity at least cost, the transmission upgrades and extensions necessary to carry the power to the load, and the distribution upgrades and extensions to serve growing demand and connect new areas. Where the utility is considering purchasing power from IPPs, the capacity to be procured from IPPs should be consistent with this least cost expansion plan (see Section 7 for more discussion on IPPs).

### **Planning under a disaggregated model**

Where separate utilities are responsible for different parts of the system, there will not be a central generation plan. Rather, generation companies should invest in new capacity in response to market signals, including their own views of likely future demand and supply. Even under a disaggregated model, transmission and distribution still need to be planned, so any provider responsible for transmission and distribution should have a well justified least cost plan for expanding the network to serve growing demand.

## The implications of private sector involvement

Where capital expenditure is no longer wholly under public sector control, corruption risk in planning will, in general, be correspondingly lower. Private utilities also need to plan well, and implement those plans, to be efficient. However, if a private utility fails to plan and implement capital projects well, this will simply result in lower profits for the owner (assuming a well-designed regulatory regime). Thus private operators have strong incentives to ensure their capital planning processes are least cost.

In some regulatory systems there is a risk that, if private operators fail to plan well, the costs of poor planning and implementation will ultimately fall on customers. While this is a public policy concern, it is better addressed by improving the regulatory system than by treating it as a corruption issue.

Private sector involvement in the electricity sector may give rise to different modes of corruption, depending on the form of private participation. Possible scenarios include the following:

- **A public utility awards power purchasing contracts to IPPs**—The procurement of contracts with IPPs often involves different organizations, procedures, and dynamics from the procurement of generation construction contracts. Thus corruption risks in relation to IPP contracts differ from procuring and implementing a capital project (see Section 7 of this Sourcebook)
- **A private company builds generation to sell into competitive power market**—In general the private company will have strong incentives, and the ability, to prevent corruption in the award and implementation of the construction contract. However, other potential sources of corruption arise, such as site permitting and environmental consents, or hedge contracts with publicly owned distribution companies (Section 8 discusses corruption in these areas)
- **A private utility is responsible for distribution investment**—in this case, corruption in capital investment is not likely. However, the related issue of related party contracting arises.

### 6.1.2 Modes of corruption in planning capital projects

Corruption in planning capital projects can manifest itself in a variety of ways. Three modes of corruption are particularly common:

- Overbuilding
- Crisis responses
- Technology bias.

#### Overbuilding

In simple terms, large construction contracts:

- Involve larger sums of money, and so increase the resources available for misappropriation
- Are decided on or supervised by more senior people, thus giving those people the opportunity to benefit from corruption (which they would not get from smaller value contracts).

As a result, senior public officials who are able to influence decisions on capital expenditure may bias decisions towards large, expensive projects, to create corruption opportunities for themselves. The result is too much capacity—excess generation capacity that is not required to meet demand, plus associated investment in transmission assets. This form of corruption usually diverts resources from maintenance and rehabilitation of existing assets, which may deteriorate and start to fail as a result.

### **Crisis responses**

Crises tend to justify exceptions to normal procurement processes. Where an electricity shortage threatens, public officials can justifiably fast-track projects. Fast-tracking often involves deviating from the least cost plan (since speed, not cost, becomes the dominant factor) and negotiating directly with suppliers.

Box 10.2 provides an example from the Philippines of how a power crisis may have facilitated corruption, leading to eventual overbuilding. In that case the government passed a law enabling it to fast track the negotiation of IPP contracts. On the basis of this law, the government signed a number of IPP contracts, agreeing to take on considerable project risks, even after the power crisis was considered to be over. The eventual result was extensive over-supply, and allegations of corruption in the government administration that signed the IPP deals.

### **Inappropriate project choice**

Inappropriate project choice can involve:

- Selecting excessively expensive projects, for the reasons outlined above. That is, more expensive projects maximize the resources transferred from the government or the utility to the private contractor, and so maximize the opportunity for misappropriation. Larger projects may also enable more senior members of the sector to get involved
- Selecting projects that favor a particular technology, fuel source or plant location that is not least cost. This may be an attempt to steer project work toward a particular firm. For example, a firm specializing in a particular technology may bribe sector officials, or agree to pay a kickback, in return for a construction contract. As a result decision makers may favor that technology over the alternatives, even where the alternatives would cost less or better serve the population.

Box 10.3 illustrates the potential impact of inappropriate project choice. In Nairobi, Kenya, drought is leading to 12-hour electricity blackouts, which are severely hampering day to day life and business operation. Diplomatic observers query why Kenya relies on hydroelectric power when it has always been susceptible to drought, suggesting that government officials may have selected inappropriate projects, in return for lucrative business contracts.

### **6.1.3 Corruption in policy formulation**

Similar issues may occur at the sector policy level. A normal planning process is to set out policy, and then form a plan that implements those objectives. Thus if corruption influences the policy, the resulting plan may be inefficient or corrupt. In this way, preferences and corruption opportunities may be seeded through the sector policy. Inexplicable elements of policy therefore become a warning signal for corruption.

For example, if the policy states that grid-connected solar photovoltaics are required for environmental or energy security reasons, planners may feel obliged to include such projects in the plan, even if they believe that environmental and security objectives can be achieved at lower cost with other technologies. Such policy mandates may favor certain suppliers.

#### 6.1.4 Corruption risk in capital planning

Regardless of who is responsible for planning, and which segment (or segments) of the sector the plan will cover, a good project planning process for the electricity sector involves three basic steps:<sup>13</sup>

- **Forecasting demand for electricity services**—Demand forecasts should be based on sound projections based on valid growth assumptions, and data on customer preferences and willingness to pay
- **Developing a least-cost plan to meet that demand over the medium term**—To arrive at such a plan it is necessary to consider a range of options, and analyze the options against clear criteria to select the projects that meet demand at least cost
- **Implementing the plan**—As a general rule, all capital projects (new generation plant, transmission lines, and distribution extensions) that are in the plan should be built. No other projects should be implemented.

Deviations from this simple process are, at best, an indication of poor management. At worst, deviations may indicate corruption. In scanning for corruption risk, sector practitioners should look for three main types of deviation:

- Lack of a coherent plan at all. Not having a plan may be simply incompetence, or may be a result of officials' preferences for flexibility, or for crisis responses, both of which facilitate corruption
- Having a plan that is not least cost, such as one that erroneously:
  - Favors new build projects over rehabilitation and systems loss reduction, or
  - Favors a particular technology, fuel source or plant location that is not least cost.
- Having a least cost-plan and then not implementing it. Failure to implement a well-considered plan may indicate an implicit preference for lurching from crisis to crisis, or for maintaining flexibility to procure projects that suit particular firms—both avenues for corruption.

Typical indicators of project selection that is not least cost (and may be corrupt) would include:

- High technical losses. Where sector decision-makers are focused on opportunities to build new plants, this will tend to divert resources away from maintaining existing plants (for example transmission and distribution lines). This may cause existing assets to deteriorate, contributing to losses. While this type of decision imbalance is often due to inefficiency, it may also suggest corruption

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<sup>13</sup> For more material on good practice in investment planning, see section Section 10.1.

- Asset rehabilitation cycles that are not in line with the economic lives of the assets. Failure to maintain assets suggests either incompetence or possibly a corrupt bias towards new projects. Alternatively, in some cases, sector staff might schedule maintenance more often than strictly necessary, to create opportunities for corruption in awarding maintenance contracts
- Tender documents that focus on inputs rather than outputs. If the tender for a new project focuses on inputs, or gives detailed technical specifications for the project, this will tend to bias the process in favor of particular technologies and/or contractors. As a general rule, the more the project tender documents specify inputs rather than describing the desired output from the project, the greater the opportunity for decision makers to bias the process in favor of a particular contractor.

Box 6.2 summarizes vulnerable areas at each stage of capital projects development, and “red flags” of corruption (see below).

<b>Box 6.2: Vulnerability to Corruption—Different Stages of Project Development</b>		
<p>Mohinder Gulati and M.Y. Rao identify three stages of project development that are vulnerable to corruption: project formulation; project implementation; and project operation. The table below sets out corruption areas vulnerable to corruption and “red flags” of corruption at each stage.</p>		
<b>Activity</b>	<b>Areas vulnerable to corruption</b>	<b>Red flags</b>
Project formulation	Technoeconomic studies to establish feasibility and viability	A perfunctory study (or no study at all)
	Surveys and site investigations	Omitting surveys and site investigations or leaving them to be done later by the contractor
	Estimation of costs and implementation schedules	Poor estimation of costs
	Statutory and other clearances	Vagueness about procedure for obtaining clearances
	Land acquisition for the plant	Not allocating sufficient resources for paying compensation to project-affected persons.
	Rights-of-way for transmission lines	
	Rehabilitation of persons affected by the project.	
Project implementation	Procedure for selection of contractor	Procedure not spelled out in bid documents
	Type of contract (works, labor, turnkey) and contract documents	Lack of specificity in the contracts
	Monitoring and supervision of contractor’s work	Failure to designate supervisors with clear responsibilities
	Purchase and supply of plant,	Not allocating sufficient funds for

	<p>machinery, and materials</p> <p>Stage payments to contractors</p> <p>Completion and commissioning.</p>	<p>payment, leading to disputes and claims of escalation of costs.</p>
Project operation	<p>Procedures in bid documents</p> <p>Funds for payment.</p>	<p>Failure to specify the performance parameters and methodology of verification</p> <p>Failure to spell out clear procedures for routine as well as emergency purchases</p> <p>Requiring multiple certifications (thus diluting individual responsibility) before payments can be made</p> <p>Absence of codified and transparent procedures</p> <p>Failure to specify responsibilities of individual officers to ensure compliance with license conditions.</p>
<p>Source: Gulati, Mohinder and M.Y. Rao. "Corruption in the Electricity Sector: A Pervasive Scourge" in <i>The Many Faces of Corruption</i></p>		

## 6.2 Corruption Risk in Implementing Capital Projects

Corruption in capital projects often occurs in procurement process, but can also flow through to the implementation and supervision of the resulting construction contract. In assessing the risk of corruption in project implementation, sector practitioners can look at a number of indicators. These include:

- The procurement process
- Unit costs
- Supervision and quality of the works
- Frequency of contract variations.

### 6.2.1 Procurement

For the purpose of this section procurement is defined as the process of:

- Selecting the contractor (or contractors) who will undertake the capital project in question
- Negotiating the contract, including the price, quality standards and technical specifications for the works, and deadlines for completion, and
- Paying for the capital equipment.

Procurement is where the most money changes hands, and where. Procurement decisions give discretion to officials at various stages. Box 6.3 below describes types of corruption in capital projects in South Asia.

**Box 6.3: Corruption in Capital Project in South Asia**

In the South Asian power sector, cash transactions, some paid overseas in foreign currency, appear to be a common manifestation of corruption at the managerial level. Corruption appears more common in unsolicited bids, supplier's credits, and crash program-type procurement initiatives where there is little or no competition among suppliers, the definition of what is being procured is negotiable, and reputable firms may be reluctant to participate. Even where competitive bidding processes are used, side payments may be made to ensure favorable bid specifications, terms, and conditions, and favorable bid evaluations or endorsements. Side payments may also facilitate the issuance of work orders, the opening of letters of credit, and all stages of project implementation carried out by contractors and consultants, such as processing payments and obtaining permits.

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

Box 6.4 identifies various indicators that would raise a "red flag" for corruption in the procurement of capital projects. (Sector practitioners may already have identified some of these "red flags" in the sector scan for corruption, see Section 4).

As Box 6.4 shows, unusual patterns in bids for capital projects can be an indicator of corruption in the procurement process. Patterns that are "red flags" for corruption include repeated packages just below certain procurement thresholds, similar bids submitted by losing bidders, and bid awards being "revolved" among a small number of bidders.

Practitioners can detect corruption in procurement by reviewing bids and looking for unusual patterns that may indicate corrupt behavior. Once a number of bids have been run, and the government has collected information on the offers and winning bid, practitioners can review this information, looking for unusual patterns such as those identified above. If practitioners are untrained in spotting such unusual patterns, they can use a procurement specialist or forensic accountant to assist in bid analysis, or assign this job to a probity auditor. Such analysis should be repeated on a regular basis, and used to feed-back in to future procurement design. Section 10.2 provides further information on this process.

**Box 6.4: Red Flags in Procurement of Capital Projects**

**Red flags for bribes and kickback**

- Multiple sole source awards
- Project officials insisting on the use of certain local subcontractors or suppliers
- Unusual and/or unexplained delays in the procurement process. This may be to allow secret late bids, or so the decision makers can canvas bidders in an attempt to extract bribes
- Project officials accept or excuse poor quality work, and then want to re-hire the same provider
- Project employees living beyond their means
- Reports of close association or socializing between contractors and project officials and/or

reports of gifts and gratuities to project officials

- Disqualification of bidders for dubious reasons and/or selection of high priced bidders without sufficient justification
- Bid specifications that favor a particular contractor and/or unreasonable pre-qualification requirements
- Unreasonably short time frame for bid proposals to be submitted
- Clusters of contract awards just below thresholds for competitive procurement
- Contract awards to firms or consultants that appear unqualified
- Procurement competitions with few bidders, with losing bidders then becoming subcontractors on the project

#### **Red flags for bid rigging**

- Bid specifications that are too narrow or too vague
- Unreasonable pre-qualification requirements, that appear to exclude legitimate firms
- Unreasonably short time frame for bid proposal preparation and submission (it may be that a preferred bidder was given advance notice of the tender)
- Unjustifiable disqualification of winning bidder
- Recommendation for award to firm other than the lowest priced bidder without adequate justification
- Selection of low bidder followed by a change order increasing price or decreasing scope
- Repeated requests to extend expired contracts rather than re-bidding
- Multiple contract awards just under the bidding threshold
- The same few bidders are the only participants, bidders are active in local trade or contractor associations
- A pattern of rotating bid winners, with losing bidders often becoming subcontractors for the winner
- Bid documentation showing possible collusion among bidders, such as the same fax numbers on bidding documents, and so on
- Use of unwarranted bid protects or other means to exclude new bidders
- Bid prices drop when new bidders begin to participate in tenders

#### **Red flags for fraud**

- Complaints from users or beneficiaries
- Delays or refusals to allow inspections. Contractor or project officials insist on choosing sites for inspections
- Repeated failed quality and operational tests
- Poor quality of civil works that require frequent or early replacement
- Services provided by unknown or unqualified vendors. Unknown vendors may be facades to enable unqualified individuals to bid for the work. This approach has been used by government officials, so that they can award the work to their own company
- Inadequate supervision and site visitation inspections

Source: World Bank Water Sector Anti-Corruption Workshop, 8 January 2008

### **6.2.2 High unit costs**

If the cost of project inputs and equipment are high compared to other similar countries, this may be due to corruption. The contractor may inflate the costs of inputs as a way of pushing up the total project value, and kick some or all of the extra profit back to the officials awarding the contract. One way to assess whether unit costs are inordinately high is to compare them against unit costs in bids for similar works:

- From other utilities in the same country
- In tender processes in other similar countries.

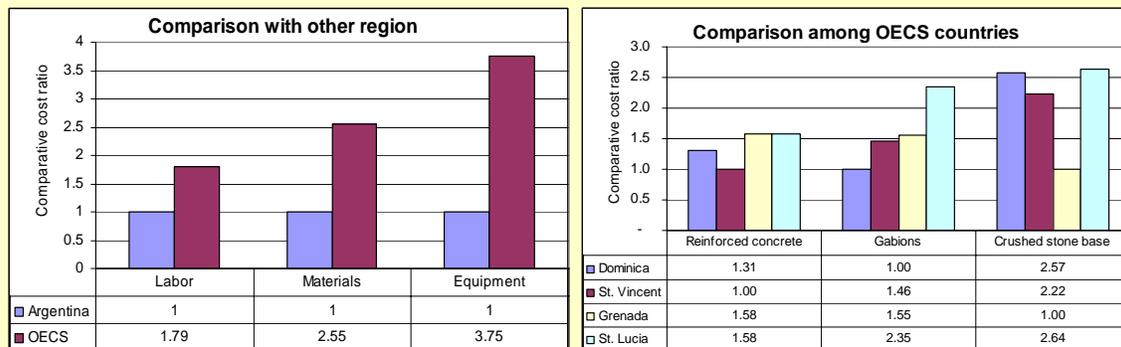
In the electricity sector, the most appropriate indicators to benchmark will vary depending on the type of capital project:

- **Baseload generation projects**—the all-in costs of energy supplied from units of a similar size will often be the best measure. If energy costs (\$/MWh) appear unjustifiably high compared to generation plant in other similar countries, then this may be due to corruption. Capital cost per megawatt benchmarked against the cost of similar technology elsewhere will also be a good indicator, and one that it easier to calculate
- **Peaking plant**—benchmarking the unit costs of peaking plant is a bit more complicated. Part of the benefit provided by the plant is the security for users in having the plant available should it be needed to meet peaks in demand (even when the plant is not actually running). One approach to assessing the relative cost of peaking plant is to benchmark the cost of the generating capacity, and the cost of power, for other generation plant with similar planned load factors
- **Transmission and distribution**—practitioners can assess unit construction costs, compared to utilities in similar regions or countries. For example this would involve benchmarking the utility’s cost per kilometer for a circuit of a particular voltage (this analysis would need to adjust for factors such as geography which could impact installed costs). In assessing the cost of transmission and distribution investments, practitioners should look further than just the wires, at the cost of other elements of the network, for example the cost per unit of transformer capacity compared to other utilities.

Box 6.5 shows how revealing a benchmarking analysis of this sort can be.

**Box 6.5: Explaining High Basic Input Costs in Eastern Caribbean Infrastructure**

An unpublished World Bank study compared infrastructure basic input costs between Organization of East Caribbean States (OECS) and Argentina, and among OECS countries. This comparison is presented in the charts below.



*A senior infrastructure practitioner from the region gave the following opinions on the reasons for these cost differences, in an interview with Castalia. The information below is the opinion of the interviewee, and not the opinion of Castalia or the World Bank*

A lot of corruption, where it exists, appears to be motivated by the need to properly fund political parties.

Wealthy political parties can campaign for election of their leaders in future elections. Contractors are sometimes awarded public works contracts for sums that are significantly above the estimated costs. The excess profits are then transferred by the contractor to the political party as a 'donation'. Evaluation processes for competitive bidding are often not as transparent as they appear to be, and in some countries, not only politicians are to blame, also senior public servants are sometimes complicit in the process. Senior officials, most of whom are political appointees, are often involved in manipulating the bid evaluation process to make an award to the contractor predefined by their political leader. Of course, it would be very difficult, if not impossible, to prove this statement to the standard required in a court of law.

In cases where funding is sought from Official Development Assistance (ODA), there is a distinct tendency among OECS government agencies to have contracts awarded to local contractors. To this end, large contracts, which are commonly beyond the capacity of the largest local contractors to finance, are often broken up into smaller contracts. Smaller contracts however, lead to several problems:

- Smaller contracts tend to be prepared using weaker and less formal contracts than those used by ODAs for larger contracts. As a result, these contracts can lead to complex and difficult disputes
- Breaking up the contracts often results in severe coordination problems such as in the case of road works, when separate contracts are awarded for drainage works and for preparation, surfacing or sidewalk construction. Coordinating three or four contractors in the planning and execution of the works can be a daunting task for the limited staff with limited experience. Delays and claims for extension of time usually result in significant cost overruns
- Breaking up contracts also gives rise to increased costs resulting from the loss of economies of scale in the contractor's preliminaries.

Generally, there is reluctance among officials to accept the procurement rules mandated by ODAs as governments often see this as a restriction on their ability to defend their interests, as described above. Hence, the recent trend among regional governments to approach private financial institutions which have virtually no procurement rules. Private financial institutions charge significantly higher interest rates and additional commission, and require sovereign guarantees.

Labor productivity in the OECS is very poor compared to say Jamaica. Relatively high wages and salaries (in US\$ terms) are paid out to employees for very little work compared to that produced by their Jamaican counterparts. This is true when comparing both public and private sector performance, and is probably due to relatively stronger trade union activity in the public sector in the OECS. This also sets the tone for low private sector labor productivity, which in the opinion of the interviewee, is not perceptibly better than public sector productivity.

Frequent shortages of critical materials which are imported into the OECS, such as cement, have also been known to delay the completion of public works and in turn increase costs.

Source: Castalia interview with senior utility practitioner in the OECS

### **6.2.3 Inadequate supervision, poor quality of works**

As discussed at the beginning of this section, corruption in capital works can take the form of a reduction in the quality of the work, for the same contract price. Indications that this type of corruption is occurring can include:

- Delays or refusals by the contractor (or project officials) in allowing site inspections
- The contractor or project officials insisting on choosing the sites for inspections, or only allowing inspections at specific sites.

Poor supervision or quality can also be symptomatic of fraud in the bidding process. If the contractor won the tender on the basis of a fraudulent bid, it may seek to prevent proper site inspections, or may pay relevant officials to ensure inadequate supervision.

Post-procurement fraud may also arise, such as:

- Falsification of inspection certificates

- Falsification of quality tests.

The combination of fraud in the bidding process, and inadequate project supervision, is likely to result in works that are not up to standard—for example generation plant that is unreliable and must be frequently taken off-line for maintenance.

Good practice requires multiple inspections of multiple sites (where the work involves more than one site). The utility or government should not sign off on completion of any project without (preferably independent) inspection of all project sites, to confirm that the works meet project specifications.

#### **6.2.4 Frequent contract variations**

The initial process of procurement and contract negotiation is usually considerably more transparent and includes more checks on accountability than subsequent contract variations. As a result, contract variations provide an opportunity for those managing the project to vary the contract in way that reduces value for money for the utility while increasing profits for the contractor, some of which can be kicked back to the utility staff involved.

Post contract disputes, caused by poor contract preparation, can be an avenue to corruption. Sector practitioners should therefore treat disputes of this nature as a “red flag” that corruption may be taking place. Mohinder Gulati and M.Y. Rao discuss this as follows:

*Even where competitive bidding processes are used, broad (rather than detailed) specifications and manifestly impractical terms and conditions leave scope for post-tender negotiations with bidders and consequent bribes. A combination of managerial venality and incompetence may be seen in a wide range of activities. Contracts awarded without obtaining legal possession or right-of-way over the land, without getting necessary environmental or other clearances, and without furnishing clear data giving topographical details and soil conditions open up a rich field for litigation with the contractor. Sheer incompetence may partly explain such poorly drawn contracts, but given the powerful links between the contractors and the utility managers, there is a strong possibility that these loopholes are deliberate. Eventual settlement of these disputes, irrespective of whether they are through court intervention, arbitration, or mutual discussion, invariably favors the contractor at the expense of the utility.<sup>14</sup>*

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<sup>14</sup> Gulati, Mohinder and M.Y. Rao (2006) “Corruption in the Electricity Sector: A Pervasive Scourge” in *The Many Faces of Corruption*, at page 130.

## Source List 6.1: Planning and Implementing Capital Projects

Source	Description
<p><b>Kenny, C. (2007)</b>  <b><i>“Construction, Corruption, and Developing Countries”</i></b>,            World Bank Policy Research Working Paper 4271</p>	<p>Construction is consistently ranked as one of the most corrupt sectors. This paper recommends that plans to combat corruption should begin at the level of planning and budgeting. It also recommends output based and community-driven approaches as tools for reducing corruption, in combination with a range of other interventions (like publishing procurement documents, oversight by the community, and physical audits).</p>
<p><b>Campos, J.E. “A Practical Approach to Combating Corruption: The Value Chain Methodology”</b> <a href="#"><i>The Governance Brief</i></a>, ADB, Issue 16, 2007.</p>	<p>This paper describes a value chain methodology for detecting and combating corruption. The paper highlights the prevalence of corruption in procurement, and discusses the three most common manifestations of corruption here: kickback schemes, front companies, and bid rigging.<sup>31</sup></p>
<p><b>Kramer, W. (2007)</b>  <b><i>“Corruption and Fraud in International Aid Projects”</i></b> U4 Brief</p>	<p>Highlights the many similarities of how fraud is taking places, but cautions not to underestimate the ingenuity of those who skim or steal project funds to come up with new avenues for enrichment. It provides a good description of corruption and fraud schemes encountered during investigations and consulting engagements, primarily in Africa and Central, South and East Asia, on behalf of major international aid organizations over the last 10 years.</p>
<p><b>Gulati, Mohinder and M.Y. Rao (2006)</b>  <b>“Corruption in the Electricity Sector: A Pervasive Scourge”</b> in <i>The Many Faces of Corruption</i></p>	<p>This chapter of <i>The Many Faces of Corruption</i> identifies three stages of project development that are vulnerable to corruption: project formulation; project implementation; and project operation.</p>
<p><b>Nahkooda, S. et al (2007)</b>  <b><a href="#"><i>“Empowering People: A Governance Analysis of Electricity”</i></a></b>, World Resources Institute</p>	<p>This report is based on an Electricity Governance Initiative assessment in Asia. It argues that greater attention should be paid to institutions, processes, and actors that determine how decisions are made. One of the principle findings is that “in general, very little information about the basis for [electricity policy and planning] is shared with the public” and provides recommendations (in Section 5) on how this can be improved.<sup>32</sup></p>

## 7 Detecting Corruption Risk with Independent Power Producers

Even in countries where the electricity sector is predominantly publicly operated, the private sector may supply generation capacity through “Power Purchase Agreements”. Under this scenario, a publicly owned electricity utility contracts with a private firm to provide an agreed amount of generation capacity. Private firms providing generation capacity under these arrangements are referred to as independent power producers (IPPs).<sup>15</sup>

The sections below discuss corruption risks in IPP procurement, and some indicators sector practitioners can use to detect corruption in IPP arrangements.

### 7.1 Corruption Risks in Independent Power Producer Awards

Procurement of IPP contracts often involves different organizations, procedures and dynamics from the procurement of generation construction contracts. Thus corruption risks in relation to IPP contracts may differ from the risks in procuring and implementing a capital project (discussed in the previous section).

Awarding an electricity supply contract to an IPP is an alternative to the utility building its own generation capacity. In principle, as a private sector firm is responsible for the designing, constructing, and operating the generation plant, we might expect IPP contracts to provide generation capacity at a lower cost than the public utility would be able to.

It is often the case that increased private sector involvement reduces corruption and increases efficiency. However, IPP awards have been a major avenue for corruption and other governance failures in the electricity sectors in a number of countries.<sup>16</sup> For example Karekezi and Kimani state that in Africa:

*The advent of independent power producers (IPPs) has also generated controversy with major allegations of corruption and collusion between Government officials and private sector companies involved in IPP projects. IPP associated controversies have been particularly acute in Kenya, Tanzania, Uganda and Zimbabwe<sup>17</sup>*

Box 7.1 summarizes some of the problems with an IPP in Tanzania.

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<sup>15</sup> For a further description of IPPs, and how they work, please see: Besant-Jones, J. (2006) “Reforming power markets in developing countries: What have we learned?” Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

<sup>16</sup> This discussion focuses on privately owned IPPs, not government owned IPPs (as in Vietnam).

<sup>17</sup> Karekezi, S and Kimani, J (2002) “Status of power sector reform in Africa: Impact on the poor” *Energy Policy* 30, 923-945. IPP contracts have given rise to allegations of corruption in a number of other countries, such as India, Indonesia, and the Philippines (see Box 7.2).

**Box 7.1: Cost of Poor Investment Decisions and Less than Transparent Procurement**

The Government of Tanzania and the Tanzania Electricity Supply Company entered into contractual agreements with Independent Power Tanzania Limited (IPTL) of Malaysia for the supply of 100 megawatts of power over a 20-year period. This transaction, directly negotiated during a power crisis, was contested by some government officials and by the international donor community and other interested stakeholders, on the grounds that it was the wrong technology (heavy fuel oil instead of indigenous gas), that it was not part of the least-cost generation plan, that it was not procured on a transparent and competitive basis, and that the power was not needed. The government ultimately submitted the case to arbitration. Under the final arbitral ruling, the project costs were reduced by about 18 percent. Even so, the costs remain well above international comparators. In the arbitration hearings the Government alleged that the contract award had been corrupt, but failed to produce evidence to satisfy the Tribunal of this. The government has not subsequently pursued the corruption investigation. However, legal disputes between the IPTL and the government continue.

Source: Juliet Pumpuni, World Bank Institute Global Programs, cited in Gulati, Mohinder and M.Y. Rao. "Corruption in the Electricity Sector: A Pervasive Scourge" in *The Many Faces of Corruption* and Castalia experience

IPP contracts can become an avenue of corruption for a number of reasons:

- IPPs are high value projects. IPPs usually combine the value of a contract to construct a power plant with a fuel contract over the economic life of the plant, plus other operating costs. The resulting contract values are large. Such large contracts can attract aggressive private sector interest, and thus provide substantial opportunities for public officials to misappropriate some of the value
- IPPs can be flexible. Governments often introduce them as a response to crisis situations. As the previous section discussed, crisis responses are a common mechanism for corruption. In a crisis public officials can justify deviating from existing least-cost investment plans, and from normal procurement rules. This creates an opportunity for corruption
- IPPs are still quite new. International experience in this area is still developing. As a result there is little clear guidance for sector officials as to correct procurement methods for IPP contracts
- Partly due to the lack of clear guidance on appropriate procurement processes, IPP contracts may be concluded as a commercial negotiation, without public scrutiny (and the deterrent to corruption that such scrutiny provides)<sup>18</sup>
- IPP procurement often occurs at a higher political level than other power sector procurement (such as procurement of a construction contract for a power station) and this may change the dynamics of the transaction. In particular, this may provide additional protection for corrupt behavior in some cases.

Box 7.2 discusses examples of questionable practices in IPP procurement.

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<sup>18</sup> Besant-Jones, John "Reforming power markets in developing countries: What have we learned?", Energy and Mining Sector Board Discussion Paper Paper No. 19, World Bank, September 2006, page 18

### **Box 7.2: Review of Questionable Practices in Independent Power Producer Procurement**

Many IPP contracts are arranged through a memorandum of understanding with the electricity generators rather than through a transparent and open competitive bidding process. Governments and state-owned utilities sometimes advance the most specious reasons for failing to engage in competitive bidding, holding, for example, that the procedure has no relevance where a private sector investor chooses to set up a project using its own resources; that it would be counterproductive to insist on competitive bidding when the foreign consortium involved is composed of internationally reputed companies; that competitive bids require costly and time-consuming preparatory work; and that the expert knowledge and experience required for evaluating bids as well as for identifying and allocating risks is not available. It is also true that the wide variety of fuels and the rapidly changing technologies available for electricity generation make the decision-making process difficult for many developing countries that may not have the expertise to assess the full implications of a plant using a particular fuel or technology.

Large contracts, signed with IPPs in an environment of weak watchdog institutions, offer attractive opportunities to influential decision makers for making illegal gains. The negotiations are held in secret, and minutes are not kept at all or are very sketchy. The costs to the country and the illegal gains for those entering into the contracts are enormous. The following examples illustrate the size of the amounts involved:

- A PPA was negotiated for an Enron project (Dabhol Power Company) in the state of Maharashtra, India. After the agreement drew widespread protests and litigation, it was renegotiated by the successor government, which was headed by a different political party that was highly critical of the original PPA (Energy Review Committee 2001). During litigation over the project, the High Court of the state of Maharashtra observed that the state committee involved in the renegotiation “forgot all about competitive bidding and transparency.” The annual cost of this project to the state was computed at Rs60 billion (US\$1.3 billion). A settlement was reached among Indian financial institutions, offshore lenders, and foreign investors, and claims of foreign investors settled. The plant was taken over by a consortium of government-owned companies, but it continues to remain idle because of the high cost of generation
- In Indonesia, most IPPs seemingly provided the family and friends of politicians with “loan-financed” shares in the company. The loans were to be repaid with dividends from the shares, but the shares were essentially gifts, camouflaged to escape anticorruption laws.<sup>(1)</sup>

Often, government uses a crisis situation to justify contracting for excess capacity or taking on more risk in terms of technology, fuel, financing terms, or capacity payments:

- The Philippines signed 42 IPP contracts between 1990 and 1994, much in excess of demand. The contracts resulted in financial burdens for the utility and the government, which had to make payments for unused capacity
- The Gujarat Electricity Board in India was forced to continue making capacity payments for naphtha-fired private generators even after increasing naphtha prices rendered these plants uneconomical.

The above examples could reflect risky or bad decisions arising from a lack of capacity in the governments and their agencies to negotiate complex contracts. However, lack of transparency, the governments’ frequent unwillingness to use competent advisers to help in negotiations, and the failure to disseminate information to the public do little to undermine allegations of corruption.

Notes: (1) Bayliss and Hall Bayliss, Kate, and David Hall. 2000. "Independent Power Producers: A Review of the Issues." Public Services International Research Unit, University of Greenwich, United Kingdom (November).

Source: Gulati, Mohinder and M.Y. Rao. "Corruption in the Electricity Sector: A Pervasive Scourge" in *The Many Faces of Corruption*

## **7.2 Detecting Corruption in Independent Power Producer Awards**

Sector practitioners can look at the following indicators to assess the risk of corruption in IPPs:

- Unit costs
- Procurement processes
- Tender documents that mandate particular fuel or technology choices
- Energy conversion contracts.

### **7.2.1 Unit costs**

Unit costs are probably the best indicator of corruption in IPP awards. The measure to look at is the all-in-cost of power from the generation project, compared to other projects with similar fuel supply and load factors.

### **7.2.2 Procurement process**

The quality of the procurement process is another good indicator of corruption in IPP awards. A poor process could simply indicate a lack of capacity or inexperience with this type of arrangement, or could be a deliberate strategy to create corruption opportunities. Section 6.2.1 describes a number of indicators of corruption in procurement processes. Also refer to Section 10.2 for a description of good practice in project procurement.

### **7.2.3 Tender documents that mandate particular fuel or technology choices**

Tender documents for an IPP award may specify the particular fuel or generation technology required. This can be a way for public officials to direct the IPP award to a preferred supplier (see Section 6.2.1).

However, some care is needed here. In many cases specificity on plant design may be appropriate. Public utilities should implement IPPs in line with an existing least cost expansion plan (see Section 6.2). Where this is the case, the existing plan will already have identified the most efficient technical option for the block of generation capacity in question. The IPP contract may simply be a way of expediting, and improving the efficiency of, a plant that a public-sector least cost expansion plan indicated should be built.

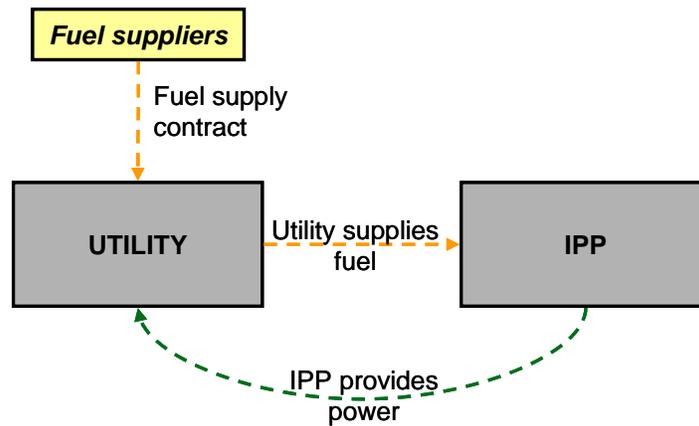
Clearly, where the public utility does not have an investment plan, tender documents that favor particular fuels or technologies may indicate corruption.

### **7.2.4 Energy conversion contracts**

Energy conversion contracts are similar to power purchase agreements. In this form of contract the fuel contract element is separated out—the public utility agrees to supply fuel to a private firm. The firm “converts” the fuel into electricity, which it then sells back to the public utility (see Figure 7.1).

While energy conversion contracts are sometimes genuinely justified for other reasons, they can be a way to retain corruption opportunities in fuel supply in the public sector. As Section 5.1 discussed, fuel procurement can be a highly lucrative corruption opportunity for public utility officials. Under a power purchase agreement, these officials would lose the benefit of kickbacks on fuel procurement—instead the corruption opportunity would be diverted to the Minister in charge of awarding the power purchase agreement. Thus utility officials have incentives to lobby for an energy conversion agreement instead.

**Figure 7.1: Simple Illustration of an Energy Conversion Contract**



The table below provides a list of sources that discuss experience with IPP awards, and the potential for corruption in this area.

**Source List 7.1: Sources on Corruption in Independent Power Producer Awards**

Source	Description
Besant-Jones, J. (2006) <i>“Reforming power markets in developing countries: What have we learned?”</i> Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank	This report provides a comprehensive review of the experience of electricity sector reform in developing countries. In particular, Section 4 discusses governance issues in the electricity sector, and among other things highlights corruption arising from weak governance arrangements as one of the drivers of reform in some countries.

Source	Description
<p>The Energy Group (not dated) <a href="#"><i>“Best Practices Guide: Implementing Power Sector Reform”</i></a>; United States Agency for International Development</p>	<p>Chapter 2 of this <i>Best Practices Guide: Implementing Power Sector Reform</i> concentrates on independent power production and competitive bidding. It outlines the goals for IPP programs, the risks and rewards associated with IPPs, what a power purchase agreement should look like, and how the competitive bidding process should work.<sup>33</sup></p>
<p>Gulati, M. and Rao M.Y. (2007) <a href="#"><i>“Corruption in the Electricity Sector: A Pervasive Scourge”</i></a> in <i>The Many Faces of Corruption</i>, Washington, DC: The World Bank</p>	<p>This chapter of <i>The Many Faces of Corruption</i> focuses on corruption in the electricity sector. It discusses corruption in power purchase agreements stating that “Contracts with IPPs ... are very complex. Such contracts quickly become the domain of a few experts; dissemination of relevant information and its use by the public become difficult, creating new opportunities of grand corruption by the decision maker”. The chapter signals potential sources of corruption (such as IPPs inflating supply prices for utilities, non-competitive bidding process, and illegal gains on large IPPs by influential decision makers). It provides examples of corruption in IPPs from India, Indonesia, and the Philippines.<sup>34</sup></p>
<p>Karekezi, S. and Kimani, J. (2002) <i>“Status of power sector reform in Africa: Impact on the poor”</i> <i>Energy Policy</i> 30, 923–945</p>	<p>This paper focuses on eastern and southern Africa, and analyzes the challenges and prospects of ongoing and planned power sector reforms (with a special emphasis on the implications for the poor). It concludes that the major challenges are poor performance at the transmission and distribution end, lack of electrification of the poor, and limited local private sector participation.</p>
<p>Sharma et al (2004) <i>“Electricity reform in the Philippines”</i> <i>Energy Policy</i> 32, pp. 1487–1497</p>	<p>This paper provides a case study of electricity reforms in the Philippines.</p>
<p>Woodhouse, E. (2005) <i>The IPP Experience in the Philippines, Program on Energy and Sustainable Development</i>, Stanford University, Working Paper No 37</p>	<p>An example from the Philippines of how a power crisis facilitated corruption, leading to eventual overbuilding. In this case, the government passed a law enabling it to fast track the negotiation of IPP contracts.</p>

## 8 Detecting Corruption Risk in Wholesale Market Operations

A number of developing countries have reformed their electricity markets to introduce competition in the generation of electricity. The objectives of electricity market reforms are generally to obtain benefits from competition—improved efficiency and reduced electricity costs—as well as to strengthen governance in the sector.<sup>19</sup> Sectors with competitive wholesale electricity markets give rise to additional or different corruption “hot spots”.<sup>20</sup>

This section:

- Provides a brief overview of the elements of competitive electricity markets
- Identifies areas in which corruption risk arises.

This section focuses on corruption risk in electricity markets that have been restructured to introduce elements of competition. It does not consider the process of power sector reform (and the implications of corruption for that process, see Box 8.1). “Single-buyer” models are considered first, followed by fully competitive wholesale markets.

### Box 8.1: Corruption as One Barrier to Electricity Market Liberalization

Corruption and poor governance in emerging economies can hinder the introduction of private investment and competition in electricity markets. For example in a number of transition economies uncertain property rights, and country reputations for poor governance and corruption, have made the private sector reluctant to invest. This has forced governments to rethink extensive programs to privatize state-owned power utilities. For example Holburn and Spiller note that

*Legal uncertainties about the status of contracts and private property in the Ukraine, as well as strong concerns over bureaucratic corruption, have undermined the incentives for entrants to invest in new, more efficient generation capacity, to write long-term contracts and to engage in the market.*

Source: Holburn and Spiller, P (2002) “Institutional or structural: Lessons from international electricity sector reforms” in “The Economics of Contracts: Theories and Applications” Brosseau and Glachant (eds), Cambridge University Press, 2002

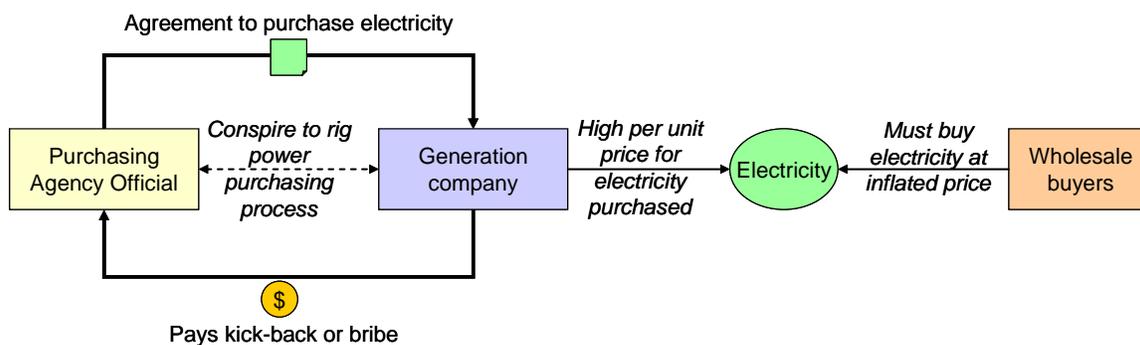
### 8.1 Single Buyers

In the single-buyer model, a single entity or “purchasing agency” is mandated to purchase electricity from competing generators and resell this to distribution utilities. The single buyer may be the national generation company, the transmission company, or some other independent entity. Single buyers enter power purchase agreements with independent power providers, so the corruption risks will generally be those discussed in Section 7. The impact of this on the power market is as illustrated in Figure 8.1.

<sup>19</sup> Besant-Jones, John “Reforming power markets in developing countries: What have we learned?”, Energy and Mining Sector Board Discussion Paper, Paper No. 19, World Bank, September 2006 (page 60).

<sup>20</sup> While wholesale electricity markets are not the norm in developing countries, many countries do have these in operation. For instance, in Besant Jones (2006) paper, of power market reforms analyzed in developing countries, 9 out of 20 had developed wholesale electricity markets.

**Figure 8.1: Corruption in a Single-Buyer Market Model**



Alternatively, purchasing agency officials could do similar deals with purchasers of electricity, by agreeing to sell blocks of electricity at below cost prices, in return for kickback payments.<sup>21</sup> In this scenario, the cost of the corrupt deal falls to the publicly owned purchasing agency, which is left out of pocket.

## 8.2 Competitive Wholesale Markets

In a competitive wholesale market, multiple generation companies compete to generate and sell power, to multiple buyers (distributors or large end users). In these situations, the sector needs institutions to co-ordinate functions such as network operation, real time load balancing and dispatch of generation load to meet demand, and keeping the frequency of delivered electricity within acceptable limits.<sup>22</sup> Competitive electricity markets usually have:

- A market operator, which is responsible for the co-ordination functions described in the above paragraph, and for dispatch of generation capacity to meet demand, and
- A wholesale electricity spot market institution to facilitate market transactions, generally through some form of competitive bidding process, and support the market operator (for example by providing least-cost generation schedules, to determine the order in which plant will be despatched).

In practice the above institutions may be combined as a single entity.

If market participants—generators bidding into the market, the market operator, and distribution companies buying from the market—are all privately owned and unsubsidized then, by definition, we will not find any corruption.<sup>23</sup> In practice this “fully privatized” scenario is uncommon. The greater the public sector’s role in the wholesale electricity market, the greater the possibilities for corruption. This section considers the potential corruption risks in the following areas:

<sup>21</sup> In this context “below cost” means a lower than the price the purchasing agency pays for power.

<sup>22</sup> In a vertically integrated sector structure, these functions are all undertaken internally by the vertically integrated power utility.

<sup>23</sup> See the definition of corruption used in this Sourcebook, at Section 2.1. While we may not find corruption, we may still find collusion to the detriment of the consumers.

- Failure of the market to work as planned
- Market operations
- Permitting of private generation plants
- The market for longer term “hedge” contracts.

### 8.2.1 Failure of the market to work as planned

Wholesale markets are highly complex. When they are introduced in inappropriate circumstances they may fail. The resulting chaos is a breeding ground for corruption. This happened in the Ukraine, as Box 8.2 describes.

#### **Box 8.2: Cash Flow Problems in Ukraine’s Wholesale Electricity Market**

In Ukraine during the late 1990s, the collapse of funds administration in the wholesale electricity market was the main indicator of distress in the market. These funds were supposed to be allocated to generators and service providers in proportion to their revenues due from the selling price and volume of units of electricity sold. In practice, these providers were not paid in full—and in fact they often received a very low proportion of their due amounts, because the revenues collected from users fell far short of their bills.

An algorithm was therefore developed for allocating the available cash in proportion to relative sales by providers. In practice, however, the Ministry of Fuel and Energy (Minenergo) intervened by directing scarce funds to particular providers according to short-term expediency in substantially different ways than the algorithm. It claimed a number of technical reasons for its actions, such as emergencies and the need to pay coal miners, which led to numerous changes to the algorithm.

According to the market rules, distributors that have not fully paid for the electricity purchased from the wholesale market should have been cut off from future electricity deliveries. But Minenergo insisted that delinquent distributors continue to receive wholesale power, and it tried to address the problem by reaching agreements with central and local governments on customers that could be disconnected without political repercussions. Consequently, some of the distributors took advantage of the non-enforcement of payment obligations and withheld from the market the cash collected from their customers.

The proliferation of barter and other noncash payment modes (mutual cancellation of payment obligations, promissory notes, and tax write-offs) further compromised the application of the market rules. Non-cash transactions offered significant tax advantages because cash received in an enterprise’s bank account was often confiscated by the tax service. Because non-cash payments had limited fungibility, the market operator could only allocate cash payments.

Total collections soon fell to below 80 percent, of which the share of non-cash transactions in the power industry surpassed 80 percent (the economy wide average was about 40 percent) and cash payments dropped to below 10 percent (non-payments accounted for the balance). In essence, only the general population paid cash for electricity. Generators and their fuel suppliers received little cash, and even the cash allocated to the distributors under the algorithm and Minenergo’s interventions did not cover the costs of their distribution networks and customer services.

Note: Box 13.2 on page 202 describes Ukraine’s electricity sector reform.

Source: Besant-Jones (2006) “*Reforming Power Markets in Developing Countries: What Have We Learned?*” Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

California power crisis is another example of a wholesale market that generated chaos by failing to work as planned, although whether this led to corruption is debatable, as Box 8.4 in the next section describes.

### 8.2.2 Corruption Risks in Wholesale Electricity Market Operations

In wholesale electricity markets large amounts of money change hands, potentially creating significant opportunities for corrupt deals. Where a wholesale electricity market exists, we need to consider whether the market itself creates a “hot spot” for corruption.

Box 8.3 describes the Chinese experience with competition in the wholesale power market. The Chinese experiment is probably not indicative of actual corruption (since there was no financial settlement) but indicates how corruption *could* enter a competitive power market if a government body was able to bend the rules in favor of some market participants and against others.

In most developing country markets generators themselves are powerful and well-resourced, and the generators disadvantaged by corrupt behaviour would generally be able to stop it quickly, through their influence or threat of legal action.

#### **Box 8.3: China’s Experiment with Competition in the Wholesale Power Market**

Competition in the electricity industry first started in 1999 on a limited experimental basis in provinces where supply outstripped demand. Six Chinese provinces were chosen for this experiment. The market followed the old England and Wales power pool model. Each province selected its 12 largest independent power producers to compete for a part of the provincial demand. The bulk of the power demand continued to be met by allocated dispatch according to central plans. Producers were free to decide each day whether to compete or not. Simulation of the competition began in July 2000, with no actual financial settlement.

The experiment was short-lived in all six provinces for two main reasons. The first reason was the absorption of surplus generating supply when power demand picked up in 2001 because of unanticipated economic growth. The second reason was the central government’s influence on who could compete in favor of incumbent integrated power utilities.

Source: Zhang, 2003 in Besant-Jones, J. (2006) “*Reforming Power Markets in Developing Countries: What Have We Learned?*”, Energy and Mining Sector Board Discussion Paper No 19, Washington DC: The World Bank

A second entryway for corruption is that market participants buying electricity through the wholesale market might be corruptly influenced in how they buy power. For example a distributor wishing to purchase power to meet the demands of its customers might purchase power from someone other than the least cost generator.

In practice, this second form of corruption is unlikely to arise in electricity spot markets. When purchasing power through the spot market, buyers are not able to identify which

specific generator they are buying power from, which makes it difficult to enter into corrupt deals. In addition, the spot price is generally set by the market operator through a competitive bidding process, allowing little scope to inflate the price paid to enable corrupt payments.

Electricity spot markets do create a range of opportunities for market participants to abuse their market power, or “game” the system to increase their profits. These types of behaviours can give rise to significant costs, and in extreme cases can undermine security of electricity supply. For example Box 8.4 describes how highly sophisticated gaming strategies by sellers played a key role in the California Power Crisis. However, while such gaming is a public policy problem, it falls outside this Sourcebook’s definition of corruption.

**Box 8.4: California Power Crisis—Corporate Fraud and Regulatory Failure?**

To develop a competitive electricity market, and to respond to energy problems in 1995, California initiated restructuring of its electricity industry. The aim was to convert California’s investor-owned, regulated utilities into a deregulated market in which the price of electricity would be established by competition, and consumers could select their electrical power suppliers. Under the new structure, over 80 percent of the transactions were being made in the spot market (CalPX), and energy sellers quickly realized that the spot market could be manipulated by withholding power from the market to create scarcity and demanding high prices to meet the created scarcity.

On June 19, 2001, the Federal Energy Regulatory Commission (FERC) reaffirmed that the electric market structure and the rules for wholesale sales of electric energy in California were seriously flawed, imposed price caps on all spot market sales from June 20, 2001, through September 30, 2002, and took steps to prevent power generators from withholding supply. The prospective price mitigation plan applied to all sellers that voluntarily sold power into the Cal-ISO and other designated spot markets or that voluntarily used Cal-ISO’s or other interstate transmission facilities subject to FERC jurisdiction. These moves brought the rolling blackouts, catastrophically high prices, and near-continuous power emergencies under control.

The California power crisis of 2000–01 is a powerful example of market manipulation and possible fraud in a highly developed economy with sophisticated sector governance. While the causes of that crisis are complex, a good part of the blame is likely to fall on prominent players in the power sector that indulged in market manipulation in violation of the relevant laws and that deliberately caused shortages so as to benefit from the sale of power at very high market prices.

Source: Gulati, Mohinder and M.Y. Rao. “Corruption in the Electricity Sector: A Pervasive Scourge” in *The Many Faces of Corruption*, Annex 4B

### **8.2.3 Corruption in permitting of private power plants**

Once the generation market is liberalized, private investors may enter and invest in new generation capacity. In this scenario, a private company builds generation to sell into a competitive power market. In general the private company will have strong incentives, and the ability, to prevent corruption in the award and implementation of the construction contract. While this eliminates corruption concerns in one area, other potential corruption hot spots arise.

In particular the private investors must obtain whatever construction permits, environmental consents, or other licenses are required under the laws of the country, before the project can proceed. Public officials with the power to grant the required licenses are in a strong position to demand bribes or other forms of corrupt payment in return.

Alternatively, public officials may accept corrupt payments in return for awarding compliance certificates, even where the plant does not comply. For example this might involve falsifying the results of emissions tests to show that the plant meets applicable environmental standards, even where actual emissions exceed permitted levels.

#### **8.2.4 Longer term electricity contracts**

The short term prices generated by spot markets can be highly volatile. To manage this volatility, generators and wholesale power purchasers enter into long term contracts now as hedge contracts. These contracts provide, in essence, that the purchaser will buy a set quantity of power from the generator at an agreed price, over a number of months or years, regardless of the spot price of electricity. Such long term contracts are often referred to as 'hedge contracts' because they provide a 'hedge' against the volatility of prices in the spot market (in the same way that futures contracts on other commodities such as wheat or oil provide a hedge against volatility in short-run prices for those products).

These electricity hedge contracts are usually negotiated bilaterally between generators and large energy purchasers. As a result, there are not standard terms and observable market prices for such contracts. This creates an opportunity for state-owned companies to agree to 'bad deals' with private sector counterparts. For example, a publicly owned distribution company might agree to buy power from a private generator at a price which is higher than it really needs to be. This would allow the private generator to make extra profits, some of which it would kick-back to the public official who agreed to the hedge contract.

As an example, following liberalization of the electricity market in Romania, prices in some bilateral electricity supply contracts were allegedly set below true market value. Corruption was alleged in bilateral contracts entered into by some government-owned generation companies who were thought to have sold power to large private customers at prices that were below what they should have been. In response, the top managers of two companies were dismissed and the government required public sector generators to use the market operator's competitive auction system for bilateral contracts (see Section 12.3.4 of this Sourcebook for further discussion on this).

#### **Detecting corruption in hedge contracts**

In many cases, corruption in hedge contracts will be difficult to detect. Hedge contract prices often are not published. The "right" price for a hedge contract is a judgement, and it depends on forecasts of future spot market prices. Thus it is difficult to distinguish between market participants "getting it wrong", and situations in which they deliberately manipulate the hedge price to generate corruption opportunities.

Nevertheless, possible indicators include:

- Hedging strategies by wholesale buyers of electricity that appear to be irrational or clearly inefficient
- Public companies negotiating hedge contracts bilaterally when competitive and transparent markets for such contracts exist

- Indirect indicators, for example signs that managers responsible for negotiating hedge contracts are living beyond their means.

**Source List 8.1: Competitive Electricity Markets**

Source	Description
<p><b>Bakovic, T., Tenenbaum, B. and Woolf, F. “<a href="#"><u>Regulation by Contract: A New Way to Privatize Electricity Distribution?</u></a>” Working Paper No 14, Washington, DC: The World Bank</b></p>	<p>This paper examines if regulation by contract (or a combination of regulation by contract and regulatory independence) provides a better regulatory framework for developing countries that want to privatize all or some of their distribution system. Specifically, it:</p> <ul style="list-style-type: none"> <li>▪ Describes how regulation by contract has been carried out in developing countries</li> <li>▪ Analyzes how these regulatory contracts have been able (or not) to handle specific critical issues</li> <li>▪ Describes the strengths and weaknesses of various forms of dealing with disputes, and</li> <li>▪ Compares recent experiences in Latin America and India.</li> </ul> <p>Section 5 provides a good discussion of the problems on transparency in long term contracts.</p>
<p><b>Besant-Jones, J. (2006) “Reforming power markets in developing countries: What have we learned?”, <i>Energy and Mining Sector Board Discussion Paper</i> Paper No. 19, World Bank, September 2006</b></p>	<p>This report provides a comprehensive review of the experience of electricity sector reform in developing countries. In particular, Section 4 discusses governance issues in the electricity sector, and among other things highlights corruption arising from weak governance arrangements as one of the drivers of reform in some countries.</p>
<p><b>Jamasb, B. (2006) “Between the state and market: Electricity sector reform in developing countries” <i>Utilities Policy</i> 14, 14–30</b></p>	<p>This paper examines the experience with electricity sector reform in developing countries, and lessons in these countries. The paper reviews private participation and key steps in sector reform. Of particular interest, section 4.3 of this paper discusses the impact of corruption and opportunism.</p>

## 9 Corruption and Private Participation

As previous sections have discussed, the form and incidence of governance problems and corruption vary between different sector structures and ownership arrangements. Section 7 discussed the particular issues that arise when public electricity utilities purchase power from independent power producers (IPPs), and Section 8 identified corruption risks that arise in electricity market structures with some degree of competition. This section of the Sourcebook discusses how other aspects of private participation affect corruption risk.

In general the involvement of a private operator in managing and operating the utility could be expected to reduce the risk of corruption. The shareholders of the private firm have a strong interest in ensuring that value within the utility is captured by them, not by utility staff or managers, or government officials. Accordingly, private firms tend to be quite effective at implementing systems to prevent such misappropriation. Moreover, if such misappropriation does occur in a private utility, so long as it is private funds being misappropriated then it is, by definition, not corruption. This is more than a semantic distinction. Theft from a private corporation is still theft, and a serious issue, but it is not a public policy issue in the same way that theft from a public entity is.

In practice, the impact that private participation has on corruption risk will depend on the form of private participation, and in particular on:

- The risks and responsibilities assumed by the private operator under the arrangement
- Who makes key decisions—the private operator, or the government.

Broadly, four types of private participation arrangement are common in the electricity sector:

- **Privatization through a trade sale**—in a trade sale, the government sells an ownership stake in the utility to a selected buyer. The buyer is selected through some form of tender process. Shares in the company may subsequently be floated on the stock exchange. Usually the buyer must have relevant sector and management expertise. For example Eletropaulo, a major Brazilian power distributor, serving the state of São Paulo, was privatized through a trade sale, in which international infrastructure investor AES Corporation acquired a majority stake in the company
- **Privatization through initial public offering (IPO)**—this is the approach the United Kingdom used in privatizing its electricity sector in the 1980s. Shares in the utility are offered for sale to the general public, and traded over the stock exchange
- **Concession contract**—governments may use concession contracts to involve the private sector in distribution or transmission operations, or in a vertically integrated utility. Under a concession arrangement, the private operator pays a fee to for the right to run the business, operate and maintain the utility's assets, and collect revenue from customers. The private operator plans and finances new capital investment, but does not actually own the infrastructure assets
- **Management contract**—under a management contract the private operator simply supplies management services to the utility, but has no ownership stake.

The private operator also has no responsibility for capital investment or system expansion. Management contracts may be a step on the road towards greater private sector involvement, or a way of bringing a more commercial focus to a public electricity utility. Management contracts are an exception to the general principle that private participation reduces provider level corruption risk (see Section 9.2).

While (with the exception discussed above) private participation generally reduces corruption risk, private participation introduces three new venues in which corruption may flourish:

- The privatization transaction
- Award of a management contract
- Regulation and supervision of the private provider or manager
- Renegotiation and extension of private participation arrangements

## **9.1 Privatization Transactions**

Essentially the mode of corruption in privatization transactions is as follows. A private firm pays a government official to sell it the business (or award it the contract) at a favorable price.

The risk of this form of corruption is a significant. Privatization transactions are valuable deals. A privatization essentially capitalizes the entire stream of appropriable value in the utility into a single deal. That is, the transaction concentrates a lifetime of corruption opportunities on a single point. At this point, large amounts of money change hands in an environment where it is difficult for outsiders to judge if the public is getting a good price for its asset. This is true whether the asset being privatized is generation, transmission, distribution or all three.

Indicators of corruption risk in awarding private contracts are similar to indicators of corruption risk in procuring capital works (see Box 6.4), and include:

- A sales price that seems below fair value
- Uncompetitive or non-transparent award processes for private participation contracts or licenses
- A sales structure that does not seem logical, in the sense that it is not the one best suited to public needs—for example, any kind of swap or in-kind deal or joint venture, rather than a straight sale for cash
- A reputation for corruption in awarding of similar contracts
- The existence of unnecessary middlemen—local “agents” that provide generic, ill-defined services
- Unexplained wealth levels among senior officials or politicians with influence over the award.

Box 9.1 provides some additional lessons, and potential indicators of corruption, from Eastern Europe’s experience with electricity sector privatizations.

### Box 9.1: Privatization Lessons from Eastern Europe

The following lessons for transaction strategy emerge from privatization on the power sectors of Eastern Europe:

- **Privatization through transparent international competitive bidding among prequalified investors results in the most sustainable privatization deals.** Negotiated privatization does not even save time and often leads to unsatisfactory terms to the sellers
- **Offer majority shares to attract strategic investors in a manner that enables them to implement prudent investment and operating decisions.** In any case, the strategic investor must have management control
- **Retaining only a golden share (or some similar device, such as a special shareholder agreement) for a specified period may be prudent** when selling all the shares to the strategic investor. It will also help the government to prevent acquisitions and mergers that erode competition
- **The privatization agreement may also contain a prohibition for the resale of assets to anyone with qualifications inferior to those of the original investor.** Otherwise the elaborate prequalification exercise would become meaningless
- **Sort out labor agreements** (in regard to employment levels, severance compensation, and funds for assisting separated labor).
- **Sort out fuel supply arrangements** in order to promote a genuine market in fuels used for power generation. This involves, for example, discontinuation of fuel “allocation” practices and liberalization of fuel imports before privatization.
- **Sort out issues relating to the “right of way” for facilities located in state or municipal lands while privatizing distribution utilities.** Issues relating to the removal of any legal rights the municipalities may have in relation to distribution business and related power facilities should be sorted out in the pre-privatization phase, if necessary, through special legislation
- **Be wary of dishonest and collusive equity for debt swaps and asset stripping** as was practiced in Ukraine

Source: Krishnaswamy, Venkataraman, and Gary Stuggins (2003), *Private Participation in the Power Sector in Europe and Central Asia: Lessons from the Last Decade*. World Bank Working Paper No. 8. Washington, D.C.: World Bank. (available at [http://publications.worldbank.org/e-commerce/catalog/product?item\\_id=2412425](http://publications.worldbank.org/e-commerce/catalog/product?item_id=2412425)), cited in Besant-Jones (2006) “Reforming Power Utilities in Developing Countries: What Have We Learned?”, Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank (page 52).

## 9.2 Corruption Risk with Management Contracts

Management contracts are quite common in the electricity sector. They have been used in Tanzania, Malawi, Georgia, and Albania. Experience with these contracts has been mixed. The focus in this section is not whether or not management contracts are a good idea, but what effect they may have on corruption (please see Box 10.18 on page 134 for a description of the management contract in Tanzania).

Management contracts are sometimes thought of as a species of privatization, but this can be misleading, in that under a management contract essentially all the business risk remains with the public sector. The private firm only gets a fixed fee (which usually covers the cost of the staff it provides) and performance pay (which motivates performance, but in terms of dollar

values is a fraction of total risk that the public sector continues to bear). As a result the management contractor's incentive and ability to reduce corruption are relatively low, compared to true privatization.

Under a management contract, the utility's property and revenue streams still belong to the government. The government therefore needs to retain some control over expenditure and business decisions. For example, government officials will generally continue to be responsible for decisions on capital planning and investment, and IPP awards. As a result corruption opportunities continue in a utility managed by a management contract.

Even in the areas under the management contractor's control, corruption may continue—for example, in human resources and stores—because the funds involved are still public.<sup>24</sup> The management contractor therefore has less incentive to detect and prevent the corruption, as it does not itself bear the cost from the corruption.

Corruption risk in the *award* of management contracts can be indicated by:

- Selection of a poorly qualified or inexperienced contractor when better contractors were available
- Management fees that seem excessive
- An uncompetitive or non-transparent procurement process.

In a utility under a management contract, corruption risk continues in capital projects, which generally remain largely a government responsibility, and this risk can be assessed as outlined in Section 6.

Corruption risk in operations continues, though it should be more muted under a well-designed management contract. This risk can be assessed as outlined in Section 5 for a publicly owned provider.

Regulation (discussed below) is not generally a source of corruption under a management contract, since the management contractor's remuneration does not generally depend on regulatory decisions.

### **9.3 Regulation and Supervision of Private Participation Arrangements**

Regulation can be defined as the organizations and rules that determine the tariffs electricity providers are allowed to charge, and the services they are required to provide. Regulatory decisions affect the value of an electricity provider. This puts those making regulatory decisions in a position to demand a payment for the decisions they make, with the payment being a share of value created for the utility (or the loss in value avoided).

Regulation or private participation contract supervision may be a corruption risk where there is a privately owned distribution, transmission, or vertically integrated utility. It is not usually a risk for:

- **Publicly owned utilities**—since no private person is generally interested enough in the value of a publicly owned utility to seek to improperly influence a regulatory decision

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<sup>24</sup> As the utility's funds and property are still public, misappropriation of these assets is corruption, unlike the case of a private company, where misappropriation by employees generally hurts the shareholders in the company, not the public.

- **Generating companies selling into a competitive wholesale market**—since in this case the financial performance of the company is determined by the market, not a regulator
- **Independent power producers and management contracts**—the supervision of these contracts can be an avenue for corruption, but since they are not considered generally to be regulatory contracts, these situations are discussed separately, in Sections 9.3 and 9.2 respectively

Corruption in regulation or supervision of concession contracts generally involves payment to a regulator or a contract enforcement official, or someone with the ability to influence a regulatory or contract enforcement decision, with the intention and effect of getting a decision that saves the utility money. Such decisions may include:

- Awarding a higher tariff than the regulatory rules warrant
- Setting lower service standards than the regulatory rules warrant
- Not enforcing service standards
- Not enforcing other contractual or regulatory rules, such as not requiring a management contractor to deliver all the outputs promised, or not enforcing penalties on a BOOT contractor who is late in delivery of the asset.

The above examples are all of an official giving an unduly favorable decision to a utility, in exchange for a payment from the utility.

There are also cases in which a regulator may demand a payment simply for giving the “right” decision from a regulatory perspective. This would tend to occur when the regulatory system does not provide clear guidance to the regulator, and/or lacks a credible appeal process. In such cases the regulator can hold the utility hostage unless a bribe is paid, and the utility may have no redress against the unreasonably regulatory action, and therefore essentially be forced to pay the bribe.

Corruption of this sort is difficult to detect when the regulatory rules allow the regulator considerable discretion, as they often do. However, warning signs may be:

- Unclear regulatory rules
- High regulatory discretion
- Rules or contracts that are not enforced
- Regulatory decisions that do not seem to make sense
- Unexplained wealth of regulatory officials
- Utilities paying for trips or other entertainment for regulatory officials.

Corruption risk also arises in renegotiation of the original regulatory deal, which often occurs in response to an unanticipated crisis not anticipated in the regulatory framework.

**Box 9.2: Alleged Bid Rigging in Trade Privatization of Eletropaulo**

In 1998 the Government of the State of São Paulo decided to privatize Eletropaulo Metropolitana, the largest electricity distribution company in Latin America with 5 million

customers. It was the largest privatization Latin America had ever seen. The Government of the State of São Paulo committed itself not to accept bids below US\$1.78 billion. It had been advised that the utility could bring several hundred million dollars more and one of the potential bidders had placed a maximum value of just less than US\$3 billion on Eletropaulo in a private study it conducted to decide whether or not to bid.

The Sao Paulo Government was eager to find firms with the ability to run a privatized public utility, and so only three bidders were allowed to participate in the auction:

- Enron
- A consortium, the Light Energy Consortium, whose four shareholders were AES, Electricité de France, Houston Industries, and CSN, a Brazilian steel company, and
- VBC, a Brazilian group.

The night before the auction took place, it is alleged that AES approached Enron and offered that, in return for not bidding, Enron would build a 1,500 MW power plant with AES to supply Eletropaulo; it would be the lead developer and operate the power plant, pulling in fees for both. Enron would also provide all the fuel for the project, which it would obtain through its stake in the Bolivia-Brazil gas pipelines. According to the allegations, negotiations lasted until 4am on April 15<sup>th</sup>, and an agreement was finally reached a few hours before the auction.

On the morning of the auction, April 15<sup>th</sup>, executives from the Light Energy consortium allegedly arrived at the Sao Paulo stock exchanges with two envelopes. One envelope offered USD 1.78 billion (the Government's minimum acceptable bid). The offer in the other envelope was for an extra USD 500 million. Seconds before the three-minute bidding window elapsed, it became apparent that Enron and VBC were onlookers. Following his instructions for what to do in the absence of another bid, Light's broker handed in the first envelope, thereby securing Eletropaulo at the minimum price.

It was a disaster for the Brazilian government. The jewel in the crown of energy assets for sale that year, Eletropaulo had been expected to bring in several hundred million dollars above the minimum estimate. Had either of the other parties deposited a bid, allegations are that the Light Energy consortium broker would have deposited the second envelope with an offer of an extra USD 500 million. Thus the Government of São Paulo may have lost at least USD 500 million. The upper estimate of the direct loss to Brazil is USD 1 billion (based on the maximum value of Eletropaulo estimated by Enron when it was considering bidding).

According to their alleged agreement, both the Light Energy consortium and Enron stood to gain from the bid-rigging. Light Energy would save USD 500 million in the bidding. It would have to grant a contract to Enron for the production of electricity but would presumably pass part of the resulting increase in the electricity costs on to consumers. Thus part of Enron's profits from the electricity supply arrangement would be an additional (indirect) cost of the bid-rigging. Reported estimates of the value of the contract for Enron by former employees range from USD 200 million to USD 800 million. A former senior Enron employee said that everyone was very excited about what had happened, but that there was caution too "it was made clear that we shouldn't advertise what had happened ...". Enron executives were reported to be particularly happy because, unknown to AES, before being approached by AES Enron senior management had already decided not to bid for Eletropaulo.

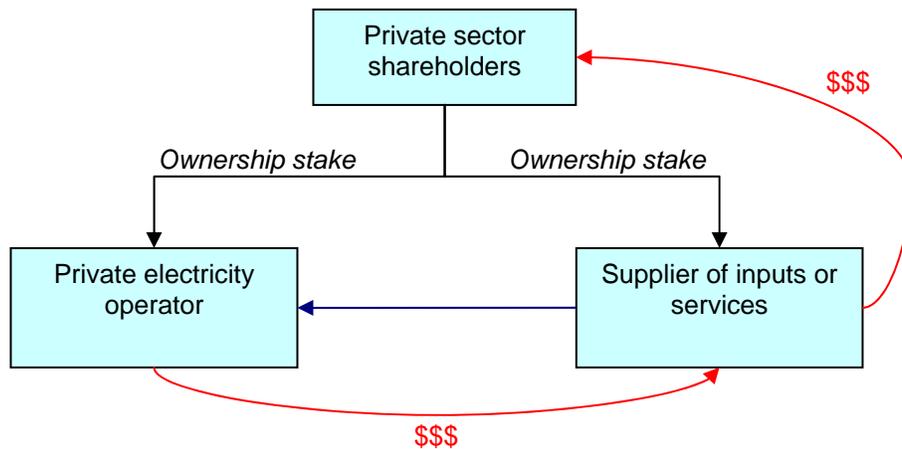
In 1999 another Brazilian energy power generation company (CESP-TIETE) was privatized. Three companies were pre-qualified and allowed to bid. The three were Enron, AES, and VBC. Only AES and VBGC placed bids and AES was the winner. The same kind of practice as described above is suspected of having taken place again.

Source: Reproduced from Jenny, Frédéric (2005), “Competition and Anti-Corruption Considerations in Public Procurement” in *Fighting Corruption and Promoting Integrity in Public Procurement* Organisation for Economic Co-operation and Development, (page 33-34).

### Related party contracts

Where a private operator is responsible for operating the utility, the operator may enter into related party contracts. In this scenario, the private operators may contract with related firms for the supply of key inputs, or for maintenance or construction work. Here “related firm” refers to a company that has the same shareholders as the private operator. The private operator could agree to an inflated contract price for the supplies or works, as a way of transferring profits to the private operator’s shareholders through the related firm.

**Figure 9.1: Illustration of a Related Party Contract**



This type of arrangement is not corruption according to the definition used in this Sourcebook (see Section 2.1). Related party contracting is fundamentally a regulatory problem. It is a means of siphoning funds out of the sector by inflating the utility’s costs, and so inflating final prices. Thus, related party contracting is only profitable for the private sector investors if the regulatory rules enable the private operator to pass the inflated costs through to its customers in prices. Regulators can deter related party contracting problems by introducing rules requiring ring-fencing of supplier and contractor operations, and arm’s length contracting.

### 9.4 Contract Renegotiation and Extension

Following initial award of a private participation contract, it is common for the private operator to seek to renegotiate the contract. Guasch (2004) defines renegotiation as follows:<sup>25</sup>

<sup>25</sup> Ibid.

*Renegotiation occurs when the original contract and financial impact of a concession contract is significantly altered and such changes were not the result of contingencies spelled out in the contract. For example, stated and standard tariff adjustments resulting from inflation or other stated drivers do not count as renegotiation. Nor do periodic tariff reviews stipulated in a contract, or contingencies (such as significant devaluations) in a contract that induces tariff changes. Only when substantial departures from the original contract occurred and the contract is amended can one say that a renegotiation took place.*

Guasch (2004) has found that 10 percent of electricity sector concession contracts in Latin America and the Caribbean are renegotiated, on average within about two years of the contract award (this is despite original contract agreements of 20 to 30 years).<sup>26</sup>

As Guasch goes on to point out, renegotiation can be a good thing, as it offers a way of addressing the inherently incomplete nature of concession contracts. Thus, just because a private operator seeks to renegotiate its private participation contract, it does not mean the operator is corrupt. In many cases the reasons for renegotiating are quite legitimate. Operators frequently cite unanticipated changes to factors outside their control that make the original terms of the contract unworkable. For example, sudden changes in the exchange rate may increase the cost of key inputs above anticipated levels, or significantly inflate the cost of debt servicing.

However, the terms and processes for renegotiation remain a concern. Contract renegotiation is generally less publicized and is subject to fewer controls than the original award. Because renegotiation takes place just between the government and the operator, it is not subject to competitive pressures and their associated discipline and the terms and conditions of the renegotiation are rarely made public. Thus this type of (undisclosed) renegotiation presents greater opportunities for corruption or opportunistic behavior.

If bidders believe they will be able to renegotiate the contract, they may initially bid competitive prices that they cannot sustain in the long term, and subsequently seek to renegotiate a higher price. The outcome is that the initial competitive process may not in fact give the contract to the most efficient provider. This in itself does not necessarily amount to corruption, under the definition used here. However, in principle a private operator might offer a bribe or kickback to relevant government officials in return for assurance that the contract will be renegotiated shortly after the award.

### **Extension of private participation arrangements**

In some cases private operators or public officials may seek to extend or review an expired private participation contract rather than rebidding. For example, this may be based on arguments that the cost and potential disruption from transferring the operation of the utility to another private operator outweigh any additional efficiencies a new operator might bring.

While such arguments may be valid, there are often significant potential gains from retendering private participation opportunities when the initial contract expires. Public officials are usually not well placed to second guess what innovations or efficiencies additional market pressure may encourage. A competitive retender should draw out such

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<sup>26</sup> Guasch (2004), page 34. findings of this study are debatable because Guasch's definition of a concession contract was broad, and which party initiated the renegotiation (that is, government or private operator) is not revealed.

efficiencies—and if the existing private operator is genuinely the most efficient provider, retendering the contract should confirm this.

Often the government officials making this decision have been working with the private operator’s managers for a long period, and may have developed a “cozy” relationship with them. Even where there is no explicit corruption, public officials may be influenced by this degree of closeness to decide in the private operator’s favor. Corruption could involve a bribe paid by the private operator to key government officials to secure a non-contested contract extension, or ongoing provision of favors (such as paying for travel those officials, or giving them the use of the utility’s vehicles and other resources).

### **Detecting corruption in renegotiation, renewal, and extension of private participation**

It is difficult for outside observers to determine whether the justification for any renegotiation or contract extension is legitimate, or reflects corrupt behavior.

In the case of renegotiation, where there is a pattern of frequent objectively unjustified renegotiation in private participation contracts, shortly after the initial award, this may indicate corruption either in the initial award or in the government’s ongoing oversight of the contract. Sector practitioners should be particularly wary where:

- Initial bid prices appeared to be unsustainably low, even at the time of the initial award
- Private participation contracts are managed through a single government agency, and the same government officials are frequently involved in renegotiating public participation arrangements
- Government officials involved in overseeing and renegotiating the contract appear to enjoy a standard of living that their salaries would not support
- The country concerned has a reputation for poor governance and corruption risk.

Indicators of corruption risk in contract extensions or renewals are similar. In particular, where government officials support non-contested contract extension despite poor performance by the private operator, which would raise a corruption “red flag”. Additional indicators are similar to those listed above.

Source List 9.1: Sources on Private Participation and Corruption

Source	Description
<p>Besant-Jones, J. (2006) <i>“Reforming Power Markets in Developing Countries: What Have We Learned?”</i> Energy and Mining Sector Board Discussion Paper No 19, Washington, DC: The World Bank</p>	<p>Beginning on page 46 of this document, Besant-Jones gives guidance on preconditions and good processes for private participation.</p>
<p>Estache, A, Goicoechea, A, and Trujillo, L. (2006) <i>“Utilities reforms and corruption in developing countries”</i>, World Bank Policy Research Working Paper 4081</p>	<p>This paper applies econometrics to a cross-country and cross-sectoral dataset. It finds that, in the electricity sector, private participation and independent regulation appear to reduce the negative effect of corruption on access and quality.</p>
<p>Ghanadan, R. and Eberhard, A. (2007), <i>“Electricity Utility Management Contracts in Africa: Lessons and Experience from the TANESCO-NETGroup Solutions Management Contract in Tanzania, 2002-2006”</i> MIR Working Paper, Management Programme in Infrastructure Reform &amp; Regulation</p>	<p>This paper reviews Tanzania’s experience with an electricity sector management contract. Tanzania’s management contract brought about significant changes in utility operations. It generated a near doubling of utility revenues in two years. However, it failed to achieve meaningful improvements to technical performance in the utility. It aims to: clarify the key factors behind these outcomes; glean lessons about what management contract can—and cannot—do in Africa; and identify possible improvements in the design and application of management contracts in African electricity sectors. One of the factors identified was high electricity costs associated with IPPs.</p>
<p>Guasch, J. L. (2004) <i>“Granting and Renegotiating Infrastructure Concessions: Doing it Right”</i>, Washington, DC: The World Bank</p>	<p>This book describes the various options for private participation in infrastructure, including their benefits and drawbacks (Chapter 2). Chapter 3 and 4 focus on renegotiating concessions, with examples of what drives renegotiation. Chapter 5 offers case studies of renegotiated contracts, with Chapters 6 and 7 commenting on the lessons learned and policy implications.</p>
<p>Johnston, M. (2007) <i>“<a href="#">Understanding the Private Side of Corruption: New Kinds of Transparency, New Roles for Donors</a>”</i>, U4 Brief</p>	<p>This paper discusses gaps in knowledge about corruption in the private sector, and how donors can facilitate a new kind of transparency to improve the outcomes of anti-corruption efforts.<sup>35</sup></p>

Source	Description
<p>Rose-Ackerman, S. (2007)  <i>“Measuring Private Sector Corruption”</i>, U4 Brief</p>	<p>This brief makes recommendations of how donor agencies can identify and control commercial bribery and new types of business-government corruption so as to not undermine the benefits of private sector development.<sup>36</sup></p>
<p>Schwartz, J. and Halkyard, P. (2006)  <i>“Postconflict Infrastructure”</i>, Public Policy for the Private Sector, Note 305</p>	<p>Postconflict countries suffer from disproportionately low levels of private investment in infrastructure, with only small-scale service providers likely to emerge during and right after conflict. Larger investors are slow to enter, and when they do they focus almost exclusively on the easily secured and most profitable subsectors. Yet some countries have been able to couple aggressive reform and liberalized policies to attract infrastructure investments soon after conflict abates. This paper draws out lessons from these experiences.<sup>37</sup></p>
<p>Shrestha, P. (2007)  <i>“Corruption in Infrastructure Provision and Service Delivery at the Municipal Level in Nepal”</i>, in Sohail (ed.) <i>“Partnering to Combat Corruption”</i></p>	<p>This document is a detailed case study of corruption in infrastructure service delivery at the municipal level in Nepal. It details the causes of corruption in infrastructure delivery, and the types of corruption that occur. This document provides comprehensive descriptions of the forms of corruption that occur at the municipal level. This can provide a useful indication to sector practitioners of what to look out for under similar circumstances.</p>

## Part II Increasing Probity and Improving Governance

*Often, governments use these utilities to pursue political, social, and economic objectives, thereby obfuscating the commercial aspects of the utilities. In the process, the management controls, the accountability of the utility managers, and the transparency of their operations are compromised. Over the years, this can lead to inefficiency, corruption, overstaffing, poor standards of supply and service, weak financial performance by the utilities, and fiscal burden. In many countries, these conditions have resulted in a climate of poor accountability and weak monitoring institutions that facilitates corruption until it becomes a fact of life pervading every stage and every level of the electricity business, from government at the apex to meter readers and linemen (responsible for operating and maintaining the low-voltage network) serving the consumer. Often, the electricity utilities are very large enterprises compared with the state's economy and other commercial entities as measured by investments, revenue, number of people employed, and the size of the customer base. Hence corruption in the electricity sector in such countries, if left unchecked, could bleed the utilities, impoverish the community, and even corrode its moral fabric.<sup>27</sup>*

This part of the sourcebook presents information on approaches to reducing corruption by promoting probity and good governance. There are three sections, each of which corresponds to a different “level” of activity or governance: the project level (including both project planning and implementation), the provider level, and the sector level.

This part begins by reviewing ways to increase probity in **capital projects and planning**. Capital projects are where governments and practitioners have traditionally focused most on corruption, and where they have correspondingly centered their efforts to improve probity. Capital projects are also a particular focus for many if not all development agencies. Section 10 of the Sourcebook covers measures that practitioners can feasibly implement in the context of a traditional “project”.

Section 11 covers **addresses sector** governance. The main corruption risks generally thought to occur in provider activities include: billing and collection, award of maintenance contracts, purchase of fuel and the like. Corruption-reducing reforms in providers typically involve well-understood improvements in management systems, and are within the professional domain of sector practitioners, making advice in this area more technical and less controversial than sector-wide governance reform attempts.

Section 12 addresses **sector governance**. By governance we mean the system of relations, accountabilities, and decision-making rights that make electricity services responsive to citizens' needs (in the case of good governance) or less so (in the case of poor governance). Governance comes last in the discussion because it is the most difficult, and because reforms in this area generally require the longest gestation period, and the most sustained effort. Ultimately, however, governance is the most important element to get right. Without an effective local demand for good service and probity, and a political system that responds to

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<sup>27</sup> 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

that demand, reforms at the project or provider level are at best likely to remain static, or at worst be circumvented or rolled back.

## 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.<sup>28</sup>

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<sup>28</sup> 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

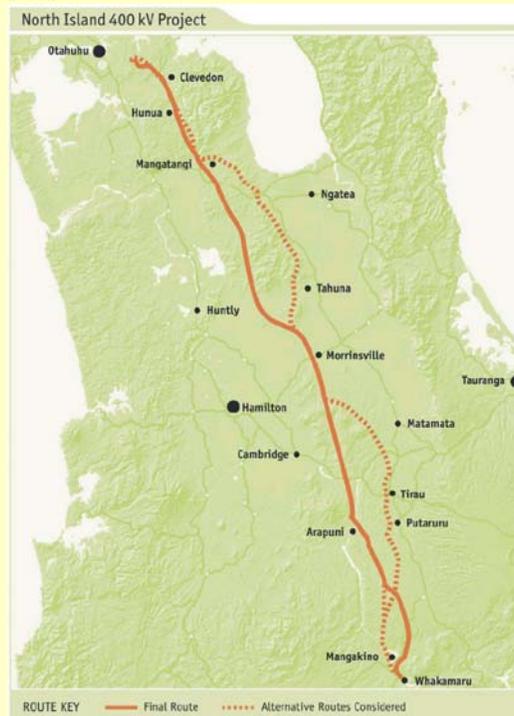
investment required, regulators generally scrutinize utility investments to make sure that they are the least cost way of delivering the required service.

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 Test<sup>29</sup>—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 USA<sup>29</sup> 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.

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<sup>29</sup> 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).<sup>30</sup> 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.<sup>31</sup>

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

<sup>31</sup> 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](http://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.<sup>32</sup> 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).

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<sup>32</sup> *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.<sup>33</sup>

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:

<sup>33</sup> 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) 540MW<sup>34</sup>.

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:

<sup>34</sup> 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
<b><i>Good Practice in Project Planning, Selection, and Evaluation</i></b>	
<p>Bacon, R. W. and Besant-Jones, J. (2001) "<a href="#"><u>Global Electric Power Reform, Privatization and Liberalization of the Electric Power Industry in Developing Countries</u></a>," <i>Annual Reviews Energy &amp; 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.<sup>38</sup></p>
<p><a href="#"><u>Integrating Indigenous Knowledge in Project Planning and Implementation</u></a></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.<sup>39</sup></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) "<a href="#"><u>The Lines Company Limited Asset Management Plan</u></a>"</p>	<p>The Lines Company Asset Management Plan is an example of good distribution planning.<sup>40</sup></p>
<p>Shrestha, R. &amp; 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
<b>Victoria Electricity Transmission Network Planning Criteria, VENCorp, Australia</b>	<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>
<b>WASP Model</b>	<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>
<b>The World Bank (1998), <i>Handbook on Economic Analysis of Investment Operations</i>. Washington, DC: The World Bank.</b>	<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>
<b><i>Good Practice in Capital Project Procurement</i></b>	
<b>Gilroy, J. <a href="#">“Procurement Outsourcing”</a> ICG Commerce</b>	<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.<sup>41</sup></p>
<b>Kramer, W. <a href="#">“Combating corruption and fraud in international projects”</a></b>	<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) <a href="#"><i>“TI Source Book 2000”</i></a> 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.<sup>42</sup></p>
<p><a href="#">Transparency International’s Project Anti-corruption Systems</a></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"> <li>▪ The PACS Standards recommend anti-corruption measures which should be used on construction projects, and</li> <li>▪ The PACS Templates provide the tools by which the measures recommended in the PACS Standards can be implemented.</li> </ul> <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.<sup>43</sup></p>

Source	Description
<p>Transparency Macedonia (not dated) <a href="#"><i>Report on the transparency of the privatization process of the Electrical Company of Macedonia</i></a></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.<sup>44</sup></p>
<p><a href="#"><u>World Bank Procurement Website</u></a></p>	<p>This website contains four main topics:</p> <ul style="list-style-type: none"> <li>▪ <b>Information for Borrowers</b>—A repository of information, documents, and guidance for government agencies responsible for implementing World Bank-financed projects</li> <li>▪ <b>Bidding/Consulting Opportunities</b>—A portal for the business community seeking to participate in business opportunities that are generated from World Bank-financed projects</li> <li>▪ <b>Public Procurement</b>—Knowledge and information on public procurement systems, including Country Procurement Assessment Reports</li> <li>▪ <b>Policies and Procedures</b>—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.</li> </ul>
<p><i>E-Tendering Requirements for MDB Financed Procurement (October 2005) The World Bank</i></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><a href="#"><u>Procurement Reform in the Philippines: Changing the Rules of the Game</u></a> (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.<sup>45</sup></p>

Source	Description
<p><b><i>“Fighting Corruption through Collective Action: A Practical Guide for Business”</i></b>, 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><b><i>Integrity in Selecting a Private Partner</i></b></p>	
<p><b>Manibog, Dominguez, and Wegner (2003)</b> <b><i>“Power for Development”</i></b> 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><a href="#"><u>Partnerships Victoria’s Guidance Materials</u></a></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><b><i>Good Practice in Project Supervision</i></b></p>	
<p><b>Calkins, D. (2007)</b> <b><i>“Fighting Corruption: A Matrix of Sector and Project Options”</i></b> 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><b>Calkins, D. (2007)</b> <b><i>“Guidelines for Supervising ‘High Corruption Risk’ Projects”</i></b> 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><a href="#"><u>OP 13.05 Project Supervision</u></a> (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.<sup>46</sup></p>
<p><a href="#"><u>"Guidance Note for Project Management: Strengthening Institutional Capacity during Project Implementation"</u></a> (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.<sup>47</sup></p>
<p><b><i>Output-Based Aid as a way to increase probity in projects</i></b></p>	
<p>Brook, P. and Smith, S. (2001) <a href="#"><u>"Contracting for Public Services: Output-Based Aid and its Applications."</u></a> 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.<sup>48</sup></p>
<p>Ehrhardt, D. and McKinlay, A. (2003) <a href="#"><u>"Designing OBA When There is an Incumbent"</u></a>, 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.<sup>49</sup></p>

Source	Description
<p>Grewal, S., Venkataraman, S., Bayking, J., Guzman, A. and O'Connor, S. (2006) <a href="#"><i>Output-based aid in the Philippines: Improving electricity supply on remote islands</i></a>; 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.<sup>50</sup></p>
<p>Mumssen, Y. and Kenny, C. (2007) <a href="#"><i>Output-Based Aid in Infrastructure: A Tool for Reducing the Impact of Corruption</i></a>; 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.<sup>51</sup></p>
<p><b><i>Promoting probity in private sector participation and regulation</i></b></p>	
<p>APEC Energy Working Group (1997) <a href="#"><i>Manual of Best Practice Principles for Independent Power Producers</i></a>; 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.<sup>52</sup></p>
<p>Castalia (2005) <a href="#"><i>Sample Bidding Documents for Management Contracts</i></a> (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) <a href="#"><i>Granting and Renegotiating Infrastructure Concessions: Doing it Right</i></a> 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.<sup>53</sup></p>

Source	Description
<p><b>Ghanadan, R. and Eberhard, A. (2007)</b>  <a href="#"><u><i>Electricity Utility Management Contracts in Africa: Lessons and Experience from the TANESCO–NET Group Solutions Management Contract in Tanzania, Management Programme in Infrastructure Reform &amp; Regulation</i></u></a></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.<sup>54</sup></p>
<p><b>Hodges, J. and Dellacha, G.</b> “<a href="#"><u><i>Unsolicited Infrastructure Proposals: How Some Countries Introduce Competition and Transparency</i></u></a>”</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.<sup>55</sup></p>
<p><b>Partnerships Victoria Guidance Material</b></p>	<p>The Partnerships Victoria website—<a href="http://www.partnerships.vic.gov.au">www.partnerships.vic.gov.au</a>—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><b>PPIAF and the World Bank (not dated)</b>  <a href="#"><u><i>Toolkit: A Guide for Hiring and Managing Advisors for Private Participation in Infrastructure</i></u></a>  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.<sup>56</sup></p>
<p><a href="#"><u><b>UK Treasury, Private Finance Initiative, Standardised Contracts</b></u></a></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.<sup>57</sup></p>

## 11 Increasing Probity at the Provider Level

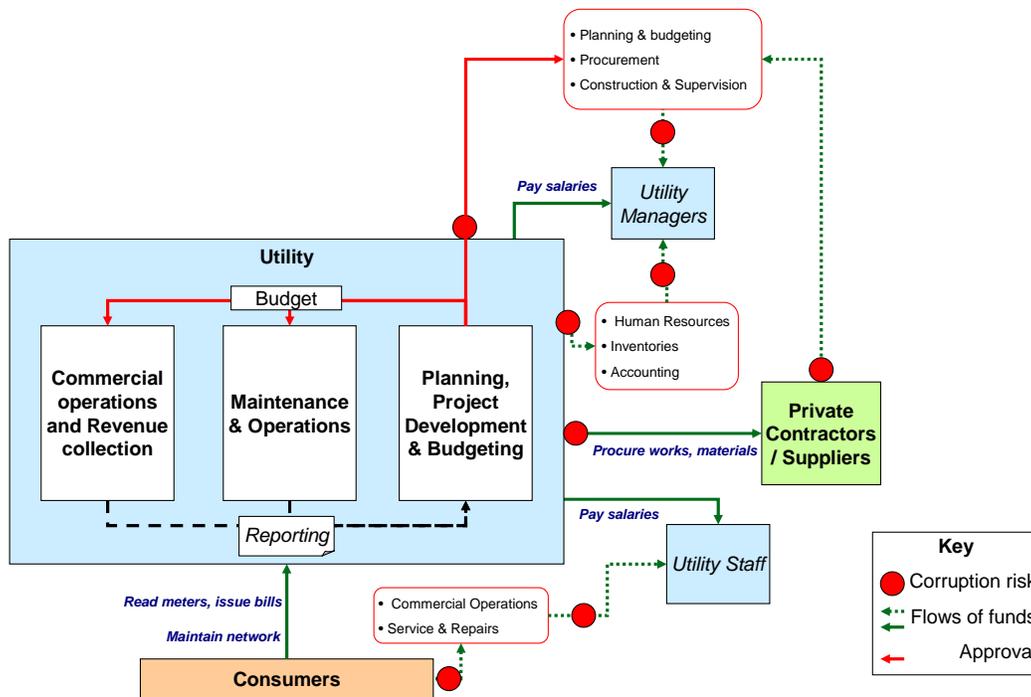
This section sets out ways to reduce corruption in electricity service providers. Providers are those organizations that provide electricity services to customers. As outlined in Section 4.5, corruption can happen at numerous “locations” or hotspots within a provider’s institutional and operational structure.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

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### 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).

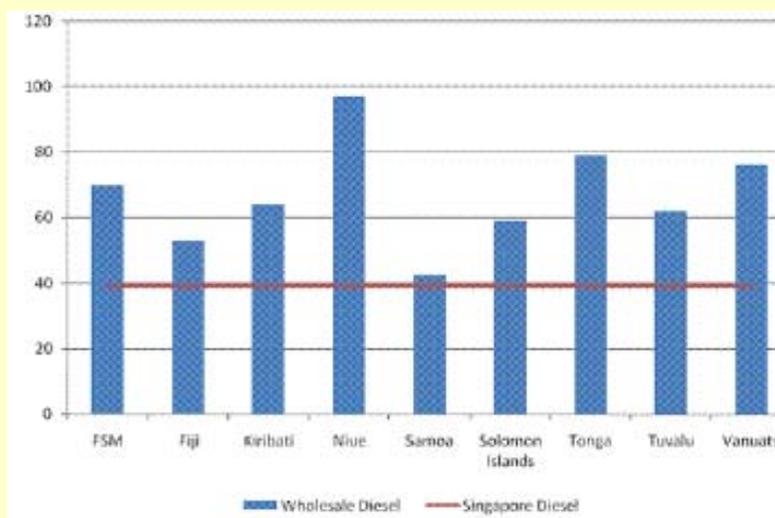
### Box 11.3: Publicly-owned Fuel Handling and Storage Equipment can Help the Government Reduce Fuel Costs

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) <a href="#"><i>“Reforming the Power Sector: Controlling Electricity Theft and Improving Revenue”</i></a> 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.<sup>58</sup></p>
<p>Campos, E. and Pradhan, S. (2007) <a href="#"><i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i></a>, 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.<sup>59</sup></p>
<p>ESRI (2007) <a href="#"><i>“GIS Best Practices: Municipal and Cooperative Electric Utilities”</i></a></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).<sup>60</sup></p>
<p><b>Objectives-Oriented Project Planning</b></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"> <li>▪ Gesellschaft fur Technische Zusammenarbeit (GTZ) (1991) <i>Methods and Instruments for Project Planning and Implementation</i>, Eschborn: Germany</li> <li>▪ GTZ (1998) <i>ZOPP: An Introduction to the Method</i> Eschborn: Germany</li> <li>▪ GTZ (1998) <i>ZOPP in Brief</i>, Eschborn: Germany</li> </ul>

## 12 Strengthening Electricity Sector Governance to Promote Probity

*“Today there is a good understanding that past approaches to ... reform will not work. The record has been poor. Part of the reason for this failure is that efforts were inordinately focused on changing the utility by strengthening its management and its processes, but without making commensurate advances on the governance framework or the institutional environment within which the utility operates. In the end, utility managers respond according to the wishes of important external stakeholders, most notably national government, municipal officials, community leaders and lenders. Misdirected incentives on their part will have direct consequences for the internal incentive systems of utility managers and their staff.”<sup>35</sup>*

Ultimately, arrangements for electricity service provision are almost always under government control. Probity will only develop and grow when decision-makers within those control systems want to promote probity, rather than benefit from corruption. Unfortunately, in many developing countries today, the opposite is true. Public decision-makers have an interest in continuing corruption, while those who suffer from corruption lack the power or organization to change the system.

This section looks at how governance in the electricity sector works. It briefly explains how a healthy governance system should work to sustain a virtuous cycle of increasing probity, and considers the governance dysfunctions that allow corruption to flourish (Section 12.1). Having analyzed the ways in which governance fails, the section goes on to look at ways to make governance work better. These ways are divided into two categories: those aimed at empowering citizens (Section 12.2) and those aimed at helping government and citizens to hold providers accountable (Section 12.3).

Governance arrangements are highly situation specific. What works in one place will not necessarily work in another. Section 13 provides some insights into how to tailor the general recommendations to specific situations.

Finally, Section 13.2 emphasizes a systems-thinking approach to governance. Good governance is a complicated interlocking system. Multiple elements need to function together. Sadly, fixing one broken element will not necessarily make the system work if another element remains missing. As with an electricity system where the turbine has gone and the transformer is burnt out, fixing one problem without fixing the other will not restore the service. In the same way, putting in place one element of governance—such as report cards to provide citizens with information—without the other supporting elements, may do no good. Fully understanding how to improve governance to promote probity requires deep analysis of complex and situation-specific human systems.

### 12.1 How Governance Works—or Doesn’t

Section 2 of this sourcebook presents a framework that highlights the ways in which poor governance creates opportunities for corruption, and good governance helps to reduce

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<sup>35</sup> Baïette, Kingdom, and van Ginneken (2006) “Characteristics of Well-Performing Public Water Utilities” Water Supply and Sanitation Working Notes No.9, Washington, DC: The World Bank

corruption. It highlights the essential problems of governance in electricity as stemming from the economies of scale and natural monopoly characteristics of the sector.

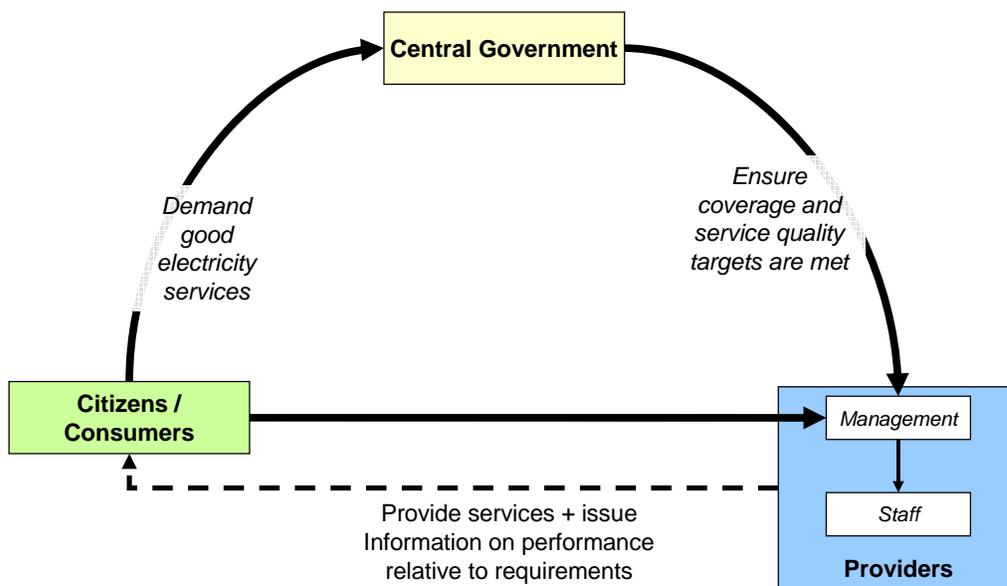
The fact that electricity is a service with monopolistic characteristics and great social importance is at the heart of governance problems in the sector. In markets for normal goods and services, competition makes providers directly accountable directly to customers

The direct route of accountability works less well in electricity. Citizens turn to government to make the electricity providers do what the citizens want—the long route of accountability.

Summarizing that discussion, a generic governance system for the electricity sector is illustrated in Figure 12.1. This models governance as a cycle of accountability, in which:

- **Citizens** (including consumers) demand good electricity services from their local and central governments
- **Local and central governments** try to make sure that all citizens receive services, and that electricity service providers—whether public or private—deliver a good service and are responsive to consumers
- **Providers** deliver services to consumers, who judge that service against their initial expectations and demands, and (if they are unsatisfied) respond by registering complaints with the provider and government.

**Figure 12.1: The Governance System: a Cycle of Accountability**



Source: Derived from World Development Report 2004

Next, we explain each aspect of the cycle in more detail, explaining how it affects electricity sector probity, and where that aspect of the cycle is further addressed in this section.

### **Citizen or consumer demand**

Citizen or consumer demand is primarily for good service at reasonable cost. This translates to a demand for probity, since, in general corrupt systems are inefficient, and deliver inadequate service, or excessive cost, or both. In countries where citizens believe the electricity sector is corrupt, they may also demand probity directly, both because they have a preference for probity (they think corruption is inherently wrong) and because they understand that this leads to a better quality and cost of service, by stopping sector resources being diverted to private ends. Ways to inform and empower citizens in their demands are discussed in Section 12.2

### **Government responses to citizen demand**

For citizens' demands to translate into changes by government, government decision makers need to be rewarded for delivering what citizens want, and punished for not doing so (see Box 12.1 below for an example of an inadequate accountability relationship between citizens and government). The pay-off to decision makers for giving citizens what they want must be greater than the benefits from corruption. One system for doing this will be political competition, where those decision-makers that fail to serve the public interest lose their position (and in so doing also lose the corrupt benefits of office).

Once governments are motivated to deliver the electricity services citizens want, governments need to make the electricity service provider perform the way government wants it to. This is difficult. Many governments own their electricity providers, and yet Presidents and Ministers find it difficult to get the provider to deliver a good service at reasonable price. Section 12.3 discusses the techniques governments can use to become increasingly successful in holding providers accountable for good performance.

#### **Box 12.1: The Pamaron Experience in Indonesia**

Civil society and public interest in electricity sector issues has often been prompted by controversies around major infrastructure projects. Yet electricity governance assessments suggest that despite these controversies, there is limited space to protect the rights of people affected by electricity infrastructure projects. The Pamaron PLTCU Natural Gas Plant in Bali highlights the inadequacies of these systems. The plant was expected to have damaging effects on local aquatic tourism. In addition, it did not comply with official guidelines for development in the region, and project-affected households were not consulted in the initial project development and impact assessments. In fact, construction began without local authorities even issuing a permit for the project.

The environmental impacts of the Pamaron Plant—in an area renowned for its attractions as a tourist destination—attracted a great deal of concern from local communities and business representatives who were concerned about the effect on tourism. A Peoples Coalition for the Pamaron Problem was established to coordinate public input and file complaints about the project. The coalition included local community associations such as the Indonesia Hotel and Restaurant Association and the Darma Samudra Fishermen's Association, as well as national NGOs such as the Working Group on Power Sector Restructuring. In the Pamaron case study, the Government's Directorate General of Electricity and Energy utilization insisted that authority for the project lay with the local government. The Directorate only took on the role of facilitator between civil society and local authorities rather than creating avenues or mechanisms to uphold the rights of project-affected people. Local authorities refused to recognize that project-affected people had any standing to raise claims against the plant.

## 12.2 Empowering Citizens

Citizen demand for good service is an important factor in ensuring that providers deliver good electricity services. However, for citizens to make their demands clear and effective, they need both information on which to base their demands, and an ability to influence the government and providers. Ways to increase citizens' information and influence are outlined below. These methods, and other complementary or alternative approaches, are described in more detail in the sources listed in Source List 12.1.

### 12.2.1 Information

To demand (and receive) good electricity services, citizens need information on what level of service they are actually getting, and what level of service they could reasonably expect.

Methods for increasing information on current levels of service above and beyond information gained from individual household experience or casual neighborhood discussions include:

- **Requiring providers to issue regulatory-type reports** of performance against standards. To ensure this information is meaningful to consumers, and is issued regularly, regulators should ideally issue templates and guidance on standard avenues for information reporting (for example, via media that consumers can readily access), and enforce compliance with reporting requirements. Although this increases the regulatory burden for both regulators and providers, it is a relatively low-cost means for increasing information to consumers. Consumers can assist in monitoring provider compliance with reporting requirements, using complaint mechanisms to report non-compliance
- **Using report cards, surveys or consumer meetings** to gather a wide range of consumer feedback on performance—these options are effective where providers are reluctant to issue information or where consumers need some guidance in interpreting performance data, or where sharing customer experiences can usefully supplement performance reporting by the utility
- **Establishing rules** for providing consumers with information on request, ideally via a dedicated consumer services department. For example, in Malaysia most electricity utilities have now established “Consumer Welfare Desks”, which handle customer complaints. As with the regulatory reports described above, such rules would require regulators to issue clear guidelines on the type of information to be provided to consumers, and the timeliness with which it is to be provided. Issuing information on request is likely to be less effective in increasing consumer information than issuing reports in readily accessible media. However, this weakness could be addressed by ensuring that other groups that may report on the public's behalf (such as journalists or NGOs) can access performance information.

Where the established rules and reporting requirements aren't followed, the regulator (or alternative enforcement agency—in some cases, the Ombudsman, as described in Box 12.2 below)—needs to intervene and impose penalties for non-compliance.

**Box 12.2: Possible Roles for Ombudsmen in Ensuring Consumer Rights**

“Ombudsmen can ... be involved in the complaint resolution process. This is for example the case in several Latin American countries (Peru, Argentina and El Salvador) and in Macedonia, where the jurisdiction of Ombudsmen has started to extend to infrastructure industries. For instance, in Macedonia, the Ombudsman recently ruled against the practice of random customer disconnection from electricity supply in areas where the billing system does not enable service providers to detect delinquent customers. Ombudsmen have also been established in Australia with the specific remit of solving disputes between consumers and electricity businesses.”

Source: Muzzini, E. (2005) “Consumer Participation in Infrastructure Regulation: Evidence from the East Asia and Pacific Region”. World Bank Working Paper No. 66.

Methods for increasing information on the level of service that citizens could expect include:

- **Issuing comparative information** on cost and quality of service providers in other towns and countries—this information could be regularly compiled and issued by a regulatory agency or government department, ideally based on a set of pre-agreed and consistent cross-utility indicators. Box 12.3 provides an example of such an approach in New Zealand

**Box 12.3: Information Disclosure in Distribution Companies**

Under the Commerce Act 1986, the New Zealand Commerce Commission (the country's economic and competition regulator) administers an information disclosure regime for electricity line businesses. The aim of the regime is to inform the public about matters relating to the supply of electricity network services. In particular, the regime allows the public to better understand the relative performance of different line businesses and the changes in performance over time.

Information disclosed includes:

- Compliance statements demonstrating performance against an acceptable price path set by the Commission. Businesses not complying with the price path may be investigated and placed under price control
- Standardized financial and efficiency performance measures set by the Commission, including:
  - Return on investment
  - Return on equity
  - Direct operating costs per kilometer of line
  - Indirect operating costs per consumer
  - Load factor
  - Loss ratio
  - Capacity utilization
  - Reliability performance, including number and duration of interruptions (total, per

customer and per 100km of line), and time taken to restore power

Reliability targets for the current and future years

The information disclosed goes some way towards addressing the information asymmetry that is always present between a regulator and a regulated business. Also, the Commission issues summaries and assessments of the disclosed information, which help consumers better understand the information disclosed. Since many New Zealand line businesses are consumer-owned (governed by trusts elected by consumers) the disclosed information allows consumers to assess the performance of their elected trust and vote accordingly.

Source: New Zealand Commerce Commission

- **Enabling consumer participation in (or at least exposure to) regulatory-style decision-making**, in which options for improving service and reducing costs are debated in an open meeting. Such meetings are generally held at the time of a tariff review or during a local service planning process. In addition, consumers may be regularly invited to provide feedback to the regulator on service levels and regulatory performance, as in Karnataka (see Box 12.4 and Box 12.5 below)

#### **Box 12.4: Engaging Consumers in Regulatory Decision-making in Karnataka**

The Karnataka Electricity Regulatory Commission (KERC) was concerned that without adequate, informed participation by consumers, there would be no effective counterbalance to the lobbying of the local power companies. With assistance from PPIAF, they investigated how a consumer network in Karnataka could be developed as an aid to effective regulation, and prepared an action plan for integrating consumers into the regulatory process.

The KERC met with consumer groups to look at the options available, and to jointly decide on an approach. Following these discussions, The *Electricity Consumers' Network* (ECON) was formed with assistance from KERC and consists of members representing consumers, farmers, and other stakeholders. ECON is composed of nine main non-governmental organizations (but continues to attract new members). It is based on the premise that safeguarding consumer interests as well as equitable pricing and service delivery are more easily achieved by a small group of committed, knowledgeable consumers networking with expert organizations and individuals in the energy sector. As part of its consumer service activities, the KERC's office of consumer advocacy and ECON regularly conduct a survey of electricity consumers and their perceptions about the quality of service and other related matters.

Sources: McCotter, B. (2005) "Best Practices in Consumer Services: A Comparative Study, United States Agency International Development

Public-Private Infrastructure Advisory Facility (2003) "Consumer Advocacy Unit of Karnataka Electricity Regulator Commission, India, Washington, DC: PPIAF

#### **Box 12.5: Citizen Participation Creates a New Clean Energy Model in the Negros Province of the Philippines**

In 2002, the Governor of Negros Occidental province and the Secretary of the Department of Energy (DOE) in the Philippines committed to a 100 percent renewable

energy target for Negros province. The announcement came after eight years of heated debate about whether to build coal-fired power plants in Negros or to prioritize renewable energy solutions to the province's energy needs.

### **Civil Society Provided New Research and Analysis to Inform Decision-Making**

When the Central Negros Electric Cooperative (Ceneco) announced its intention to build a 50-Megawatt coal-fired power plant in Negros Province in 1997, a process of public consultation prior to starting construction was initiated. The plant was contracted to the Edison Global company, in collaboration with the Central Negros Power Corporation and two other multinationals, Ogden Energy and Asea Brown Bover. Independent research and engagement by civil society organizations with support from technical experts found that the power plant was to be constructed on a river delta and that the coal ash and effluents were likely to disrupt the water system and impact fishermen in particular. The plant was also expected to have serious negative impacts on local health, particularly since there were no plans to manage the dumping of fly ash from the plant. Pulupandan had been the site of a highly polluting alcohol plant for many years, and residents were very concerned about a new facility that would have additional environmental health impacts.

### **Citizen Organization and Public Participation through Formal and Informal Systems Drew Attention to Problems and Conflicts**

The project met with widespread public opposition. In Pulupandan, a small group of women began mobilizing the town's residents to question the construction of the coal-fired power plant, drawing more and more volunteers and eventually organizing itself as a formal NGO. Despite alleged attempts by some project developer representatives and government authorities to prevent their participation in consultations, the group prepared educational materials about the project and mobilized residents to participate in discussions about the need for the plant. They submitted a formal critique of the project to the Department of the Environment and Natural Resources (DENR), documenting the project developers' failures to comply with the conditions upon which an Environmental Compliance Certificate (ECC) should be issued. The DENR eventually responded by revoking the ECC for the project.

### **Civil Society and Official Sector Actors Designed Innovative Clean Energy Solutions to Electricity Supply Challenges**

Rather than simply opposing the construction of new coal-fired power capacity, civil society and local government authorities were able to work together to consider the downsides of coal power and the advantages of developing new renewable energy projects such as wind, solar, small hydro, and modern biomass under this new local policy framework. Organizations including the Philippines Rural Reconstruction Movement, Preferred Energy, the International Institute for Energy Conservation, World Wildlife Fund, and Greenpeace worked with DOE and local Negros government officials to develop a detailed alternative energy plan for Negros Province, with an emphasis on off-grid clean energy options for isolated communities. They also set up a new program to execute this integrated plan, the Green Independent Power Producers Program (GRIPP), which partners with private sector actors to develop new clean energy projects. Ceneco and GRIPP are working together to develop a wind farm in Pulupandan on the same land that would have been the site of the coal plant. In addition, GRIPP is working with the First Famers Holdings sugar mill in Talisay city to set up a 30MW biomass cogeneration plant. The DOE has declared Negros a model for 100 percent clean energy-based

development in the Philippines. Under its Renewable Energy Framework, the DOE is promoting the GRIPP program as a model for encouraging greater private sector participation in the development of renewable energy resources, energy efficiency initiatives, and strategic integrated public-private energy planning.

Source: Nakhooda, S. *et al* (2007) *Empowering People: A Governance Analysis of Electricity*, World Resources Institute, page 28

- **Building capacity among journalists.** Journalists need to be free to report, able to understand the issues, and be given access to information. Although practitioners may have little power to influence the freedom of investigation and reporting, they can aim to provide training for journalists, NGOs and other interested parties on the prevailing service requirements and performance, standard service requirements and performance in comparator countries, and the reasons why providers may be failing to meet performance requirements.

### 12.2.2 How citizens can influence providers and government

Accountability will be increased if citizens can form groups to discuss and express their views, and if they have channels to influence sector decision-making. In a well-functioning governance system, many of these channels may be direct to the provider—in good governance systems, provider managers are motivated to listen to citizens and try to do what they want.

Unfortunately in most developing countries, provider managers are not motivated to do what citizens want, or are unable to do what citizens want because of lack of funds, or other constraints imposed on them by government. In these cases, citizen participation must be directed at influencing government, so a critical link in making governance in the electricity sector work are the mechanisms that make government responsive to citizens.

Overall, government-level accountability systems are beyond the scope of this Sourcebook, but regarding electricity sector-specific issues, measures that could increase the responsiveness of electricity sector decision-makers to citizens include:

- Provision of information (discussed in the previous section)
- Allowing competition—while electricity is generally considered a natural monopoly, where a government owned utility is doing a poor job, there may be scope for other providers to fill the supply gap (see Box 12.6)

#### **Box 12.6: Alternative Providers Fill the Supply Gap and Improve Accountability to Consumers in Cambodia**

The 1993 elections marked Cambodia's return to democracy and relative peace. Decades of conflict and neglect had shattered the country's infrastructure, but the new government lacked the resources to thoroughly rebuild. High prices and lack of involvement of larger utilities in most rural areas paved the way for small private providers.

An estimated 600 to 1,000 small electricity private providers sprang up mostly between 1993 and 1997 to distribute electricity in the countryside. These enterprises now serve about half of all households that receive electricity.

Most of the small providers are sole proprietorships. The typical entrepreneur has a high-

school education and a few have additional technical training. The providers have an average of 200 clients, of which households make up 94 percent. Most customers are billed from meter readings and pay monthly, but customers are responsible for purchasing electric meters. Electricity services are provided for about 4 hours per day on average. The estimated average cost of producing 1 kWh is around US\$0.34, of which 85 percent is for fuel. The average price for 1 kWh is roughly US\$0.51.

In a situation where there is considerable corruption in the power utilities, and rural development agencies, these small providers offer a valuable service, and are directly accountable to customers. Because the providers operate without a clear national-level regulatory and legal framework, they must rely on informal contracts with their customers, and face the reality that if the customers don't like their service, they may switch to another provider. In such a case the entrepreneur may not recover the original investment. Accordingly, the small providers have strong incentives to offer competitive prices for quality services, and to respond quickly to consumer feedback and demand.

Source: Mukami Kariuhi and Jordan Schwartz, World Bank, "Small-Scale Private Service Providers of Water Supply and Electricity" World Bank Policy Research Working Paper 3727, 2005

- Helping politicians to see that the projects and reforms proposed can be to their benefit.

Other forms of participation include:

- Involvement through surveys and focus groups for planning investments and setting service standards
- Consultation over options
- Involvement in supervision (for community-level projects—see discussion in Sections 10.2.3 and 10.3.1).

### **12.3 Holding Providers Accountable**

The way in which governments hold providers accountable in the electricity sector depends a lot on sector structure. However, despite the emphasis on introduction of competition electricity sectors over the last two decades, the majority of electricity providers in developing countries remain natural monopolies. Therefore in this section we focus on ways to hold natural monopoly providers accountable. The tools discussed in this section will apply to:

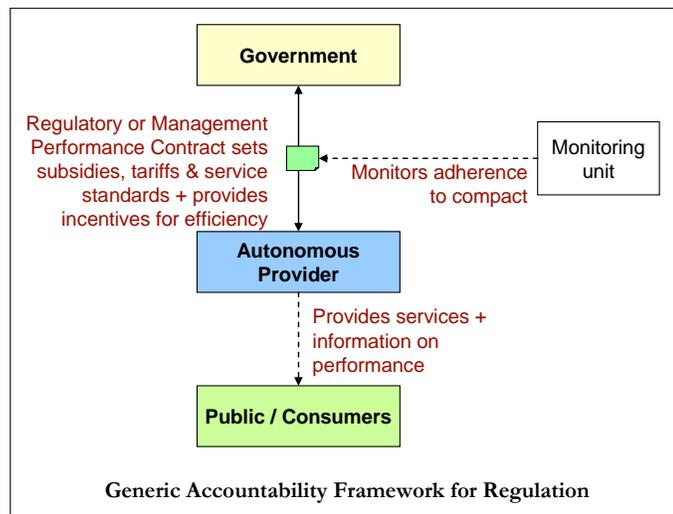
- Vertically integrated utilities
- National transmission or generation and transmission companies
- Distribution companies.

The main situations in which these tools will not apply are: generation and competitive retail supply in competitive power markets; and contracts with independent power providers, especially where there is a single buyer. Accountability mechanisms for these situations are discussed in section 12.3.4.

The main elements of a system to hold monopoly providers accountable would generally include the following:

- A **“regulatory”** or **“performance” compact**—that is, a clear written understanding as to what service the provider is expected to provide; and the resources the provider may reasonably use in providing those services (usually a mix of tariffs and subsidies)
- A **provider with sufficient autonomy and incentives** to achieve the results for which it is being held accountable
- A **trustworthy monitoring unit** to monitor the provider’s performance against the compact
- A **merit-based system** that rewards the provider managers for performing well against the contract, and punishes them for performing badly
- A **means of providing information** on provider performance to both the government and consumers.

The basic regulatory structure that results from the elements set out above is illustrated in the figure to the right. However, various sector structures can display these features, if properly designed. For example, the “monitoring unit” may be an independent regulator, a semi-autonomous contracted monitoring unit, or a government department. The following sections discuss each of the elements of this accountability framework (with the exception of providing information, which was discussed above in section 12.2.1) identifying various options. Section 13 provides advice on how to implement recommended options in more challenging situations where government capacity may be limited.



### 12.3.1 A compact on service targets and allowed resources

This section sets out why setting service targets and the resources available to achieve them, in a written compact, helps in promoting accountability and reducing corruption. It reviews how this can be done in practice in a variety of situations.

#### The benefits of a compact for both private and public providers

Practitioners have long recognized the benefits of developing a (regulatory) compact that defines service standards and tariffs or other resources for private providers. With private providers, the need to specify required service standards and allowed tariffs and subsidies is clear—without such a compact, government and the citizenry have little control over the services provided, or the tariffs charged. Box 12.7 provides an example of a classic and well-defined regulatory compact governing the Philippines national transmission grid operator, which is under preparation to be managed by a private firm under a concession contract.

### **Box 12.7: Philippines Transco Concession Contract**

The Power Sector Assets & Liabilities Management Corporation (PSALM) officially launched the privatization of TRANSCO the week of 28 May 2006. In December 2007, TRANSCO was privatized through a 25 year concession contract, with the option of a further 25 year extension. The transmission company operates under detailed rules that set out the services it can provide, and the tariffs (wheeling rates) it can charge. The wheeling rates are outlined, in detail, in the Philippine Electricity Industry Guidelines on the Methodology for Setting Transmission Wheeling Rates from 2003 to around 2027. These guidelines set out:

- The methodology to be used in setting the maximum transmission wheeling rates that may be charged for the provision of Regulated Transmission Services by the Regulated Entity
- The pricing principles with which the ERC must comply for the purposes of regulating the maximum transmission wheeling rates that may be charged for the provision of Regulated Transmission Services by the Regulated Entity during subsequent regulatory periods
- The annual rate verification and adjustment process which the ERC must undertake in relation to the maximum transmission wheeling rates that may be charged for the provision of Regulated Transmission Service by the Regulated Entity during a Regulatory Period
- The regulatory processes and timelines to which both the Regulated Entity and the ERC must adhere in order for the methodology established by these Guidelines to be administered and applied in a timely manner, and
- The performance indicators, performance targets, and reporting arrangements with which the Regulated Entity must comply during later regulatory periods, and which the ERC must monitor, in order to ensure the effective and efficient delivery of Regulated Transmission Services to consumers.

These clear rules provide a foundation for effective regulatory monitoring of the private firm that won the concession contract—a consortium comprising local firms Monte Oro Grid Resources Corp. and Calaca High Power Corp and China’s State Grid Corp.

Sources: PSALM (2006) “*TRANSCO Privatization*”, Presentation to the Joint Congressional Power Commission (“PowerCom”) 25 May 2006

Republic of the Philippines Energy Regulatory Commission (2003) “*Guidelines on the Methodology for Setting Transmission Wheeling Rates from 2003 to around 2027*”

With publicly-owned providers the benefit of setting service standards and allowed resources is at first less clear—after all, the government, by virtue of its ownership and control rights over the provider, can at any time direct that provider to provide certain services, or reduce tariffs. However, the importance of clear service standards and tariff or subsidy rules becomes clearer in the context of provider accountability—the government needs to be sure that the managers of its provider can be held accountable for meeting a clear set of targets.

In short, when the government owns the provider, it must address a management problem. This problem is equivalent to the regulatory problem that the government would need to address under private provision.

The solution to the public-provider management problem is very similar to the solution to the private-provider regulatory problem. As with regulation, management accountability demands that provider managers have clear results they are supposed to achieve, and clearly

defined and adequate resources with which to achieve them. Box 12.8 shows how an overhaul of corporate structure and the introduction of a management contract in South Africa helped to improve the performance of Eskom, its vertically integrated electricity provider.

**Box 12.8: Shareholder Performance Contract in South Africa Improves Eskom Performance**

Eskom, in South Africa, is a public electricity utility that has been corporatized and, until very recently, successfully held accountable through a performance contract.

Prior to corporatization, the management of Eskom was not fully accountable, and could plan and finance excessive generation capacity. Poor and costly investment decisions were made.

In response, the government decided to overhaul Eskom's management. The utility management was held accountable through a shareholder performance contract with the Ministry of Public Enterprises (the government shareholder). Under the terms of the contract, Eskom operates according to commercial imperatives. It is regulated by an independent regulator, which reports via the Ministry of Minerals and Energy to Parliament and is ultimately responsible for consumer protection. Social programs, such as electrification, are overseen by the Ministry of Minerals and Energy, rather than the shareholding Ministry. In this way, there is a tension between the utility managers, which have incentives to maximize financial return, and the regulator, which is charged with improving efficiencies and lowering costs whilst ensuring financial sustainability.

Following the introduction of the contract, Eskom increased its productivity, and the government no longer needed to guarantee its loans. The company began to make a positive return on its assets, and has improved reliability and quality of supply.

However, in the latter parts of 2007, South Africa began experiencing widespread rolling blackouts as supply fell behind demand. The resulting rolling black-outs have been attributed to poor planning, and poor regulatory decisions based on strong political influence.

Source: Eberhard, A. (2004) *The Political Economy of Power Sector Reform in South Africa*, Stanford: Stanford University Program on Energy and Sustainable Development

The advantages of a regulatory or management performance compact with defined service standards and defined resources are that:

- The compact makes it clear what the provider is supposed to achieve in the way of services, and so allows the government to tell whether or not the provider is performing well
- By specifying a reasonable level of resources that can be used in delivering the required services, the compact becomes a key part in a system for promoting efficiency. Coupled with adequate management incentives, the drive to increase efficiency can lead the provider management to clamp down on the wastefulness of corruption
- The compact can be made public, and the terms of the contract can be debated. This allows citizens to assess whether the government is doing a good job in setting

targets for the sectors, and also to judge whether the provider is performing as intended.

How then can government move towards such compacts where they do not exist already?

### **Establishing a regulatory or management performance compact**

The general process for developing an effective regulatory or management performance compact involves three steps:

1. **Defining the problems and objectives in the sector.** If a government doesn't start with a clear idea of what problems it needs to solve in the electricity sector it will struggle to develop an effective solution. This may seem obvious, but surprisingly often governments don't identify sector problems and associated objectives at all, or don't identify the objectives clearly (or in a way that enables them to assess how well government policies and regulation meets those objectives).

Generally, each sector objective would respond to a major sector problem. For example, if inadequate access to services is an important problem, a clear objective might be to increase access to services. If non-continuous or erratic supply is an important problem, an objective might be to improve service reliability. If ongoing government support to prop up a poorly performing public utility is an important (fiscal) problem, the objective could be to improve the utility's operating efficiency.

When identifying sector problems and setting sector objectives, the government may need to prioritise some objectives over others. This may involve policy trade-offs. For example, government may want to improve the quality of service provision, while keeping tariffs low. The government will need to decide whether to compromise one of these objectives in favour of the other, or to provide additional financial support (in the form of subsidies) to ensure that both its service and affordability objectives are achieved

2. **Defining the specific monitoring functions needed to achieve these objectives.** The monitoring functions should help to ensure that the provider is able to, and has incentives to, operate in a way that is conducive to meeting sector objectives. For public providers, the monitoring functions are similar to good provider management controls such as target-setting, budget allocation, and appraisal against the service standard and budget goals. For private providers, target setting and appraisal is also important, but the budget monitoring functions may focus more on budget control via controls on tariff levels that ensure the full recovery of efficient costs through consumer tariffs, or a combination of tariffs and government subsidies
3. **Deciding which legal instruments are best suited to embody the monitoring rules and which organizations are best suited to perform the monitoring functions.** The government could choose one of several instruments (such as a statute or executive prerogative) to appoint a monitoring unit (such as a ministry or Public Utilities Commission), which would be empowered to issue subsidy, tariff, or service standard rules through a suitable investment (such as an

order or contract). Contracts have the advantage that they cannot be changed without the provider's consent. As Besant-Jones notes:

*The rules that best answer the main concerns of the foreign investors may not require a complex regulatory framework in the host country. If the principal requirements of investors are clarity of rules and predictability of results with government commitment and assured payback, they may be satisfied with the establishment of clear contracts, rather than complex regulations.*<sup>36</sup>

Where the provider is public the choice of instrument will depend in part on whether the government is taking a “regulatory” or a “managerial” approach to accountability. A “regulatory” approach would treat the provider as being quite independent from the government, and therefore regulate it much as if it were a private provider. This is the approach taken by governments in Australia and New Zealand toward the distribution and transmission companies they own. In contrast, a more managerial approach might see the compact embodied in a Memorandum of Understanding or an essentially non-enforceable agreement between government and the utility. Another approach with promise would be to put the agreement in the employment contract with the utility managers.

### **12.3.2 A provider with incentives and autonomy**

*The typical institutional environment has not provided the correct incentives and governance for providers of power services to meet consumer demands efficiently. Most state-owned power utilities in developing countries have operated under highly distorted economic incentives and governance for utility managers, employees, and customers, which have undermined service provision and revenue control. Governments have controlled their utilities closely through key appointments, tariff setting, investment approvals and financing, employment conditions and bureaucratic processes. Some governments have even caused their utilities to involuntarily support their fiscal budgets when their departments and agencies do not pay their electricity bills. This has usually led to operational inefficiency, limited access to electricity, financial loss and the need for public subsidy by these utilities, often in an environment of widespread corruption. High levels of nontechnical power losses (such as theft) from state owned power utilities in many developing countries also reflect a failure of governance.*<sup>37</sup>

This section considers why an adequate level of provider autonomy is important for improving governance and reducing corruption, and how such autonomy can be achieved in practice. It then considers the equally important point of the incentives the provider's management have to perform and deliver against the regulatory compact.

#### **Provider autonomy**

If the people managing the provider do not have reasonable freedom to manage, they cannot be held accountable for the provider's performance. Adequate autonomy involves the ability to decide on how the utility will achieve its objectives, to ensure that revenues are directed

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<sup>36</sup> Besant-Jones (2006) “Reforming Power Utilities in Developing Countries: What Have We Learned?”, Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

<sup>37</sup> Besant-Jones (2006) “Reforming Power Utilities in Developing Countries: What Have We Learned?”, Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

towards their intended uses, to hire and fire staff, to set salaries and offer performance incentives, to disconnect both public and private non-payers, to reinvest revenues into system improvement and expansion, and so forth.

There are many possible constraints on provider autonomy. Often the provider's autonomy in practice is lower than its autonomy "on paper". Legislation that decrees the provider to be autonomous can help, but may not be sufficient for ensuring that provider management is truly empowered to make key decisions. Factors that may limit a provider's **effective** autonomy include reliance on government for financing, unclear regulatory rules or policy settings that force the provider to turn to the regulator or government for decisions on many issues, and—perhaps most commonly—a culture of deference of the provider Board and management to their political masters.

Possible ways of increasing provider autonomy to overcome these constraints include:

- Corporatization
- Mixed ownership (see Box 12.9)
- Privatization to create an Investor-owned Company
- Cooperative Ownership.

**Box 12.9: Advantages and Disadvantages of Mixed Ownership**

The sale of minority shareholdings to nonstrategic investors by governments can produce short-term gains, but pose long-term problems. Many countries (such as Egypt, Russia, Ukraine, and Vietnam) have sold minority shareholdings to local investors and granted or sold on preferential terms shares to power company employees and through local stock exchange. These sales can raise funds for government budgets—although usually not large sums—as well as raise employee morale and help nascent stock markets. When combined with minority share privatization, however, they might give control of the company in unintended ways (employees often quickly sell their shares to investors seeking controlling interests in power companies). They tend to be unattractive to serious investors, since groups with minority blocking rights can always hinder whatever the strategic investor wants to carry out (as happened in Ukraine).

Source: Besant-Jones, J. (2006) *“Reforming Power Markets in Developing Countries: What Have We Learned?”* Energy and Mining Sector Board Discussion Paper No 19, Washington, DC: The World Bank, page 51

Box 12.10 describes an example of community participation leading to better governance.

**Box 12.10: Community Participation and Good Governance**

Sagar Island in the Sunderbans in India is supplied with electricity generated by solar panels provided by the West Bengal Renewable Energy Development Authority for the use of the community. A typical unit serves about 120 to 150 households grouped in a cluster. A local committee oversees all operations, including delivery of bills, collection from consumers, and monitoring the system. Consumers pay more than twice the amount mainlanders pay the state-owned utility for electricity. The supply is restricted to a few hours in the evening. Consumption is limited to about 7–10 kilowatt hours a month, and overdrawals are blocked by miniature circuit breakers installed in homes. Theft is almost nonexistent and defaults very few, thanks to enormous peer pressure and self-monitoring by the user-group.

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

The possible uses of each ownership form are discussed in more detail below.

**Table 12.1: Types of Ownership and Corporate Form**

	<b>Ministry or Department</b>	<b>Statutory Body (or Parastatal)</b>	<b>State-owned Company</b>	<b>Mixed-ownership Company</b>	<b>Investor-owned Company</b>	<b>Co-operative Company</b>
<b>Legal Foundation</b>	Normally an executive order	A statute	A memorandum and articles of association (registered under a Companies Act or the like)	A memorandum and articles of association (registered under a Companies Act or the like)	A memorandum and articles of association (registered under a Companies Act or the like)	Incorporated under a general Cooperatives Act, in most cases. May also be incorporated under companies law but with special articles of association, or may be a company governed by a consumer trust.
<b>Status as Legal Entry</b>	Normally unincorporated (thus does not have a legal personality separate from that of the government)	Either incorporated or unincorporated	Incorporated (thus has own legal personality)	Incorporated (thus has own legal personality)	Incorporated (thus has own legal personality)	Incorporated
<b>Basis of Ownership</b>	Notionally, owned by the government as creator	Notionally, owned by the government as creator	Owned by the government as creator and shareholder	Some shares owned by government, other shares by private investor	All shares owned by private investor	Owned by its customers
<b>Legal Framework</b>	Operating under public law	Operating under public law (in many cases)	Operating under private law			

## Corporatizing electricity service providers

“Corporatization” is commonly recommended as a way to increase autonomy and professionalism in an electricity provider. Corporatization sometimes refers to the creation of an electricity provider that is a corporate entity (whether a state-owned company or a statutory corporation) as opposed to a provider that is part of a government department or municipal government. Other times the word is used strictly to refer to the transformation of a public-provider into a company incorporated under normal company law (with a legal identity that is separate from the government), but in which all the shares are owned by the government.

Corporatized providers will have different performance incentives in different market contexts. For example, the corporatized providers may be in competition with private providers, as in New Zealand (where three corporatized providers compete with private providers in the generation and retail markets) and the Philippines (where a corporatized generation company competes with private generators). In these contexts, the providers face clear market-based signals on how well they are performing on cost and quality parameters.

Provided management remuneration is linked to market performance, such competition can create incentives for management to improve profitability. Such incentives tend to be heightened where the corporate governance structure is modeled on private-sector practices, in line with market competitors, rather than public-sector norms. For example, in New Zealand the State-Owned Enterprises Act gives government-owned businesses the objective of being “as profitable and efficient as comparable businesses not owned by the Crown”. Although other objectives (such as being a “good employer”) may weaken the corporatized companies’ accountability for being profitable, having a clearly profit-driven mandate helps create incentives for improved governance and performance.

Besant-Jones summarizes the importance of an able and independent Board of Directors for a corporatized electricity utility.

*The appointment of an independent and competent Board of Directors is critical for combating political and bureaucratic interference in the management of a power utility. The board should consist of outside professionals of high standing and other knowledgeable eminent persons, rather than the typical practice of limiting board membership to a few civil servants and utility executives. Experience in Lithuania shows the healthy impact this policy has on the corporate governance of the utility. If improving performance with the existing set of managers or the Board proves to be difficult, the alternatives of using management contracts or cooperation with or franchising from western utility groups could be considered as an interim measure.<sup>38</sup>*

Box 12.11 below compares and contrasts four examples of corporatization in different market contexts and with different corporate governance structures.

### **Box 12.11: Contrasting Forms of Corporatization**

A review of four cases of corporatization—in Mexico, New Zealand, the Philippines, and

<sup>38</sup> Besant-Jones, J. (2006) “Reforming Power Markets in Developing Countries: What Have We Learned?” Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

South Africa—found that country governments had taken quite different approaches to reforming the electricity sector and improving provider governance. Overall, the New Zealand case of corporatization appeared the most successful, although each country had achieved some performance improvements through their respective reforms.

Some of the more successful practices derived the cases were:

- Subjecting the utilities to company law and other laws that apply to private-sector companies—in order to bring to bear new rules governing the relationship between the utilities and the government as their owner
- Legislating for additional constraints on the relationship between the government, as owner, and utilities—to address the special problems afflicting the governance of state-owned utilities (such as the weak influence of the utilities’ ultimate beneficial owners, citizens, over the proximate owner, the government)
- Requiring additional public reporting by the utilities—for example, of directions given to the utility by politicians and of the utility’s policies toward theft and corruption by employees
- Taking further steps to instil a commercial culture in the utilities, such as appointing independent directors from successful businesses
- Requiring electricity companies to borrow from private lenders without the benefit of a government guarantee, to bring to bear the benefits of scrutiny by lenders and credit-rating agencies
- Listing a minority of the companies’ shares, to create market information on commercial performance, allow equity-linked compensation, and create monitoring by other shareholders
- Strengthening more transparent and efficient means of redistributing resources, such as direct subsidies to electricity customers
- Reducing the conflict of interest it faces as policymaker and owner, by separating responsibility within government for policy and ownership—for example, making the former the job of the minister of energy and the latter the job of the minister of finance.

Source: Irwin, T. and Yamamoto, C. (2004) *“Some Options for Improving the Governance of State-Owned Electricity Utilities”* Energy and Mining Sector Board Discussion Paper No. 11, Washington, DC: The World Bank

Although a corporation’s board may have representation from senior government officials, it is a distinct legal entity that operates more like a private business. Its finances are isolated from the general government budget and may be externally audited. The benefits of this model are that it can introduce autonomy and commercial discipline to the utility, decreasing political interference and petty corruption and leading to considerably better performance in terms of coverage and quality. A comparison of a corporatized electricity utility and a departmental water provider operating in the same city highlight some of the benefits (see Box 12.12 below).

**Box 12.12: Corporatized Electricity Provider Out-performs Municipal Water (Hydraulic Engineer’s) Department in Mumbai**

The Municipal Corporation for Greater Mumbai owns both the water and electricity service providers for the city. The electricity provider—the Brihanmumbai Electric Supply & Transport Undertaking, or BEST (a corporatized entity or undertaking)—has performed

far better than the water provider—the Hydraulic Engineer’s Department (A municipal government department). Many sector practitioners believe this difference in performance is due to BEST’s corporate structure, which affords managers more autonomy and gives them incentives and resources to improve performance.

In the Hydraulic Engineer’s Department, managers have little delegated authority. For example, the Municipal Commissioner may only authorise expenditure of up to 1 million rupees (approximately US\$25,000), while the chief hydraulic engineer may only authorise expenditure of up to 10,000 rupees (approximately US\$250). An assistant ward engineer has authority for expenditures of only 250 rupees (approximately US\$6). Obviously, these amounts are inadequate for covering all but minor repair works. All other expenditure—often for routine purposes—must be approved by the Municipal Standing Committee, which is alleged to regularly demand a set percentage of any supply contracts. The bureaucratic approval and procurement procedures mean it takes a long time to buy anything, and all repairs and rehabilitation works are slowed down. In addition, there is a lack of preventative maintenance, and staff lack important safety equipment.

System performance suffers as a result of management inefficiency and the lack of resources. The average supply duration throughout the city is only 4 to 5 hours per day, pressure is low, and the quality of the water delivered is very poor during monsoons when flooding routinely occurs. If the system were supplying water continuously, approximately 50 percent would be lost through both technical and commercial losses.

In contract, BEST has performed well. Its distribution losses are limited to 12–15 percent in total, of which only three percent is attributable to commercial losses. Reliability of supply is good, and the company has seen a steady growth in total sales over recent years.

BEST was originally established as a tram and electricity generation company, but began supplying electricity services in 1905. Its ownership was taken over by the Municipal Corporation in 1947, but the company was maintained as an autonomous corporate entity.

The company is headed by a general manager, who reports to the BEST committee (a governing board, comprising 17 Municipal Corporators, which holds the utility accountable for meeting technical and financial performance objectives). The BEST enjoys a high degree of autonomy. The Municipal Corporation approves the company’s yearly budget and permits increases in tariffs when required.

Source: [www.bestundertaking.com](http://www.bestundertaking.com) and Castalia communication with Municipal Corporation staff

In practice, corporatization is often imperfect—politicians may still intervene in utility affairs or act to restrict tariff revenues, such that the utility is unable to meet all service coverage goals. There may also be internal resistance to the institutional changes involved in adopting the corporate model, or a lack of capacity to properly implement the required changes. Practitioners need to be aware of such constraints. As noted by Shirley (1998):

*“[p]rivatization and corporatization have similar political costs and tend to succeed or fail together. Where reform was politically desirable, politically feasible, and credible, countries privatized and corporatized successfully.”*<sup>39</sup>

<sup>39</sup> Shirley, Mary. 1998. “Bureaucrats in business: the roles of privatization versus corporatization in state-owned enterprise reform.” *World Development* 27(1):115.

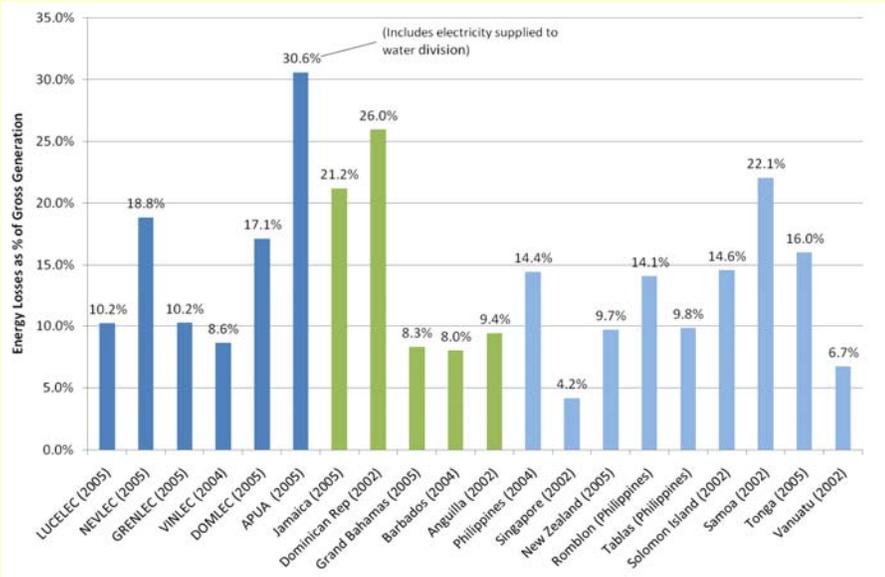
## Mixed ownership

A mixed-ownership company has some shares owned by the government and some by private investors. Diversifying ownership in this way can reduce the risk of capture by political or interest groups. Because political capture generally directs resources away from their most efficient use (by, for example, favoring investments in a particular community in return for bribes or political favors), reducing capture through mixed ownership can improve utility performance. A good example of the link between mixed ownership and utility performance can be seen in the Caribbean (see Box 12.13 below).

### Box 12.13: Mixed Ownership Results in Good Performance for Electric Utilities in the Eastern Caribbean

A benchmarking study of the performance of electric utilities in the Eastern Caribbean found that the extent of private ownership is a critical variable for utility performance, governance, and regulatory design. The utilities with some private ownership—DOMLEC, GRENLEC, and LUCELEC—generally performed better than the government owned utilities—APUA, NEVLEC, and VINLEC. The figure below shows systems losses in the six utilities (the Eastern Caribbean utilities are the first six on the left).

#### System Losses



Source: Castalia (2007) *"The Feasibility of Regional Cooperation in Regulation of the Electricity Sector of the Eastern Caribbean States"*, Final Report to the World Bank, Volume II

Mixed ownership also seems to have helped to improve governance in Russia's power system, as Box 12.14 describes.

### Box 12.14: Investors Create Pressure to Adopt Good Corporate Governance

The Unified Energy System or RAO UES, is Russia's largest electricity company. The company owns the high-voltage transmission grid and 33 percent of power plant supply

needs, and it has stakes in regional distribution companies. The state owns about 53 percent in RAO UES, and the other 47 percent is held by minority shareholders.

At the beginning of 2000, the management of RAO UES proposed a complicated and nontransparent restructuring plan. The rationale for the restructuring was that efficiency and competitiveness needed to be improved. The plan involved the creation of a multitude of generation, transmission, and sales companies (totaling about 1,000 enterprises) under a general oversight company.

Many shareholders were concerned with the plan, particularly because the proposed two-tiered structure would put the asset reallocation process beyond the control of shareholders and the boards of directors (which might have led to nontransparent deals with local industry and regional governments) and because the RAO UES assets that were put up for sale were priced very low. These aspects of the plan created a suspicion of corruption and asset stripping. The markets reacted very negatively to the upcoming changes in the company, and from April until December 2000, the share price went down by 62 percent. Institutional investors expressed their serious concern in a letter addressed to President Putin. Independent directors at RAO UES managed to block the restructuring plan's progress and banned all asset transactions until proper approval of the restructuring plan had been given.

Eventually, the government announced the cancellation of the original restructuring plan and set up a commission, including minority shareholders, to devise a new plan. The government agreed at the negotiations with minority shareholders to make changes in the charter of the company to present asset sales, and to appoint international experts to advise on good corporate governance practice for the utility.

The experts devised a new, more transparent restructuring plan and assembled a deal with the shareholders, which was approved. The competence of the boards was broadened significantly through amendments to the charter. The list of deals requiring shareholder approval was extended, as was the list of corporate events subject to obligatory disclosure to shareholders. A reforming committee was created by the RAO UES Board of Directors, and chaired by an independent director. The management announced the creation of a methodological base and arrangements for regular audits of finances and operations of subsidiaries and independent companies. This restructuring was seen as a good use of corporate governance principles to reduce opportunities for corruption.

Source: "Corporate Governance: An Antidote to Corruption" (2002) *Records of the 10<sup>th</sup> International Anti-Corruption Conference*, Center for International Private Enterprise.

### **Privatization to create an investor-owned company**

Having the utility owned or operated by a private party is the best way to ensure its autonomy. However, the very strength of the autonomy of a private operator necessitates equally strong regulatory or contractual arrangements to guarantee the provider's accountability. A survey of over 1,200 electricity utilities found strong evidence that private participation is effective in improving utility performance (see Box 12.15 below).<sup>40</sup> However, private participation contracts can be costly and difficult to design and tender, and may not be supported by the government or public.

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<sup>40</sup> Gassner, K. Popov, A. and Pushak, N. (2007) "An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing and Transition Countries"

**Box 12.15: Private Power Operators Saved Governments from Providing Heavy Operating Subsidies**

Where private operators took over retail supply, they also drastically reduced payment delays, theft, and unpaid bills (from 30 percent to 12 percent in Buenos Aires, and about the same in Côte d'Ivoire, where assets were not sold but just leased). A lot of the gains that eliminated or reduced the need for subsidies stemmed from better asset management. Typically, in the reformed Latin American power sectors, over a five-year period plant availability increased by 10 percent to 40 percent, the number of customers per employee also decreased by 50 percent, and power outage indicators decreased by more than half. The table below summarizes other performance improvements.

**Improvement of Privatized South American Distribution Companies**

Item	Peru Luz del Sur	Argentina EDESUR	Argentina EDENOR	Chile Chilectra
Year Privatized	1994	1992	1992	1987
Change in energy sales (%)	+19	+79	+82	+26
Change in energy losses (%)	-50	-68	-63	-70
Change in number of employees (%)	-43	-60	-63	-9
Change in customer per employee (%)	+135	+180	+215	+37
Change in net receivables (days)	-27	-38	—	-68
Change in provisions for bad debts (% of sales)	-65	-35	—	-88

Source: Besant-Jones, J. (2006) "Reforming Power Utilities in Developing Countries: What Have We Learned?" Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank, page 34.

**Cooperative ownership**

Giving citizens ownership of the utility, by structuring it as a cooperative, can create an effective governance structure for the electricity sector, even when such structures are rare elsewhere in the sector or in government. An effective cooperative governance structure means that the electricity provider management is answerable to representatives of customers, as the example of Bangladesh in Box 12.16 below shows.

### **Box 12.16: Rural Electric Cooperatives in Bangladesh**

In 1977, the Rural Electrification Board (REB) was established in Bangladesh, shortly after the Constitution declared rural electrification a “fundamental principle of state policy”. The first *Polli Bidyut Samities* (PBS), or rural electricity cooperative, was established in 1980 in a village in Dhaka. Today, there are 67 PBS in operation, serving 39,684 villages.

The REB is funded by the Government, and provides finances to PBS (as well as technical assistance in development, operation, and maintenance). Each PBS is an autonomous organization. They are overseen by a Board elected by members of the cooperative. Consumers are welcome to participate in the decision-making processes and attend the Annual General Meeting. The REB makes its funding conditional upon each PBS’s performance and has the right to dismiss incompetent or corrupt managers.

The PBSs have proven to be an effective corporate form. Collectively, they are now the largest “agency” in Bangladesh’s power sector, serving about 25 million rural people throughout the country. A quarter of the PBS are profitable, and another half operate on a break-even basis.

Sources: Barkat, A. (not dated) “Rural electric cooperatives in Bangladesh”, United Nations Economic and Social Commission for Asia and the Pacific; and 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

Cooperatives have often worked best for simple systems and small service areas. In such areas, consumers can be more directly represented on the provider board, and the board does not need to be large or have a high degree of technical capacity to effectively operate the system. Co-operative performance may be improved through partnerships with more experienced or technically-skilled counterparts. For larger, more complex providers co-operative ownership models are at greater risk from lack of board competence or cohesion. The mixed performance of electricity cooperatives in the Philippines illustrates some of the challenges in the model, as well as desirability of a carefully structured governance arrangement, rather than a simple “majority rule” system.

#### **Provider incentives**

Provider incentives to perform well and reduce corruption vary according to provider ownership and management: they are inherently higher for private providers, and lower for public providers.

Privately-owned utilities have “built in” incentives for reducing corruption and poor governance risks—in private utilities, the management team is accountable to the board, which demands profit maximization. In turn, the management team holds other utility staff accountable for limiting costs and achieving required performance standards. This gives the private utility a strong system of incentives to apply effective corporate governance and management controls, which help reduce corruption. The same incentives apply under concession contracts—the private operator is held accountable through the terms of the contract, and has incentives to prevent cost escalation through corruption.

Accordingly, introducing private ownership or operation to a utility can be an effective way to improve performance and probity, as illustrated in Box 12.17 below.

**Box 12.17: Outcomes of Power Sector Privatization in Chile and Argentina**

In Chile, in the aftermath of privatization power suppliers increased their capacity substantially by more than doubling annual generation from 1990 to 1998. Privatization also increased the productivity of utilities by cutting energy losses by more than half to 8.3 percent in 1997, by doubling labor productivity in distribution, and by tripling energy generation per worker in the largest generating company. Although privatized companies became substantially more efficient, these gains were only transferred to customers in areas under competition. In the main market, the regulated wholesale price of electrical energy fell by 37 percent, and technological change rendered uneconomical a large fraction of existing thermoelectric plants. In contrast, the final price to customers did not fall to reflect the huge productivity gains that were achieved after privatization, since between 1987 and 1998 the regulated price to consumers fell by only 17 percent. This situation led to spectacular increases in the profit rates of distribution companies: the rate of return of the largest distributor rose from 10.4 percent to 35 percent in this period, which is striking considering the low market risks carried by distribution monopolies (Fischer and Serra 2000).

In the case of Argentina, wholesale power prices and unserved demand dropped substantially following market reform. The average energy spot price dropped steadily from around US\$45 per MWh in 1992—the first year of operation—to US\$25 per MWh by 1998 under intense competition among the privatized generators. Retail power prices did not decline as much, however, because contracts between distributors and generators concluded before the parties were privatized. Electricity prices for industrial users declined more than prices for residential users. Similar price trends occurred in other South American countries (Bolivia, Colombia, Peru) that followed the same reform model as Argentina, with wholesale prices dropping by more than retail prices.

Source: Besant-Jones, J. (2006) *“Reforming Power Markets in Developing Countries: What Have We Learned?”* Energy and Mining Sector Board Discussion Paper No 19, Washington, DC: The World Bank, page 32.

Management contracts, however, present a different story. In management contracts, the private operator supplies management services to the utility, but has no ownership stake. Because they have little to lose from the utility’s poor performance (depending on how the management fee is structured), the private management team has few incentives to minimize losses due to corruption or inefficiency. As a result, the incentives to reduce corruption under a management contract will be similar to those for a public utility. Box 12.18 below describes some experiences with management contracts.

**Box 12.18: Experience with Management Contracts**

The major difficulty with management contracts has been demarcation of responsibilities between owner and manager, and the need for the full support of owners and employees for the arrangement. Experience during the 1990s in the power sectors of developing countries with management contracts and affermage concessions were generally disappointing. Much of this experience was obtained in Sub-Saharan Africa (in Benin, the Democratic Republic of Congo, Ghana, Mali, Rwanda, Senegal, Sierra Leone and Zimbabwe). The contracted service providers invested little risk capital because they faced little incentive to do so under the small performance-related components in their contracts. Similar experience was obtained elsewhere (Bolivia, Lao PDR). Côte d’Ivoire was a notable

success with a 15-year operating concession starting in 1990 that resulted in substantially improved technical and financial performance and service quality which attracted the first IPPs to the region. These improvements could not be sustained, however, once the political and economic conditions in Côte d'Ivoire deteriorated substantially after 2000.

Source: Besant-Jones, J. (2006) "*Reforming Power Markets in Developing Countries: What Have We Learned?*" Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank, page 46

One option for improving incentives is to structure the management fee so that it gives the management team more performance risk. For example, if the contract includes a bonus payment based on achieving reductions of technical losses, this may encourage the private operator to put procedures in place to reduce this form of corruption in the area of connections and commercial operations. As this example indicates, shifting risk to the private operator to increase its incentives is likely to mean paying more, either in the form of bonuses or a higher (but contingent) management fee. However, this additional cost may well be outweighed by the benefits of reducing corruption and inefficiency.

In public utilities, employees' incentives are not directly aligned with the incentives of the company owners. To address such problems, effective utility managers put in place management controls that effectively detect and penalize behavior that harms the utility's performance, and that reward behavior that benefits the utility's performance.

The best approach for improving employee performance and probity in public providers may be to offer some kind of performance pay. This pay may be offered through a well-structured management contract, as in Uganda, or through an alternative or less formal mechanism. For example, in New Zealand the managers of state-owned enterprises, including electricity companies, are paid in accordance with the company's level of profits. A strictly-enforced regulatory regime helps to ensure that any profit increases in the enterprises come from efficiency gains, rather than tariff hikes or drops in service quality.

A similar approach could be to reward utility management for achieving certain service levels. This could be particularly effective where existing service are poor, and where marked service improvements are needed over a set period.

A further option could be to offer other forms of performance-based recognition in place of, or alongside, performance-based pay. For example, benchmarking utilities against others in the country or region may lead to competition to be the best performer, creating incentives for staff to improve probity and efficiency. Similarly, initiating peer review of utility operations or performance levels may lead to reputational pressure to improve.

### **12.3.3 A trustworthy oversight body**

If a provider is to be held accountable for performance, someone needs to monitor that performance. The government has several options to choose from here.

Independent regulatory agencies have been established in many countries. Box 12.19 below describes what is often considered to be best practice in design of a regulatory agency.

#### **Box 12.19: Regulatory Options for Accountability**

Separation of regulatory and commercial functions and ensuring independence and

accountability of regulatory institutions should be key elements of any anti-corruption strategy.

### **Independent Regulatory Regime**

Creation of an effective regulatory regime that is independent of the government calls for a major shift in the attitude of the governments that have always wielded a great deal of control over the entire sector either directly or through the utilities they own. The following list enumerates the important features of an independent regulatory regime.

- The regime should be established by law (not by executive decree), with the role of the regulators, the mode of their appointment, service conditions, powers, immunities, and responsibilities defined in law and implemented in a transparent manner.
- The regulatory budget should be independent, and funding should be secure.
- All regulatory procedures (on licensing, tariff setting, grievance redressal, and the like) should be well defined and widely publicized, and the scope of government intervention in regulatory processes should be clearly specified by law.
- All regulatory decisions should be thoroughly explained and made after a transparent and participative process that is open to all stakeholders. Decisions should be subject to appeal before an appellate forum.
- Decisions should be legally enforceable, and penalties should be set for noncompliance with regulatory orders.
- Information on the regulatory regime should be made available to civil society in an easy-to-understand format.
- The rights and obligations of the utility as well as those of the consumers should be clearly spelled out, given wide publicity, rigorously monitored, and firmly enforced.
- Regulatory decisions should be predictable and timely.
- Regulators should be held accountable for their actions, and mechanisms for appealing regulatory decisions should be established.

It needs to be emphasized that the creation of an independent regulatory regime by itself will not have any significant impact on corruption. Several other conditions need to be fulfilled before the regulator can be effective. For example, the government must choose the right persons as regulators, give them sufficient financial autonomy to do their work, and demonstrate a willingness to uphold regulatory decisions even when they are politically inconvenient.

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 132

Other options include a ministry that monitors and enforces a concession contract. Some countries are adopting intermediate models, as Box 12.20 describes for Vanuatu.

### **Box 12.20: An Oversight Body in Vanuatu**

In Vanuatu electricity services in urban areas are provided by UNELCO—a private firm that is part of the Suez group—under a concession contract with the government. The contract sets the rules for service coverage, tariffs and services standards. For many years the concession contract was enforced by staff of a designated ministry, and more recently by an 'Energy Unit' whose main focus was rural electrification. The Vanuatu government became concerned that the Unit lacked the specialized expertise necessary to monitor and enforce performance under the concession contract. The Government is now creating a

special regulatory agency that it hopes will be more effective. However, unlike a traditional regulator in the British or American model, this agency's powers will be largely limited to enforcing the contract.

Government-owned providers can be monitored in a variety of ways. One option is independent regulation of public providers. This can provide checks and balances. For example, in Belize the government-owned power utility is regulated by a Public Utilities Commission, while in Trinidad the state-owned power utility is regulated by the Regulated Industries Commission. Box 14.4 gives an example of how independent regulatory scrutiny of public utilities can improve decision-making.

Another is for the Board of a public utility to monitor the management team. The publicly appointed board could, for example, put the utility management team on a performance contract, and use this contract to incentivize improved performance in the public utility.

Whatever option is chosen should be robust to the inherent problems of performance based management in the public sector, such as the difficulties governments may have in rewarding or sanctioning public sector employees, and the challenges in creating truly arms-length relationships between two public sector entities—the provider, and the body monitoring the provider's performance.

#### **12.3.4 Disaggregation and competition to promote accountability**

As discussed in Section 8, many countries have introduced competition into their electricity markets in an effort to improve performance. Such pro-competition reforms are based on the insight that while transmission and distribution are natural monopolies, generation is potentially competitive. This section looks at the relationship between competition in the electricity market, governance, and corruption, by

- Describing common models for introducing competition into the power market
- Discussing the potential for competition to increase probity and governance
- Outlining the additional risks for probity and governance that competitive market reforms can create, and how these risks can be mitigated.

#### **Common models for competition in electricity**

There are many ways to introduce competition into electricity markets, but they can be distilled into two main types:

- **Single buyer models.** A government-owned entity (for example, the national transmission company) sources new generating capacity to meet the nation's needs by soliciting offers from independent power providers
- **Wholesale market models.** Multiple profit-motivated generators compete with each other to sell power to distributors and large customers, with trades taking place in a specially designed 'electricity wholesale market' which works a bit like a stock-exchange for power. Power is usually traded in real time, and there are usually also longer-term contracts that help the generators and buyers manage the risk of short-term price fluctuations. Because transactions in the wholesale market determine plant dispatch, which must happen in real time (since electricity can't be stored), these markets are usually highly complicated and closely interlinked

with the systems operation function (that is, the central entity that tells power plants how much to generate when, and cuts off load in the event that demand for power exceeds the amount capable of being physically generated at any time).

These types are explained in more detail—and contrasted with non-competitive models—in Section 8. A good introduction to the types of power markets, and when to use which type in developing countries, is Besant-Jones (2006), especially sections three and five. This and other references are in the Source List at the end of this chapter.

### **The good governance rationale for competition in electricity**

Competition can help overcome one of the biggest governance problems in the electricity sector, namely the difficulty in really assessing the performance of generation plant operators.

Where there is a monopoly generator (such as a traditional vertically-integrated utility), outsiders cannot tell whether generation is being done efficiently. Generating power is a highly technical and complicated job, with many local idiosyncrasies that can make reasonable costs differ from place to place. As a result, regulators, governments and the public may observe that the cost of generation is high, but will find it hard to tell whether that is because the utility managers have made bad or corrupt choices—bought the wrong kind of equipment, paid too much for fuel, and so on—or because of factors outside management control. Managers will always be able to advance reasons for high costs or poor performance, whether it be that lack of fuel handling facilities mean they are at the mercy of one supplier, or failure of government to approve finance for generation in time has meant that they always need to build the plant that can be ready most quickly, instead of planning ahead and choosing the least cost technology. In many cases these excuses are valid, while in other cases they cover up corruption.

Asking multiple independent firms to compete to supply power goes a long way to resolving these questions, by creating competition. If one firm offers to supply power at a lower price than another firm, it generally shows that the lower-priced firm has a management team that has done a better job of overcoming the local problems and making the right choices on technology, fuel supply, and so on. Outsiders no longer need to evaluate complex arguments and excuses—they simply observe who offers the lowest price, and choose that supplier. This can be a powerful way to discourage corruption, since corrupt suppliers will generally have higher costs than non-corrupt suppliers (in order to cover the costs of the kickbacks), and so in a competition, corrupt suppliers will lose, and non-corrupt suppliers will be chosen.

### **Single buyer model**

The simplest way to get competition in generation is to procure energy and capacity under competitively bid long-term power purchase agreements. This is the single buyer model.

An effective single buyer can promote good governance in the generation sector by

- Developing an effective least cost expansion plan for generation and associated transmission
- Procuring generation capacity in line with the least cost plan, and following the recommendations for procuring power under power purchase agreements

- Ensuring that the single buyer is itself well governed, using the techniques of provider autonomy and accountability.

The Achilles heel of using a single buyer to improve governance in the electricity sector is the governance of the single buyer itself. While some single buyers such as EGAT in Thailand have developed a reputation for probity and efficient processes, the inherent problems of governance in government agencies can also apply to single buyers, as Box 12.21 illustrates.

**Box 12.21: The Role of the Single Buyer Model in Eastern European Power Markets**

Russia and Ukraine have operated their wholesale electricity markets on a modified single buyer basis.<sup>41</sup> Under this basis, no direct contractual link exists between the generators and distributors. Generators sell electricity at regulated prices, and the wholesale market entity supplies distribution utilities at the pooled average wholesale market prices.

This kind of arrangement lends itself to abuses. When supply is less than demand in the market, the wholesale market entity can be pressured by government to allocate power to favored large users and distributors, instead of following the agreed algorithm. Likewise, when the demand is below available supply, the wholesale market entity can be pressured to allocate demand to favored generators, such as the coal-fired plants (to appease the strong mining lobby). It can also be pressured to allocate demand among all generators to ensure that every plant is kept working and employment in the plants is sustained, so that uncompetitive plants are not faced with bankruptcy. These practices distort least-cost dispatch by partial loading of the thermal plants that reduces efficiency and increases fuel consumption.

Further, in an environment of extensive nonpayment, where the wholesale market is unable to collect dues from the distribution utilities and settle the dues of the generating companies, it has linked distributors to generators arbitrarily for purposes of payment. Such arbitrariness can lead to corrupt practices. Instead, direct bilateral contracting and settlement should be allowed between the distribution utilities and the generators.

Source: Besant-Jones (2006) *“Reforming Power Markets in Developing Countries: What Have We Learned?”* Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

**Competitive wholesale markets**

Competitive wholesale markets have the advantage of cutting out a government procurement agency—the single buyer—and replacing it with direct transactions between generators and large customers and distributors. As Box 12.22 illustrates, the strict rules of an organized wholesale power market can increase probity in transactions between generators and distributors.

**Box 12.22: OPCOM Power Exchange Improving Governance of Public Utilities in Romania**

<sup>41</sup> In the case of the Ukraine, the modified single buyer model was introduced after the failure of the wholesale market described in Box 13.2 (in next section)

The Power Exchange operated by OPCOM, the electricity market operator in Romania, provides a benchmark for the regional electricity market in Southeast Europe. In addition, it provides a tool to improve governance of public sector generators and to address “second-generation” issues in power sector reform emerging from market liberalization.

In the late 1990s, the Romanian power sector was restructured through unbundling of the vertically integrated power company RENEL into separate generation, transmission, and distribution companies. An independent power sector regulator, ANRE, was established in 1998. Distribution has been organized into eight regional companies. Transelectrica is in charge of transmission and system operations, and its fully owned subsidiary OPCOM is the electricity market operator. As of 2006, five of the eight electricity distribution companies have been privatized and the remaining three were expected to be offered for sale in 2007.

Market liberalization started in 2000 and has now reached 83 percent, with all but residential consumers now having the freedom to choose their electricity supplier. Within the liberalized market, eligible consumers and suppliers are free to enter into bilateral contracts for the supply of electricity. In July 2005, OPCOM launched a day-ahead market based on demand and supply side bids, followed by centralized auction of bilateral contracts in December 2005.

The government, ANRE, and the electricity companies addressed a number of major issues through the reform process. But market liberalization raised a new issue about the way public sector generators executed bilateral contracts. Prices in some of the bilateral contracts were allegedly set below true market value, and corruption was alleged in the case of bilateral contracts with some government-owned generation companies. In response, the top managers of two companies were dismissed and the government required public sector generators to use OPCOM’s competitive auction for bilateral contracts. OPCOM’s Power Exchange thus not only facilitates electricity trading but also provides a tool to improve governance of public sector generators.

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 132

A further advantage of competitive wholesale markets is that—if they work well—they can greatly reduce the need for government planning in power generation. Reducing the role of the public sector will generally reduce the scope for corruption, since corruption only occurs where government funds or discretionary decisions are in play.

The advantages of competition in increasing efficiency (and by implication reducing corruption) have been confirmed by econometric studies, including Zhang, Parker and Kirkpatrick (2002) that “introducing competition is effective in improving performance ... [by bringing] about favorable results for service penetration, capacity expansion, labor efficiency, and prices to industrial users”.<sup>42</sup>

### **Governance risks in competitive wholesale markets, and how to mitigate them**

Despite their advantages, competitive wholesale markets bring a number of risks. Chief among them are:

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<sup>42</sup> Besant-Jones, J. (2006) *Reforming Power Markets in Developing Countries: What Have We Learned?*, Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

- **Failure to implement the market.** Competitive markets in power are technical and demanding. Market transactions replace the command and control systems that previously managed the complex and interlinked decisions required to keep a power system operating. All participants in the market must be financially viable and commercially competent if the market is to work, as the failure of Ukraine's attempt to create a UK-style power pool illustrates (see Box 13.2). A comprehensive review of power market reforms set out the conditions which should apply before attempting to create a competitive wholesale market
- **Problems in long-term contracting.** As outlined in Section 8, many competitive market designs involve transparent and efficient spot markets, but these need to be complemented with longer term contract markets (sometimes known as hedge-markets). The longer-term contract markets are often murky, non-transparent and illiquid, creating opportunities for corruption in cases where one of the parties to the contract is publicly owned
- **Failure of the market to deliver policy objectives.** Wholesale markets may work well for a while, but then fail to deliver the public policy outcomes intended. For example, the wholesale market in California was expected to deliver secure electricity supplies at lower prices. Instead, prices spiked and physical shortages of power led to power cuts (see Box 8.4). The resulting crisis involved the State of California in large and unorthodox financial transactions that increased opportunities for corruption. Similarly, after low hydro-inflows led to power-rationing in New Zealand, the government lost faith in that country's energy-only wholesale power market to deliver the necessary security of supply. An Electricity Commission was rapidly created and made subject to Ministerial control. The Commission then negotiated a 'reserve energy contract' with Contact Energy, a private power utility. The sense of urgency and crisis was used to justify a non-competitive, non-transparent deal. While New Zealand is generally ranked as one of the least corrupt countries in the world, transactions of this type increase the risk of corruption in any power sector.

The lesson seems to be that while competitive market models have the potential to improve governance, they are also high risk, in that their complexity and unpredictability may lead to failures and crises that in fact worsen governance in the sector, at least for a time.

Source List 12.1: Reforming Electricity Sector Governance to Promote Probity

Source	Description
<i>Improving Governance and Increasing Probity Overall</i>	
<p>Barkat, A. (not dated) <a href="#"><u>“Rural electric cooperatives in Bangladesh”</u></a>, United Nations Economic and Social Commission for Asia and the Pacific</p>	<p>This paper reports on Bangladesh’s experience with rural electric cooperatives (summarized in Box 12.16).<sup>61</sup></p>
<p>Besant-Jones, J. (2006) <a href="#"><u>“Reforming Power Markets in Developing Countries: What Have We Learned?”</u></a> Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank</p>	<p>This paper focuses on disaggregation, privatization, and competition in reforming power markets in the developing world. It usefully summarizes over 240 references. Section 4 focuses on enterprise restructuring and corporate governance, Section 5 on market structure and governance, and Section 6 on the regulation of power markets.<sup>62</sup></p>
<p>Gulati, M. and Rao M.Y. “Corruption in the Electricity Sector: A Pervasive Scourge” in Campos, J. and Pradhan, S. (2007) <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i>”, Washington, DC: The World Bank, page 132</p>	<p>Beginning on page 134 of this chapter in <i>The Many Faces of Corruption</i>, the authors discuss methods for combating corruption, and in particular, how to tackle the damaging acceptance of corruption as a way of doing business.</p>

Source	Description
<p>Irwin, T. and Yamamoto, C. (2004) <i>“Some Options for Improving the Governance of State-Owned Electricity Utilities”</i> Energy and Mining Sector Board Discussion Paper No 11, Washington, DC: The World Bank</p>	<p>Although privatization was a favored means of improving utility performance for many years, many governments in developing countries are now choosing not to privatize their electricity utilities. This is in part because privatization is often controversial, and in part because large international firms are increasingly viewing electricity utilities in developing countries as risky investments, making successful privatization difficult. Accordingly, this paper reviews alternative options that governments have for improving the performance of state-owned utilities. It outlines general changes in corporate governance that are necessary for performance improvement, and discusses why such changes can be difficult to achieve. The paper examines practice in four countries in which the government is a major owner of electricity companies—Mexico, New Zealand, the Philippines, and South Africa—and reviews some of the available empirical evidence on the success of reforms in various countries.</p>
<p>McCotter, B. (2005) <i>“Best Practices in Consumer Services”</i>, USAID</p>	<p>This paper, prepared for the USAID, is a best practice guide on consumer services, based around three cases studies:</p> <ul style="list-style-type: none"> <li>▪ The Commission for Energy Regulation of Ireland</li> <li>▪ Karnataka Energy Regulatory Commission, India</li> <li>▪ Office of Utility Regulators of Jamaica.</li> </ul>
<p>Shah (2006) <i>Local Governance in Developing Countries</i>, Washington, DC: The World Bank</p>	<p>Chapter 1 provides an excellent description of how decentralized democratic accountability mechanisms should work in municipal services, using a sophisticated governance and accountability framework similar to that developed in this Sourcebook.</p>
<p><i>“Public and Private Sector Roles in the Supply of Electricity Services”</i> (not dated) World Bank</p>	<p>This note provides operational guidance specifically aimed at World Bank staff, but is applicable by a range of sector practitioners. The note discusses various private sector participation and private-public partnership options that can be used to successfully improve electricity sector performance, comparing the country contexts and reform objectives to which each option would be best suited</p>
<p><a href="#">World Development Report 2004: Making Services Work for Poor People</a>, Washington, DC: The World Bank</p>	<p>Chapter 5 of this World Development Report—“Citizens and Politicians”—is a good overview of government accountability to citizens for providing public services.<sup>63</sup></p>
<p><i>Empowering Citizens</i></p>	

Source	Description
<p><b>Muzzini, E.</b>  <b>“Consumer participation in Infrastructure regulation: Evidence from the East Asia and Pacific Region”,</b>  <b>Washington, DC: World Bank Working Paper No. 66</b></p>	<p>Reviews infrastructure regulation in the East-Asia Pacific region to determine if the current institutional arrangements enable effective consumer participation, whether regulators are effective in engaging consumers, whether consumers and other stakeholders are regularly engaged in (and relied on) for the regulatory process, and whether the poor are given a voice. Uses data collected from a survey of regulators to conclude that consumer participation is well-established in the region, but mostly involves informing consumers, rather than actively involving them in decisions. Recommends further regulatory development to increase consumer participation.</p>
<p><b>Nakhooda, S. et al (2007)</b>  <u><a href="#">“Empowering People: A Governance Analysis of Electricity”</a></u>World Resources Institute</p>	<p>This report is based on an Electricity Governance Initiative assessment in Asia. It argues that greater attention should be paid to institutions, processes, and actors that determine how decisions are made.<sup>64</sup></p>
<p><b>Palast, G., Oppenheim, J. and MacGregor, T. (2003)</b>  <b>“Democracy and Regulation: How the Public can Govern Essential Services”,</b>  <b>London: Pluto Press</b></p>	<p>This book, based on work for the United Nations International Labor Office, is a basic guide to how public services are regulated in the United States. Since Americans pay surprisingly little for high quality services, this book explains how decisions are made by public debate in a public forum, investment and profits of private companies are capped, and utilities are forced to reduce prices for the poor, fund environmental investment, and open themselves to financial inspection.</p>
<p><u><a href="#">“Social Accountability Sourcebook”</a></u>  <b>(2005) The World Bank</b></p>	<p>Increasing community awareness and political motivation can work to strengthen governance systems at both a system-wide and local level. This can be achieved by increasing the demand for accountability and probity and a community’s responsiveness to information on whether or not these demands are being met. The Social Accountability Sourcebook provides a conceptual chapter about social accountability, describes the most frequently used social accountability tools approaches (such as participatory budgeting and citizens report cards), presents a series of case studies in different regions, and a list of materials for further learning.<sup>65</sup></p>
<p><b><i>Ways of holding providers accountable</i></b></p>	

Source	Description
<p>Andres, L., Guasch, J., and Azumendi, S. (2008) <a href="#"><u><i>“Regulatory Governance and Sector Performance: Methodology and Evaluation for Electricity Distribution in Latin America”</i></u></a>; Policy Research Working Paper 4494, Washington, DC: The World Bank</p>	<p>This paper explores the relationships between regulatory governance and sector performance. It uses the World Bank Performance Database—which contains detailed annual data for 250 private and public electricity companies in Latin America and the Caribbean—and the Electricity Regulatory Governance Database—which contains data on aspects of governance of utilities in the same region. The findings of this study suggest that the very existence of a regulatory agency has a big impact on a utilities performance, and that the governance of the regulatory agencies is also key to good performance of utilities.<sup>66</sup></p>
<p>Argawal, M. <i>et al</i> (2003) <a href="#"><u><i>“The Delhi Electricity Discom Privatizations: Some Observations and Recommendations for Future Privatizations in India and Elsewhere”</i></u></a>; Energy and Mining Sector Board Discussion Paper Series No. 8, Washington, DC: The World Bank</p>	<p>In July 2002, the Government of New Delhi, India, privatized the distribution operations of the metropolitan electricity utility. This paper discusses how the privatization was carried out, and comments on some of the key features of the bidding process. For example, bidders had to propose a performance improvement trajectory for the first five years of operations, which increased transparency in the transaction and set a clear benchmark against which consumers and the government could hold the utility accountable. The paper describes the regulatory context for the transaction, and contrasts it with the experience in Orissa, which was less successful.<sup>67</sup></p>
<p>Bakovic, T., Tenenbaum, B. and Woolf, F. <a href="#"><u><i>“Regulation by Contract: A New Way to Privatize Electricity Distribution?”</i></u></a> Working Paper No 14, Washington, DC: The World Bank</p>	<p>This paper examines if regulation by contract (or a combination of regulation by contract and regulatory independence) provides a better regulatory framework for developing countries that want to privatize all or some of their distribution system.<sup>68</sup> Specifically, it:</p> <ul style="list-style-type: none"> <li>▪ Describes how regulation by contract has been carried out in developing countries</li> <li>▪ Analyzes how these regulatory contracts have been able (or not) to handle specific critical issues</li> <li>▪ Describes the strengths and weaknesses of various forms of dealing with disputes, and</li> <li>▪ Compares recent experiences in Latin America and India.</li> </ul>

Source	Description
<p><b>Brown, A, Stern, J., Tenebaum, B. and Gencer, D. (2006) <i>Handbook for Evaluating Infrastructure Regulatory Systems</i>, Washington, DC: the World Bank</b></p>	<p>This book describes a framework for evaluating the performance of infrastructure regulators. The results of such evaluation should feedback into regulatory design, identifying lessons learned and a path for further regulatory reform. Many regulatory regimes do not achieve their original objectives; but, once they are in place, governments may be resistant to changing them. The handbook sets out “quick”, “mid-level” and “in-depth” evaluation strategies for governments and sector practitioners to use when assessing the effectiveness of regulatory regimes. It describes how different regulatory regimes can be more effective in different circumstances, and the role that “transitional” models can play in moving regulation from the current practice towards a more ideal model.</p>
<p><b>Eberhard, A. (2007) <i>“Infrastructure Regulation in Developing Countries: an Exploration of Hybrid and Transitional Models”</i> PPIAF Working Paper No. 4</b></p>	<p>This paper explores the various types of regulatory models that can be used to, amongst other things, hold service providers accountable. First, it explores the challenges involved in making service providers accountable in developing countries. It then describes a wide range of regulatory models—for instance, regulation by government, independent regulation, outsourcing regulatory functions, advisory regulators and expert panels, and other hybrid and transitional models—and what can be expected to be achieved by these.</p>
<p><b><a href="#">Eberhard, A. (2006) <i>“The Independence and Accountability of Africa’s Infrastructure Regulators; Reassessing Regulatory Design and Performance”</i></a> University of Cape Town, South Africa</b></p>	<p>This paper reviews how effective the African Forum for Utility Regulators (AFUR) has been in its first five years of existence. It examines how the (relatively) new regulators in Africa have evolved, and the different types of regulatory models that have been adopted. Whilst the focus of this paper is mostly on creating a balance between independence and accountability for independent regulators, it also paper provides anecdotal evidence of what has worked and what hasn’t, including the options—other than independent regulators—that have been successful in improving provider accountability in the region.<sup>69</sup></p>
<p><b>Ehrhardt, D. and Oliver, C. (2007) <i>“Big Challenges, Small States”</i>, PPIAF Gridlines, Washington, DC</b></p>	<p>This Gridline discusses regulatory options to overcome infrastructure constraints on small islands. It discusses how small islands have used a wide spectrum of models for introducing private participation in infrastructure (including investor-owned utilities, joint ownership, concession, and BOT arrangements). It describes regulatory options available to countries with limited expertise and resources that can improve accountability to consumers.</p>

Source	Description
<p>Gassner, K, Popov, A. and Pushak, N. (2007) <i>“An Empirical Assessment of Private Sector Participation in Electricity and Water Distribution in Developing and Transition Countries”</i>, the World Bank</p>	<p>This paper analyzed 302 water and electricity utilities with private participation and 928 utilities without private participation in 71 developing and transition countries. It found that private participation increased the efficiency of the utility and describes some of the increases in autonomy and accountability.</p>
<p>Gilbert, R. (ed) (1996) <i>“International Comparisons of Electricity Regulation”</i>, Cambridge: Cambridge University Press</p>	<p>A comprehensive assembly of the historical, institutional, and economic forces affecting electricity regulation. Chapters cover case studies from England, Argentina, Brazil, Uruguay, Chile, Scandinavia, US, Japan, Germany, New Zealand, Canada, France, and Yugoslavia</p>
<p>Gulati, M. and Rao M.Y. <i>“Corruption in the Electricity Sector: A Pervasive Scourge”</i> in Campos, J. and Pradhan, S. (2007) <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i>, Washington, DC: The World Bank, page 152</p>	<p>Includes a detailed case study of the Bangladesh rural cooperatives outlined in Box 12.16 on page 183.</p>
<p>Kerf, M. (1998) <i>“<a href="#">Concessions for Infrastructure: A Guide to their Design and Award</a>”</i>, Washington, DC: the World Bank</p>	<p>Typically, concession contracts are used to introduce private sector participation into infrastructure. This toolkit intends to help policymakers (and their advisors) better understand the many important and difficult issues relating to the design, award, implementation, monitoring, and financing of concessions. It explains the rationale behind concession contracts, compares different type of concession, and how these contracts can improve service provider accountability.<sup>70</sup></p>

Source	Description
<p>Laffont, J.(2005)  <b><i>“Regulation and Development”</i></b>            Cambridge:            Cambridge University Press.</p>	<p>This book focuses on the constraints involved in regulating in less-developed countries, analyzing different approaches for overcoming these constraints. The author demonstrates the positive effects that privatization can have on service delivery, but cautions that governments in less-developed countries often have limited power to enforce contracts with private providers. The author proposes a formula for calculating optimal expenditure on strengthening regulatory enforcement. The book also covers optimal pathways for sector liberalization and regulatory development.</p>
<p>Nahkooda, S. <i>et al</i> (2007)  <b><i>“Empowering People: A Governance Analysis of Electricity”</i></b>, World Resources Institute</p>	<p>This report is based on an Electricity Governance Initiative assessment in Asia. It argues that greater attention should be paid to institutions, processes, and actors that determine how decisions are made. Chapter 4 (beginning on page 43) discusses the regulatory process, and makes suggestions for balancing stakeholders and aligning interests.<sup>71</sup></p>
<p>Prayas Energy Group (2002)  <b><i>Assessment of Electricity Regulators in India</i></b></p>	<p>This paper is a detailed assessment of 13 electricity sector regulatory in India. It is based on detailed surveys and studies that evaluated the transparency, resources, and public participation in the Indian regulatory process.<sup>72</sup></p>
<p>Raab, J.(1994)  <b><i>“Using Consensus Building to Improve Utility Regulation”</i></b>            American Council for an Energy-Efficient Economy</p>	<p>This book outlines the change in thinking on utility regulation, in what it describes as “the decline of consensus”. It offers a structure for analyzing and evaluating the successes and failures of different regulatory traditions, through detailed analysis of four regulatory cases:</p> <ul style="list-style-type: none"> <li>▪ The Pilgrim nuclear power plant outage settlement</li> <li>▪ The use of DSM collaborative</li> <li>▪ The New Jersey resource bidding policy, and</li> <li>▪ The formation of integrated resource management rules in Massachusetts.</li> </ul>
<p>Shah, A. (ed.) (2007)  <b><i>“Performance Accountability and Combating Corruption”</i></b>            Washington, DC: the World Bank</p>	<p>Explanations of how to institutionalize performance-based accountability systems (especially where accountability systems are lacking). Topics covered include:</p> <ul style="list-style-type: none"> <li>▪ Designing and sequencing public management reforms</li> <li>▪ Introducing e-government</li> <li>▪ Setting goals linked to performance-based budgeting</li> <li>▪ Engaging citizens to create a system of good governance.</li> </ul> <p>It also analyzes different legal, policy and institutional frameworks for supporting accountability and combating corruption. Attention is focused on improved auditing as an important tool for detecting and deterring fraud. Throughout the book there are many boxes with useful case studies of rules or policies that have improved accountability and reduced corruption.</p>

Source	Description
<p>Shirley, M. (1998)  <i>“Bureaucrats in Business: The Roles of Privatization versus Corporatization in State-Owned Enterprise Reform” World Development</i>  27(1):115.</p>	<p>This article draws from a sample of 12 developing countries that have improved the performance of their state-owned enterprises (SOEs). The article concludes that the best performance improvements occur when broader ownership and other sector reforms are rolled out alongside the SOE reforms. The article also notes that political commitment is a key factor behind the success of both privatization and corporatization.</p>
<p><a href="#">Body of Knowledge on Utility Regulation</a>,  World Bank</p>	<p>This website was created and is maintained by the Public Private Infrastructure Advisory Facility, the World Bank, and the University of Florida’s Public Utility Research Center. It contains comprehensive information on utility regulation, including the principles, best practices, and case studies. The website is divided into eight sections: introduction, overview, general concepts, market structure, financial analysis, incentive regulation, tariff design, social and environmental quality, information issues, and regulatory processes. Each section has a narrative, a list of references, and a self-testing option.<sup>73</sup></p>
<p>World Bank (2002)  <i>“Bureaucrats in Business: The Economics and Politics of Government Ownership”</i>  A World Bank Policy Research Report,  Washington, DC</p>	<p>This report examines the economic problems that arise when governments own and operate enterprises that could be managed by the private sector. It draws on a rich database and detailed country case studies to provide the most comprehensive assessment yet of a decade of divestiture and reform of state-owned enterprises. It evaluates the experiences of 12 countries, some of which have reformed successfully, and some which did not.</p>
<p><i>Competitive Reforms for Good Governance</i></p>	
<p>Barker, J., Tenenbaum, B. and Woolf, F. (1997)  <i>“Governance and Regulation of Power Pools and System Operators: An International Comparison”</i>,  Technical Paper No 382,  Washington, DC:  The World Bank</p>	<p>This document is a comparison of the governance and regulatory arrangements of four power pools (England and Wales, Victoria (Australia), Alberta (Canada), and Scandinavia). All have “new style” power pools intended to maximize competition in generation. It describes the regulatory framework needed to establish competitive markets by supporting competition and ensuring that the pool and grid operators have the necessary operational control and enforcement powers.</p>

Source	Description
<p><b>Besant-Jones, J. (2006) <i>“Reforming Power Markets in Developing Countries: What Have We Learned?”</i> Energy and Mining Sector Board Discussion Paper No 19, Washington, DC: The World Bank</b></p>	<p>A box on OGN’s Guidance on Power Market Structure (on page 59 of this document) provides guidance on creating competitive market structures and a box on OGN’s Guidance on Regulation of Power Markets (page 79) provides useful guidance on the design of regulatory frameworks for electricity.</p>
<p><b>Muller, M., Simpson, R. and van Ginneken, M. (2008) <i>Ways to Improve Water Services by Making Utilities More Accountable to their Users: A Review</i>, World Bank, Water Sector Board</b></p>	<p>Water and sanitation services in developing countries are mostly provided by poorly regulated municipally owned service providers. This paper attempts to review why users’ priorities and preferences are not taken into account, and to help those who work in an with water utilities, as well as organized user, regulators, and policymakers to improve the quality of service by making service providers more accountable to the people they serve. It provides many “tools for accountability” that are relevant to the electricity sector as well.</p>
<p><b>The Smartest Guys in the Room (documentary, 2005)</b></p>	<p>This 2005 documentary chronicles the fall of Enron, drawing on insider interviews. See Box 8.4 for more information on the California power crisis.</p>

## 13 Application under Varied Country Circumstances

Every country and sector is unique, so there is no “best practice” or standard way to apply the ideas in the previous sections in any particular case. Box 13.1 (taken from “Corruption in the Electricity Sector: A Pervasive Scourge”), for example, provides a useful checklist for a generic, ideal approach to improving governance and increasing probity. Yet in reality, such lists can be overwhelming, resting as they do on assumptions about political will and administrative capacity that may not hold. Clearly it would be good to “Launch a communication campaign with strong and visible involvement of senior politicians”—but what if senior politicians do not in fact support good governance in the electricity sector? Obviously, it would be ideal to “Introduce modern technology in selected areas” as Box 13.1 recommends, but what to do if very few staff in the utility, or indeed the country as a whole, have any familiarity with modern technology?

This section illustrates how the approaches set out in the earlier sections can be applied in a variety of circumstances. Section 13.1 discusses application in various sector structures. Section 13.2 discusses “second best” options, focusing on what to do when limited political will or administrative capacity constrain what is possible. Finally, Section 13.2 recognizes the difficulty of prioritizing reforms when resources are limited and the number of con-currant activities is necessarily constrained, and provides approaches for “packaging” governance interventions into manageable programs or phases.

### **Box 13.1: Five Key Elements of an Anticorruption Strategy**

#### **1. Move from denial to acceptance of the problem and build a broad agreement among policy makers and key stakeholders**

- Undertake analytical and diagnostic work to identify the causes of the problem, its severity and effects, and the political cost of maintaining the status quo
- Consult on the diagnosis to create an authorizing environment for implementation of the strategy
- Disseminate diagnostic information without blaming the actors
- Launch a communication campaign with strong and visible involvement of senior politicians.

#### **2. Build a coalition**

- Ensure buy-in by utility management and employees by addressing employee issues
- Secure employee commitment to reforms
- Improve customer service by establishing effective customer support centers
- Reduce the political cost of reform through better-targeted, transparent, judicious, and equitable enforcement
- Ensure that service improvements precede tariff adjustments
- Engage in meaningful consultation with and participation of civil society.

#### **3. Improve utility business processes**

- Simplify and codify procedures
- Introduce modern technology in selected areas
- Foster efficiency and effectiveness of customer service and compliance with service standards
- Make procurement transparent

#### 4. Strengthen institutional mechanisms for accountability

- Separate commercial from regulatory functions
- Strengthen audit and internal integrity units
- Prosecute offenders in courts and confiscate their illegal gains.

#### 5. Encourage public participation

- Sponsor open discussions on all important matters
- Institutionalize user surveys
- Put in place a mechanism to redress public grievances
- Implement an effective “right to information” program
- Persuade client governments to adopt reforms suited to their countries.

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 138

This section attempts to illustrate how “best practice” advice can be modified to work in less than optimal situations. That is, it discusses “second best” options for use in contexts where administrative capacity or political will make first best options impractical.

This section then goes on to discuss “packaging” governance interventions into manageable programs or phases that tackle high-priority areas first, and aim to establish a “pro-probity” dynamic.

### 13.1 Adapting to Sector Structures

A review of more than 240 studies and cases of power market reform found that:

*Starting conditions in the power market are important for designing power reform programs. These conditions include the size of the country and its power system and market, the country’s location relative to other power markets, its income level and macroeconomic condition, its political situation, and the capacity of its domestic financial markets and institutions. They reflect the many dimensions of power market reform and critically influence the feasibility of reform programs and hence the outcomes that can be achieved from them in the short to medium term. The variety of starting conditions among developing countries partly explains the diversity of their power market reform programs and the development of innovative power market and industry structures and regulatory arrangements.*<sup>43</sup>

As Box 13.2 illustrates, a power market reform that worked well in functioning market economies with financially viable power sectors failed miserably when attempted in a country with a bankrupt power system and no traditions of market relations or corporate governance anywhere in the economy.

#### Box 13.2: First World Reform Package Failed in Ukraine

The World Bank’s Electricity Market Development Loan to Ukraine, approved in 1997,

<sup>43</sup> Besant-Jones (2006) “*Reforming Power Markets in Developing Countries: What Have We Learned?*”, Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

was designed to support improvements in the power sector, including development of a competitive power pool based on the British model of unbundling. The project’s reform objectives— improved collection levels, access to working capital, metering facilities, and financial management—were to increase the quality and reduce the cost of electricity supply by developing a competitive electric power market and operating conditions that would encourage electric power companies to seek full cost recovery.

Delays in ratification slowed project implementation, and in the meantime political interference prevented any improvement in payment collections—collection levels in fact declined. This prevented full cost recovery for the generating companies, which were also burdened with the requirement of maintaining minimum fuel stocks throughout the year. Subsidies to power plants and non-payments by distributors exacerbated the problem.

The loan was suspended in July 1997 due both to the unsatisfactory financial performance of the entire power sector and to a new government prohibition on the increase in electricity tariffs for household consumers. Only US\$76.4 million was disbursed, which paid for fuel stocks. The loan was cancelled at government request in 1999 due to the impact of the Russian financial crisis on the Ukrainian economy.

A key lesson from the project is that there is little merit in pursuing comprehensive power sector reform policies (legislation, regulation, unbundling, competition, privatization, regulation) in a country suffering a major economic crisis. The project shows that in an economy that was barter-based, with salaries and pensions in arrears and where the government condoned the culture of non-payment, there was no way to make consumers pay for electricity in cash. In such an environment, the introduction of an advanced model of a competitive power market was bound to be a losing proposition. Project objectives should have been more modest and targeted to improving well-delineated technical, institutional, and financial problems.

Note: Box 8.2 on page 93 describes cash flow problems in Ukraine’s wholesale electricity market.

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

This lesson is as applicable to governance reforms as it is to market design. In reality there is no “best practice”—there are only practices that are more or less likely to work in a given country context.

The paper *Reforming Power Markets in Developing Countries: What Have We Learned?* groups developing country power markets into four categories, based on system size, as illustrated in Table 13.1. It argues that sophisticated market reform models involving vertical and horizontal unbundling and privatization work best in large systems in richer countries (the bottom right cell in the shaded area of the table). It also notes that larger power systems and richer countries tend to be associated with higher administrative capacities and lower levels of corruption (as measured by the Transparency International Corruption Perceptions Index). On the other hand, it finds ambitious reforms of this type are not suitable for small systems in poor countries (the top left cell in the shaded area of the table).

**Table 13.1: Categories of Power Sector and Corruption Perceptions Index**

National Per Capita Income in 2003	Installed Power Capacity in 2002		
	Below 1,000MW	Above 1,000MW	Average
Below US\$900	2.5	2.3	2.4

Above US\$900	4.2	3.6	3.7
Average	3.00	3.3	3.2

Note: Values in the Table are the average Transparency International Corruption Perceptions Index for the group of countries corresponding to the size and income levels represented by the cell

Source: Besant-Jones (2006) *“Reforming Power Markets in Developing Countries: What Have We Learned?”* Energy and Mining Sector Board Discussion Paper No. 19, Washington, DC: The World Bank

Moving from the question of market design to the broader canvas of good governance reforms, key constraints will often be the level of political support, and the overall administrative capacity of the country. Table 13.2 summarizes a stylized “first best” approach, and then outlines “second best” solutions that may be considered where the political will or administrative capacity needed for first best reforms is lacking. Of course, these second best approaches are only illustrations; they may be reviewed, modified, or indeed discarded, depending on the country situation.

### **Dealing with a lack of political will**

Lack of political will to change the status quo is common. Such a resistance to change is only to be expected, especially if senior decision-makers are currently benefitting from the existing corrupt arrangements. A thorough corruption mapping exercise undertaken at the project planning stage can help to identify if this is likely to be the case.

Political resistance can present a considerable obstacle for sector practitioners—in general, for significant and sustainable governance improvements it is best to work with reform champions, not politicians who are ambivalent about, or resistant to, change.

For instance, it may be possible to challenge politicians’ existing attitude to change by clearly highlighting the ways in which they will personally benefit (through electoral and reputation rewards) from improved sector functioning. Showing a politician, for instance, how they can make their electorate happy by improving electricity services thereby increasing his chances of reelection, may incentivize a politician to put more effort into improving electricity sector performance.

**Table 13.2: Summary of “Second-Best” Approaches in cases of Limited Political Support or Low Capacity**

	<b>Second-best options if limited political support</b>	<b>Second-best options if limited capacity</b>
<b>Capital Projects</b>	<p><b>Problem:</b> Capital procurement is poorly managed, with high corruption risk. Utility managers and senior politicians pay lip service to improvements, but find arguments to prevent substantive change.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>▪ Benchmark unit rates for construction in the electricity sector with rates in similar sector in the country, and rates in comparable countries, and develop a construction quality audit. Results of these audits may reveal symptoms of corruption. Involving stakeholders such as university engineering departments or professional associations in the work, and publishing the results, can help to create pressure for improvements, once the financial and quality costs of corruption become clear</li> <li>▪ Get the government to agree to provide information to the public on contract costs and performance (as done in Construction Sector Transparency Initiative)</li> <li>▪ Promote community supervision of contract award, and of construction</li> <li>▪ Reach out to major electricity users with information on the costs and quality implications of corruption, in order to create a corporate constituency for change Promote or (in the case of donors) require the use of improved systems (such as donor-imposed e-procurement)</li> <li>▪ Attempt to build political will by clearly identifying electoral benefits of having effective projects</li> </ul>	<p><b>Problem:</b> Capital procurement is poorly managed, with high corruption risk and low competence. Senior politicians want improvements, but the provider, and the country as a whole, lack competent engineers and procurement professionals.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>▪ Recruit skilled professionals from higher capacity countries nearby, or attract members of the diaspora to return</li> <li>▪ Outsource capital planning, supervision and procurement to a program management contractor. Allow the contractor considerable autonomy and discretion, while imposing audit requirements, to be carried out by a private auditing firm reporting to government</li> <li>▪ Privatize the utility, thereby giving strong incentives for the owners to attract the necessary level of capacity, and improve processes for capital works. While it is often thought that private investment is most challenging in low capacity countries, the success of small private water and electricity operators in countries like Yemen, Cambodia, and Paraguay indicate that private firms can provide services successfully in a wide range of environments, so long as government intervention is limited</li> <li>▪ Capacity building of local staff through a long term program of technical assistance, training and twinning</li> </ul>

	<b>Second-best options if limited political support</b>	<b>Second-best options if limited capacity</b>
<b>Provider Operations</b>	<p><b>Problem:</b> Provider systems are in disarray, with high corruption risk in hotspots such as commercial operations, stores, and human resources. Utility managers and senior politicians seem uninterested in making serious changes, citing problems with unions and the difficulty in changing long-established rules and processes.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>▪ In a disaggregated sector, only engage with providers interested in strengthening managements systems and capacity. One way to do this may be to create a challenge fund, in which financial and technical assistance is provided as part of a package that also requires improvements in the “hotspots” of the providers’ operations</li> <li>▪ Provide the public with more information on provider operations, including through public disclosure of cost data and contracts, and clear identification of provider equipment and staff to allow the public to detect and report moon-lighting and other improper actions)</li> <li>▪ Educate journalists, NGOs and professional associations on operating rules, service requirements and actual performance</li> <li>▪ Enlist the support of powerful groups—such as business associations or leading families—with an interest in a well-performing utility</li> <li>▪ Offer board membership to nominees of business groups and professional associations</li> </ul>	<p><b>Problem:</b> Provider systems are in disarray, with high corruption risk in hotspots such as commercial operations, stores, and human resources. Senior politicians want improvement, but all government bodies in the country perform poorly, with inadequately trained resources and no culture of administrative discipline or delivery</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>▪ Employ staff from other countries in region or from further afield to work with locals directly</li> <li>▪ Engage a specialized management firm under a management contract, with a brief to not only manage the provider , but also to instill better management systems and processes, and train its successors</li> <li>▪ Privatize the company, or engage a private operator under a concession or lease contract</li> <li>▪ Create cooperative ownership structure</li> <li>▪ Build capacity over time, starting with high priority and simple interventions such as improved accounting systems and staff training</li> </ul>

	<b>Second-best options if limited political support</b>	<b>Second-best options if limited capacity</b>
<b>Sector Governance</b>	<p><b>Problem:</b> Governance arrangements in the sector do not provide for effective accountability of the provider to government or citizens. Government bodies do not seem generally responsive to citizens needs. Political decision-makers in the sector reject suggestions such as development of performance contracts, strengthening of provider autonomy, or increased democratic accountability of supervisory bodies to citizens. Instead the decision-makers emphasize the urgent need for capital investment, characterizing governance reforms as “insubstantial, theoretical, and not addressing the real needs of the people”.</p> <p><b>Options:</b></p> <ul style="list-style-type: none"> <li>▪ Attempt to build political will by clearly identifying electoral benefits of structural change. This may involve surveys that show that voting behavior is influenced by the quality of electricity service delivery and administration, so that politicians agree to better governance since they understand this will win them votes</li> <li>▪ Publishing information on service performance and costs in comparator cities or countries, with the objective that media, civil society, and opposition parties make water sector performance a political issue</li> <li>▪ Working with NGOs, academics, business groups and professional associations to start a dialogue on models for good governance in the electricity sector, with the objective that this will lay the groundwork for later reforms</li> </ul>	<p><b>Problem:</b> Governance arrangements in the sector do not provide for effective accountability of the provider to government or citizens. Government bodies are generally unresponsive and incompetent. Senior decision makers are keen to improve the system, but the few component decision-makers and officials are stretched far too thinly to devote significant time to structure reforms in water and sanitation.</p> <p><b>Options and principles:</b></p> <ul style="list-style-type: none"> <li>▪ First, do no harm. Make minimal change to any functioning systems, resist the temptation to create new bodies to fulfill roles that existing bodies are failing to fulfill</li> <li>▪ Allow and encourage spontaneous decentralized solutions, for example liberalize entry to the sector, minimize regulation, and allow communities and private entrepreneurs to develop their own solutions, thereby economizing on scarce government capacity</li> <li>▪ Opt for simplicity, including through minimizing the number of organizations (for instance, by limiting use of independent regulatory organizations), and simple rules</li> <li>▪ Centralize provision, regulation and policy in a single organization, to minimize complex interactions and make best use of scarce skills in the sector, while engaging an international firm or organization to issue annual report cards on the sector, to preserve a degree of monitoring and independent public information</li> <li>▪ Introduce private participation, bearing in mind that forms that are conventionally seen as more “challenging” such as privatization, may in fact place fewer demands on the government’s limited administrative resources than “easier” options such as management contracts.</li> </ul>

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Alternatively—if key politicians are unable to be persuaded—it may be possible for practitioners to identify other reform champions, such as non-government stakeholders who have an interest in good utility performance, or “pockets” in government with enthusiasm for reform. Over time, improving the flows of useful information to the public, provider management and interested stakeholders will likely help to build pressure for pro-probity changes, even in the face of political resistance.

In disaggregated sectors, there may well be some local governments or utilities that want to improve governance, even if the majority do not. Selecting and working with those who are willing can be a good strategy. One way to identify the willing local governments may be to encourage them to self-select, for example by applying to a challenge fund. Such a fund would offer financial assistance as part of a package of improvements to governance arrangements and provider systems.

Finally, in the face of consistent unwillingness to reform, disengaging may be the best solution. At a national level, “disengaging” may involve only working with those sectors and stakeholders that are willing to take steps to reform. This may mean avoiding electricity sector interventions in favor of projects in other, more reform-focused sectors. Over time, successful reform in other sectors may build pressure for change in the electricity sector.

### **Dealing with a lack of capacity**

The capacity to undertake pro-probity reforms will vary greatly between countries. Practitioners need to evaluate country capacity at the planning stage, and develop their governance approach accordingly.

The use of in-country planning, procurement, and monitoring systems is an important area that would best be decided on the basis of country capacity. In countries with greater capacity, it may be reasonable to insist on the consistent use of country systems (supported as necessary), rather than imposing a separate, donor-controlled system for procurement, project supervision and sector financial management.<sup>44</sup> In contrast, in countries with limited capacity, an externally controlled or monitored system may initially be the best approach for ensuring project objectives are achieved and funds are well-managed in the short-term, with a view to slowly mainstreaming elements of the separate system to build in-country capacity.

In a similar vein, low-capacity countries would likely benefit from externally-managed service provision (that is, the use of PSP). In low capacity countries there are unlikely to be a local cadre of professional managers, or the “eco-system” of accountants, auditors, consultants, and IT firms needed to support the professional corporate management approaches recommended in Sections 10 and 11. Alternatives could include “importing” those skills from neighboring, higher-capacity countries. This is feasible, and has been attempted with some success, in countries that are reasonably close geographically, linguistically and culturally (for instance, Lesotho and Malawi from South Africa, or Guyana from Trinidad).

Another approach is to centralize control of the sector to economize on scarce management skills. The central government can set simple, low-discretion rules for providers (whether

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<sup>44</sup> World Bank (2005) *Increasing the Use of Country Systems in Procurement*, Washington, DC: The World Bank

private or public), mandating them to provide the greatest coverage possible for a set budget, or for a set, market-level tariff. In the case of private provision, this may involve a second-best approach to designing the regulatory compact. For example, in post-conflict countries with limited service provision such as Sierra Leone, it may be better to rely on competition from informal providers to ensure the market is at least partially competitive, and focus initially on service expansion. Over time, as a capacity develops, tighter regulations may be transparently introduced.

Finally, it is important for practitioners to remember that the types of interventions that will successfully strengthen accountability mechanisms and control systems will vary from country to country—there is no one size fits all solution to promoting probity. Rather, the practitioner’s aim should be to strengthen those elements in the existing institutional arrangements and political economy that already work to support probity and good governance (or that could work, with a little additional support). Only in this way can interventions lead to a self-sustaining cycle of improvement in probity and governance.

## 13.2 Combining and Sequencing Governance Interventions

Regardless of the sector structure or country characteristics, practitioners are likely to face a further challenge in prioritizing reforms. Since resources are limited and the number of concurrent activities constrained, it’s impossible to change everything at once.

An extensive survey of corruption in the electricity sector argued that while a complete solution may require nothing less than a paradigm shift in public governance, attempting to do everything all at once could be counter-productive.

*If corruption is pervasive, as happens in some countries, combating corruption in the sector requires mutually reinforcing improvements in public governance. Eminently desirable though this may be, it is a long-term process requiring sustained political commitment, changes in the incentives of stakeholders, and new standards of transparency and accountability—in short, a paradigm shift in public governance and management of the sector. To make a positive impact on the fight against corruption in the short and medium term, it is more useful to focus on those vulnerable points that, if addressed, can have a relatively large effect. The starting point for combating corruption could range from introducing transparency in the procurement process, to seeking expert consultation in investment decisions and enforcing accountability of public officials and utility managers, to fighting petty corruption in order to build public support.<sup>45</sup>*

Simply put, it’s impossible to change everything at once. This section provides guidance on “packaging” governance interventions into manageable programs or phases. Such packaging should be based on two principles: first, groups of interventions should work together to strengthen the overall governance system; and second, that groups of interventions should first target areas where change is simple and high-impact, and build in complexity over time.

### 13.2.1 Selecting groups of interventions that strengthen the system using a “systems-thinking approach”

As discussed in Section 2 corruption is sustained by complex systems of incentives, governance, and political economy. This means reducing corruption is a bit like trying to fix

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<sup>45</sup> 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 134

a rundown electricity system—increasing generation capacity may simply burn out the transformers, unless a system-thinking approach is taken to ensure the various reform elements work together.

Each individual element of accountability is necessary but not sufficient for ensuring overall sector accountability. For example, consumers could fill out report cards to provide feedback on provider performance and exercise their demand for accountability from the provider management and from the government. However, if the provider lacks the incentives to respond to this demand, or is not held accountable by the government, then the report cards will do little to increase overall sector accountability (or to reduce provider corruption).

To avoid simplistic approaches, sector practitioners need to start with a comprehensive understanding of where corruption occurs, what political economy arrangements sustain it, and which stakeholders and institutions can be strengthened to create an effective, systemic movement toward increased probity. Ideally this understanding will be developed through analytic and advisory work, embodied in country and sector strategies, and then reinforced through electricity sector projects.

This means that practitioners need to take a systems-thinking approach to improving governance and reducing corruption. One-off, simple interventions may be effective only in the short term, at best achieving just a change in where corruption is taking place, not an improvement in overall probity. A better approach may be to package together interventions that work together to create systemic change. Often, an effective approach may involve intervening in places that are initially quite obscure, as the following example illustrates.

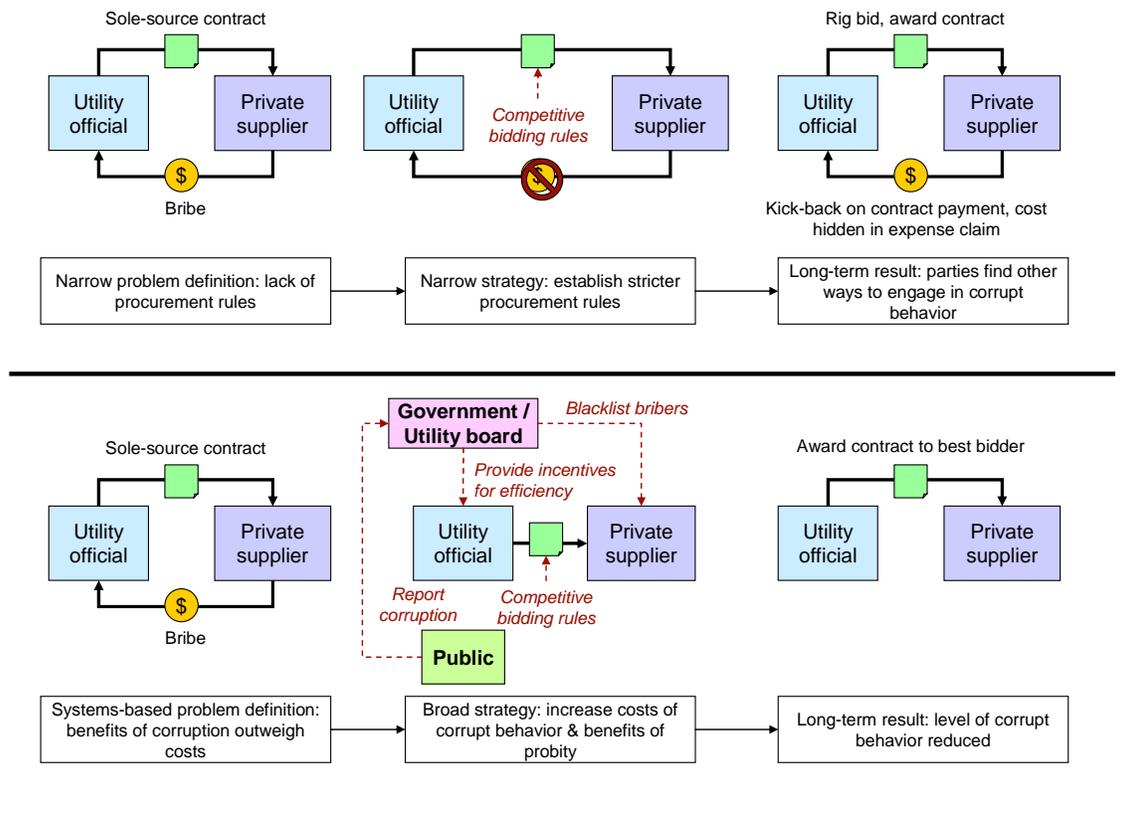
#### **Example of a simple, narrow approach versus a broad, systems-based approach**

A sector practitioner might identify that utility managers are accepting kickbacks from certain suppliers in return for sole-sourcing contracts to them (at inflated prices). The practitioner could intervene by establishing procurement rules that decrease the threshold for sole-sourcing, and require more competitive bidding processes. This would provide a control to stop corruption from happening in the same way as it had been previously, but would not change the utility manager or supplier's incentives. The utility could get around the contracting requirement by awarding multiple contracts just below the threshold, or by rigging “competitive” bidding processes. As long as the probability of detection multiplied by the costs of detection are lower than the benefits of continuing the corrupt behavior, the utility and supplier will continue to find ways around the procurement rules.

Of course, this does not mean that the sector practitioner should abandon procurement controls as a means of deterring corruption. Rather, the practitioner should think about the other weaknesses in the sector accountability system that give the utility and suppliers incentives to engage in corrupt behaviour. These weaknesses might include a lack of monitoring and detection of corrupt activity, minimal and uncertain punishment when corruption is detected, and few incentives for utility managers to run the utility efficiently. These weaknesses suggest that the practitioner should not take a “narrow” strategy of establishing strict procurement rules, but rather should stake a “broad” strategy of enhancing procurement controls, increasing penalties when bribery and kickbacks are detected, improving channels for the public to report corruption, and undertaking management reforms to give utility managers an incentive to reduce the costs of their contracts and operate the utility more efficiently.

Figure 13.1 below illustrates this contrast between a narrow problem definition, which leads to a narrow pro-probity approach, and a broad or systems-based problem definition, which leads to a broad (and ultimately more effective) pro-probity approach.

**Figure 13.1: Narrow (Top) versus Broad, Systems-based (Bottom) Approaches**



As Figure 13.1 illustrates, simplistic interventions at the project or provider level (such as establishing stricter procurement rules) are unlikely to significantly change incentives and governance. To achieve a change in governance, a range of complementary interventions that act to change incentives and encourage greater probity are required. Thus, it is important that practitioners package together interventions that create such systemic change, rather than just addressing a narrow, localized problem. In Indonesia, the World Bank has identified six areas in which all World Bank programs should aim to improve governance (see Box 13.3).

**Box 13.3: Six Key Areas of Intervention Recommended for Indonesia**

The six areas of intervention for all World Bank programs recommended by the Anti Corruption Committee for Indonesia are:

- Enhanced information disclosure
- Civil Society oversight
- Mitigation of collusion
- Mitigation of forgery and fraud
- Complaint handling systems
- Sanctions and remedies.

The Committee believes that interventions that cover all six of these areas will help to strengthen systemic good governance, by causing appropriate shifts in incentives at different levels in the sector.

Source: World Bank. (2007). Project Paper: Indonesia 3rd Kecamatan Development (Phase 2) Project. 4 April 2007. pp.27-32

**13.2.2 Starting with simple foundations, building over time**

As Section 13.1 acknowledged, reforming governance structures can be difficult in the face of political resistance and low capacity. This highlights the need to begin with simple changes or small gains, particularly in areas where there is support for reform (for instance, where officials or stakeholders are willing to be reform “champions”).

Just as existing governance structures and willingness to reform differs from country to country, so too does the appropriate starting point for pro-probity interventions. One potential entry point would be the “weakest links” in the accountability chain—those that stop an effective flow of accountability from taking place. For example, a lack of transparency or information disclosure may be preventing the public from being able to exercise demand for better service. By working on improving these links, practitioners may be able to ensure that at least a weak pro-probity signal starts to be transmitted through the entire system. If all the links in the accountability chain are functioning, but all need to be improved, an alternative approach is to start with basic improvements across a spectrum of accountability links, and to use success in initial stages to build momentum for further reform.

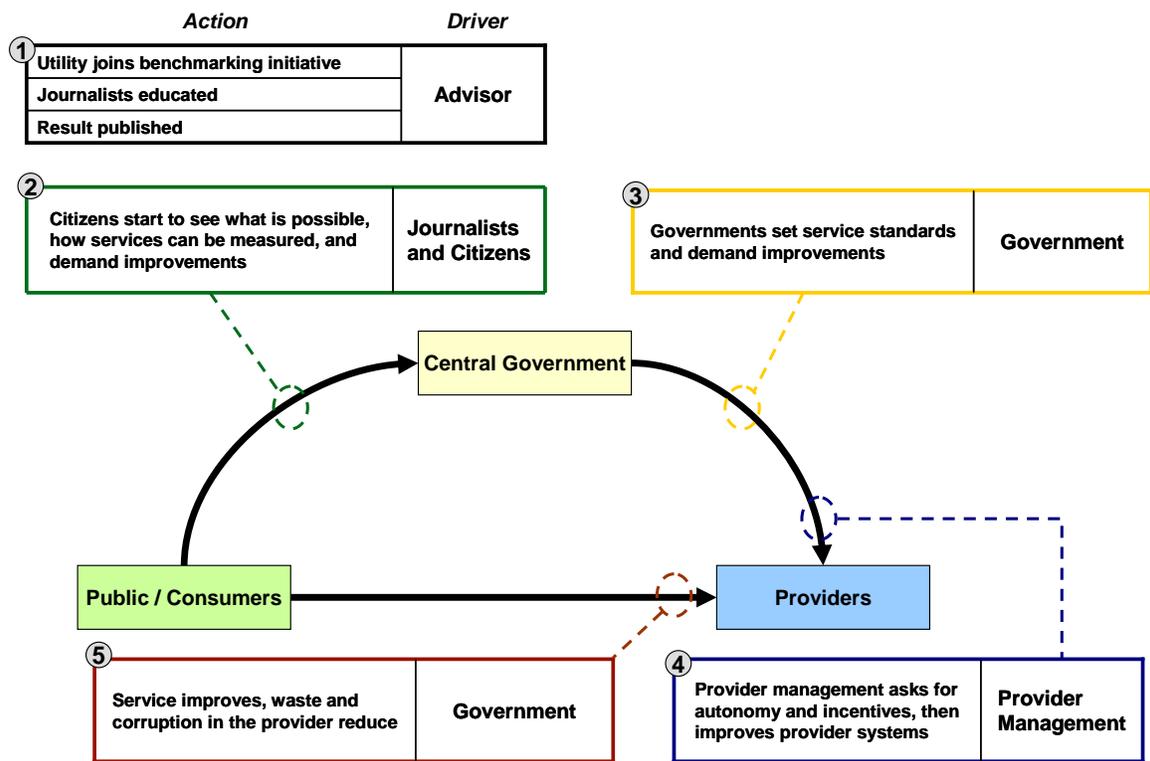
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Figure 13.2 provides an example of strengthening an entire governance system, starting with a simple “foundation intervention” that creates a self-sustaining drive for progressive improvements. In the illustration, a practitioner with some external mandate—for example, a development agency—initiates actions to increase the quality and availability of information on sector performance<sup>①</sup>. The results of the benchmarking exercise are published, and the practitioner works with journalists to help them understand the results, and convey them to their audience.

As journalists report on the results, citizens start for the first time to have an objective measure of the performance of their electricity providers, and a set of benchmarks against

which to assess that performance. ② Citizens may come to see that the poor service they receive is not the natural order of things.

Figure 13.2: Strengthening Governance from a Simple Foundation.



As journalists and citizen’s groups start to question poor service performance, the government will feel under pressure to respond ③ (especially if opposition politicians make it an issue). Government will also, for the first time, have an objective system for measuring and assessing provider performance. With appropriate assistance from sector practitioners, government may set out clear performance targets, and demand that the provider meet, and report against, the targets.

In response to this pressure to perform, the management of the provider is likely to point out that additional resources will be required to meet the service goals, as well as changes to the way the provider is managed, to allow for greater managerial initiative and freedom ④. Here sector practitioners with a reputation for competence and neutrality have a role to play in helping government and provider management to settle on a consistent, coherent, and achievable combination of service targets, tariffs, and subsidy levels. At the same time, provider management may suggest that it would be appropriate if they got bonuses for meeting the new and more demanding targets. The sector practitioner would advise in favor of this, and if agreed, managers could then be expected to move vigorously to reform the

systems and processes in the provider to reduce costs and increase quality, including by cutting out corruption.

The final result of this change of actions would be more efficient and responsive services, delivered with less waste and corruption <sup>5</sup>.

### Source List 13.1: Improving Probity in Real-world Contexts

Source	Description
<i>Governance in very-low capacity situations</i>	
<i>“Political Economy of Policy Reform: Issues and Implications for World Bank Lending”</i> (Forthcoming) Oxford Policy Management	<p>A main message of the study is that when designing, implementing and assessing operations, such as investment projects or budget support programs, a better understanding and management of the political economy of reform is key, as it helps to enhance development effectiveness. Data collected from operational experience through the case examples shows that further emphasis should be given to</p> <ul style="list-style-type: none"> <li>▪ Getting a contextual understanding of the issues through analysis and dialogue, plus better access to data that can be validated and which will improve operational design</li> <li>▪ Broadening the Bank’s view and nature of interaction with a wider range of stakeholders (not limited to Finance or sector ministries), including sub-national or local governments; the parliament, including the political opposition; private sector; civil society, and formal and informal institutions</li> <li>▪ Applying a partnership approach; based on listening and learning, more emphasis on participatory approaches for better communicating; and valuing and using local expertise more.</li> </ul>
Schwartz, J and Halkyard, P. (2006) <i>“Postconflict Infrastructure: Trends in Aid and Investment Flows”</i> , Public Policy for the Private Sector, the World Bank	Typically, post-conflict countries have serious infrastructure needs, and private sector interest during or right after conflict is likely to come only from small-scale service providers. This paper discusses the cases of some countries that have coupled aggressive reform and liberalized policies to attract larger investors soon after conflicts end.
<i>Electricity Sector Reform</i>	
Lampietti, J. <i>et al</i> (2006) <i>People and Power: Electricity Sector Reforms and the Poor in Europe and Central Asia</i>	Using empirical data on household behavior and electricity consumption patterns, this study revealed that, in Europe and Central Asia, the erosion of tariff based subsidies had a disproportionate negative effect on the poor, and that subsidies were often untargeted or misdirected. This book offers some useful suggestions on strategies for achieving cost-recovery while remaining socially and politically acceptable.
<i>Systems Thinking</i>	

Source	Description
<p>Senge, P. (1990)  <i>“The Fifth Discipline”</i>            Currency</p>	<p>This book by Peter Senge, a senior lecturer at the Massachusetts Institute of Technology, focuses on groups problem solving using the “systems thinking” methods to convert companies into learning organizations. The five disciplines—building shared vision, mental models, team learning, personal mastery, and system thinking—represent approaches for developing three basic capabilities: fostering aspiration, developing reflective conversation, and understanding complexity.</p>
<p><i>Adapting to Country Contexts</i></p>	
<p>Argawal, M. et al (2003) <a href="#"><u>“The Delhi Electricity Discom Privatizations: Some Observations and Recommendations for Future Privatizations in India and Elsewhere”</u></a>,            Energy and Mining Sector Board Discussion Paper Series No. 8, Washington, DC: The World Bank</p>	<p>In July 2002, the Government of New Delhi, India, privatized the distribution operations of the metropolitan electricity utility. This paper discusses how the privatization was carried out, and comments on some of the key features of the bidding process. For example, bidders had to propose a performance improvement trajectory for the first five years of operations, which increased transparency in the transaction and set a clear benchmark against which consumers and the government could hold the utility accountable. The paper describes the regulatory context for the transaction, and contrasts it with the experience in Orissa, which was less successful. The Delhi transaction adapted a UK-derived first best model for local conditions, and this may explain why it seems to have been more successful than the Orissa reforms.</p>
<p>Ehrhardt, D. and Oliver, C. (2007) <i>“Big Challenges, Small States”</i>, PPIAF Gridlines, Washington, DC</p>	<p>This Gridline discusses regulatory options to overcome infrastructure constraints on small islands. It discusses how small islands have used a wide spectrum of models for introducing private participation in infrastructure (including investor-owned utilities, joint ownership, concession, and BOT arrangements). It describes regulatory options available to countries with limited expertise and resources that can improve accountability to consumers.</p>
<p>Gulati, M. and Rao M.Y. “Corruption in the Electricity Sector: A Pervasive Scourge” in Campos, J. and Pradhan, S. (2007) <i>The Many Faces of Corruption: Tackling Vulnerabilities at the Sector Level</i>”, Washington, DC: The World Bank</p>	<p>Page 138 describes the key elements of an anti-corruption strategy. These are broad and can be tailored to adopt particular country circumstances.</p>

Source	Description
<b>Manibog, Dominguez, and Wegner (2003)</b> <i>“Power for Development”</i> Washington, DC: The World Bank	See Box 13.2 page 202 for an example from this book about how electricity market reform in Ukraine was based on developing a competitive power pool—based on the British model of unbundling—and failed, partially because it was not adapted to country circumstances.

## Part III Learning from Experience

One of the areas that is often neglected in programs aimed at improving probity in the electricity sector is that of reviewing progress or results, identifying lessons learned, and feeding this information back into the planning process. For example, a recent review of World Bank practice (carried out as background for this Sourcebook) found that, out of 30 country, sector, or project strategies from 10 countries, only 5 adequately reviewed the strengths and weaknesses of past interventions (lessons learned) and clearly identified how the impacts of proposed governance interventions were to be assessed over time and “fed-back” into future work.

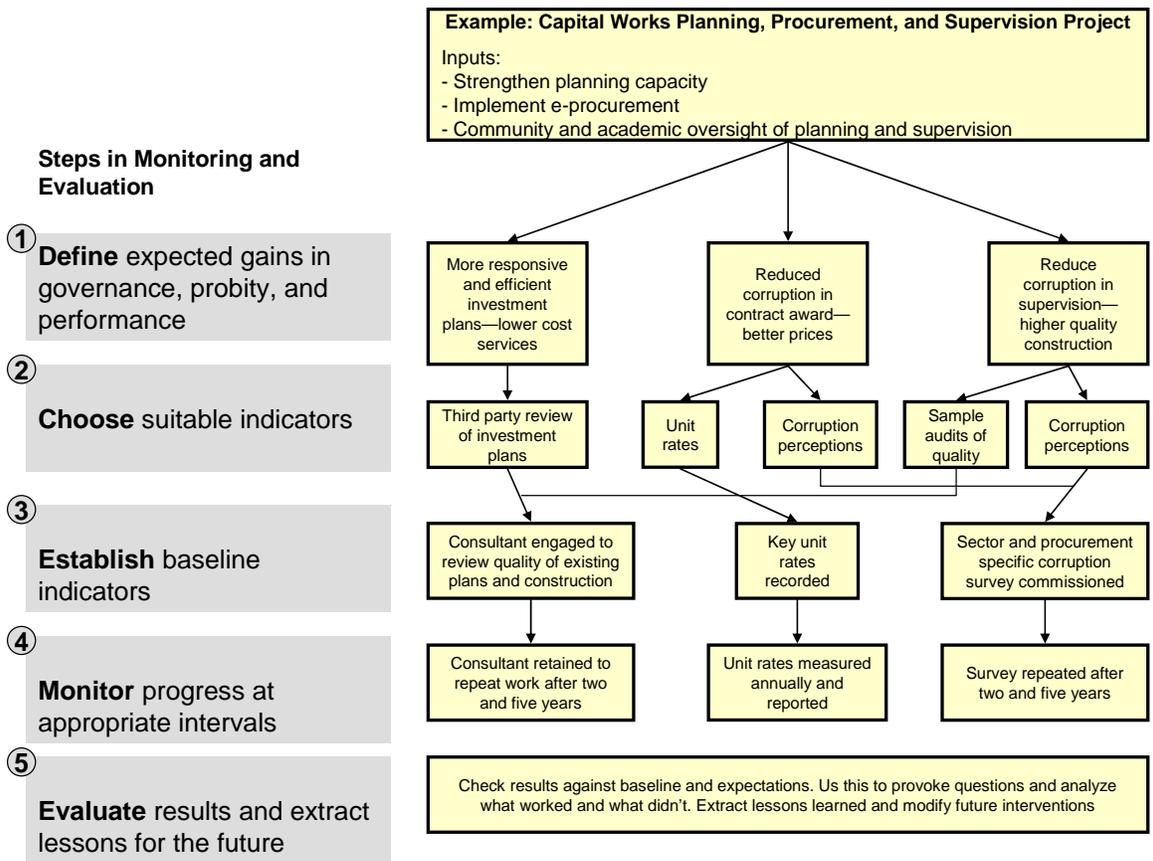
Monitoring and follow up are important as a way of assessing the effectiveness of strategies adopted for improving probity. If a strategy is effective, this should be evident from an increase in observable indicators of integrity, and corresponding decrease in indicators of corruption risk. Ideally, monitoring and review should be designed-in from the start. The sector strategy or project design could establish what the review process for that strategy or project will be.

### 14 Reviewing Progress

Monitoring and evaluation can be thought of as “closing the loop” for pro-probity interventions. This section suggests ways in which progress in improving governance and probity can be monitored, and how information from monitoring can be evaluated to inform future interventions.

Figure 14.1 lists (on the left-hand side) the typical steps in monitoring and evaluation of governance and anti-corruption initiatives. It also provides (on the right-hand side) an example of how a monitoring and evaluation regime could be developed for a project focused on improving planning, procurement and supervision in capital works.

Figure 14.1: Monitoring and Evaluation



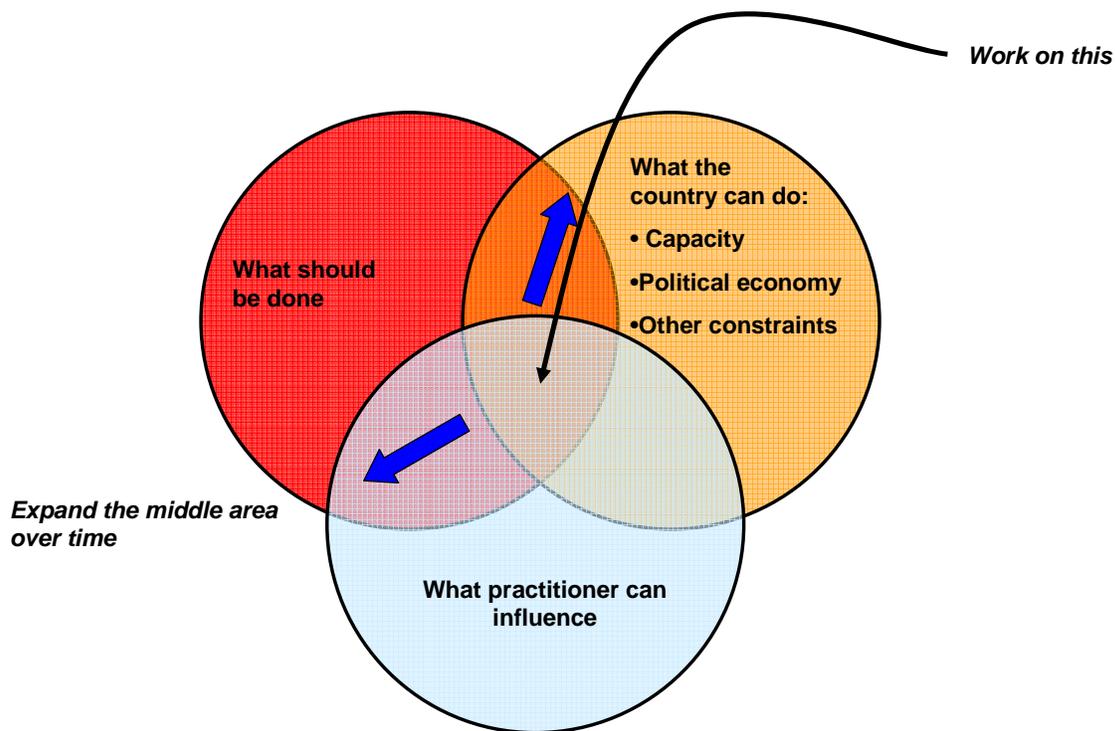
As illustrated in the figure, the basic steps are to define the expected results, choose indicators for those results, establish a baseline value for the indicators, monitor changes in the indicators over time, and evaluate the results to learn lessons for the future. These steps are each discussed below.

### 14.1 Defining Expected Improvements

To monitor progress against expectations, it is necessary to be clear about what the expected results are. Sector practitioners should recognize variability in country's abilities and circumstances and focus on the area where what **should** be done, what the **country can do**, and what the practitioner **can influence**, coincide with the aim of expending this area of overlap over time (see Figure 14.2)

Figure 14.2: Recognizing Variability in Country's Abilities and Circumstances

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It follows that before designing a monitoring and evaluation program, practitioners must be clear about:

- What are the inputs or interventions whose success is to be monitored?
- What are the hoped for result?
- What is the expected chain of causation between the inputs and the hoped for result?

In the example illustrated in Figure 14.1, the actions involve strengthening planning capacity, bringing in e-Procurement, and involving third parties in supervising procurement and construction. The hoped for chain of causation is that these measures would improve planning and reduce corruption in capital works. The desired result is that more appropriate capital works are procured and that the cost of the works is lower, while the quality is higher. Ultimately it is hoped that this would reduce the cost and increase the quality of electricity services.

## 14.2 Choosing Suitable Indicators

To monitor progress, practitioners will need something that can be observed and measured, that correlates well with the intended results of the program—in other words, a suitable indicator. Box 14.1 indicates how important this choice is.

#### **Box 14.1: Choosing Indicators in Uganda**

Uganda has had a number of M&E initiatives and systems. However, diagnoses of Uganda's M&E arrangements in 2001 and 2003 revealed a large number of uncoordinated and un-harmonized monitoring systems at the sector and subsector levels—at least 16 separate systems. In addition, a detailed investigation of three sectors (health, education, and water and sanitation) revealed a considerable data-collection burden at the district and facility levels.

The management information systems for those three sectors collected data on nearly 1,000 performance indicators, involving almost 300,000 data entries per annum for each of the 110 districts in Uganda. These indicators largely focused on spending, activities, and the physical state of facilities such as schools and health clinics.

However, measures of client satisfaction and outcome measures, such as health status and learning outcomes, were largely missing. Unfortunately, the quality of the data was highly uncertain and often considered poor. As a result, the sector ministries and agencies relied heavily on inspection visits rather than on self-reported performance indicators.

The diagnostic findings led to the decision to create a National Integrated M&E System (NIMES) under the aegis of the Office of the Prime Minister. The objective of NIMES is to create an umbrella M&E system within which existing systems will be coordinated and harmonized and government capacities to conduct and use M&E strengthened.

Various working groups have been created under NIMES addressing the following issues: M&E in local governments; policy research; evaluation; national statistical data; sector management information systems and spatial data; civil society organizations and M&E; and financial information.

NIMES is reducing the very large number of performance indicators, especially at the sector level, with a greater focus on outputs, outcomes, and impacts, as well as on the setting of targets.

Source: Mackay, K. (2007). *How to Build Monitoring & Evaluation Systems to Support Better Government*. World Bank

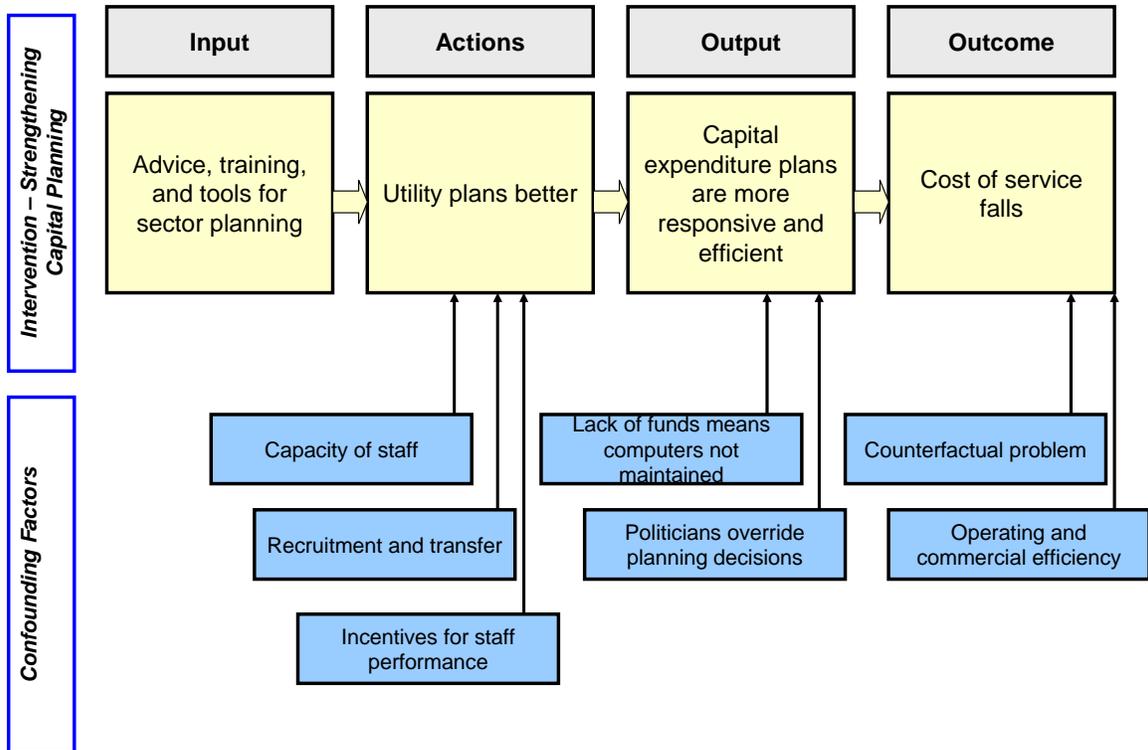
Part II of the sourcebook lists numerous indicators that may be suitable for detecting corruption or assessing governance. In selecting which indicators are suitable for monitoring purposes, practitioners may consider the following principles:

- Indicators chosen should relate to the intended results, while also being proximate to the actions whose success is being monitored. Figure 14.3 illustrates the difficulty in getting this right. The ultimate intended result of actions to increase probity in capital works may be to lower the cost of electricity services. It might seem from this that the cost of electricity service would therefore be an appropriate indicator. The difficulty with this is that the cost of electricity service is affected by far more than corruption in capital works—these are the “confounding factors” shown in the figure. If the cost of electricity increases because the price of fuel rises rapidly, the indicator will tell us little about the success of the anti-corruption initiative. For this reason, a more proximate indicator—such as an expert assessment of the quality of the provider's capital expenditure plan—might be a better guide to the success of the intervention
- Indicators for monitoring purposes should ideally be quantitative, rather than qualitative. They must be clearly defined, with a clear and simple process for

measuring them. The indicators should also be relevant over time (several years may elapse between the baseline, interim and final measurements)

- Because most indicators are not perfect indicators of corruption, the practitioner should select a **set** of relevant indicators to review. While conclusions drawn from a single indicator may be misleading, if several indicators are telling the same story, practitioners can have more confidence in their conclusions.

**Figure 14.3: The Art of Choosing Monitoring Indicators**



In some cases practitioners may be able to use indicators that are already being reported, for example sector performance, or existing surveys, such as the relevant parts of the Doing Business Survey.<sup>46</sup> In other cases, it will be worth developing indicators specifically for the project. For example, practitioners could supplement performance reviews with simple surveys that collect data on reported side-payments or bribes.

Practitioners may also collect more detailed cost information for unit inputs and supplier contracts, to determine if changes in procurement are taking place. Price tracking can provide a more objective indicator than perceptions of corruption.

<sup>46</sup> For more information on the Doing Business Survey, please see <http://www.doingbusiness.org/>

### 14.3 Establishing a Baseline

Ideally, at the beginning of a pro-probity intervention, practitioners would clearly establish the baseline levels for each of the indicators in the set, alongside expected or desired levels after a period. Such a baseline measuring approach was used in Pakistan at the beginning of a decentralization effort, as described in Box 14.2 below.

#### **Box 14.2: Social Audit to Gather Baseline Indicators on Governance and Services**

Pakistan has been through a recent decentralization process in which new responsibilities have been devolved to local government. To form a baseline of public service provision in the initial stages of this devolution process, the National Reconstruction Bureau commissioned a social audit on satisfaction with public services, including electricity supply, water supply, sewage and sanitation and gas supply. The audit, which covered 87 districts in Pakistan, included a household questionnaire, a community profile questionnaire, key informant interview schedules with service providers, key informant interview schedules with union councillors, and focus group guides.

The audit was first completed in 2001/02, and results of the audit were published in 2003. At that time, the government signalled plans to regularly repeat the audit process, using the same methods and indicators, to track changes to public perceptions about delivery of public services delivery and local governance over time. The audit was most recently repeated in 2004/05.

A comparison of the two survey results showed an increase in access to electricity supply between 2001/02 and 2004/05, but a slight decrease in satisfaction with the quality of supply. Overall, the audit found “encouraging signs...after two years or more of devolved local government”, but noted that the results also provided “some pointers for issues requiring attention to increase the chances of achieving the goals of devolution”.

Source: Cockcroft, A. et al (2005) *Social audit of governance and delivery of public services*, CIET

The work done in diagnosing corruption risk during project design (see Part II) may provide an adequate baseline. If it does not, it will usually be money well spent to commission additional work to establish baseline values for the chosen monitoring indicators.

### 14.4 Monitoring Progress

Having a consistent set of indicators is an important first step for accurately measuring changes in governance over time; but it is important, too, that these indicators are properly and consistently applied. Proper application requires a reliable entity to carry out indicator assessment, and a clear review process.

Entities made responsible for reviewing indicator levels should be capable, reliable, and impartial, and must be formally committed to reviewing the indicators. In some countries the suitable entity could be the Ministry of Finance or the National Audit Office. Alternatively, a more sector-specific agency, such as the regulator or Ministry of Energy could take on the monitoring duties. In a decentralized system, local councils, chambers of commerce or well-organized consumer groups could be given some monitoring functions. However, it is important that the selected entity has incentives to monitor and report accurately, and does not have strong incentives to “hide” corrupt activity or poor governance performance. Box 14.3 describes an example of how multi-lateral lending

agencies plan to work together with the Government of Bangladesh to review governance progress.

**Box 14.3: Good Governance Review Process in Bangladesh**

The World Bank’s Bangladesh Country Assistance Strategy is noteworthy in terms of “reviewing progress”. It sets clear governance targets at the sector level, specifying governance concerns, the sector reforms or changes that would be expected to overcome these concerns, and the specific, visible outcomes (milestones) of such reforms. It also identifies who will be responsible for monitoring progress against each of the indicators—the World Bank, the Government, or other donors—and briefly describes how the monitoring will be completed.

Figure 2.3 shows a performance target matrix from the Bangladesh CAS, which lists milestones or indicators for governance improvements. Although the indicators are broad, they will help the World Bank to assess in future CASs whether the approach to improving governance has been working, or whether changes are needed. To make these indicators more useful at other levels of World Bank operations, the Bangladesh country team could use them as the basis for more specific indicators in each sector or for service providers.

Source: World Bank (2006) *“Bangladesh Country Assistance Strategy”* Washington, DC: The World Bank.

Once an entity (or entities) has been given responsibility for oversight, the review could be completed by:

- 1. Setting reporting requirements for the provider and other sector agencies, based on a clear template.** The less of an administrative burden imposed by such reporting templates, the more likely they will be consistently and thoroughly completed. The administrative burden can be minimized by ensuring that forms require only the essential information required for monitoring—for routine reporting, in particular, the format should be simple, comprehensible and short. Similarly, some reporting requirements may be streamlined into a single report containing sufficient information for all of the entities that want to review performance data. For example, there may be many demands for monitoring data from planners who want information on service reliability and quality, or from local administrative officials who require information on activities undertaken by staff as a means to ensure that funds allocated have been used appropriately. Regulators may also need information on services and costs to be submitted on a regular basis. A simple and clear reporting format can ease the job for both the entities submitting the data and the entities reviewing the data, and helps to ensure data continuity over time

**Box 14.4: Electricity Regulatory Reporting Helps Monitor Improvements**

In New Zealand, electricity distribution businesses must submit regular, publicly-available reports to the regulator in a prescribed format. The information reported includes both financial performance and technical performance. An example of a technical performance report sheet is illustrated below:

<b>Faults per 100 circuit kilometers of prescribed voltage electric lines</b>							
		<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>		
(a)	The total number of faults	16.19	15.22	12.56	14.31		
							<b>2008</b>
(b)	The total number of targeted faults						14.72
							<b>2008–2012</b>
(c)	The average total number of faults						14.72
(d)	Breakdown of (a) to (c) according to line voltage						
		<b>6.6kV</b>	<b>11kV</b>	<b>22kV</b>	<b>33kV</b>	<b>110kV</b>	<b>Total</b>
<b>(a)</b>	<b>2007</b>	11.73	17.00	10.97	10.71	5.52	16.19
<b>(b)</b>	<b>2008</b>	16.13	15.55	8.23	8.74	4.41	14.72
<b>(c)</b>	<b>2008-2012</b>	-	15.55	8.23	8.74	4.41	14.72
<b>Number of faults per 100 circuit kilometers of underground prescribed voltage electric line</b>							
		<b>6.6kV</b>	<b>11kV</b>	<b>22kV</b>	<b>33kV</b>	<b>110kV</b>	<b>Total</b>
	<b>2007</b>	6.88	8.53	8.64	5.43	4.62	8.16
	<b>2006</b>	7.23	7.18	1.45	5.20	-	6.73
	<b>2005</b>	-	4.04	4.07	1.06	-	3.66
	<b>2004</b>	-	6.46	4.09	5.59	7.72	6.28
<b>Number of faults per 100 circuit kilometers of overhead prescribed voltage electric line</b>							
		<b>6.6kV</b>	<b>11kV</b>	<b>22kV</b>	<b>33kV</b>	<b>100kV</b>	<b>Total</b>
	<b>2007</b>	20.33	24.95	57.41	16.51	7.77	24.14
	<b>2006</b>	15.43	24.10	13.44	19.48	3.89	23.53
	<b>2005</b>	-	21.37	-	20.10	19.43	21.12
	<b>2004</b>	-	23.18	-	23.54	11.66	23.01
<p>The clear and consistent reporting format assists the regulator and the public in monitoring utility performance over time. For the consumer-owners of the utilities (most of which are governed by consumer-elected boards), such performance monitoring is useful for illustrating whether changes in management have led to changes in performance.</p>							
<p>The clear and consistent reporting format assists the regulator and the public in monitoring utility performance over time. For the consumer-owners of the utilities (most of which are governed by consumer-elected boards), such performance monitoring is useful for illustrating whether changes in management have led to changes in performance.</p>							

2. **Establishing external reviews and audits by a reliable, independent firm.** If the results of an audit or report are likely to identify governance concerns, the providers or officials concerned will have incentives to attempt a “cover up” by mis-reporting or bribing others to submit false reports. Accordingly, it is important that the monitoring firm or entity is independent, and unlikely to be influenced by threats or bribes, or has incentives to report correctly. In some countries this is achieved by hiring a consulting firm to undertake monitoring activities. In Indonesia, the World Bank was able to resolve many problems with inaccurate audits by ensuring that the auditors were adequately paid for their transportation and accommodation costs, and had less “need” to seek reimbursement through bribes from the officials under review<sup>47</sup>
3. **Analyzing and reporting on results.** Once data has been collected, it needs to be processed in a way that produces meaningful information. Where reports are lengthy or require a detailed understanding of electricity sector issues they are unlikely to be appropriate for anything but a small technical audience. Where information is needed by non sector-specialists for use in planning, it would be best for data to be analysed first by specialists and then reported in a short, clear format consistent with the use to which the data will be put.

## 14.5 Evaluating Results and Drawing Conclusions

Once information has been generated from the review, and analyzed in accordance with the intended use for the information (such as identifying cost abnormalities, or identifying the incidence of bribes), the lessons learned need to be fed-back in to the sector planning and governance intervention process.

Possible feedback mechanisms include:

- **Identification of decision-points in the project or sector-plan implementation process, where new information or past experience can be reassessed.** This may be particularly important for ensuring that unsuccessful pro-probity interventions are discontinued or modified at an early stage, and that successful interventions are continued
- **Recording “lessons learned”, and feeding these back into future sector strategies or project design** (both within sector, and more widely to other agency staff). Lessons learned, if accurately recorded and reported, can be invaluable for future planning. Vague “success reports” are generally unhelpful; practitioners and governments need to know why a particular program has been successful or unsuccessful. Similarly, following the introduction of report cards in Bangalore the World Bank commissioned an assessment to understand what effect, if any, the card had on governance and accountability (see Box 14.5)

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<sup>47</sup> World Bank (2004) *Village Justice in Indonesia: Case studies on access to justice, village democracy, and governance*, Washington, DC: The World Bank

#### **Box 14.5: Assessment of Impact of Report Cards in India**

The Bangalore Citizen Report Card (CRC) was pioneered by an independent NGO, the Public Affairs Centre, in 1994. The report cards involve surveys of random samples of households in Bangalore to assess their satisfaction levels with various dimensions of the quality of services provided by the municipal government and other public service agencies. The dimensions covered by these service delivery surveys include behavior of staff who serve them, quality of service, information provided by staff, and extent of corruption (speed money). The agencies that households are asked to rank include electricity, water, other municipal services, transport, housing, telephones, banks, and hospitals.

The first report card found several problems: low levels of public satisfaction; public agencies that were not citizen friendly; a lack of customer orientation; corruption; and a high cost for the inefficiency of the public sector. The second CRC survey in 1999 revealed improvements in satisfaction levels but no improvement in the proportion of households paying bribes.

The World Bank's Independent Evaluation Group commissioned an assessment of the impact of the first two report cards (1994 and 1999) based on interviews with a sample of agency heads, senior state officials, citizen action groups, and the media in Bangalore. The interviewees reported that they were generally appreciative of the report card as a tool to obtain feedback on services. Following the CRC findings, many of the agencies initiated reform measures. The report cards helped increase public awareness of the quality of services and stimulated citizen groups to demand better services. They influenced key officials in understanding the perceptions of ordinary citizens and the role of civil society in city governance. Bangalore has witnessed a number of improvements, particularly following the second report card. There is now greater transparency in the operations of government agencies and better responsiveness to citizens' needs. Although a number of other factors have also contributed to this transformation of Bangalore, the report cards acted as a catalyst in the process.

Source: Mackay, K. (2007). *How to Build Monitoring & Evaluation Systems to Support Better Government*. World Bank.

- **Applying penalties and rewards.** Examples of penalties include withholding funding disbursements, or prohibiting providers or officials from being involved in the next stage of program implementation. Conversely, utilities that meet objectives can be “rewarded” by being given access to increased capital investment funds, and increased autonomy over their management. For example, in Bangladesh the rural electrification board channels donor funds to providers (rural cooperatives) on the basis of their performance, as measured by indicators such as collections, financial viability, and coverage. If corruption or mismanagement in any of the providers is reported, the board has the power to investigate and to dismiss staff (if the board discovers wrongdoing).

Such a feedback loop seems easy in principle, but can be complicated in practice—the results of the review may be controversial, and sector stakeholders may act to have the information suppressed. In other cases, the information may be made available, but it may be difficult to change existing governance structures or procedures in line with the findings. Sources of further information on monitoring and evaluation are listed below.

### Source List 14.1: Reviewing Progress

Source	Description
<p><b>Kusek, J. and Rist, R. (2004) <i>“Ten Steps to a Results-Based Monitoring and Evaluation System”</i>, Washington, DC: The World Bank</b></p>	<p>This toolkit explains the importance of monitoring and evaluation, and describes clearly what a good monitoring and evaluation system should achieve. It includes a full glossary of monitoring and evaluation terminology (based on OECD definitions) and an extensive reference list for further reading. The toolkit explains that an appropriate evaluative program can provide the context necessary for correctly interpreting information generated through the monitoring process, such as performance data.</p>
<p><b>Mackay, K. (2007). <i>How to Build Monitoring &amp; Evaluation Systems to Support Better Government</i>. World Bank.</b></p>	<p>Explains how governments can institute M&amp;E to enhance transparency and support accountability relationships by revealing the extent to which they have attained desired objectives. Strong accountability, in turn, can provide the incentives necessary to improve performance.</p>
<p><b>Olken, B. (2007) <i>“Monitoring Corruption: Evidence from a Field Experiment in Indonesia”</i>, Harvard University and National Bureau of Economic Research</b></p>	<p>Community participation is now regarded in much of the development community as the key not only to reduced corruption but to improved public service delivery more generally. Of course, this approach has potential drawbacks as well; for example, monitoring public projects is a public good, so there may be a serious free-rider problem. Grassroots monitoring may also be prone to capture by local elites. To examine the success of different approaches (external monitoring versus community participation and monitoring) to monitoring levels of corruption, the author designed and conducted a randomized, controlled field experiment in 608 Indonesian villages. Traditionally, much of the empirical work on corruption has been based on perceptions of corruption rather than on direct measures of corruption. This paper, however, builds on a small but growing literature that examines corruption by comparing two measures of the same, physical quantity, one “before” and one “after” corruption has taken place. This allows for accurate measures of quality over time, and enables the author to determine the extent of losses due to corruption.</p>

Source	Description
<p>Schacter, M. (2000)  <i>“Evaluation Capacity Development—Sub-Saharan Africa: Lessons from Experience in Supporting Sound Governance”</i>,  Washington, DC:  The World Bank</p>	<p>This paper explains that M&amp;E can support sound governance in several ways. However, substantial M&amp;E achievements on the ground are rare in Sub-Saharan Africa. The binding constraint appears to be insufficient demand for M&amp;E. Few leading bureaucrats and politicians in Sub-Saharan Africa accept the value of an evaluation culture that supports fact-based administrative and political accountability. The major lesson from two decades of governance support in Sub-Saharan Africa is the failure of the blueprint approach to reform. This failure is instructive. It demonstrates that future interventions, if they are to have a reasonable chance of success, must pay careful attention to:</p> <ul style="list-style-type: none"> <li>▪ The quality of local leadership for reform</li> <li>▪ Local capacity to design and implement reform programs</li> <li>▪ Features of the local incentive and accountability environment, particularly as they relate to the level of corruption in the public sector and the quality of public service delivery</li> <li>▪ Capacity-building needs of decentralized as well as centralized forms of governance</li> <li>▪ Forces external to the public service that support government reform.</li> </ul>

## Appendix A: Glossary

<b>Access to information</b>	Refers to the right of interested parties (the public, NGOs, the media, etc.) to receive information held by government. This right, protected by international and national laws, provides that official documents should be generally available, and that any exceptions should be limited and specific. Access to information increases government accountability to its citizens and reduces opportunities for corruption.
<b>Accountability</b>	Accountability denotes a relationship between a bearer of a right or a legitimate claim and the agents or agencies responsible for fulfilling or respecting that right. One basic type of accountability relationship is that between a person or agency entrusted with a particular task or certain powers or resources, on the one hand, and the 'principal' on whose behalf the task is undertaken, on the other.
<b>Auditing</b>	Auditing refers to an official examination of an organisation or institution's accounts, to make sure money has been spent correctly, i.e. according to rules, regulations and norms. Audit institutions like national and regional Auditor Generals, Audit Offices, State Comptrollers, Ombudsmen, Tribunals de Cuentas, Cours de Comptes etc. make a vital contribution to good governance by detecting poor management and inappropriate use of public money. Auditing institutions can be considered the taxpayers' independent and professional watchdogs.
<b>Bid rigging</b>	Occurs where officials or managers rig or interfere with the contract award to favor a particular bidder, or bidders (usually in return for a bribe or kickback payment).
<b>Bribes</b>	Payments to an official or utility staff member, paid in advance in return for a promise to act a certain way (for example, award a supply contract to a particular firm, or install a connection within a particular time frame).
<b>Build-Own-Operate-Transfer (BOOT)</b>	A BOOT model involves a single organization or consortium designing, building, funding, owning, and operating a scheme for a define period of time (usually around 25 years) and then transferring the ownership across to an agreed party.
<b>Clientelism</b>	Clientelism is an informal relationship between people of different social and economic status: a 'patron' (boss, big man) and his 'clients' (dependents, followers, protégés). The relationship includes a mutual but unequal exchange of favors, which can be corrupt. Patrimonial and clientelist practices can institutionalize hegemonic elites and political corruption, often reaching the highest ranks of state power.
<b>Competitive bidding</b>	Competitive bidding is a selection process based on the principle of open and transparent advertisement of an item or service, which ensures that the best bidder wins according to qualifications, value and other objective criteria (and consequently not according to family or

friendship ties, bribery or threats). Competitive bidding processes are often required by law on public contracts and purchases above a certain value.

<b>Cronyism</b>	Cronyism refers to the favorable treatment of friends and associates in the distribution of resources and positions, regardless of their objective qualifications.
<b>Embezzlement</b>	Embezzlement is the misappropriation of property or funds legally entrusted to someone in their formal position as agent or guardian.
<b>Extortion</b>	Extortion is the unlawful demand or receipt of property or money through the use of force or threat. A typical example of extortion would be when armed police or military men exact money for passage through a roadblock. Synonyms include blackmail, bloodsucking and extraction.
<b>Favoritism</b>	Favoritism refers to the normal human inclination to prefer acquaintances, friends, and family over strangers. It is not always, then, a form of corruption. However, when public officials demonstrate favoritism to unfairly distribute positions and resources, they are guilty of cronyism or nepotism, depending on their relationship with the person who benefits.
<b>Fraud</b>	Fraud is an economic crime involving deceit, trickery, or false pretenses, by which someone gains unlawfully. An actual fraud is motivated by the desire to cause harm by deceiving someone else, while a constructive fraud is a profit made from a relation of trust.
<b>Incentives</b>	An incentive is an inducement or stimulus (the carrot or the stick), that encourages someone to do something. Incentive theory provides a conceptual framework for analyzing the role and potential of recruitment and promotion mechanisms, detection and penalties, and different wage systems in improving the efficiency of public agencies. It challenges, for instance, the simplistic view that pay increases will always reduce fraud in public administration. Note that an incentive might also be a bribe, persuading officials to return undue favors to the briber.
<b>Interest peddling</b>	Interest peddling occurs when a professional solicits benefits in exchange for using his influence to unfairly advance the interests of a particular person or party. Interest peddling is addressed through transparency and disclosure laws, which aim to expose suspect agreements.
<b>Kickbacks</b>	Similar to bribes, but are paid after the fact (for example, once the supply contract has been awarded to a particular firm)
<b>Nepotism</b>	Nepotism is usually used to indicate a form of favoritism that involves family relationships. It describes situations in which a person exploits his or her power and authority to procure jobs or other favors for relatives. Nepotism can take place at all level of the state, from low-level bureaucratic offices to national ministries. Many unrestricted

presidents have tried to secure their (precarious) positions by nominating family members to key political, economic, and military/security posts in the state apparatus.

**Patronage**

Patronage refers to support or sponsorship of a patron (wealthy or influential guardian). Patronage is used, for instance, to make appointments to government jobs, promotions, contracts for work, and so on. However, there is “no such thing as a free lunch”; most patrons are motivated by the desire to gain power, wealth, and status through their behavior. Patronage transgresses the boundaries of legitimate political influence, and violates the principles of merit and competition.

**Transparency**

Transparency is the quality of being clear, honest and open. As a principle, transparency implies that civil servants, managers and trustees have a duty to act visibly, predictably and understandably. Sufficient information must be available so that other agencies and the general public can assess whether the relevant procedures are followed, consonant with the given mandate. Transparency is therefore considered an essential element of accountable governance, leading to improved resource allocation, enhanced efficiency, and better prospects for economic growth in general.

Source: Castalia and the Anti-Corruption Resource Center (2007)

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