

Module 5

Structure, composition and role of an energy regulator

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1. MODULE OBJECTIVES

1.1. Module overview

There is no "perfect" regulatory system. Continuous improvements and adjustments are necessary as it adapts to internal and external changes. A good regulatory system may take a long time to develop. However, appropriate clarity of the relationship between government and regulator is crucial to good reduction of investor risks and protection of consumer's interests.

There are three basic principles on which a regulatory system must be built: independence, transparency and investor/consumer protection. This module will examine these principles and the composition and tools necessary for a regulatory body to carry out its work effectively.

1.2. Module aims

The aims of the present module are listed below:

- To introduce the basics principles along which an effective regulatory system is built;
- To provide an overview of the issues of independence, transparency and consumer/investor protection;
- To show that there is no "ideal" model or structure for a regulatory body;
- To outline the basic functions and role of a regulator;
- To outline some basic compositions of regulators and the resources they will need at their disposal;
- To introduce some basic recommendations towards building a credible regulatory environment.

1.3. Module learning outcomes

The present module attempts to achieve the following learning outcomes:

- To understand the role of the regulator;
- To describe the basic principles of independence, transparency and consumer and investor protection and why they are important;
- To describe the main functions of a regulator;

- To appreciate the main issues involved in setting up a regulatory body;
- To understand the importance of a credible regulatory environment;
- To be able to list some measures that increase regulatory transparency.

2. INTRODUCTION

Effective protection of the property rights of investors and a framework of known legal rules are conducive to stronger economic development. However, simply transplanting Western legal and regulatory models to developing countries is often inadequate to respond to the different circumstances in these countries. One of the commonly neglected reasons for this is fewer resources being available in developing countries. A legal or regulatory system may need to be designed differently to take this and other factors into account.

Generally, respect for basic property and contract rights and an independent judiciary with some ability to command compliance from government an politicians is key to an effective legal and regulatory system. However, there is no "perfect" regulatory system. Continuous improvements and adjustments are necessary as it adapts to internal and external changes. A good regulatory system may take a long time to develop.

In the energy sector of many developing countries, the process of reform is still underway, therefore a regulatory agency's structure must permit it to adapt effectively to changing technological evolutions and market conditions.

In addition, appropriate clarity of the relationship between government and regulator, including definitions in the governing legal framework, is crucial to good regulation and reduction of investor risks. And, at the end of the day, there must exist the political will allowing regulators to "do their jobs".

Overall, there are three basic principles on which a regulatory system must be built: independence, transparency and investor/consumer protection.

The importance of achieving a degree of regulatory independence, although controversial at times, cannot be underestimated. Independence is crucial to the regulator's task.

Transparency is the key to attracting and retaining efficient investment as it creates confidence in the commitment of the government/regulator to set of fair policies both now and in the future. Absence of regulatory transparency can severely undermine investor confidence.

It is also the regulator's role to strike the balance between encouragement of investors and consumer protection. A regulatory agency must support investment by protecting investors from arbitrary government actions but also in turn protect consumers from abuse by firms with substantial market power.

Finally, a regulator must be provided with the tools and resources essential for delivering on its mandate, whether this is in terms of laws, financial resources or high quality staff.

3. PRINCIPLES OF REGULATION

3.1. Independence

Regulatory autonomy or independence usually means having a regulatory body free from influence from external sources in its decision making. This often means independence or autonomy from the government. Ensuring that political oversight is not seen to impede the functioning of the regulator can be crucial in establishing the credibility of a newly created regulator.

However, it is commonly accepted that balancing regulatory autonomy/independence with sustainable financing of regulatory agencies is a difficult task and there is seldom a perfect answer. Indeed, the principal source of financing for many regulators is the government, leaving them at least partly vulnerable to political influence.

One way suggested to partly mitigate the issue of dependence on government funding is to have ring-fenced funding for the regulator. However, reduced independence of a newly established regulatory agency may be necessary during a two or three year transition period while permanent funding is established and other stakeholders learn about the processes used by the regulator.

Further, the only way a regulator can be truly independent is if it has been provided with the tools and resources essential for delivering on its mandate. A weak regulator, for example, in terms of financial or human resources, will find it very difficult to remain autonomous.

3.2. Transparency

Transparency means transparent regulatory decision-making and robustness, expediency, quality and predictability of regulatory decision-making. The following might be regarded as a wide and dynamic definition of the concept of regulatory transparency:

Transparency is defined as "tools and measures that foster confidence in and understanding of the regulatory processes and decisions by all stakeholders".

¹Dr. R. Hern, NERA Economic Consulting at the 2nd Annual AFUR Conference in Kampala, March 2005.

Regulatory transparency is more important in weak institutional environments with less investor confidence. The idea is that the openness of the regulatory process to stakeholders promotes legitimacy. However, it is recognized that there should be a balance between transparency and respect for the requirements of investor confidentiality. In brief, transparency:

- Is crucial to the legitimacy of the regulatory process;
- Is the key to attracting and retaining efficient investment;
- Creates confidence in the credible commitment from the government/ regulator to a set of fair policies both now and in the future;
- The financial impact of the absence of regulatory transparency is potentially vast and could severely undermine investor confidence.

One method for the regulator to promote transparency is to prepare and distribute to stakeholders and the general public an annual report on regulatory activities and sector performance.

3.3. Investor and consumer protection

The basic role of the regulator is to balance the interests of three stakeholder groups: the government, electricity (or energy) service suppliers and customers. Each of these groups has potentially conflicting interests.

The government is subject to short-term political pressures from various constituencies. For investors to commit to long-term investments, the regulator must be free from undue influence. For example suppliers want high returns, and an unchecked monopolist will charge too high a price. Customers, conversely, want reliable electricity at low prices.

Therefore, a key element of the regulator's role is striking the balance between encouraging investors and protecting consumers, while fulfilling government objectives. The regulator should ensure that both suppliers and consumers uphold their obligations relating to commercial operations. The utility has the obligation (via licensing) to provide a service under the approved tariffs and quality standards. Consumers have an obligation to pay for that service to ensure the financial viability of the sector.

For example, the review of tariffs and costs, one of the core functions of a regulator, is central to protecting consumers and facilitating investment. The regulator must also be wary of the emergence of monopolies that could have enough influence to set higher than market prices.

The purpose of regulation is to ensure that price reflects the least cost of service, given mandated quality and reliability standards. The role of the regulator is to promote the long-term objectives established by the government, while balancing the interests of all three stakeholder groups (government, suppliers, consumers). The long-term sustainability of the sector depends on looking beyond the immediate interests of each of the groups.



Review question

Describe in your own words the principles of independence, transparency and investor and consumer protection.

4. DIFFERENT BODIES INVOLVED IN REGULATION

As presented in the introductory module of this course, various governmental and non-governmental bodies can be involved in the activity of regulation.

The independent or semi-independent specialist utility or energy regulator is becoming a common model for regulation of the energy industries, particularly where these industries have been transferred to the private sector. This is common in many African countries whose energy sector has recently gone through a reform process, often creating an independent energy regulatory body as part of that process.

However, this is not the only model, in some countries—even where the industry has been privatized—a central government department will retain either the whole regulatory function or parts of it. In this case, electricity is typically regulated by a ministerial agency, usually under the Ministry of Energy. (But not always. For example, in the United Republic of Tanzania, the Energy and Water Utility Regulatory Authority (EWURA) is placed under the Ministry of Water.)

Whether it is a government department or an independent regulator who has the primary role, there will often also be other bodies with a role in regulating the energy industry. These were outlined in module 3, and this outline is repeated here for convenience. The following bodies can all be involved in regulating the energy industry:

- Central government departments;
- Specialist utility or energy regulatory agencies;
- · Generalist competition regulators;
- Environmental regulators;
- Local authorities;
- Courts and tribunals.

4.1. Central government departments

Where central government departments are directly involved they make regulation answerable to elected politicians and hence can increase democratic control and legitimacy. Whether or not this is considered desirable will depend upon different views of the purpose of regulation and role of government. For example, there may be concerns that governments may be willing to compromise economic

efficiency to meet other goals—for example, there may be pressures to protect companies from competition to preserve jobs.

4.2. Specialist utility or energy regulators

One of the main arguments made in the favour of specialist utility or energy regulators is that, where the agency enjoys reasonable independence from government, they provide a bulwark against "political interference" which might damage economic efficiency. The main argument against is a lack of accountability to the government and parliament. Establishing an independent regulator places considerable power in the hands of an appointed individual, (or a group of individuals where a commission-type structure exists) who may pursue policies that are at odds with government policy or publicly mandated policy goals. These regulators are generally subject to a set of duties provided by legislation, although the legislation may provide for a considerable degree of discretion on the part of the regulator in applying and balancing these duties. Achieving the benefits of independence without sacrificing accountability is thus one of the key challenges.

4.3. Generalist competition regulators

The generalist competition regulator's role is to take action against activities that may hamper competition in any sector of the economy. Typically they will have a role in assessing whether certain mergers should be allowed to proceed and in taking action where companies with market power are found to be acting anti-competitively. In some countries, the specialist utility regulators may have some concurrent powers with the generalist competition regulators.

4.4. Local authorities

Local authorities may have two types of role. Firstly in planning control—e.g. in the siting of energy facilities such as power stations, wind turbines, etc. Secondly, in some countries, local authorities provide municipal electricity and/or heat (district heating) supply—these companies may be regulated by a sector regulator where one exists or they may be largely self-regulatory.

4.5. Courts and tribunals

The position of courts and tribunals can vary somewhat, depending on the particular structure. In some systems they are empowered to act as the point of last appeal on disputes between other regulatory bodies and companies. In other systems, courts and tribunals can be the first point of call concerning company behaviour.

Box 1. Establishment of the Energy Regulation Board of Zambia

Prior to the change of Government in 1991, state-owned companies (usually monopolies), operating under extensive Government control, characterized the Zambian economy.

When the current Government assumed power in 1991, new economic liberalization policies were adopted leading to the promulgation of new legislation. In the energy sector a new ministry responsible for energy was created (the Ministry of Energy and Water Development). The National Energy Policy was formulated and adopted in 1994 followed by enactment of the Electricity Act and the Energy Regulation Act in 1995.

The Energy Regulation Board (ERB) started operating in February 1997 following issuance, by the Minister of Energy, of the statutory instrument No.6 of 1997, the Energy Regulation Act (Commencement) Order of 27 January 1997. By 2000, the ERB had undertaken several capacity-building activities, developed into a strong regulatory authority and was well recognized both by the Zambian stakeholders and the international community.

To build a successful independent regulatory authority, a country should ensure that there is a strong political will, clear policy, supporting legislation and appropriate institutional arrangements such as independence, earmarked funding, accountability, credibility, no regulatory capture, competency, regulators appointed on professional basis and no arbitrary removal of regulators.

5. ROLE OF A REGULATOR

5.1. Why regulate in the electricity sector?

Below is a brief reminder of why regulation is important in the electricity sector² (although the same principles can apply to other sectors also):

- To constrain the exercise of monopoly power by incumbent suppliers;
- To provide incentives for operating efficiency and quality of service;
- To optimize the structure of the sector;
- To promote least-cost system expansion (with private capital invested in independent power producers—IPPs);
- To stimulate energy conservation and R&D.

5.2. Purpose of a regulator

The purpose of a regulator is often seen as "balancing" of interests but unless benefits are also created under the regulatory regime (i.e. improved sector performance), the system is unlikely to be sustainable.

The role of the regulator is:

- To protect consumers from abuse by firms with substantial market power;
- To support investment by protecting investors from arbitrary government action;
- To promote economic efficiency.

Under a regulation-by-contract regime and potentially having to engage in contract re-negotiations, the regulator's role will increasingly be that of honest broker or even impartial player focused on creating solutions and building consensus between service providers/investors and governments.

 $^{^{2}}$ Designing an Independent Regulatory Commission, S. V. Berg, A. N. Memon, R. Skelton, Public Research Utility Center, University of Florida.



Review question

List the main reasons why regulation is important in the electricity sector.

6. SETTING UP A REGULATOR

6.1. Introduction: designing a regulator

A well functioning regulatory agency needs adequate resources, an appropriate legal mandate and clear agency values and operating procedures. This is by no means an easy or straightforward task and a number of questions can be raised when thinking of how to set up a regulator. Some of these are listed below:

Legal mandate

- Should the regulator have jurisdiction over one industry? One sector? Or many sectors?
- What are the functions of the regulator and what are those of the ministries?
- After establishment, at what point and how should revisions be made to the law?

Values

- If independence is important, how can it be achieved?
- What processes will promote transparency?
- What kind of information does the regulator require in order to be able to make informed decisions?

Resources

- Consideration of resources affects start-up strategy;
- What kind of leadership is required (individual or committee)?
- How does funding, recruitment of professionals, and staff development affect the performance of a regulator?

What is suggested to be defined first are the key objectives, against which the regulator's success will later be judged. Then the values and principles to be applied in the regulatory process as well as the functions that need to be assigned and implemented need to be defined here. Then a process that will ensure that decision-making is transparent need to be designed.

6.2. Resources

One of the often-neglected reasons why transplanting western regulation models to developing countries do not generally work is because of a lack of available resources. A regulatory system may well need to be designed differently where

the resources available for investment in it are more limited, as is the case in most developing countries.

It must not be forgotten that while creating laws and rules is relatively straight forward, creating new institutions with roles in regulation requires relatively heavy investment in terms of labour costs. Therefore, in developing countries, a policy of selecting rules and regulations that reduce institutional costs would seem logical.

When discussing availability of resources, it should be born in mind that the term "resources" could mean many things. The term should not be understood in a narrow sense, as it could encompass any of the following and more:

- Manpower to monitor, conduct, process and enforce rules and sanction systems;
- Investment in information technology to facilitate communication and therefore also the effectiveness of decision-making;
- Human capital, where average lower educational achievement affects both the
 quality of decision-making by officials and the ability of ordinary citizens to
 initiate or contribute to the enforcement process.

These resources are necessary for an effective regulator to exist, therefore when they become constrained or limited, this should not be ignored but action should be taken to create solutions or adapt the existing system, so it may continue to be effective. The following are suggestions for adapting a regulatory regime to ease the pressure on limited resources:³

- Regulatory goals may be more effectively pursued if they coincide, or are compatible, with community norms.
- If the regulatory regime can in some way be identified with, or internalized by, the community, whether within or outside traditional law, this will facilitate monitoring and enforcement, both of which are heavily resource intensive.
- Sanctions often fail to be effectively applied due to corruption or simply insufficient assets by those failing to comply with the initial fining. In the later case, there is an understandable reluctance to impose imprisonment as the principal alternative to paying of fines, especially for minor offences. Therefore, in some cases it may be more cost effective for regulatory systems to focus their enforcement efforts less on those who actually contravene the rules but have insufficient wealth to pay penalties (e.g. an individual who fails to pay an electricity bill) and more on third parties who can control the contravener's conduct and do have sufficient assets for financial penalties to be effective as a deterrent. So, for example, a firm or employer can be held

³Towards appropriate institutional arrangements for regulation in less developed countries, A. Ogus, Working Paper Series, Paper No. 119, Centre for Regulation and Competition, University of Manchester, June 2005.

responsible for the contravention, in the expectation that it can apply effective informal sanctions on their employees. In some developing country contexts, the same idea might be extended to render the extended family or community responsible to equivalent effect.

 Using discretion instead of rules in decision-making is also a way to reduce bureaucracy and complex rule-making by leaving decisions in the hands of informed individuals. However, this has two disadvantages: first, the exercise of discretion requires greater knowledge and expertise than simple application of rules and, secondly, discretion can be exploited more easily than rules for the purposes of corruption.

6.3. Legal mandate

The functions of a regulator are usually defined in primary legislation. Changes to regulatory functions are also usually implemented through primary legislation. Clarity in the legislation setting up the regulator must be ensured. There must be a clear mandate and the tools and means to implement that mandate should be made available to the regulator.

A regulator's work will include, amongst other functions, issuing licences, setting performance standards, monitoring the performance of regulated firms, establishing the level and structure of tariffs, arbitrating disputes among stakeholders and reporting sector and regulator activities to the appropriate government authority. For each of these functions, the regulator needs sufficient legal authority to carry out its responsibilities.

6.4. Values and principles

The values and principles a regulator decides to use to apply the regulatory process are important, as these will determine whether credibility with the investment community, legitimacy for consumers and strong incentives for economic efficiency are established. Box 2 below gives a review of international best practice. These principles should be incorporated in the regulatory process for effective implementation of government policies. For example, the accountability component includes a procedure for appeal to a regulatory decision.

Box 2. Best practice principles for regulatory commissions: international experience

The following characteristics have been identified with best practice around the world:

Communication: information should be made available to all stakeholders on a timely and accessible basis.

Consultation: participation of stakeholders in meetings promotes the exchange of information and the education of those affected by regulatory decisions.

Consistency: the logic, data sources, and legal basis for decisions should be consistent across market participants and over time.

Predictability: a reputation for predictable decisions facilitates planning by suppliers and customers, and reduces risk as perceived by the investment community.

Flexibility: the agency should use appropriate instruments in response to changing conditions, balancing this regulatory discretion against the costs associated with uncertainty.

Independence: autonomy implies freedom from undue stakeholder influence, which promotes public confidence in the regulatory system.

Effectiveness and efficiency: cost effectiveness should be emphasized in data collection and in the policies implemented by the regulator.

Accountability: regulators should provide clearly defined processes and rationales for decisions. In addition, appeals procedures need to be specified to provide appropriate checks and balances.

Transparency: the openness of the process to stakeholders promotes legitimacy.

Source: Australian Regulatory Forum (1999), www.accc.gov.au

6.5. Functions

A review of experience around the world indicates that the following are the key regulatory functions in the electric power sector:⁴

- Issuing licences related to regulatory functions;
- Setting performance standards;
- · Monitoring the performance of regulated firms;

⁴Designing an Independent Regulatory Commission, S. V. Berg, A. N. Memon, R. Skelton, Public Research Utility Center, University of Florida.

- Establishing the level and structure of tariffs;
- Establishing a uniform accounting system;
- Arbitrating disputes among stakeholders;
- Performing (usually via an independent consultancy) management audits on regulated firms;
- Developing human resources for the Independent Regulatory Commission (IRC);
- Reporting sector and IRC activities to the appropriate government authority.

All of these functions have implications for the central objectives of regulation: ensuring that costs and prices are as low as possible, conditional on continuing to attract needed capital investment for the sector. Interrelationships among the functions affect costs and tariffs. Often rate re-balancing (to reduce cross-subsidies from particular customer groups) or rate increases (to bring prices up to costs) are objectives of reform, and the creation of a regulator clearly involves a review of costs and tariffs.

Issuing licences is often one of the first actions undertaken by a new regulator. A licensing regime tests the suitability of applicants as potential suppliers of goods or services. Licensing systems are relatively expensive to administer, however they have proved a popular instrument amongst regulation agencies in developing countries, while in Europe there is movement away from licensing with more emphasis on industry monitoring systems.

The popularity of licensing systems in developing countries can be explained for the following reasons, amongst others:

- Weak monitoring systems (due to lack of human and financial resources);
- Easy method for revenue raising through registration and licensing fees (easier and more acceptable than taxation);
- Less prone to corruption.

However, some problems remain with the cost of this approach, especially since companies still have to be monitored post-licensing to ensure they do not subsequently default on their licence conditions.

6.6. Operational structure

Agreed regulatory functions largely determine the design of a regulatory body's organizational structure. Figures I and II display two models of organizational

structure for multi-member commissions.⁵ Under model A, the chairman and members concentrate on decision-making, while the professional preparatory work and due-diligence effort is done under the supervision of an appointed executive director. Under model B, individual members have hands-on managerial roles, and head the individual functional departments. It is possible to combine these models through the use of task forces lead by individual commissioners.

An additional option is to have an external consultation committee, which could provide the viewpoints of ministries affected by regulator decisions and inform the ministries of sector developments.

Whether commission members are full or part-time, their actual professional background, and their status in terms of seniority, age, etc. are factors that might affect which model is chosen. For example, if members work full-time, model B might be appropriate. Members who lack professional expertise or who are very senior may not want to head the relevant departments as required under model B.

While an odd number of commissioners, including the chairman, is useful to ensure decision-making, the size of commissions, including chairman, can vary from one member (United Kingdom) to three (Orissa in India), five (FERC in the United States, Argentina, Mexico, New York, Pakistan) or seven members (Federal agency in Canada). On the basis of international experience, the regulator should not have more than seven members.

Terms of appointment can vary from five years (Argentina, Bolivia, United Kingdom, United States) to six (California State Commission, New York) to seven (Canada). Most appointments are renewable for at least one additional term. To ensure continuity of decision-making, staggered terms of four to five years are often appropriate.

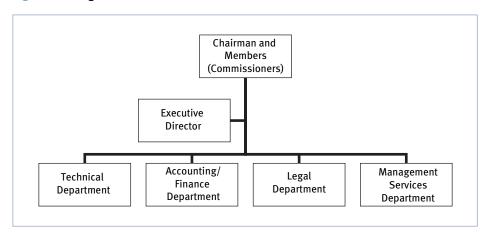


Figure I. Organizational chart model A: multi-member commission

From the appendix of "Designing an Independent Regulatory Commission", S. V. Berg, A. N. Memon, R. Skelton, Public Research Utility Center, University of Florida.

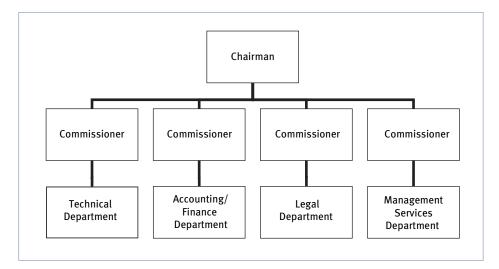


Figure II. Organizational model B: specialized responsibilities

6.7. Staff skills and competencies

As discussed above, a regulatory body of high quality cannot be set up without the right resources, and this includes human resources in terms of high quality and correctly trained staff. Commissioners and staff with the right qualifications and experience must be hired. Where all positions cannot be satisfactorily filled, training should be arranged for staff.

Commissioners' personal attributes should include the ability to consider multiple perspectives and resistance to improper influences and preoccupations. Training and experience in economics, finance, law, public administration or engineering are also useful.

In selecting staff, emphasis must be placed on skills as well as on personal integrity. Market-based salaries are desirable, and this may call for exceptional measures or incentives to recruit and retain the qualified professionals needed.

Staffing head count is important. Understaffing prevents proper attention to required functions; overstaffing can dilute focus. Rather than attempt to recruit and maintain all expertise on a permanent basis, a commission can rely on expert consultants and fixed-term contracts, keeping the permanent commission staff as small as possible.

Depending on the size of the country and the resources available, the regulator could contract out or outsource activities such as detailed analytical work and compliance audits of regulated firms.

Box 3. Skills shortages in African regulators and what actions can be taken

A recent "skills audit" commissioned by the African Forum for Utility Regulators (AFUR) came to the conclusion that a shortage of skills is seriously impacting on the ability of regulators to conduct their activities.

The same study identified the requirement for a structured cost effective training programme that can be undertaken over a period of time. Training may be best delivered as a set of short courses/seminars, which cover a range of regulatory knowledge areas. The focus should be on providing the knowledge which regulators need rather than emphasizing a requirement for formal accreditation.

What is currently limiting training opportunities for many staff is the cost of travel to training venues, which are often in Europe or the USA. Many staff would benefit from courses being available to them closer to home, or access to information to encourage on-the-job learning.

Some of the areas where training is most likely to be required in the next two years, as identified by the AFUR skills audit were:

- Funding a regulatory body
- Understanding the nature of the utility market—natural monopolies and competition
- Ensuring that any restructuring or consolidation of companies providing a utility service was compatible with effective competition
- Financial analysis
- Regulating overall price levels
- Controlling pricing when users have no choice of supplier
- Tariff setting
- Information issues
- Making good regulatory decisions
- Reviews of and appeals against regulatory rules and decisions
- Knowing how to communicate to the public
- Negotiating techniques and strategies
- Critically reviewing company plans to provide utility services

When selecting and evaluating staff for regulatory agencies, there is often a focus on specialist skills and knowledge, relating to the sector being regulated. In the case of energy, specialist skills that might be targeted are, for example:

- Energy economics;
- Energy contract negotiations;
- Electricity systems (generation, transmission, distribution, supply).

Training and experience in economics, finance, law, public administration or engineering are also useful. There is also a need to assemble staff that have overarching organizational management knowledge. These include knowledge/competency in areas such as personnel management, financial control and operational management. Without good general management abilities no regulatory body will operate effectively regardless as to the degree of specialized knowledge its staff possess.

Equally, "soft skills" can impact on the effectiveness of any organization at all levels of seniority. Soft skills relate to the "unseen" abilities of staff and managers—their personal motivation, ability to communicate well, ability to work in teams, staff levels of basic education and IT literacy. These "soft" skills can have an enormous impact on the effectiveness of organizations to undertake the tasks expected of them and it is important that these are taken into consideration when recruiting staff.



Review questions

- 1. List five of the best practice principles for regulation commissions according to international experience. Write a sentence describing each one.
- 2. What are the key functions of a regulator?

7. BUILDING A CREDIBLE REGULATORY ARRANGEMENT

While regulatory concerns make up only a small part of the investor's overall risk assessment, regulatory capacity, competence, independence and transparency remain important to infrastructure development and operation. Without a credible regulatory structure, investors will generally try to "bypass" the regulator by negotiating directly with the host government.

7.1. Transparency

Why is regulatory transparency important? Transparency is important for independent operation while assuring legitimacy of the regulatory process. However, whether the emphasis is placed on transparency or not depends on the general institutional framework in a country. Information dissemination mechanisms must be appropriate and capable of reaching all the stakeholders. Finally, the commercial confidentiality of the regulated bodies needs to be taken into account.

Transparency is also important because it is an important part of attracting and retaining investment. It does this by reducing regulatory risks faced by investors. Many investors view transparency as a threshold to investment decisions prior to consideration of other factors. Lower regulatory risks through greater transparency mean lower cost of capital and thus lower required rates of return. Transparency creates confidence in the commitment from the government to a defined set of policies now and in the long-term. Transparency facilitates better regulatory decisions taking account all stakeholder interests and prevents corruption and regulatory capture.

Many regulatory documents are placed in the public domain, including decision statements. Regulatory documents are fairly comprehensive, and usually set out tariff review procedures, intended methodologies and consultation process requirements. This can be considered to be the "bare minimum" of factors that should be set out in publicly available regulatory documents.

How can regulatory transparency be measured? The NERA Survey⁶ of global regulatory practices focused on six key dimensions to define and measure the degree of regulatory transparency. These include clarity of roles and objectives; predictability; transparency of decisions; accountability; participation; and access to information.

Many of these dimensions overlap with what is considered good regulatory governance. However, regulatory transparency has potentially high costs and these

⁶Regulatory Transparency: International Assessment and Emerging Lessons, A Final Report for the World Bank, NERA Economic Consulting, 6 June 2005.

must be recognized. The importance of well-defined appeal mechanisms must also be properly understood. The implementation of a regulatory transparency framework should take place within three partly-overlapping dimensions of the institutional framework, the regulatory regime and a number of trade-offs that will need to be made. A number of ways to increase regulatory transparency are given below, although this is not an exhaustive list.

- Increasing regulatory transparency can be enhanced if the regulator circulates draft decisions to stakeholders for comment before finalizing a regulatory decision or decision process;
- Where in-keeping with the limits of confidentiality, the publishing of regulatory contracts is a practical way to promote transparency;
- Encouragement of customer involvement, as in the case of the Water Watch Groups use in Zambia, 7 can be very useful as an action to enhance transparency;
- Readily accessible language and terminology are also important to enhance regulatory transparency;
- Clearly articulated procedures for licensing, including interaction with stakeholders and public consultation as part of this process;
- Active use of websites for disseminating information on regulatory decisions and regular press briefings.

A set of "Guidelines for Transparency" were proposed by AFUR at its 2nd Annual Conference (March 2005, Kampala, Uganda) and are shown in box 4.

Box 4. Guideline	es for transparancy
Concept	Tools
1. Clarity of roles	 Formally codify regulated entities' functions in a licence/contract. and objectives Define regulator's functions and duties in primary legislation or regulatory documents.
2. Predictability	 Set out in regulatory documents the tariff review procedures and methods
3. Transparency of decisions	 Place major regulatory documents in the public domain. Make consultation responses available to the general public in full or in a summary.

Involving the community in regulating water supply and sanitation services in low-income areas, Ngabo Nankonde-Muleba, Public Relations Officer, National Water Supply and Sanitation Council (NWASCO), Zambia.

- The regulator's comments on points raised during the consultation process should be made directly available to the regulated entities and the public.
- 4. Participation
- There should be compulsory or voluntary consultations on regulatory decisions or processes with regulated firms, other industry firms and consumers by means of public hearings, dissemination of draft reports for comment by stakeholders and focus groups, or meetings with representative groups.
- 5. Accountability
- Set out in primary legislation the rights of contract or licence-regulated entities or other stakeholders to formally challenge a regulator's decision.
- Set out in primary legislation the rights of contract or licence-regulated entities or other stakeholders' right to challenge the regulator's decisions by means of an appeal or a judicial review.
- 6. Open access to information
- Publish an annual report (regulator and regulated entity).
- Publish a website (regulator) containing:
 - Primary and secondary legislation
 - Other regulatory documents
 - Consultation papers
 - Regulatory decisions
 - Information for consumers

Transparency can be particularly challenging for African regulators to promote when trying to reach small end-users and consumers, particularly because these often have very limited access to information and modern communication media.

In developed countries there has been an increased emphasis on regulates and third parties contributing to, and participating in, regulatory policy and rule-making. Potential benefits of this approach are:

- Improved information flows;
- Better transparency;
- Greater accountability.

But there are disadvantages to this approach, as, for example, direct access to regulatory officials does increase the opportunity for corrupt transactions. In the United States, in an effort to maximize consultations while limiting opportunities for private manipulation of the policy-making process resulted in the practice of officially recording meetings.

Box 5. Regulatory transparency: international assessment and emerging lessons

The World Bank initiated this study of the transparency of institutions in charge of utility regulation, in order to assess current levels of regulatory transparency and formulate recommendations for improvement.

Transparency is often seen as a critical component of "good regulation" because it increases the legitimacy of regulators in the eyes of regulated operators, Government officials and customers. Indeed, increasing transparency is sometimes presented as a key reason for setting up an independent regulatory agency, on the assumption that this allows more transparent regulation than regulation by contract or through a ministerial body. However, the degree of transparency in regulation as currently observed in many jurisdictions is not always optimal. Fostering transparency in regulation therefore remains a key challenge, particularly in countries with weaker institutional endowments.

Transparency in government is increasingly demanded by private corporations and civil society groups and is a rising theme in public debate and academic literature alike. Transparency can help to prevent political capture, reduce regulatory intervention risk and discourage corruption. In the utilities sector with its long-term, large-scale and sunk investment requirements, transparency is particularly important to attract private sector investors and reassure customers.

There is little consensus on the definition of regulatory transparency. In essence, transparency allows the institution carrying out regulatory functions to operate independently (with respect to the tasks and functions over which it has discretion) whilst fostering the legitimacy of the regulatory process.

However, measures to improve transparency of the regulatory process cannot simply be imported or transferred from one regulatory system to another. Transparency requirements should instead take account of three main factors: the broader institutional and legal framework, the type of regulatory regimes and the cost and "affordability" of transparency.

The study raised a number of questions that have been highlighted by the investigation of regulatory transparency concepts and practice contained in this study. Indeed, this study should very much be seen as an initial framework for reflecting on the importance of transparency for utility regulation rather than presenting solid comparative evidence on the relative levels of transparency in different regulatory frameworks.

It is clear from this study that the understanding of regulatory transparency and its measurement is very much in its infancy when compared to initiatives taken to evaluate transparency in government in general by various institutions such as NGOs, consultancies or a multilateral organization such as the IMF. The conclusions here focus on an evaluation of the initial findings and suggestions for taking this investigation further.

Key questions identified as an outcome of this study are:

- How can regulatory transparency be measured and evaluated?
- How can regulatory transparency be fostered even in a weak institutional environment?
- Can a basic package of regulatory transparency measures be defined?
- Should Governments legislate on regulatory transparency at a national or regional level?

Source: Regulatory Transparency: International Assessment and Emerging Lessons, A Final Report for the World Bank, NERA Economic Consulting, 6th June 2005.

7.2. Communication strategy

Part of building a credible regulatory environment is establishment of good communication channels with all stakeholder groups. This means that communication should be in both directions, non-discriminatory and not unduly influence the regulator but provide useful information on stakeholder views. The key stakeholders to communicate with are the consumers, the utilities, energy companies and the government.

In Africa especially, there is a lack of awareness of the role of an energy or electricity regulator. The information about the role and activities of the regulator is often not well disseminated and this sometimes leads to incorrect perceptions by end-users (customers) that the actions of a regulator are an attempt by government to restrict their energy use or deny them the right to energy, or manipulation on the part of utilities to make higher profits.

End-users have to be informed of the benefit to them with regard to actions taken by a regulator, in particular in the case of tariff increases or energy efficiency programmes. There are a number of ways to create good information flow to the public and raise awareness and different options will be better suited to different countries. Some examples are:

- Newspaper adverts and articles;
- · Radio and TV programmes and interviews;
- Periodic e-mail alerts;
- Production and distribution of booklets;
- Creation of "Energy Advice Centres" to operate at a local level.

There should be a clear procedure laid out for end-users, energy companies and utilities wishing to communicate with the regulator. There should be a possibility

to communicate by telephone, e-mail, via a website and not just by letter and there should be a fixed time limit for response to enquiries. Clear and transparent procedures should be laid out for a number of situations, so that all communications are dealt with in an equitable manner and under a fixed time frame. For example the following communications should have clear procedures:

- Announcements by the regulator to the stakeholders;
- Simple communications: e.g. requests for information, answers to factual questions;
- Stakeholder consultations;
- Requests for clarifications;
- · Complaints.

The role of the regulator as a communicator of changes in the energy and electricity sector and in government policy is important and should not be neglected. The regulator should either have a member of staff dedicated to this role or clearly assign communication activities to members of staff who may also have other responsibilities (i.e. include communication aspects in the staff job description).

7.3. Evaluating a regulation system

To facilitate the building of credible regulatory arrangements, the development of a regulatory "scorecard" might be considered, focused primarily on the robustness, expediency, quality and predictability of regulatory decision-making. This was among the ideas discussed at the African Forum for Utility Regulators (AFUR) at its 2nd Annual Conference (March 2005, Kampala, Uganda).

A regulatory scorecard could include:

- Extent to which regulatory decisions are published;
- · Speed at which the regulator makes decisions;
- Ability (and willingness) of the regulator to procure external independent advice when required;
- Quality of the Chief Executive of regulatory agency;
- Rate of staff turnover, particularly for the Chief Executive and key managers/ specialists.

A scorecard has the advantage of enabling comparison between sectors and/or countries. It could also help measure improvements. However, which indicators are chosen and how they are measured must be considered carefully. For meaningful comparisons to be possible, consistent, good quality data must be collected.

8. CONCLUSION

Effective protection of the property rights of investors and government officials operating within a framework of known legal rules are conducive to stronger economic development. However, simply transplanting Western legal and regulatory models to developing countries is often inadequate to respond to the different circumstances in these countries.

In fact, there is no "quick and easy" model that can be applied, however, there are some best practice principles emerging from international experience that can provide guidelines to governments wishing to establish regulatory agencies. These guidelines place emphasis on independence of the regulator from external influence and hence to establish credibility and transparent regulatory decisions that will foster confidence and legitimacy in the eyes of investors and consumers alike.

In the energy sector of many developing countries, the process of reform is still underway, therefore a regulatory agency's structure must permit it to adapt effectively to changing technological and market conditions. In addition, appropriate clarity of the relationship between government and regulator is crucial to good regulation and reduction of investor risks. And, at the end of the day, there must exist the political will to allow regulators to "do their jobs".

In setting up a regulator, there are a number of steps to be taken, including establishing its legal mandate, designing the basic values and principles with which the regulator will apply the regulatory process, establishing the core functions of the regulator and distinguishing them from the functions of government ministries, deciding on the operational structure and hiring qualified and experienced staff. Overall, a well functioning regulatory agency needs adequate resources, an appropriate legal mandate and clear agency values and operating procedures.

LEARNING OUTCOMES

Key points covered

These are the main themes covered in this module:

- The basic principles of regulation, independence, transparency and investor and consumer protection were described;
- Different models for a regulatory body were described;
- The benefits of regulating the electricity sector were outlined and the role of the regulator was described;
- An overview of setting up a regulator body was given, including design principles and questions, necessary resources, legal mandate, functions, operational structure and desirable staff skills and experience;
- Some issues involved in building a credible regulatory environment were reviewed and suggestions were made on how to evaluate a regulatory system.



Answers to review questions

Question: Describe in your own words the principles of independence, transparency and investor and consumer protection.

Answer: Regulatory autonomy or independence usually means having a regulatory body free from influence from external sources in its decision making. This often means independence or autonomy from the government but also means avoiding undue influence from the private sector and consumers.

Transparency means transparent regulatory decision-making and robustness, expediency, quality and predictability of regulatory decision-making.

A key element of the regulator's role is striking the balance between encouraging investors and protecting consumers, while fulfilling government objectives. The regulator should ensure that both suppliers and consumers uphold their obligations relating to commercial operations. The utility has the obligation (via licensing) to provide services under the approved tariffs and quality standards. Consumers have an obligation to pay for services supplied to ensure the financial viability of the sector.

Question: List the main reasons why regulation is important in the electricity sector.

Answer:

- To constrain the exercise of monopoly power by incumbent suppliers;
- To provide incentives for operating efficiency and quality of service;
- To optimize the structure of the sector;
- To promote least-cost system expansion (with private capital invested in independent power producers—IPPs);
- To stimulate energy conservation and R&D.

Question: What are the main functions of a regulator?

Answer:

- Issuing licences related to regulatory functions;
- Setting performance standards;
- Monitoring the performance of regulated firms;
- Establishing the level and structure of tariffs;
- Establishing a uniform accounting system;
- Arbitrating disputes among stakeholders;
- Performing (usually via independent consultancy) management audits on regulated firms;
- Developing human resources for the IRC;
- Reporting sector and IRC activities to the appropriate government authority.



Exercises

- 1. What ways are there for a regulator to ensure regulatory transparency? (Half a page)
- 2. Describe the level of regulatory transparency in the energy sector in your country as you perceive it. What measures could the regulator take to increase transparency? (1-2 page essay).





Presentation/suggested discussion topics

Presentation:

ENERGY REGULATION – Module 6: Structure, composition and role of an energy regulator

Suggested discussion topics:

- 1. The three main principles of regulation are independence, transparency and investor and consumer protection. In your opinion which is the most important of these?
- 2. An independent regulator body is preferable to regulation by government. Discuss.

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 A. Ogus, Centre for Regulation and Competition, University of Manchester, Working
 Paper Series, Paper no. 119, June 2005
- Designing an Independent regulatory Commission, S. V. Berg, A. N. Memon, R. Skelton, Public Utility Research Center, University of Florida
- Survival Guide for the independent Regulator, M. A. Jamison, Public Utility Research Center, University of Florida, November 2004
- Enhancing Transparency and Credibility of the Regulatory Process, International Training Program on Utility Regulation and Strategy, Country Experience with Competition, Session 31, January 2002, presented by M. H. Au
- Regulatory Transparency: International Assessment and Emerging Lessons, A Final Report for the World Bank, NERA Economic Consulting, 6th June 2005
- Information disclosure and policy influence, S. V. Berg, PURC, University of Florida, International Training Program on Utility Regulation and Strategy, June 1999

INTERNET RESOURCES

Public Utility Research Center: www.purc.ufl.edu

National Water Supply and Sanitation Council (NWASCO), Zambia: www.zambia-water.org.zm/nwasco/admin/consumer/user/details.php?id=1

Centre on Regulation and Competition: www.competition-regulation.org.uk/index.shtml

African Forum of Utility Regulators: www1.worldbank.org/afur/resources-e.html

Zambia Energy Regulation Board: www.erb.org.zm/home.htm

The New Zealand Electricity Commission: www.electricitycommission.govt.nz

World Energy Council: www.worldenergy.org/wec-geis/default.asp

Ghana Energy Commission: www.energycom.gov.gh

Australian Competition and Consumer Commission: www.accc.gov.au/content/index.phtml/itemld/142

GLOSSARY/DEFINITION OF KEY CONCEPTS

Licensing A licensing regime is a regulatory instrument which controls entry

into the market of new suppliers.

Market power The ability of a company or group of companies to exert control over

a market such that the quantity of goods available in the market or the price of goods is impacted. Monopolies, oligopolies and monop-

sonies are all typified by companies who can exert market power.

Monopoly The situation wherein one company has the market power to control

the price or availability of a good or service. If this is unregulated, the company is likely to produce fewer goods or to sell goods more expensively than would be the case in a competitive environment. In practice, a monopoly may refer to an industry where one company has power to control the sector regardless of other companies or it may refer to a sector where only one company exists. It should be noted that outside natural monopolies, few monopolies are absolute and that even dominant companies may be subject to pressures on their price setting or limiting of supply. The effects of monopoly,

ate regulation.

Monopsony A market where a single consumer of a service or good has suffi-

cient market power to dictate the price of that good or service. One example of such a situation can occur in the electricity sector if the

including natural monopoly, on welfare can be limited by appropri-

sector has only one main buyer of electricity.

Oligopoly Oligopoly occurs when a number of firms dominate the market for a

service or good and effectively act to maintain prices at a higher level than would be likely to occur through competition, effectively mimicking a monopoly. Oligopolies may form as a result of outright collusion, as with the formation of a cartel or may be more informal, as with the adoption of non-price competition, wherein companies in the oligopoly compete on factors other than price in order to avoid

margin reducing price wars.

Regulatory Regulatory independence or autonomy, usually means having a independence regulatory body free from influence from external sources in its

decision making. Generally, this means keeping relationships with operators, consumers, private interests and political authorities appropriately formal and ensuring organisational autonomy with

respect to the government.

Regulatory risk A risk to businesses that changes in regulation will have a negative

impact on their operation. Where governments and regulators raise regulatory risk, they are likely to come under pressure to allot some form of compensation to companies who suffer as a result of regu-

lation in order to ensure that future investment is not discouraged.

Transparency

Transparency means robustness, expediency, quality and predictability of regulatory decision-making. Tools and measures that foster confidence in and understanding of the regulatory processes and decisions by all stakeholders should be put in place to aid transparency of decision-making by the regulator.



Energy Regulation

Module 5: STRUCTURE, COMPOSITION AND ROLE OF AN ENERGY REGULATOR

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Module overview

- No "perfect" regulatory system
- · Continuous improvements and adjustments are necessary
- Clarity of the relationship between government and regulator is crucial
- Three basic principles:
 - Independence
 - Transparency
 - Investor and consumer protection





SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Module aims

- To introduce the basic principles along which an effective regulatory system is built
- To provide an overview of the issues of independence, transparency and consumer/investor protection
- To show that there is no "ideal" model or structure for a regulatory body
- To outline the basic functions and roles of a regulator
- To outline some basic compositions of regulators and the resources they will need
- To introduce some basic recommendations towards building a credible regulatory environment

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Module learning outcomes

- · To understand the role of the regulator
- To describe the basic principles of independence, transparency and consumer and investor protection
- To describe the main functions of a regulator
- To appreciate the main issues involved in setting up a regulatory body
- To understand the importance of a credible regulatory environment
- To be able to list some measures that increase regulatory transparency





Principles of Regulation

- Independence
 - Regulatory autonomy or independence, usually means having a regulatory body free from influence from external sources in its decision making
 - Government, private sector, the public should not influence

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Principles of Regulation (2)

- Transparency
 - Transparency means transparent regulatory decisionmaking and robustness, expediency, quality and predictability of regulatory decision-making
 - Regulatory transparency is more important in weak institutional environments with less investor confidence



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Principles of Regulation (3)

- · Transparency:
 - is crucial to legitimacy
 - is key to attracting and retaining investment
 - creates confidence
- One method for the regulator to promote transparency is to prepare and distribute to stakeholders and the general public an annual report on regulatory activities and sector performance.

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Principles of Regulation (4)

- Investor and consumer protection
 - balance the interests of
 - the government
 - · electricity (or energy) service suppliers
 - · customers
 - The government is subject to short-term political pressures from various constituencies
 - Suppliers want high returns, and an unchecked monopolist will charge too high a price
 - Today's customers, conversely, want reliable electricity at low prices



Regulation Models

- Models:
 - Government
 - Semi-independent
 - Independent
- Regulating the energy industry:
 - Central government departments
 - Specialist utility or energy regulatory agencies
 - Generalist competition regulators
 - Environmental regulators
 - Local authorities
 - Courts and tribunals

Module 5



Why regulate the Electricity Sector?

- to constrain the exercise of monopoly power by incumbent suppliers
- to stop subsidies to the electricity sector and thereby reduce drain on the Treasury
- to provide incentives for operating efficiency and quality of service
- to optimise the structure of the sector
- · to promote least-cost system expansion
- · to stimulate energy conservation and R&D



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Purpose of the Regulator

- Often seen as "balancing" of interests but unless benefits are also created under the regulatory regime (i.e. improved sector performance), the system is unlikely to be sustainable
- The role of the regulator is:
 - To protect consumers from abuse by firms with substantial market power;
 - To support investment by protecting investors from arbitrary government action; and
 - To promote economic efficiency

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Setting up a Regulator

- · A well functioning regulatory agency needs :
 - adequate resources
 - an appropriate legal mandate
 - clear agency values and operating procedures





Setting up a Regulator (2)

- Resources:
 - Manpower to monitor, conduct, process and enforce rules and sanction systems
 - Investment in information technology to facilitate communication and therefore also the effectiveness of decision-making
 - Human capital, where average lower educational achievement affects both the quality of decision-making by officials and the ability of ordinary citizens to initiate or contribute to the enforcement process

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Values and Principles

- Communication
- Consultation
- Consistency
- Predictability
- Flexibility
- Independence
- Effectiveness and efficiency
- Accountability
- Transparency



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Key Functions

- Issuing licenses related to regulatory functions
- · Setting performance standards
- · Monitoring the performance of regulated firms
- · Establishing the level and structure of tariffs
- · Establishing a uniform accounting system
- · Arbitrating disputes among stakeholders
- Performing management audits on regulated firms (usually via independent consultancy)
- Developing human resources for the IRC
- Reporting sector and IRC activities to the appropriate government authority.

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

Communication

- Key stakeholders:
 - Consumers
 - Utilities and energy companies
- End users:
 - Newspaper adverts and articles
 - Radio and TV programmes and interviews
 - Production and distribution of booklets
 - Creation of "Energy Advice Centres" to operate at a local level
- Clear procedures and time frames:
 - Announcements by the regulator to the stakeholders
 - Simple communications: e.g. requests for information
 - Stakeholder consultations
 - Requests for clarifications
 - Complaints
- · Dedicated communication staff



Evaluating a Regulatory System

- · Extent to which regulatory decisions are published
- · Speed at which the regulator makes decisions
- Ability (and willingness) of regulator to procure external independent advice when required
- Quality of Chief Executive of regulatory agency
- Rate of staff turnover, particularly for Chief Executive and key managers/specialists.

Module 5



SUSTAINABLE ENERGY REGULATION AND POLICYMAKING FOR AFRICA

CONCLUSIONS

- · No "quick and easy" regulatory model that can be applied
- Best practice principles are emerging from international experience
- Emphasis on independence of the regulator from external influence and transparent regulatory decisions
- A regulatory agency's structure must permit it to adapt effectively to changing technological and market conditions.
- There must exist the political will allowing regulators to "do their jobs"

