



REGULATORY STUDIES – Lot 1

ACTIVITY 2: DEVELOPMENT OF A REGIONAL PLAN FOR CAPACITY BUILDING

REPORT 1 : TRAINING NEEDS

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1	INTRODUCTION	4
2	EXPERIENCES OF OTHER REGIONAL ENTITIES	5
2.1	EXPERIENCE OF THE REGIONAL ELECTRICITY REGULATORS ASSOCIATION OF SOUTHERN AFRICA (RERA)	5
2.2	EXPERIENCE OF THE ENERGY REGULATORS' REGIONAL ASSOCIATION FOR CENTRAL EUROPE AND EURASIA (ERRA)	9
2.3	EXPERIENCE OF THE AGENCY FOR THE COOPERATION OF ENERGY REGULATORS (ACER)	13
2.4	WAPP TRAINING PROGRAM	15
3	TRAINING COURSES ALREADY CONDUCTED AT ERERA LEVEL	18
4	LESSONS FOR ERERA PROGRAM	19
4.1	- PROGRAM CONTENTS.....	19
4.2	- DISSEMINATION METHODS	20
4.3	- FUNDING OF TRAINING.....	22

LIST OF ACRONYMS

ABN	Niger Basin Authority
ACER	Agency for the Cooperation of Energy Regulators
AGAO	West African Gas Pipeline Authority
ECOWAS	Economic Community of West African States
ERERA	ECOWAS regional Electricity Regulators Authority
ERRA	Regional Energy Regulators Association of Central Europe and Eurasia
NARUC	U.S. National Association of Regulatory Utility Commissioners
NRA	National Regulation Authority
OMVG	Organisation for the Development of the Gambia River
OMVS	Organisation for the Development of the Senegal River
REGRT-E	Network of Transmission System Operators for Electricity
RERA	Regional Electricity Regulators Association of Southern Africa
SAPP	South African Power Pool
USAID	United States Agency for International Development
WAPP	West African Power Pool

1 INTRODUCTION

This report is the first report regarding Activity 2, which aims at designing a Regional plan for capacity building.

ERERA, a Regional Regulatory Authority, is tasked with overseeing implementation of the necessary conditions for ensuring rationalization and reliability of power cross-border trade and, at the same time, entertaining partnerships with National Regulatory Authorities (NRAs) and providing them, at their request, with the required technical assistance.

It is within the context of these two major general tasks and following the expectations expressed by NRAs during its launching forum that ERERA plans to implement a regional plan for capacity building for stakeholders.

Alongside the preparation of this report, a questionnaire on training needs was forwarded to focal points of ECOWAS member countries to assess their training needs. The results of the questionnaire will help to clearly identify training needs based on elements collected in various countries, but these results will not be available before mid-February and will therefore be analysed only in the next report.

Hence, the purpose of this report is to lay down the guiding principles of drawing up ERERA's regional capacity building program. In that regard this report:

- presents (Chapter 2) the experiences of other comparable entities,
- presents (Chapter 3) the training already organized and disseminated by ERERA,
- identifies (Chapter 4) the lessons to be learnt from there in order to draw up a regional capacity building plan for ERERA.

2 EXPERIENCES OF OTHER REGIONAL ENTITIES

2.1 Experience of the Regional Electricity Regulators Association of Southern Africa (RERA)

2.1.1 RERA is a “Regulators Association”

RERA is an official association of electricity sector regulatory bodies (and not a regulator per se) established in July 2002 by the Southern African Development Authority (SADC). It has its own “Constitution” defining the tasks and duties of the Association. RERA was set up to facilitate the sub-regional harmonization of regulatory policies, sector laws and standards, and regulators practices. The Association has to play a crucial role in ensuring effective cooperation between electricity regulators within the Southern African sub-region but, unlike ERERA, it does not have any regulatory power since it cannot take far-reaching decisions. Its duties are simply limited to making recommendations to the SAPP Energy Commission.

Membership of RERA is open to all Electricity Sector Regulatory Authorities of countries in the SADC region. To become a member, the regulatory authorities pay an annual contribution used to meet the Association’s expenses.

The RERA membership now stands at 10:

- Angola’s Instituto Regulador do Sector da Eletricidade (IRSE),
- Lesotho Electricity Authority (LEA),
- Malawi Energy Regulatory Authority (MERA),
- Mozambique’s Conselho Nacional de Electricidade (CNELEC),
- Namibia’s Electricity Control Board (ECB),
- National Energy Regulator of South Africa (NERSA),
- Swaziland Energy Regulatory Authority (SERA),
- Tanzania’s Energy and Water Utilities Regulatory Authority (EWURA),
- Zambia’s Energy Regulation Board (ERB),
- Zimbabwe Electricity Regulatory Commission (ZERC).

All SADC member countries are not necessarily members of RERA. Thus, the Democratic Republic of Congo, Botswana, Madagascar, Seychelles and Mauritius, are not RERA members, although they belong to SADC. However, among these five countries, only Madagascar has a regulator but is not a member of RERA. The four other countries are at various stages of progress with regard to their power sector reform and have so far not established a regulator.

It can be noted that, just like ERERA, RERA brings together market regulators at various stage of development, size and institutional organization. Moreover, RERA members also use different languages, RERA’s official working language being English.

2.1.2 Tasks of RERA

RERA's mission is very different from that of ERERA in that RERA is not a regional regulator *but* an association that brings together regulators. RERA aims at facilitating experience sharing between NRAs, exchange of views and cooperation in order to ease harmonization of policies, laws and regulations, standards and practices in the SADC region.

RERA's objectives fall into three major categories, namely:

1. Capacity building and information sharing: RERA's mission is to ease the capacity building of its members in the specific area of power regulation, both at national and at regional level, and this through exchange of information and vocational training.
2. Strengthening regional integration to improve electricity supply by harmonizing policies and regulatory frameworks. The mission of RERA is to foster the harmonization of rules, standards and regulations regarding cross-border trade by laying emphasis particularly on conditions of access to transmission facilities and cross-border rates. Its means of action mainly consists in promoting the best practices as well as common rules and standards by developing exchange of views and knowledge.
3. Enhancing regional cooperation among regulators. RERA seeks to encourage cooperation among members to address issues outside the national purview such as those relating to the economic effectiveness of electric interconnections and electricity trade for example, by relying on guidelines to improve regional cooperation in the area of power regulation.

RERA comprises an Executive Council, a Secretariat and three Commissions, each being responsible for handling one of the above-mentioned three specific subjects.

2.1.3 RERA's capacity building task

The Commission on capacity building and information sharing, directed by the Energy Regulation Council, is entrusted with this task, which is one of RERA's top priorities.

Capacity building is closely related to information sharing, in that sharing experiences and publishing various pieces of information in the domain of electricity market regulation enable each RERA member to benefit from one another's knowledge and experience.

Hence, RERA is a facilitator, enabling the implementation of training which members could not organize by themselves.

2.1.3.1 Means to ensure effective capacity building at regional level

2.1.3.1.1 Assessment of training needs and curriculum design

RERA assesses training needs for RERA Members through a survey involving all its members, using a questionnaire.

Priorities in terms of training are informed by the results of the survey, especially for training areas in which members express high interest. RERA's staff spends a large amount of time determining the training schedule such as availability of support and resource persons, even spread of the training courses throughout the year for logistical reasons. RERA does its best to ensure that members are given sufficient time to prepare to send the participants.

The training sessions are designed by a course director with the assistance of course instructors, and RERA broadly recommends the level of staff that should attend each course. Members then determine who among the staff should attend the training sessions.

2.1.3.1.2 Terms and conditions for the capacity building of RERA

RERA views both training and information sharing as important aspects of capacity development. Training usually tends to be more formalized and structured while information sharing can take many forms.

The RERA Secretariat is tasked with the logistical arrangements for the training courses and information sharing events, including identification of venues, sending out invitations, course registration, printing of certificates, etc.

A - Standard training sessions

In order to take local conditions and national values into account, RERA uses course directors and instructors from within the sub region. Trainers are chosen on the basis of their expertise and experience on specified topics. RERA normally requests for CVs and recommendations from Members, and preference is normally given to serving or former regulators and experts in any relevant field.

Training sessions usually take place in a Member state. RERA always tries to take into account geographical spread, logistics and any form of support or willingness to co-host the training sessions.

Training sessions are open to any interested stakeholder, in order to ensure interactions and robust discussions. RERA considers that it is important for regulators to share some perspectives with other stakeholders be it government officials, utility experts, consumers, consultants, among others.

Also, RERA has initiated discussions with one of the universities in the region to embark on a power quality certification program in Southern Africa: the Power Quality Certification.

Example: the “Power Quality Professional” certification

This training aims to issue certification for “power quality”, the certificate holder will hence be capable of examining and assessing any quality problem in electricity supply.

This certificate training takes place as follows:

- *5 days of classes leading to an online examination,*
- *A practical case study leading to the submission of a professional report.*

Training sessions are always assessed. For each module of the training sessions, both the course instructor and the module are assessed. The original evaluation forms are kept for the record and results of evaluation form part of the course director’s report.

B - Information sharing

RERA facilitates information sharing through annual regional conferences, regional information sharing workshops, plenary discussions during the training courses, country updates whenever the specialized Subcommittees of RERA hold their meetings, email exchanges on specific requests from members, periodic updates from the RERA Members and Secretariat as well as staff attachments and exchange visits.

RERA is also currently in the process of enhancing its website to be a portal of information for its Members and other stakeholders.

C - Funding

RERA uses a combination of funding for its training sessions: cooperating partners, co-financing and self-sponsorships. For instance, in 2012 training sessions have been funded by USAID in terms of course directors, course instructors, course materials and course venues, since USAID is inclined to clean energy related support as a matter of US Government policy. The participants funded their own travel and their upkeep. In the past, RERA also has had training requiring Members to pay tuition fees average 600 to 700 USD per participant.

2.1.3.2 Achievements in recent years

Topics generally cover important tenets of effective regulation and more importantly focus on aspects such as promoting investments and providing quality as well as affordable services. For the past three years, focus has been on the following topics:

- Regulation for practitioners (general regulation)
- Renewable energies regulation
- Commissioners/Board Members Orientation Programs
- Renewable energies finance
- Renewable energies policy

One session of each of the following types is typically organized each year, with an average attendance of 35 participants.

2.1.3.2.1 Workshops

RERA organizes workshops about two days long. The Association views workshops as a good way to share information and are easier for people to attend since they place a lower demand on participants in terms of time and resources. However, it's difficult to gauge workshops impact afterwards.

2.1.3.2.2 On-catalogue training courses

This kind of training usually lasts five days. Such training sessions seem very good in terms of details they offer, but somewhat intense for the participants. They are particularly designed for new regulatory staff members and specialists.

2.1.3.2.3 Customized training

Five-day customized training sessions are offered by Universities and other training courses providers. They usually are very detailed, but can sometimes be a little too academic/theoretical given the research oriented nature of some of the training sessions. RERA has introduced a partnership with the Management Program in Infrastructure Reforms and Regulation (MIR) at the Graduate School of Business of the University of Cape Town.

2.1.3.2.4 Staff exchange programs

Numerous exchanges programs are taking place among RERA's Members, most of which are facilitated by the RERA Secretariat but paid for by the Members.

2.2 Experience of the Energy Regulators' Regional Association for Central Europe and Eurasia (ERRA)

2.2.1 ERRA : a regulators' association

Like RERA, ERRA is an Energy Regulators' Regional Association. It is not a profit-making body and is composed of independent energy sector regulation Authorities for the Central European and Eurasian region, with affiliated members in Africa, Asia, Middle East and the USA with the American Association NARUC (U.S. National Association of Regulatory Utility Commissioners). Since 2011, ERERA has also been an affiliated member of ERRA. Like RERA, it does not have regulatory powers.

ERRA started up as a cooperative association of 12 electricity sector regulatory bodies, supported by NARUC, through a cooperation agreement with the United States Agency for International Development (USAID). ERRA has now become a formal platform for regulators to share and exchange experiences and knowledge. To this day, ERRA is made up of 23 "full" members, 3 associate members and 6 affiliated members.

The Association was registered legally in Hungary in April 2001 and its secretariat has been operational in Budapest. NARUC and USAID have provided continuous support to ERRA running from its start.

2.2.2 ERRA's tasks

The main objective of the association is to improve sharing and exchange of information and experiences between its members and to broaden access to the experience of energy regulation within and outside the region.

The founding members identified ERRA's tasks as follows:

- Improving domestic energy regulation in member countries,
- Empowering stable energy regulators with the autonomy and sufficient authority to take decisions,
- Strengthening cooperation among energy regulators.

In addition, the Association is tasked with improving communication and information exchange, research and experiences among its members and increasing access to energy regulatory information worldwide. Thus, promoting training possibilities is one of ERRA's main tasks.

It can be noted that these tasks are very close to those of RERA.

Within this framework, the main activities carried out by the Association are the organization of the following events:

- an annual conference bringing together all members;
- Standing committee meetings and briefings, analyses and publications on sector regulation issues;
- Capacity building and training programs related to sector regulation;
- Study trips;

- Conferences on technical matters relating to regulation.

Moreover, the Association is responsible for:

- The publication of a newsletter ;
- The updating of its website and members' directory.

2.2.3 ERRA's capacity building task

Like RERA, one of ERRA's main tasks is to promote training of its members on themes bearing on power regulation. Its mission is even broader, since ERRA seeks to share its experiences and training opportunities beyond the region of origin of its founding members.

2.2.3.1 Means to be used for capacity building at regional level

2.2.3.1.1 Assessment of training needs and curriculum design

An assessment of the training needs of all Member of ERRA was conducted in 2002. The report finalized in 2003 included an assessment of the training needs and experiences of ERRA members as well as a review of the various types of training provided. This assessment suggested the importance of economic and financial skills in the administrative and economic regulation of public utilities.

ERRA regularly develops appropriate questionnaires to assess its members' training needs. Each member draws up a scale of preference of the themes they want to tackle. Furthermore, participants are requested to send their questions to the Association prior to training, for them to be examined ahead of time with a view to preparing/recommending solutions during sessions. ERRA uses feedbacks on training experiences to tailor its courses and tries to adapt them to each participant's level, as regulation process unfolds in the various countries. When designing new courses, ERRA may also rely on its team of mentor teachers.

Furthermore, for capacity building programs to take into account the specific characteristics of each member, ERRA invites seasoned regulators whether or not they belong to the Association's region to answer questions common to the majority of members. Members from countries well ahead in the regulation process share their experience with members from countries at the incipient stage of regulation or having achieved a lower regulation level.

2.2.3.1.2 Terms and conditions for the capacity building of ERRA

A - Standard training sessions

Training sessions are open to ERRA members or to any market stakeholder interested in taking part in them (electricity corporations, representing governments or regulatory agencies, NGOs, consultancy firms, financial institutions, etc.), whether they belong to ERRA's region or not. According to the latter, between 50 and 60% of participants are from ERRA's member agencies.

The annual training schedule includes a Summer School, as well as training activities at intermediate and advanced levels in February/March and October/November.

Like RERA, ERRA invites active and former regulators from Member countries to conduct the training sessions. This feature enables the Association to design training courses that combine both practice and theory and includes transfer of palpable and relevant experiences. Other trainers come from NARUC, the Council of European Energy Regulators (CEER), electricity

corporations, NGOs, or consultancy firms. The training programs provided to date by ERRA range from beginners to advanced level programs, offered both in standard teaching in the classroom and e-learning method. All courses are bilingual (English/Russian) and include personal preparation, practical exercises, simulations, case studies from participants' experiences and ends with a compulsory exam. Theoretical courses constitute between 60 to 70% of the training sessions, the rest consisting of practical sessions, i.e. group work, exercises, simulations, etc... Participants still wish that, for the most part, the theoretical part of the training be less significant. In general, courses are taught in two parallel streams, with 30 participants each: one is intended for employees, Junior like Senior, of Energy Regulatory Authorities while the other is intended for non-regulatory authorities such as representatives of ministries and local authorities, public companies, banks, consultants, etc.

The Association also offers e-learning courses on various aspects of regulation of the energy market, available for both ERRA members and other market stakeholders. These courses, taught in English and Russian, spread over seven weeks. A systematic assessment of the learning process results is scheduled.

Moreover, ERRA has recently introduced the "Certified by ERRA Energy Regulator" certification, which gives recognition to everyone who attended, over a period of three years, at least three training programs organized by ERRA. This certification system is based on the accumulation of credits, which are 30 in total for three years maximum and may be earned as follows:

- Completion of the summer course "Introduction to Energy Regulation": 10 credits
- Completion of any standard training program in a classroom per modules: 10 credits,
- Success in consecutive tests in any ERRA e-learning training with a minimum score of 60%: 5 credits.

The Association strongly encourages members' organizations to acknowledge their personnel who have been awarded the Certificate.

B - Information sharing

Training in the form of courses is particularly adapted to new and junior staff of regulation authorities. Information sharing is more about technical exchanges, peer reviews. This particular form of capacity building that involves information sharing solves specific and/or complex problems, which could not be solved during general training or even more specific training. ERRA facilitates these sharing in different ways: by organizing technical interactions, peer review, meetings of working groups through its annual conferences on regulation and investment in the energy sector (Energy Regulation and Investment Conference), organizing workshops, developing databases, working documents by disseminating publications from sources other than ERRA, and finally through training sessions, which are also an opportunity for sharing between members.

C - Financing

ERRA Secretariat takes all logistical arrangements for the organization of various events. USAID provided substantial financial support between 1998 and 2010, mainly for the development of basic material for the courses.

The training is funded through registration fees paid by participants, which include the cost of accommodation, meals and breaks, as well as the provision of the courses in a USB key (electronic). For example, the fee for ERRA members stands at 1300 - 1500 Euros Tax

exclusive for a training session of five days, which is very reasonable since all costs other than transportation are included.

2.2.3.2 Achievements of recent years

Training sessions are usually organized at the Association's headquarters in Budapest, in a dedicated training centre. However, the program designed for emerging countries regulators took place in Istanbul, because of the easy access of the city and the ease of visa arrangements.

2.2.3.2.1 Programs for "beginners" level

ERRA organizes summer courses on *Introduction to energy regulation*. These courses are intended primarily to allow participants to acquire technical and economic skills as well as a legal base in the field of regulation. The program is based on five main themes: the role and duties of the regulator, pricing and price regulation, restructuring the gas and electricity industries, the issue of reform in the energy market in emerging and transition economies, control and security of supply (five-day session).

2.2.3.2.2 - Intermediate and advanced levels:

Several programs for these levels have been organized:

- ✓ *Introduction to the Electricity Market*: This program aims at providing a comprehensive introduction to economic issues relating to the creation and successful operation of electricity markets (session runs for 5 days)
- ✓ *Regulation of gas market and urban heating*: session runs for 5 days
- ✓ *Controlling Commissions of energy regulation*: This program focuses on the core responsibilities of the authorities or commissions regulating energy (session running for 4 days).
- ✓ *Regulatory Information and Public Participation*: 3-day course
- ✓ *Prices and pricing*: This program aims to enable participants to acquire the concepts, objectives and core techniques for designing and evaluating rate structures in the energy sector (4-day course).
- ✓ *Control of renewable energies*: 5-day course
- ✓ *Training for commissioners only*: training of new Commissioners (5-day course)

These programs are also available in e-learning.

2.2.3.2.3 – Specific training

ERRA also organizes training sessions that meet very specific demands. They are as follows:

- ✓ In 2012, a training session on the regulation of energy for emerging countries was organized in Istanbul.

- ✓ In 2010, a training program on the introduction to the regulation of energy was organized in Abuja, Nigeria.
- ✓ In 2008, ERRA members were able to attend a seminar co-organized by NARUC and ERRA on the *regulation of public utilities in market economies* in Pristina, Kosovo.
- ✓ In 2007, a NARUC / ERRA training session was organized in Pristina on energy *regulation and pricing*.

2.2.3.2.4 – Exchange Programs among regulators

To promote technical information sharing and best practices among its members, in a context where many of them are facing budget constraints, ERRA has developed a limited number of subsidies for the displacement of participants for the ERRA exchange program. These subsidies are only for full members, although associate members can take part in this exchange program. For the period from May 2011 - April 2012, seven subsidies were provided, each for a maximum of 700 Euros. They are intended to cover part of the costs of transport and accommodation of the participants. To take advantage of this assistance, the participant should submit to ERRA a short description of the project and a budget detailing the proposed technical exchange (reasons for choice of the partnership interest for both structures, subject of the exchange, personnel involved in the exchange, draft agenda, etc...). In addition, at the end of the exchange, a final report detailing the contributions of the program should be submitted to ERRA for its publication on the website of the Association.

2.2.3.2.5 - Annual conferences and information sharing

ERRA also organizes an annual conference on regulation and investment in the energy sector (Energy Investment and Regulation Conference), intended not only to disseminate the latest news in the energy sector, but also to promote sharing between more than 100 regulators in the ERRA region, members and non-members of the Association. These conferences are held in the member countries of the Association.

2.3 Experience of the Agency for the Cooperation of Energy Regulators (ACER)

2.3.1 Introduction and missions of ACER

The Agency for the Cooperation of Energy Regulators (ACER) is a body of the European Commission with a legal personality, established in 2010. ACER has been operational since March 2011 and its headquarters are in Ljubljana, Slovenia.

The main objective of ACER is to help national regulation authorities to exercise and coordinate their regulatory tasks within the European Community and, if necessary, complementing their action at a national or sub-regional level (that of the Commission). Indeed, in each Member State, the Agency shall enjoy the most extensive legal capacity given to legal persons under national law and can sue to complement the actions of national regulatory authorities.

ACER's competences cover the regional gas and electricity market. With regard to power market, they include:

- Develop and submit framework guidelines for consideration and decision to the European Commission;
- Participate in the development of European network codes of electricity in conformity with framework guidelines;
- Take decisions on the terms and conditions for access and operational security for cross border infrastructure where national regulatory authorities fail to reach an agreement or jointly request the intervention of ACER;
- Take decisions on exemptions, if the infrastructure concerned is located on the territory of more than one Member State, where national regulatory authorities fail to reach an agreement or jointly request the intervention of ACER;
- Provide advice to the ENTSO-E (European Network of Transmission System Operators for Electricity), notably on network codes and the draft plan network development throughout the community
- Monitor the tasks of the ENTSO-E including the development of regional cooperation;
- Advise EU institutions on issues related to domestic electricity;
- Monitor, in cooperation with the European Commission, Member States and national regulatory authorities, internal electricity markets, mainly the retail price of electricity, network access, including access to electricity produced from renewable energy sources, and the respect of the rights of consumers.

Thus, from its duties and powers, ACER is closer to ERERA than to the two regulatory associations presented above. Given the similarities with the missions of ERERA, we have chosen to present here ACER's approach regarding information sharing and capacity building at the level of Member countries and at the level of the community.

2.3.2 Capacity building conducted by ACER

The 2009 legislative package on the framework of energy led to the creation of ACER and helped to strengthen skills and powers of national regulatory authorities at European level. ACER's role is essentially to monitor the development of the integrated energy market, developing any recommendation on the transposition of EC directives and implementing EC framework guidance, to ensure the effective implementation by national regulatory authorities of its recommendations and to support national authorities, when needed.

Just like ERERA, ACER is a young institution (2010), but it operates in a market that has already reached a certain maturity and therefore with stakeholders who have already acquired a good experience in the operation of the electricity market at national and regional levels. As part of its activities, ACER works closely with the national regulatory authorities which, and according to its own statement, have highly trained human resources in all Member States. Each National Regulatory Authority has appointed a representative among its senior staff acting as focal point for ACER, whose task is to facilitate the sharing of relevant information between the organization and other national authorities and/or ACER.

Strictly speaking, ACER has no role in building the human capacities of regulators and this task would also not be relevant in relation to the technical capabilities already available. In case of special need, regulators rely on specialized training institutions or other institutions.

That said, ACER should play an important role in promoting cooperation and information sharing between regulators in the areas of regulation. In particular, in addition to information

sharing, ACER is committed to consult widely with market participants, operators of transmission networks, consumers, end users and regulatory authorities.

To date and given the large number of countries and actors in its area of competence, priority is given to the formalization of arrangements for consultation in its various forms.

For the coming years, ACER will focus on the consultation process and works on proposals for changes of network codes, in the transposition of guidelines in countries and institutional issues.

Therefore, ACER plays an important role in facilitating the thoughts of the various stakeholders on regional market development and regulation and hence, sharing knowledge and deepening many regional regulation themes on its priority themes. To this end, several means are implemented by ACER, they include:

- The development and publication of reports: annual market monitoring report, annual report on the progress of regional initiatives
- The launch of public consultations (guidelines for public consultations of ACER, harmonized structure for gas transportation rates, interoperability and data sharing rules, etc.).
- The organization of working groups for cooperation between ACER experts and regulatory experts on specific themes, with terms of reference, timelines and deliverables clearly identified
- The organization of an advisory group of stakeholders in the electricity sector grouping, on a voluntary basis, representatives of national regulatory authorities, operators and the European Commission

This operating mode favoring the participation of stakeholders requires ACER to seek the support of national regulators to carry out its activities. One of the difficulties encountered by ACER however is the fact that, even in Europe, several regulatory authorities do not have the capacity to mobilize where necessary to effectively participate in these activities, due to lack of funds and sufficient human resources.

Moreover, this lack of financial means of some regulatory authorities is also reflected in their ability to implement the recommendations of ACER.

In conclusion, it is interesting to note that, concerning capacity building, the problem of ACER is very different from ERERA. In fact, at the European level, ACER is not faced with a lack of experience and knowledge of national regulators.

Moreover, we note the importance of properly preparing actions before launch, and the importance of the consultative process in place to prepare for these actions. However, this consultative process is confronted with the issue of its cost that limits the participation of members. Exchange systems favoring the use of new information technologies should allow solutions to be obtained to facilitate the consultative process at low cost.

2.4 WAPP training program

WAPP prepared an extensive training program with the support of USAID (July 2008). The

objective of this training program extended to all WAPP member countries was to define the training needs of operators to support the development of the electricity market.

This is a study based on significant assessment work of staff training needs based in WAPP member countries. The needs assessment was conducted from:

- several interviews at the WAPP General Secretariat, training centers of member countries and electricity operators,
- and dissemination of detailed questionnaires to the WAPP national operators and training centers (13 centers to train operators were evaluated).

The needs assessment covers all areas of concern of operators in the region: management, and governance, institutional issues related to the development of the electricity market, problems related to lack of knowledge and experience in the technical management of networks and information systems.

The proposed program is estimated at U.S. \$ 23 million of which 4.25 million is just for implementation (program management, technical assistance for its implementation and hardware) and 6.75 million for the upgrading of existing training facilities.

The remaining 12 million will be used as actual training expenses, and will be distributed, according to the USAID study, over the five years covering the program, into the following subjects:

1. Governance:
 - Seminars/Workshops on regional electricity markets and energy pools
 - Training in the management and use of energy pools
 - Training in advocacy techniques for the staff of WAPP Secretariat
 - Training in project development
 - Training in coordination, project monitoring and evaluation
2. Regional regulatory frameworks
 - Training in tariff policies
 - Training in electricity purchase agreements
 - Training in tariff and pricing methods
3. Use of the system
 - Training in Regional Electricity Markets and energy pools
 - Training in interconnection codes and norms
 - Training in the use of energy pools and the manual on network use and codes
 - Development of a certification program for systems operators
 - Training in computer management systems and electrical systems software
4. Conditions for funding
 - Training in Public-Private Partnership (PPP)
 - Training in electricity purchase agreements
 - Training in project development
 - Training in coordination, follow-up and project assessment
 - Training in international finance
 - Training in the management of public utility holdings

This training program had already been financed to the tune of about US\$ 11 million in 2011 by different donors (USAID, European Union, African Development Bank, JICA, World Bank), and more funding still has to be sought for the last years of the program.

This training program brought out some common issues that both operators and regulators share. Generally speaking, the training approaches that WAPP announced should be geared towards the use or the management of companies, which is quite different from the approach that a regulator should use. However, for the training that has been earmarked on regional regulatory frameworks, regulators' and operators' approaches could converge. On this point, it seems bringing ERERA and WAPP together could ease the analysis of ways in which some regulators in the region could take part in these training sessions.

For the training to be more advantageous, regulators required to participate in training activities should already have an experience in tariff issues on cross border electricity exchanges and purchase contracts. Regulators receiving this training could then be trainers for other regulators of the sub-region.

3 TRAINING COURSES ALREADY CONDUCTED AT ERERA LEVEL

ERERA was officially set up in April 2009 with the recruitment of its President. However, it became really operational only in October 2010, with the recruitment of two Board members. In 2011, ERERA launched its first capacity building activity within the framework of the technical assistance program proposed by NARUC (with USAID assistance).

This program aims at building the capacities of ERERA and AGAO staff on the basics of regulation. The training will be carried out in the form of classes, study trips and internships in American regulatory agencies. They should equally enable ERERA and AGAO staff to discuss their experiences and share information in a bid to improve their regulatory practices.

Within the framework of this program, two workshops have already been held in 2011 and one in 2012:

- The first workshop was organised in Ghana from 26 to 28 April 2011. It centred on economic regulatory principles, especially on capital cost evaluation principles and pricing, as well as price adjustment processes, and on the assessment of the risks of investing on energy
- The second workshop was organised in Nigeria from 21 to 23 June 2011. It focussed on the fundamentals of market regulation: approaches to economic regulation, issues on the lack of information, basic principles on the regulation of output, regional regulations on gas pipelines and transmission networks in West Africa, the analysis of transit cost in electricity purchase contracts, security controls on gas pipelines and electricity transport networks, follow-up of monitored activities and funding of infrastructures
- The third workshop was organised in Togo from 24 to 26 April 2012. It centred mainly on technical and non-technical losses in electricity networks and the repercussions on cost (electricity metering, accountability for losses, evaluation of failures, regulations), on the transportation and sale of gas, as well as third parties access to gas pipelines, and finally on the planning of energy transmission.

These three workshops were mainly conducted for the staff of ERERA (board members and experts) and AGAO, but members of national regulatory agencies were equally invited by ERERA (Togo, Burkina Faso, Gambia, Senegal, Ghana and Nigeria) to take part.

These three workshops were an opportunity to address different important issues and they were organised following a first assessment mission of needs. The themes were thus adapted to the needs expressed by the main beneficiaries and the training workshops were structured in such a way that discussions and brainstorming were encouraged, beyond a simple presentation of knowledge. This approach is generally more effective.

It should be noted that these training workshops have a different goal in the capacity building program since they are not intended for the regulators in the region but only for ERERA and AGAO

Moreover, we noticed that many items were examined within a very short period. It is now left to know if more emphasis should be placed on the subjects or if the training workshops actually met the needs of ERERA and AGAO on a long-term basis.

4 LESSONS FOR ERERA PROGRAM

Within the framework of its activities, ERERA met with a majority of future partners for the development of the regional electricity market: national regulators and/or Ministries and companies in charge of electricity in ECOWAS Member States, as well as sub-regional institutions such as WAPP, OMVS, OMVG and ABN.

Among the expectations from the various meetings, many partners insisted on ERERA's role in:

- encouraging communication and information sharing among actors in the regional electricity market,
- introducing the sharing of experiences and abilities in the region,
- building the capacities of regional regulators.

Thus, apart from its task of regulating cross-border electricity sharing in West Africa, ERERA is also expected to take part in the capacity building drive at the sub-regional level.

4.1– Program contents

ERERA is different from regulatory associations (such as ERRA or RERA) which do not have regulatory duties, but which contribute in sharing skills and experiences acquired in the region, in that it is a regulator with an array of duties and powers related to that. ERERA is not directly in charge of encouraging information sharing and organising capacity building workshops but they are just means to enable ERERA work in an environment where national regulators and sub-regional institutions in charge of developing the electricity sector fully carry out their duties.

This is an important reminder since it would enable us to make proposals for the capacity building program aiming at enabling national institutions and possibly sub-regional institutions to accompany ERERA in fostering its activities. In the same vein, ERERA's work in capacity building should not become its main activity. Contrary to ERRA or RERA, ERERA does not have the ability to organise training. Support to capacity building should end at the first stage of market development, during which ERERA should assist national regulatory agencies to acquire adequate knowledge that would enable them to carry out the necessary regulatory work in developing the regional market at the national level.

In fact, the development of the regional power market is still a very young concept and only a few countries of the sub region have acquired a good knowledge in the functioning of the power market, both at the national and sub-regional levels. Capacity building areas that should be promoted should enable national regulatory agencies to acquire a minimum level of shared knowledge and better understanding of:

- The mission and role of ERERA as a regional regulator,
- The functioning of the electricity market at the national and regional levels,
- Future developments especially in terms of market organisation,
- Major regulatory stakes of electricity sharing (respect of market rules and network codes, contracting the sharing, regulation of cross-border interconnections and transits, service quality, pricing, etc.).

A questionnaire has been distributed to ECOWAS Member States in order to get their needs for capacity building.

4.2 - Dissemination methods

At this level, some recommendations and/or directives can already be outlined, given our knowledge of the situation in sub-regional countries and the analysis of what RERA, ERRA or ACER do.

The capacity building program that would be proposed in the next report should clearly develop a section on **standard training on general knowledge contributions in regulating the sector**, for which ERERA would have an important role to play. However, this kind of training should represent only one part of the capacity building work that ERERA will promote or organise.

Regarding training, **we propose** the following directives:

- The content of the training program should be drawn up following ERERA's plan of activities (5-year strategic plan, which is being drawn up);
- The training program should be drawn up over a three-year period and updated every year. It should be a flexible three-year program, in order to give ERERA a global picture of the funding needs;
- The yearly training program should not be too heavy on the budget, on the one hand, and the mobilisation of NRA agents, on the other. It would therefore be important to properly set the priorities;
- The training should automatically lead to a final examination in order to give value to the knowledge and ensure that the beneficiary agents actually benefitted from the training;
- ERERA could act as a facilitator by organising and carrying out training in which the majority of NRAs would take part, but that they would not be able to organise individually;
- As it could be the case with ERRA, which comprises countries whose electricity market regulation processes are very heterogeneous, it would be important to organise different training programs, adapted to the needs of NRA, depending on the development levels of their national electricity markets;
- The experiences of the aforementioned associations show how important it is for active regulators to share their experiences. Thus, ERERA could bring in more advanced regulators (Ghana, Nigeria), in order to assist in the training of regulators from other countries. The use of resource persons from the sub-region also helps to bring in trainers with excellent knowledge of the problems of each market, thus effectively sharing experiences;
- ERERA is already an affiliated member of ERRA. Within this framework, it would be interesting to explore the possibility of organising flexible training workshops in collaboration with ERRA in order to benefit from its experience and facilitators in organising training for Member States on specific subjects that are adapted to their needs.

The training program should take into consideration the other existing programs in the sub-region. In this light, the training program that ERERA could propose should be basically geared towards NRA and/or Ministries. Very few training workshops should be organised for operators, since they are already benefitting from WAPP training, which has a whole section on price

issues and purchase agreements. The latter could, however, be invited for a "training" that would be carried out as a workshop for operators/WAPP/ERERA on the role and missions of a regional regulator.

However, capacity building should not be limited to the organisation of standard training. Considering the different types of capacity building instituted by the aforementioned regulatory agencies, ERERA could explore other avenues:

- Exchange of staff: these exchanges between regulators should, however, be well prepared and centred on specific needs or particular domains. Given that very few countries have an acceptable level of electricity market development at the moment within the ECOWAS region, the exchanges should be voluntary:
 - for those members from countries with well-developed electricity markets to receive agents for training,
 - for the beneficiaries to fully involve themselves in preparing the exchange based on a clearly defined working program in line with that of the body in the host country (interest for both structures, discussion topic, staff concerned, expected results etc.).

ERERA, whose primary objective is not capacity building, contrary to agencies and regulators, could play the important role of facilitator of exchanges. But the exchanges should be voluntary and ERERA's role should not, in any case, be to organise the exchanges that should directly involve only regulators.

- Take advantage of yearly conferences organised by ERERA or meetings of advisory committees to disseminate information (studies, data on the evolution of markets, analysis of ERERA etc.) or organise workshops on some topics;
- Sharing of knowledge and experiences that could take place in different ways:
 - Encouraging information and experience sharing could possible by setting up a social network for regulators, with ERERA as the moderator;
 - Through the publication of studies carried out by ERERA;
 - Through a market and exchanges observatory put in place by ERERA;
 - Through the setting up of study groups on problems shared by various national regulators, with assistance from an international expert to coordinate the study groups;
 - Through the organisation of public consultations aimed at sampling the views of operators, which would then require serious condensation work by ERERA, and possibly, depending on their content, be published on the site or the social network.

4.3- Funding of training

Funding the training is a very delicate issue.

First of all, ERERA currently does not have any specific budget to fund training in all ECOWAS Member States. Following the example of the WAPP training program, the amounts quickly get very high due to the logistic demands in organising the training.

Moreover, it is common knowledge that the funding of training by beneficiaries is important for the latter to get fully involved in the training itself. If a NRA or a Ministry disburses funds for the training of an agent, their interest in the training (choice of training, choice of beneficiary agent, analysis of the benefits for the structure) should be very high. Theoretically, the NRA or the Ministry would require a lot more from the beneficiary agent once they return than if there were no financial responsibility.

However, due to the regulators' lack of resources, and the identified need to upgrade some of them, it is important to introduce some form of assistance, at least at the beginning of the training program. ERERA would better explain this point based on its ability to disburse funds.

Apart from the first two or three capacity building actions, ERERA would only be responsible for the cost of preparing and publishing the training (preparing the content of the training and coordination, renting of the hall, etc.) and the beneficiaries should bear all their travel expenses and also provide a small contribution to pay for costs incurred by ERERA (as is the case with RERA and ERRA).

Subsidies for specific cases could always be sought, but like other subsidies implemented by ERRA, these special subsidies would have to ask for some compensation from the beneficiaries (production of materials after the training, dissemination of the training in their NRA, etc.).