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FROM THE AMERICAN PEOPLE

ACHIEVEMENTS OF THE GLOBAL REGULATORY NETWORK *2002-2009*

Prepared by the



**National
Association of
Regulatory
Utility
Commissioners**

December 2009

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National Association of Regulatory Utility Commissioners

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This publication was made possible through support provided by the Bureau for Economic Growth, Agriculture, and Trade under the terms of its Cooperative Agreement with the National Association of Regulatory Utility Commissioners, No. GEW-A-00-02-00005-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development or the National Association of Regulatory Utility Commissioners.

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ACKNOWLEDGEMENTS

NARUC member Commissioners and Commission Staff, USAID representatives, and regulators from Africa, the Caribbean, Latin America, and the Middle East provided commitment to sharing energy regulatory information and expertise through the Global Regulatory Network (GRN) Program.

NARUC would like to express its strongest appreciation to the Energy Team of the Bureau of Economic Growth, Agriculture & Trade at USAID, especially to Ms. Simone Lawaetz, our Cognizant Technical Officer, and two former CTOs: Dr. Kevin Warr, and Dr. Davida Wood. We would also like to express our appreciation for support from several other current and former USAID officials, including Dr. Juan Belt, Mr. Allen Eisendrath, Ms. Ellen Dragotto, Mr. Mark Schlagenhauf, and Mr. Mark Murray.

U.S. Commissioners and Commission staff were instrumental in ensuring the success of this program. They shared their experiences and served as a valuable source of information to the international regulators engaged in this program. NARUC members volunteered more than \$585,000 worth of in-kind labor. The NARUC Executive Committee and Committee on International Relations provided their strong support and were significantly involved in this program from the very beginning. NARUC's Immediate Past President Frederick Butler, who previously chaired the International Relations Committee, and Mr. Charles Gray, NARUC Executive Director, have been especially supportive of NARUC's international programs. We would also like to thank Chair Arnetta McRae (Delaware Public Service Commission), current chair of the NARUC Committee on International Relations and former committee chair William McCarty (former Chairman, Indiana Utility Regulatory Commission) for their dedication to these programs.

We would also like to express our sincere appreciation to the members and secretariat staff of the associations we worked most closely with:

- Africa Forum for Utility Regulation (AFUR)
- Coordinating Association of Central American Energy Regulators (ACERCA)
- Organization of Caribbean Utility Regulators (OOCUR)
- Regional Electricity Regulators Association of Southern Africa (RERA)

Finally, we would like to acknowledge the excellent work of our colleagues and former NARUC staff, including Mr. Christopher Mahon, Mr. James Lindley, Mr. Jason Czyz, and Mr. Facundo Alberdi.

ACRONYMS

ACERCA: Coordinating Association of Central American Energy Regulators
AFUR: Africa Forum for Utility Regulation
EGAT: Bureau for Economic Growth, Agriculture, and Trade (USAID)
GRN: Global Regulatory Network Program
FERC: Federal Energy Regulatory Commission (U.S.)
MOU: Memorandum of Understanding
NARUC: National Association of Regulatory Utility Commissioners
OOCUR: Organization of Caribbean Utility Regulators
RERA: Regional Electricity Regulators Association of Southern Africa
USAID: United States Agency for International Development

I. LESSONS LEARNED

- The regional approach embodied through activities with ACERCA, AFUR, OOCUR, and RERA and the bilateral partnerships, which bring U.S. commissioners and senior staff together with international regulatory commissions, increase the effectiveness of USAID's assistance to these countries.
- Substantial voluntary collaboration by participating international regulators is important so that programs truly meet participants' needs.
- Training is an ongoing process that must account for turnover at both the commissioner and staff levels.
- Donor funding is critical to ensuring the success of the associations as members typically cannot cover operating costs through dues alone. It may take several years or longer to develop the association's sustainability plan, operations, leadership, and staff to successfully replace donor funding with other revenue streams to ensure long-term sustainability.
- The involvement of US commissioners and senior staff ensures a supportive environment for new regulators to discuss challenges, while maintaining the interest of the more advanced commissions.
- The secretariat staff of regional associations is critical to ensuring the sustainability of these groups and ensures continuity through leadership changes. Associations must ensure sufficient resources to employ an adequate number of staff depending on the activities of the associations.
- NARUC Commissioners and Commission staff have been instrumental in helping their international partners establish their structure and procedures, playing an important role in promoting regulatory independence and transparency.
- Geographic disparities should be acknowledged and can be mitigated by providing special sessions on regional issues.
- As partnership exchanges progress, more attention should be paid to senior and mid-level staff, since commissioners typically serve fixed terms, and may be subject to political influence
- Due to the lingering political influence on regulatory bodies, targeting key players (i.e. - ministry of energy, etc.) in some meetings during partnership exchanges strengthens the regulators argument for independence. This independence allows the regulator to develop as a professional institution, and not merely a political tool.

II. BACKGROUND

A. Introduction to NARUC

The National Association of Regulatory Utility Commissioners (NARUC) is a non-profit quasi-governmental organization founded in 1889 and based in Washington, D.C. Its members include the governmental agencies that are engaged in the regulation of utilities and carriers in the fifty States, the District of Columbia, Puerto Rico and the Virgin Islands. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. NARUC's members are State officials and agencies charged with the duty of regulating electricity, natural gas, telecommunications, and water utilities within their respective borders. As such, these officials have the obligation to assure the establishment of such electric and natural gas utility facilities as may be required by the public convenience and necessity, and the furnishing of dependable service at rates that are just and reasonable.

In the mid-1990s, NARUC expanded its outlook beyond the United States and now assists in providing a better understanding of the many new and complex regulatory issues facing rapidly changing societies around the globe. NARUC believes that its members' expertise can help promote the institution of independent regulatory agencies and encourage more democratic methods of regulation. NARUC now includes more than 20 international associate members and several affiliate regulatory associations from around the world.

NARUC draws upon its active Commissioners and senior commission staff to provide voluntary technical expertise in utility regulatory issues to countries in various stages of regulatory development, privatization, and infrastructure improvement. It is important to emphasize that all of NARUC's international programs focus on the transfer of best regulatory practices and promote energy sector reform by advocating that countries and regions look at success models and adapt them to their situation accordingly. While some U.S. energy sector policies may be considered too advanced for certain transitioning and developing countries, NARUC maintains that exposure to these concepts allows officials to plan for future stages of market development.

Our experience has shown that newer regulators and other energy sector officials need forums to exchange lessons learned and information in order to bolster their own regulatory and market expertise and application. All of NARUC's international activities are developed and implemented in close collaboration with international regulators and international donors and have equipped foreign regulators with a foundation for improving the quality of their agencies' work and decision-making processes through improved interaction among members, their governments, and other energy sector stakeholders.

NARUC organizes technical meetings, regulatory partnerships, and formal training courses that promote market development and reform of regulatory and legal methods, including electricity sector reform. Our roundtable workshop discussions provide the opportunity for those involved in utility regulation to compare and contrast techniques to determine the best methods to overcome regional challenges, including the expansion of electricity sector, financing of new generation projects, expanding transmission infrastructure, developing appropriate tariff methodologies, and promoting energy efficiency.

B. NARUC/USAID Collaboration

In September 2002, NARUC entered into a multi-year cooperative agreement with the U.S. Agency for International Development (USAID)'s Bureau for Economic Growth, Agriculture, and Trade. The purpose of the Global Regulatory Network (GRN) Program is to allow regulators from developing countries to discuss mutual challenges and share best regulatory practices with their counterparts from the U.S. and other countries in their region.

The GRN Program supported regulatory advancement at both regional and national levels. During the course of the cooperative agreement, NARUC worked closely with four regional associations:

- Regional Electricity Regulatory Association (RERA) of Southern Africa
- Africa Forum for Utility Regulation (AFUR)
- Organization of Caribbean Utility Regulators (OOCUR)
- Coordinating Association of Central American Energy Regulators (ACERCA)

NARUC provided advice and guidance on association development and management, drawing upon its experiences in other regions of the world and its own domestic practices. NARUC further worked with each association on a series of technical workshops and/or training courses to promote strong regulatory foundations across the regions.

NARUC's regulatory partnerships built bilateral relationships between regulatory commissions in several developing countries and the U.S. These multi-year relationships created strong bonds, allowing the international regulators to quickly advance their regulatory skills and policies. In many instances, the international regulators adapted policies and procedures from their U.S. partners, which was a more efficient way to prepare these documents. The partnerships and participation in regional association activities proved to be a two-way learning path, with U.S. commissions learning about various regulatory practices from their international partners.

The NARUC/USAID cooperative agreement began as a three-year program, with regional funding provided by USAID/Washington. As the regional associations and individual regulators became active in the GRN Program, they showed their commitment through cost-sharing measures. USAID, in turn, showed its dedication to assisting the regulators to further develop the nascent regional regulatory associations and promote the transfer of best practices by extending NARUC's cooperative agreement three times, for a total seven year period.

The importance of regulatory development through the transfer of hands-on experiences under the regulatory partnerships was recognized by USAID Missions in Ghana, West Africa Region (for Nigeria), Zambia, Southern Africa Region, and Jordan. In addition, the USAID Mission in Dhaka contributed more than \$1.33 million over the course of four years for technical assistance to the Bangladesh Energy Regulatory Commission and Consumer Association of Bangladesh.

C. Characteristics of Sound Energy Regulation

Through its regional and bilateral activities, NARUC consistently promoted several key concepts for successful regulation. In sharing U.S. regulatory experiences, NARUC members looked at their own experiences in meeting some of these same targets. The challenge of political interference in the regulatory process was a strong undercurrent in several countries.

It should be clearly stated that NARUC representatives to the GRN Program activities shared their experiences and information and lessons learned. NARUC does not advocate a U.S. model of regulation (especially as each State has its own procedures); rather, it strives to discuss technical State and federal regulatory issues with the aim of allowing international regulators to adapt relevant practices to the situations in their countries.

Through technical workshops, training courses, and regulatory partnership exchanges, NARUC members and their international counterparts focused on the following characteristics:

- Independent regulatory commissions separate from and not accountable to energy utilities, with emphasis on regulatory independence from ministries and other governmental bodies.
- Transparency in the formulation and implementation of rules, regulations, and technical standards.
- Nondiscriminatory third-party access to, and interconnection with, energy networks and grids where government entities or principal suppliers dominate them.
- Nondiscriminatory, objective, and timely procedures for transportation and transmission of energy.
- Promotion of regulatory measures to prevent anti-competitive practices.

Effective regulation is the key element in fostering sector investment as shown in a World Bank global survey and an industry survey in Europe and in multiple privatizations. The impact of effective regulation goes beyond the sector as it contributes to decentralization, greater transparency, and increased stakeholder involvement – critical components for development of democratic systems and general market economy frameworks.

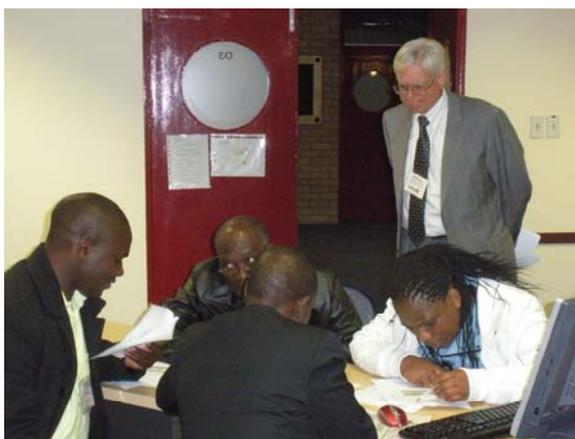
III. SUPPORT FOR REGIONAL REGULATORY ASSOCIATION DEVELOPMENT

A. Regional Electricity Regulators Association (RERA) of Southern Africa

Members:

1	Electricity Control Board of Namibia (ECB)	Namibia
2	Energy and Water Utilities Regulatory Authority of Tanzania (EWURA)	Tanzania
3	Energy Regulation Board of Zambia (ERB)	Zambia
4	Institute for Electricity Sector Regulation of Angola (IRSE)	Angola
5	Lesotho Electricity Authority (LEA)	Lesotho
6	Malawi Energy Regulatory Authority (MERA)	Malawi
7	National Electricity Advisory Council of Mozambique (CNELEC)	Mozambique
8	National Energy Regulator of South Africa (NERSA)	South Africa
9	Office de Regulation de l'Electricite (ORE) of Madagascar	Madagascar
10	Zimbabwe Electricity Regulatory Commission (ZERC)	Zimbabwe

May 2009	July 2009
1 st New Commissioner Training	1 st RERA Regulatory Training (Winter School)



RERA Regulatory Training – July 2009

In 2008 and 2009 NARUC assisted RERA in organizing two pilot training programs for their membership. The primary goals of these trainings are to build capacity building programs for their members and establish a means for the association to become more financially self-sustainable. The first training targeted new commissioners with an objective of providing a brief introduction to regulation for board members and commissioners and examining the key concepts in the electricity sector. From the RERA membership, 12 commissioners/board members attended the training.

<http://narucpartnerships.org/partnership.cfm?pid=20&aid=81>

The members expressed interested in holding this training annually, and suggested involving both new and old commissioners. The second training included mid-level and senior staff from the regulatory agencies, and other individuals from the electricity sector (i.e. – ministries, utilities). Thirty-nine participants from 13 countries were represented at the training course. <http://narucpartnerships.org/partnership.cfm?pid=20&aid=82>

Perspectives from RERA

The assistance of NARUC in developing training programs was extremely valuable and had a very positive effect/impact on RERA in that the internal capacity of RERA has been built to an extent that delivering of such programs in future can be done with minimum recourse to external personnel. For instance, through the assistance from NARUC, RERA has been able identify a pool of instructors for such training programs drawn from both the current or former members of regulatory agencies in the region.

The training programs have been very beneficial to RERA as an organisation in that they have helped to increase its visibility in the region to meet capacity development challenges and contributed through course fees to the financial sustenance of the Association during the period of the collaboration with NARUC (i.e., from 2008 - 2009). From the perspective of RERA Members, the training programs were found to be beneficial for the following reasons:

- *Exposed the participants to a cross-section of topics acquainting them with generic industry structures, the electricity industry in the Southern African Development Community (SADC), best practice regulation and the challenge posed by the high levels of poverty in the region;*
- *Provided opportunities for peer-to-peer exchange of experience and information; and*
- *Cost-effective compared to similar overseas training programs and thus enabled more staff members to participant.*

Organization/Association Development

In addition to developing the internal capacity of RERA to carry out regulatory training programs, the collaboration with NARUC has been instrumental in improving some of the administrative processes within RERA and provided an opportunity to the Association to benchmark itself against NARUC and some of its members. With the facilitation of NARUC, RERA has had the opportunity to interact with some of the officials from the Organization of MISO State (OMS) and in the process shared valuable information and experiences regarding the financial and administrative operations of regional organizations. Arising from the interactions with and documentation from OMS, RERA is currently reviewing some of its internal financial and administrative processes with a view to enhance them.

Other Comments

It is amazing the window of opportunities that can be opened by collaborating with reputable organisations like NARUC. In just a couple of years of collaborating with NARUC, it has been demonstrated beyond reasonable doubt that associations such as RERA can carry out activities with the potential to positively contribute to the attainment of the seemingly far-fetched dreams like self-sustainability. RERA is desirous of continuing with the training programs and association developments activities started under the collaboration with NARUC. The continued collaboration with NARUC is treasured and cannot be over-emphasized.

-Elijah Sichone, RERA, Executive Secretary

An important aspect to RERA's development of their training programs included identifying course instructors from the region. In both training NARUC volunteers also acted as

instructors. NARUC assisted RERA throughout the process of organizing the training programs, giving insights and advice based on lessons learned while working on training programs with other associations. RERA has scheduled repeat trainings for May and July of 2010.

B. Africa Forum for Utility Regulation (AFUR)

Members:

1	Commission de Régulation de l'Electricité et du Gaz (CREG)	Algeria
2	Electricity Sector Regulatory Agency (ARSEL)	Cameroon
3	National Authority for the Regulation of the Electricity Sector (ANARE)	Côte d'Ivoire
4	Public Utilities Regulatory Commission (PURC)	Ghana
5	National Communications Authority (NCA)	Ghana
6	Energy Regulatory Commission (ERC)	Kenya
7	Water Services Regulatory Board (WRSB)	Kenya
8	Malawi Energy Regulatory Authority (MERA)	Malawi
9	Mali Electricity and Water Regulatory (CREE)	Mali
10	Electricity Control Board (ECB)	Namibia
11	Autorité de Régulation Multisectorielle (ARM)	Niger
12	Nigerian Electricity Regulatory Commission (NERC)	Nigeria
13	Commission de Régulation du Secteur de L'Electricité (CRSE)	Senegal
14	National Energy Regulator of South Africa (NERSA)	South Africa
15	Department of Water Affairs & Forestry (DWAf)	South Africa
16	Independent Communication Authority of South Africa (ICASA)	South Africa
17	Energy and Water Utilities Regulatory Authority (EWURA)	Tanzania
18	The Gambia Public Utilities Regulatory Authority (PURA)	The Gambia
19	Autorité de Réglementation du Secteur de l'Electricité (ARSE)	Togo
20	Electricity Regulatory Authority (ERA)	Uganda
21	Communications Authority of Zambia (CAZ)	Zambia
22	Energy Regulation Board (ERB)	Zambia
23	National Water Supply and Sanitation Council (NWASCO)	Zambia
24	Zimbabwe Electricity Regulatory Commission (ZERC)	Zimbabwe
25	Lesotho Electricity Authority (LEA)	Lesotho
26	Autorité de Régulation (LEA)	Mauritanie
27	Energy Commission	Ghana
28	Water Regulatory Council (CRA)	Mozambique

In 2004 and 2005, NARUC worked with the African Forum for Utility Regulators (AFUR) on a number of activities. Our primary goal was the professional development and sustainability of the association. With this in mind, NARUC developed a website for AFUR in 2005 and successfully transferred maintenance responsibilities to AFUR at the end of that year.

NARUC jointly organized AFUR's 2nd Annual Meeting in March 2005, Kampala, Uganda. The conference provided delegates with numerous opportunities to share their experiences and focused on regulatory transparency and how transparency relates to investment in utility sectors. NARUC staff worked with AFUR to develop a sponsorship policy and outreach strategy that resulted in over \$30,000 in corporate sponsorships for this event. In addition, NARUC worked with AFUR to improve the content and format of their Annual Meeting, which resulted in an in-depth exchange on how regulatory transparency relates to investment in the energy sector.

NARUC members served as expert speakers at both the 1st Annual Meeting (November 2003, Yaounde, Cameroon) and AFUR's 2nd Annual Meeting, where they also discussed NARUC's committee structure. To advance the sustainability of AFUR and augment the value of the association for its members, NARUC recommended formal structures within the association—electricity, telecommunications, and water committees—to create capacity within to train members and thus reduce the need for outside consultants and training programs or other more costly and less sustainable training mechanisms. The Sectoral Committees are to serve as the work engines of AFUR with the primary purpose of producing tangible results such as issue papers, case studies, or informational databases that will contribute to the regulatory dialogue and enhancement. These products should be of use to not only regulators but also utilities, governments, investors, and consumers. Based on NARUC's recommendations regarding association functions, the AFUR Electricity Committee was launched in July 2005.

NARUC held two workshops in Africa on Independent Power Producers (IPPs) and Power Purchase Agreements (PPAs). Each workshop attracted more than fifty participants and concentrated on attracting investment to the generation of electricity and how to negotiate the resulting contracts. In May 2004, NARUC and AFUR held the *Independent Power Producers and Power Purchase Agreements (IPPs/PPAs): Frontiers in International Experience* workshop for the SADC region in Cape Town, South Africa.

<http://www.globalregulatorynetwork.org/Resources/IPPmaterials/Home.htm>

The workshop addressed lessons learned from regulatory experiences with IPPs and PPAs, as well as served as a tutorial for countries that are considering promoting investor owned generation facilities and the supply contracts that result from these investments. In July 2004, NARUC and AFUR duplicated the success of the IPPs/PPAs workshop and organized the *Power Purchase Agreements/ Contracts Workshop and Regional Coordination for West Africa* in Bamako, Mali.

<http://www.globalregulatorynetwork.org/Resources/2ndGRN/Images/AgendaPPA.htm>



Foundations Course in Utility Regulation in Africa – August 2004

In August 2004, NARUC and AFUR implemented a training course *Foundations Course in Utility Regulation in Africa* for new to intermediate level regulators in Cape Town in conjunction with local partners. The course provided regulators with the theoretical and practical building blocks to understand the costs of regulation and recognize the advantages and disadvantages of different regulatory models. More than 40 regulatory staff received in-depth technical training during the week long course.

<http://www.globalregulatorynetwork.org/Resources/Foundations/Home.htm>

C. Organization of Caribbean Utility Regulators (OOCUR)

Current Members:

1	Eastern Caribbean Telecommunications Authority (ECTEL)	Members of OECS
2	Fair Trading Commission (FTC)	Barbados
3	Independent Regulatory Commission (IRC)	Dominica
4	Office of Utilities Regulation (OUR)	Jamaica
5	Public Utilities Commission (PUC)	Anguilla
6	Public Utilities Commission (PUC)	Belize
7	Public Utilities Commission (PUC)	Guyana
8	Regulated Industries Commission (RIC)	Trinidad & Tobago
9	Telecommunications Commission (TC)	Turks & Caicos Islands
10	Utilities Regulation and Competition Authority (URCA)	Bahamas
11	Virgin Islands Public Services Commission (VIPSC)	U.S. Virgin Islands

2003	2004	2005	2006	2007
1 st Annual Conference (Sept.)	Executive Council Meeting (Apr.) Workshop on The Role of Administrative Law in Utility Regulation (June) 2 nd Annual Conference (Nov.)	Intermediate-Advanced Training Course in Electricity & Telecommunications Regulation (Apr.) 3 rd Annual Conference (Nov.)	4 th Annual Conference (Nov.)	5 th Annual Conference (Nov.)

The Organization of Caribbean Utility Regulators (OOCUR) was established in July 2002 and is comprised of regulators from the energy and telecommunications sectors. During the April 2004 Executive Council meeting, Program Director Erin Skootsky met with OOCUR representatives to discuss future cooperation. As a result, NARUC and OOCUR signed a Memorandum of Understanding to develop work plans jointly and create a website for the organization.

NARUC participated in OOCUR's Annual Conferences from 2003 – 2007, with U.S. Commissioners serving as expert speakers on best regulatory practices and new regulatory challenges. These conferences provided a unique opportunity for energy regulators in the Caribbean to exchange information with regulators from around the world. Some of the major themes of the conferences included: regulatory independence and transparency, accountability, privatization and unbundling, universal service obligations, etc. These conferences augmented the profile of regulators in the region and contributed to the regulatory dialogue of understanding core regulatory concepts and the wide-range of technical tools available to address critical issues.

As part of NARUC's efforts to share best practices on association development, we worked with OOCUR to put into practice a sponsorship policy that resulted in corporate sponsorships to support conferences, seminars, and training programs. From 2004 – 2005, NARUC worked with OOCUR to augment the association's capacity to meet the need of regulators in the Caribbean by jointly organizing two technical workshops.

In June 2004, NARUC offered a seminar on administrative law in Nassau, Bahamas, that presented an opportunity for regulators with legal or non-legal background to learn more about the role of administrative law in regulation. In particular, the seminar heightened awareness of issues and decisions that have been delivered in various Caribbean jurisdictions and their impact in utility regulation.

In April 2005, NARUC implemented a weeklong training course in Basseterre, St. Kitts & Nevis, for technical staff from energy and telecommunications regulatory bodies around the Caribbean that aimed at strengthening the capacity of new and current regulators to fully understand and effectively address regulatory challenges and reforms.

In 2004, NARUC created and hosted a website for OOCUR – www.oocur.org. The website facilitates the sharing of information and experience among members and provides the following:

- Information on OOCUR
- Links to other regulatory institutions in the Caribbean and world-wide web
- Events (with links to meeting documents, papers)
- Library
- Directory of contacts

NARUC continued to assist in the maintenance of the OOCUR website through 2008 and ensured a successful transfer to OOCUR.



Intermediate to Advanced Course in Telecommunications and Electricity Regulation – April 2005

D. Coordinating Association of Central American Energy Regulators (ACERCA)(Asociación Coordinadora de Entidades Reguladoras de Energía Eléctrica America Central)

Members:

1	Autoridad Reguladora de Servicios Públicos (ARESEP)	Costa Rica
2	Comisión Nacional de Energía Eléctrica (CNEE)	Guatemala
3	Comisión Nacional de Energía (CNE)	Honduras
4	Ente Regulador de Servicios Públicos (ERSP)	Panamá
5	Instituto Nicaragüense de Energía (INE)	Nicaragua
6	Superintendencia General de Electricidad y Telecom (SIGET)	El Salvador

June 2009	July 2009	August 2009
1 st NARUC/ACERCA Meeting in Nicaragua	ACERCA Tariff Committee with NARUC expert	2 nd NARUC/ACERCA Meeting in Guatemala and ACERCA Energy Efficiency Committee Meeting



2nd NARUC/ACERCA Meeting – August 2009

In 2009, as a result of engagement with the Nicaraguan Energy Institute through the regulatory partnership program, NARUC established cooperation with the Coordinating Association of Central American Energy Regulators (ACERCA). ACERCA was created in 1998

and received some USAID support for the first few years. However, due to a change in organizational leadership as well as lack of funding, the association stalled from 2005-2008. New leadership in ACERCA decided to reconstitute the association and with the involvement of NARUC and limited support from the NARUC/USAID agreement, ACERCA is quickly moving to develop better cooperation.

Benefits from Cooperation with NARUC:

- *Cooperation with NARUC helped ACERCA fulfill objectives outlined in their statutes,*
- *NARUC experts helped strengthen the ACERCA regulators through exchanging knowledge and experience*
- *ACERCA in actuality does not have a special budget – each country that takes the presidency works with own funds, which are limited. Provision of consultants to ACERCA from NARUC is fundamental*
- *This cooperation should incentivize investment and participation from US businesses in Central American projects.*
- *Support from NARUC helped the strengthening and efficiency in the work of the regulatory entities, which has a direct impact on the development of electricity as an important motor for the development of the country*
- *Helps the regulators take advantage of natural resources and conserve the environment.*

-- Carlos Colom, *President, ACERCA*

Accomplishments include:

- Improved the relationship between the ACERCA members
- Permitted discussion on topics of similar interest
- Coordinated activities intended to improve and develop energy
- Improved the coordination of the utilization of renewable resources
- Took advantage of and improved the coordination of energy efficiency plans
- Revised and improved methodologies and procedures applied to calculating tariffs

NARUC will continue to work with ACERCA in future years to further strengthen its institutional capacity. NARUC experts will serve as an ongoing resource to promote regional harmonization efforts focused on electricity trade, transmission development, and coordinated regulatory practices.

IV. REGULATORY PARTNERSHIPS

NARUC serves as the administrator of these partnerships through the financial support from USAID Washington and/or Missions. The regulatory partnership is a flexible mechanism that typically includes two to three exchange visits per year and, based on the needs and agreement between the partners, other activities such as internships, training, and study tours. Partnerships are at least two years in length. The exchange visits usually rotate between the partners and consist of four or five commissioners and staff each visit. The composition of the groups depends upon the subjects addressed in the exchange so that the right persons in terms of expertise and responsibility are participating.

The NARUC Regulatory Partnership Program is designed as a vehicle for the exchange of regulatory experience and information between U.S. and international regulatory bodies with the goal of improving regulatory practices, enhancing institutional and operational aspects of the participating commissions, and fostering long-term sustainable relationships between the regulatory entities. The purpose of these partnerships is to create a collaborative framework and two-way learning process through which a specific U.S. Commission works with an individual energy regulatory authority in developing its institutional capacity, improving technical expertise, and establishing or refining practices in market-based regulation.

Partnering organizations are paired based on mutual interest in common regulatory issues and similar energy sector portfolios. The partners cooperate to develop a fluid work plan outlining the timeline and the content of the partnership exchanges, starting with broad institutional frameworks and organizational aspects of their work, and gradually addressing the growing needs of the international regulator and interests of the U.S. public utility commission. The regulators correspond and exchange documents via email between activities to prepare for the next round of discussions and to identify issues which arise in the interim.

Illustrative topics that have been discussed in the course of all partnerships include: restructuring and utility unbundling, privatization, competition, tariff methodology and rate design, third-party transmission network access, grid-code development, market monitoring and oversight, energy efficiency, renewable energy, dispute resolution, service quality, cross-border trade, public hearings, customer relations and stakeholder process, and commission administration/case management. Other activities under the auspices of the partnership program include site visits to U.S. federal regulatory agencies and other State commissions, utilities, and State legislative bodies.

Based on the interest of the international regulators and adequate technical resources at the U.S. partnering institution, NARUC also arranges short-term internships and job-shadowing placement at U.S. commissions. These additional training opportunities greatly enhance the long-term sustainability of the regulatory relationships and the partnership discourse, and help expand technical expertise and analytical skills of the international partners through rigorous skills training. International regulators also participate in training opportunities through enrollment in NARUC-endorsed U.S. regulatory training courses in order to learn specific regulatory skills, improve their technical understanding of various practices and comparative methodologies, and network with peer regulators.

A. Ghana - Ohio

Ghana-Ohio						
Apr 2005	Feb 2006	Oct 2006	Apr 2007	May 2008	Sept 2008	Dec 2008
Partnership Inaugurated in Accra	2 nd PS Activity in Washington, DC & Columbus, Ohio	3 rd PS Activity in Washington, DC & Columbus, Ohio	4 th PS Activity in Accra, Ghana	5 th PS Activity in Abuja, Nigeria	6 th PS Activity in Accra, Ghana	Final PS Activity & Conclusion in Accra, Ghana

The energy regulatory partnership program between the Public Utilities Regulatory Commission of Ghana (PURC), the Energy Commission of Ghana (EC), and the Ministry of Energy of Ghana (MoE), and the Public Utilities Commission of Ohio (PUCO) established in April 2005 concluded in December 2008. The partners conducted seven formal partnership activities covering a variety of topics on regulatory frameworks in electricity and natural gas, tariff setting, development of rules, regulations, and legislation for the benefit of the Ghanaian energy sector. The major objectives of the partnership included the establishment of a secondary natural gas market for Ghana in addition to building the technical and administrative capacity of the respective Ghanaian regulatory authorities.



1st Ghana-Ohio Exchange – April 2005

The reality of the natural gas sector and dependence on the transfer of natural gas through the West African Gas Pipeline (WAGP) has seen progress in its development; however, setbacks outside the control of the regulators continue to delay the free flow of gas through the pipeline. The partners instead achieved extensive progress in preparation for the time when the gas will flow, and the discoveries of oil and natural gas in Ghana changed the focus for the future of the natural gas and related electricity sectors.

The seven partnership activities gave the Ghanaian regulatory and ministerial agencies the opportunity to discuss aspects of regulatory frameworks, procedures and policies with a variety of U.S. Public Utility Commissions. PUCO acted as the lead public utility commission with additional input from Indiana, New York, and Delaware. The perspectives and information provided by NARUC's members through the activities aided in the development of Ghana's key regulatory bodies both formally and informally through the establishment of new laws such as the Natural Gas Law and formation of key committees to oversee aspects of utility regulation like the Siting Board. The continual support provided Ghanaian counterparts new training and increased their own confidence in forming and expanding their roles and responsibilities.

PURC, EC, and MoE believe that their respective agencies gained greatly through the experiences with their counterparts. A variety of new rules, regulations, operating procedures, and legislation reflect the positive aspects of the relationship with Ohio. Additionally, PURC began funding internship opportunities for key staff to Ohio capitalizing on the established connectivity between the counterparts.

Accomplishment #1 – Organization of a Siting Committee

An Inter-departmental Siting Committee was established to oversee the coordinated siting of electricity and natural gas infrastructure based on lessons learnt.

Accomplishment #2 – Development of subsidiary legislation

Various Regulations and Rules have been prepared to pass through the subsidiary legislative process to become law to ensure effective regulation. This legislation includes:

- L.I. 1911 Natural Gas Distribution and Sale Regulations 2007
- L.I. 1912 Natural Gas Distribution and Sale Regulations 2007
- L.I. 1913 Natural Gas Transmission Utility Rules 2007
- Natural Gas Transmission Utility (Standards of Performance) Regulations, 2008
- Bans of the use of incandescent lamps for energy-saving filament lamps;
- Bans on importation of used refrigerators and air-conditioners;

Accomplishment #3 – Creation of a licensing and permitting regime

Licensing manuals for licensing natural gas transmission and distribution utilities as well as wholesale suppliers of natural gas have been prepared and adopted to guide potential operators in the sector.

Institutional Success Story

As a result of NARUC's regulatory partnership program, the knowledge that the Commission benefited from has enabled it to convince colleagues about the need for a Siting Committee to be established to undertake issues related to siting of energy infrastructures in Ghana. Again, the Commission has increased its knowledge tremendously in regulatory matters, influencing some decisions of the Energy Commission. On the part of staff of the Commission, the knowledge and skills acquired have enabled the participating staff to contribute immensely to the development of regulatory frameworks for the electricity and natural gas industries.

– Martin Asare, Chief Program Officer Natural Gas Division, Energy Commission of Ghana

Partnership Perspective from Ohio

The Ohio-Ghana partnership has provided many benefits, primarily by assisting Ghana as it develops institutional frameworks to support infrastructure development and investment. The national legislature recently passed a power siting law, based on Ohio’s model, which will equip regulators with the tools needed to effectively site electric generation and transmission facilities. In addition, regulators have established new rules governing natural gas transmission, distribution and sales based closely on Ohio and U.S. regulatory frameworks.

Through seven partnership activities, held here in Ohio and in Ghana, our partnership has become a two-way street, not simply a lecture from Ohio. Rather than merely handing the Ghanaian regulators a playbook on how things must be done, we have demonstrated how goals can be accomplished. Both sides have gained perspective and learned new ways to approach complicated regulatory issues.

In addition to the PURC, representatives from the Ghanaian Ministry of Energy and the Energy Commission of Ghana have also participated. The three agencies in Ghana have, through the years, developed mutual ground and respect for the differing roles and responsibilities. I am consistently impressed by the level of comfort and familiarity apparent in the discussions between the Ohio Commission and our counterparts in Ghana.

– Alan Schriber, Chairman, Public Utilities Commission of Ohio

B. Jordan – Colorado

Jordan-Colorado		
November 2008	May 2009	August 2009
Scoping trip to Amman with CO PUC	Partnership Inaugurated in Amman, Jordan	2 nd Partnership Exchange in Denver, Colorado

In November of 2008, Commissioner James Tarpey of the Colorado PUC and James Lindley from NARUC’s office traveled to Amman, Jordan, to meet with various players in Jordan’s energy industry. This initial visit started off what has become a strong relationship between the Colorado Public Utility Commission and the Jordan Electricity Regulatory Commission. In its first year, under the GRN cooperative agreement, two partnership exchanges were held. In addition to covering the basic topics, much attention was paid to renewable energy, energy efficiency, and demand side management during these first two exchanges.

Due to the success of these first exchanges, USAID Jordan allocated additional funds under NARUC’s new cooperative agreement ENSURE to expand cooperation between the U.S. and Jordanian regulators.



2nd Jordan-Colorado Exchange – August 2009

Accomplishment #1 – Analysis of the customer complaint process

Manuals on how to conduct complaint process (informal vs. formal) Customer service and dealing with customer's complaints through new procedures, documentation, and follow-up based on models used at the Colorado Public Utility Commission

Accomplishment #2 – Review of the Public Hearing Process

While in Colorado during the 2nd exchange, the Jordan ERC participated in a public hearing. This has broadened their vision of opportunities that exist in holding public hearings and creating a more transparent process. The Jordan-ERC at this stage is considering the creation of a similar public hearing

Accomplishment #3 – Review of Tariff Methodologies

The ERC is reviewing their methods of setting tariffs and comparing that to Colorado's methodology. During the 2nd Partnership Exchange, the ERC and Colorado PUC reviewed tariff methodology related to customer class allocations, rate design based on demand data, customer classes, voltage levels. Based on open discussion of the challenges the ERC is facing with a culture of non-payment and non-cost reflective tariffs, the ERC is reviewing the tariff methodology to analyze how to incorporate the goals of reflecting actual costs, reducing/removing subsidies and providing a social safety net for low income customers. Any proposed changes to the tariff methodology will be subject to final approval by the Cabinet.

Institutional Success Story

This Partnership is the best way to exchange experience, to consolidate practices, and transfer skills that will benefit all parties. There is a great mutual benefit between the two parties, and harmony, and good interaction by the participants. Such practice is a good way to spread the benefits to all staff in each commission, especially through meetings that are accessible to all staff members. The ERC will try to follow similar practice in the future. Additionally, the public hearing we saw in Colorado is a practice that reflects transparency between the Colorado PUC and the public. It is not a common practice in Jordan, but it might be considered.

– Meqdad Qadous, *Economic Department, Director, ERC Jordan*

Perspectives from the Colorado Public Utilities Commission

While the ERC is relatively new, the breadth and depth of knowledge of the commissioners and their staff is impressive. They are to be commended for the professional way in which they approach their responsibilities. Hopefully, the partnership has been of value to them, just as it has been valuable for us. The partnership, and the give-and-take that has occurred during our many meetings, is giving us the opportunity to reevaluate approaches we take to various regulatory issues.

– James Tarpey, *Commissioner, Colorado Public Utilities Commission,*

C. Nicaragua – Texas

Nicaragua-Texas				
February 2008	July 2008	April 2009	July 2009	September 2009
Partnership Inaugurated in Nicaragua	2 nd Partnership Exchange in Texas	3 rd Partnership Exchange - Organizational Assessment in Nicaragua (Market Monitoring and Customer Service)	4 th Partnership Exchange in Texas (2 Interns following up on April Org Assessment)	5 th Partnership Exchange – Study Tour to California (Focus on EE/RE/Environment)

The energy regulatory partnership program between the Nicaraguan Energy Institute (INE) and the Public Utility Commission of Texas (PUCT) was inaugurated in February 2008. This inaugural activity also included members from the California Public Utility Commission (CPUC). The CPUC continued involvement throughout the partnership providing valuable information, and meeting with the Nicaragua delegation during their study tour to California.



1st Nicaragua-Texas Exchange – February 2008

The partnership included two full exchanges between INE and the PUCT, two organizational assessments exercises, two internships, a study tour to California, and various activities with the Central American Energy Regulatory Association (ACERCA).

One of the primary goals put forward by INE at the beginning of the partnership was to seek ways in which they can diversify the energy matrix in Nicaragua. The volatility of oil prices over the past few years has been hard on the energy sector and Nicaragua has been looking at a variety of options, including adding renewable energy (wind, solar, geothermal), and energy efficiency to the mix. Over the past year and half INE explored, through the partnership, a variety of ways in which they can diversify their energy matrix.

In addition to the broad fundamentals of regulation, the partnership focused on market monitoring, customer service, incentives for renewable energy, and energy efficiency, among others. The following three areas highlight just a few of the major accomplishments resulting from the partnership:

Accomplishment #1 – Improved system for gathering and analyzing data to monitor the market and detect potential problems

During an organizational assessment the PUCT reviewed INE’s system and made valuable suggestions related to the gathering and analyzing of data. PUCT’s efforts helped INE further institutionalize the process of gathering data, developing more efficient systems in gathering data. INE now spends more time analyzing the data and responding to alerts that warn of illegal market actions. This will help INE provide more timely information to the commissioners who make decisions and detect market manipulation. Development of this system is also important as Nicaragua will participate in the Regional Electricity Market in Central America, which will commence in 2010.

Accomplishment #2 – Creation of a system to follow-up with complaints and customer service calls to distribution companies in Nicaragua

INE requested that a second organizational assessment focus on customer service in Nicaragua. As a result, INE decided to apply a similar follow-up system with the Nicaraguan distribution company. INE now tracks how long it takes the distribution company to respond to complaints. They also track information regarding responses to public lighting complaints and voltage variations.

Accomplishment #3 – Greater appreciation for renewable energy technologies and arguments for making energy efficiency a priority in the energy matrix of Nicaragua

Through the partnership, INE has gained a greater appreciation of available renewable technologies and understands better the pros and cons of pursuing these technologies. Texas is leading the way in wind energy and California in solar energy. Both of these technologies are being considered by Nicaragua and visits with utilities and non-profits during exchanges in the United States broadened INE's vision.

Institutional Success Story

At INE we carried out market monitoring of the electricity market in the best form possible. It was done in a general way, through only retrieving principle data. With the exchanges with the PUC of Texas, we learned how to first write our duties to have a better vision of how we do our work, and later organize the information in report format for our superiors. We needed to learn how to better organize our way of working so that we could spend more time doing analysis. The 3rd exchange in May of 2009 was a grand experience as we collaborated with Danielle Jaussaud.

We continue to do market monitoring of the electricity market, working out calculations, but now we have it more organized, and know which aspects of the market will help alert us to market operations that might affect consumer prices. This will help us inform our superiors of possible illegal actions or operative mistakes, allowing us to act immediately. We are improving, but we know we have a long ways to go to do things more efficiently.

It helped a lot to see the different warning triggers/alerts to see if market agents were colluding and using market power to influence prices. We were able to see how to detect these things through certain calculations and through evaluation of market transactions. I realized that we lack a lot in knowing how to regulate an interconnected market, comparing ourselves with the different connection zones in Texas. The Central America interconnection expects to have its first transactions next year and we will need to better understand how to manage congestion on the lines. We should be preparing for this.

Without the exchanges we would continue to monitor the market with a lot of data, but little analysis. Now we have the data and we know how to concentrate on particular data that will help us act as regulators, where to focus first before others, and to discover there are many other aspects that we need to learn now that we will connect the SIEPAC network in Central America.

I truly hope to not lose communication with our fellow regulators in Texas.

– Aura Monjarrez, Director of the Wholesale Electricity Market, INE

Perspectives from the Public Utility Commission of Texas (PUC)

The Texas-Nicaragua partnership was a particularly gratifying experience. The INE personnel were eager to learn from the interactions in the partnership and put a lot of energy into our visits to Managua and their visits to Austin. It was particularly beneficial for two of our staff to spend a week working with INE in each agency headquarters. One of the benefits for the Texas PUC staff was the frank discussions of political issues that make the work of the INE difficult. While political concerns are not quite as prominent in Texas, we have such issues arise, and it was inspiring to see the INE leadership working diligently on the energy issues that confront Nicaragua, despite the distractions of the political reactions to their decisions.

– Jess Totten, Director of Competitive Markets Division, Public Utility Commission of Texas

The first two exchanges enabled us to get to know the working processes of the partner agency and compare the efficiency of those processes to ours. These exchanges also allowed us to learn about the challenges the partner agency faces and critically examine the challenges our own agency faces. In some cases, the solutions that the partner agency had brought to some of the problems our own agency also faces opened new possibilities in the way we approach these problems. This was particularly true in the area of customer protection, to which INE devotes large amounts of resources, and where INE has implemented innovative policies we were eager to learn from. These initial exchanges were followed by two more exchanges where the focus was no longer on general policies, but on hands on participation in the activities of the partner agency. These last two exchanges solidified the benefits of the partnership, as it allowed the participants to go from the general overview to the detailed analysis of our respective processes and activities. These last two exchanges resulted in a deeper understanding of the day to day challenges of the partner agency, and concrete steps being taken to improve our respective processes.

– Danielle Jaussaud, Director of Market Analysis, Public Utility Commission of Texas

Personal Success Story

The exchanges enriched my own professional experience, as they broadened my knowledge of electricity markets. This experience and the positive and tangible results that were obtained left me with a sense of achievement as well as a sense of pride in my ability to share my professional knowledge. It also resulted in a deep appreciation of the Nicaraguan culture and new friendships that will continue well beyond the four weeks I spent working alongside my Nicaraguan colleagues.

– Danielle Jaussaud, Director of Market Analysis, Public Utility Commission of Texas



Sector energético quiere reglas claras



Ayer se firmó el acuerdo entre el INE, la Asociación Nacional de Comisiones Reglamentarias de Utilidades de los Estados Unidos y la Comisión de Utilidad Pública de Texas. /LA PRENSA/R. ORTEGA

By: Mario Guevara, February 29, 2008

La regulación es lo que crea el ambiente de confianza para que la inversión llegue a un país y el sector energético está dando sus primeros pasos en ese sentido.

Un buen comienzo es la firma de un acuerdo de entendimiento entre el Instituto Nicaragüense de Energía (INE), la Asociación Nacional de Comisiones Reglamentarias de Utilidades de los Estados Unidos (NARUC, por sus siglas en inglés) y la Comisión de Utilidad Pública de Texas, alianza que cuenta con el apoyo del Gobierno de los Estados Unidos a través de la Agencia de los Estados Unidos para el Desarrollo (USAID).

La firma, realizada ayer en un hotel capitalino, fue presidida por el Embajador de los Estados Unidos en Nicaragua, Paul A. Trivelli; el presidente del INE, David Castillo; el director de USAID Nicaragua, Alexander Dickie; el encargado de la Comisión de Utilidad Pública de Texas, Paul A. Hudson; y el subdirector de NARUC, James Lindley.

Esta alianza busca apoyar el desarrollo y capacidad institucional del sector energético nicaragüense, a través de promover el intercambio de información y capacidades locales entre comisiones reguladoras, lo cual facilite un marco reglamentario y reformas basadas en el mercado.

REGLAS CLARAS

Las capacitaciones técnicas y los diálogos que se llevarán a cabo como parte de la alianza incluirán temas como regulación de calidad de servicios, maneras de calcular y establecer las tarifas, cómo estructurar acuerdos legales de compra y venta de energía, y la participación pública en el proceso.

David Castillo, presidente del Instituto Nicaragüense de Energía (INE), explicó que “si hay reglas claras los inversionistas van a estar interesados en atraer s inversiones al país, si eso se logra el

sistema puede mejorar. Pero la otra cara de la moneda es que ese inversionista que legítimamente busca utilidades encuentre una regulación que le permita utilidades justas y protegiendo el precio a favor de los consumidores”.

Paul Trivelli, Embajador de los Estados Unidos en Nicaragua, destacó que la energía eléctrica promueve la productividad, lo que eleva los ingresos de las familias.

“Es por esto que las discusiones y el diálogo que van a realizar estas comisiones para acelerar y profundizar las reformas del sector energético son de tanta importancia”, agregó.

ATRAER INVERSIONISTAS

Con la firma de este acuerdo Nicaragua se une a otros 25 países, que forman parte de la Red Global de Reguladores, un esfuerzo impulsado por la USAID.

“Se nos acusa que en nuestro país y que en los países en desarrollo las reglas no son las mejores, y se les achaca a esa falta de regulación el hecho que los inversionistas no sientan confianza de venir”, comentó David Castillo.

Intercambio de experiencias

El programa de asociación está diseñado como un vehículo para el intercambio de experiencias e información entre las comisiones de regulación de la energía pública de Estados Unidos y Nicaragua, con miras a mejorar las prácticas e instituciones regulatorias basadas en el mercado, mientras se fortalecen los vínculos profesionales sostenibles entre ambas instituciones.

En sus discusiones preliminares ambas partes han identificado un espectro amplio de temas que planean abordar en el transcurso de su programa de asociación, que incluye desde asuntos institucionales hasta aplicaciones técnicas de metodologías. La primera actividad tendrá lugar en Managua, del 25 al 28 de febrero, y enfocará los elementos básicos de la regulación, como autoridad, autonomía, rendición de cuentas, estructuras y capacidades. Los delegados discutirán el diseño tarifario para el mercado minorista, los acuerdos de compra-venta de energía, los incentivos regulatorios, las pérdidas técnicas y comerciales, la calidad del servicio y la participación del público en el proceso regulatorio.

INE estrecha vínculos con entes reguladores de EU

Reunión y acuerdos desde hoy con la de Texas

Oliver Gómez

El gobierno de Estados Unidos ha declarado su interés de conocer la industria petrolera de Nicaragua y el sector de energía eléctrica, con el fin de estrechar lazos que permita mejorar la regulación y permitir la llegada de inversionistas a nuestro país. En esta vía, hoy inicia un encuentro entre los directivos del Instituto Nicaragüense de Energía (INE) y una alta delegación norteamericana.

Se conoció que directivos de la Embajada de Estados Unidos y la Agencia Internacional para el Desarrollo (Usaid), han compartido este interés con funcionarios de gobierno y, especialmente, con las autoridades del INE, con quienes acordaron mantener una comunicación permanente desde inicios de febrero.

Como resultado de este vínculo, los directivos del INE ayer anunciaron en una nota de prensa que hoy se disponen a firmar acuerdos de cooperación con la Comisión Reguladora de los Servicios Públicos de Texas (PUC, por su acrónimo en inglés) para mejorar la calidad y las tarifas de la energía eléctrica y de los hidrocarburos.

Los técnicos del ente regulador anoche revelaron que este acuerdo se celebrará en las instalaciones del ente regulador, en Managua, y durante la visita de los delegados de Texas, estarán presentes el embajador Paul Trivelli y el consejero

económico de la Embajada, Joseph Ripley.

La alta delegación incluye al subdirector de los entes reguladores de Estados Unidos, James D. Lindley; Alex Dickie, Director de Usaid para Nicaragua; el comisionado del ente regulador de Texas, Paul Hudson, con su plana mayor de la Dirección de Mercado y División de Tarifas. También asiste la representante legal del ente regulador de California, Angela Minkin.

“La idea de este acuerdo es mejorar la función reguladora, garantizar servicios de calidad a los consumidores y establecer tarifas justas y sostenibles para los bolsillos de las familias, en un proceso de fortalecimiento que empezó el INE para adquirir conocimientos de las mejores entidades reguladoras del mundo”, explicó una fuente del sector energético.

EL NUEVO DIARIO conoció que este encuentro iniciará hoy y se extenderá hasta el jueves próximo, con amplias reuniones que cuentan con el apoyo de Usaid y de la Asociación de Comisionados Reguladores de Servicios Públicos de los Estados Unidos (Naruc).

La delegación será recibida por los cuatro miembros del Consejo de Dirección del INE: David Castillo, Reinerio Montiel, Juan José Caldera y Mariela Cerrato. Todos los directores y altos funcionarios del ente regulador están convocados a este encuentro para exponer la situación de Nicaragua.

El Nuevo Diario - Managua, Nicaragua - 25 de febrero de 2008



Instituto Nicaragüense de Energía

Managua, 23 de septiembre de 2009
PCD-INE-106-10-2009

Señor
Matthew Gardner
Senior Program Officer
International Programs
(NARUC)

Estimado Señor Gardner:

Me permito hacerle llegar los alcances del intercambio que se ha logrado desde Febrero de 2008 hasta septiembre 2009, entre NARUC y el Instituto Nicaragüense de Energía (INE), gracias a la cooperación de United States Agency for International Development (USAID). Esta cooperación ha permitido ocho encuentros, cinco de los cuales han sido intercambios en forma de pasantías con las Comisiones de Servicios Públicos de Texas y California (PUCT, PUCC) en temas de Mercado, Tarifas, Calidad de Servicio, Atención al Cliente y Ambiente.

Se han sostenido tres reuniones regionales centroamericanas para fortalecer la Asociación Coordinadora de Entidades Reguladoras de Centro América (ACERCA), preparar al personal técnico para el Mercado Eléctrico Regional (MER), colaborar en la formulación de las tarifas a los consumidores finales, así como en los programas de ahorro y eficiencia energética a todos los reguladores centroamericanos con la colaboración de las Comisiones de Servicios Públicos de Missouri, Texas y Wisconsin.

Los intercambios realizados por nuestros técnicos a Texas y California han brindado conocimiento en tecnologías de punta no disponibles en nuestro país a gran escala, pero útiles por encontrarnos al inicio del desarrollo y por tanto con la posibilidad de impulsarlo con el beneficio de la experiencia de los programas exitosos de ambos Estados. Estos intercambios han permitido la comunicación a través del PUC con las compañías privadas de distribución y generación eléctricas, la Universidad de San Diego, el Centro de Investigación de Potencia y las municipalidad de Austin, entre otras, despertando nuestro interés en diversos programas entre los cuales está el establecimiento de proyectos solares para autoconsumo, preparando nuestro proyecto de autogeneración con la instalación a mediano plazo de paneles solares en nuestras instalaciones como proyecto piloto demostrativo de la disminución en el costo de la energía consumida de la red, restando únicamente el financiamiento para su implementación.

Adicionalmente se prevé la implementación del uso de medidores de doble vía para el registro del flujo eléctrico aportado por la autogeneración y la disminución del consumo de la energía aportada por la red. En este aspecto ha sido importante la contribución hecha por ambos PUC al aportar datos de contabilización de los consumos y aportes de energía, máximos de autogeneración permisibles, posibilidad de disturbios a las redes, entre otros. Estas visitas nos han dado una visión más clara de la viabilidad del proyecto en nuestro país.

En el área de mercado se implementaron metodologías de seguimiento al mercado eléctrico tomando las consideraciones del PUCT ante las operaciones de venta de energía, especialmente ante la entrada al mercado del nuevo parque eólico en Nicaragua, considerando sus variaciones de abastecimiento de energía al sistema eléctrico y su incidencia en todo el mercado eléctrico y su operación.

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Instituto Nicaragüense de Energía

Página 2.

Señor

Matthew Gardner

Senior Program Officer

International Programs

(NARUC)

Un elemento importante es la consideración de la congestión en la red de transmisión una vez que se establezca la nueva red regional con el proyecto SIEPAC y se intensifiquen las transacciones del mercado regional. Este último aspecto ha sido abordado desde la óptica de la integración centroamericana en la que por iniciativa de Nicaragua hemos promovido el acercamiento entre los miembros de la ACERCA y NARUC con el objetivo de aprovechar la experiencia de los últimos en materia de transmisión, mercado regional e integración.

En las áreas de Atención al Cliente y Calidad de Servicio, se aprovechó el intercambio para implementar el seguimiento telefónico a los reclamos presentados por los usuarios, respecto a la operación de los distribuidores. Producto de ello el INE implementó un seguimiento a las llamadas telefónicas que reciben las distribuidoras Nicaragüenses por parte de sus clientes logrando dar seguimiento a los tiempos de respuestas de las distribuidoras, además del seguimiento al servicio de alumbrado público, variaciones de tensión, etc.

La contribución ha sido extensiva a la regulación energética ambiental con la presentación del manejo ambiental de plantas de carbón, instalación de equipos para mejorar la calidad de las emisiones a la atmósfera, aprovechamiento de energía solar fotovoltaica y térmica, generación geotérmica y eficiencia energética. La posibilidad de conocer el avance de los diferentes programas de energías renovables, nos han permitido tener una mejor visión del uso de nuestros recursos naturales para la generación de energía eléctrica, de forma sostenible. Apoyando la transformación con una regulación conocedora de tecnologías, costos y programas sostenibles que ayudaran a estabilizar las tarifas de energía liberándonos del consumo del petróleo.

La ayuda de USAID ha sido importante para nosotros, recibiendo y aportando ideas, sin embargo resta mucho por hacer. Nicaragua está apenas iniciando la reconversión de la matriz energética y dando los primeros pasos en la transformación del mercado regional, los proyectos de los PUC tanto de Texas como de California son una guía para obtener productos exitosos en nuestro país, aprovechamos la experiencia acumulada implementando nuevas estrategias de regulación que nos permite ser más eficientes y productivos beneficiando al país.

Después de un año provechoso de ayuda, tenemos confianza que la visión de futuro que tiene USAID contemple la continuación de la cooperación con INE a través de NARUC en materia de Regulación energética ya que nuestra institución es profesional y quiere lo mejor para nuestro país, sabiendo aprovechar las oportunidades que estos convenios nos brindan.

Sin más a que referirme, me despido de usted.

Atentamente,

José David Castillo S.
Presidente Consejo de Dirección



cc: Archivo

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Unofficial Translation of Letter from President Castillo

Managua, September 23, 2009

Dear Mr. Gardner

Allow me to send you the accomplishments of the exchanges that have occurred from February 2008 until September 2009, between NARUC and the Nicaraguan Energy Institute (INE), thanks to the cooperation with the United States Agency for International Development. This cooperation has permitted 8 encounters, 5 of which have been exchanges in the form of apprenticeships with the Public Utility Commissions of Texas and California touching the themes of market, rates, quality of service, customer service, and environment.

Three regional meetings have occurred in Central America, strengthening the Regional Association of Central American Energy Regulators (ACERCA), preparing technical personnel for Regional Electricity Market (MER), collaborating in the formation of rates for final consumers, and saving/energy efficiency programs to all the Central American Regulators with collaboration from Public Utility Commissioners from Missouri, Texas, and Wisconsin.

The exchanges that took place with INE's technical experts in Texas and California have brought knowledge of technologies on such a grand scale, that are not available in our country, but that are useful because we find ourselves at the beginning of development and have the opportunity to drive them forward based on the successful programs seen in both states (California and Texas). The exchanges with the PUC's have also permitted communication with private distribution and electric generation companies, the University of California San Diego, the Electricity Power Research Institute, and the municipality of Austin, among others. This has awakened our interest in diverse programs including the establishment of solar projects for self-consumption, preparing a project for self-generation with a medium term installation of solar panels at our offices to act as a demonstration project of how this reduces the cost of energy consumed on the grid. We are only waiting for financing to implement this project.

Additionally, we foresee the implementation of bidirectional meters that will register the flow of energy supported by self-generation and the reduction of the consumption of energy from the grid. In this aspect the contribution of both PUCs has been important so we can adopt accounting data of the consumption and contributions of energy, the maximum permissible self-generation, possibility of disturbances to the grid, among others. These visits have given us a clearer vision of the viability of this project in our country.

In the area of markets, we have implemented monitoring methodologies to the electricity market, taking into consideration advice given by the PUC regarding the sale of energy, especially regarding the entry of the new wind energy project that is now running in Nicaragua. We take into consideration the variation of this energy supply to the electric system and its impact on the entire electric market and its operation.

One important element for consideration is the congestion on transmission networks once the regional network SIEPAC is established and the transactions are intensified at the regional market level. The last aspect has been approached from the point of view of regional integration and through Nicaragua's initiative we have promoted a gathering of ACERCA and NARUC members with the objective to take advantage of the experience of NARUC experience regarding transmission, and regional market integration.

In the areas of Customer Service and Quality of Service, the exchanges helped us implement follow-up to claims made by phone by customers, with respect to the distributors operations. Resulting from the exchange INE implemented a follow-up program that follows-up specifically with the distributor's response time, including responses to public lighting issues, and voltage variations.

The contribution from the exchanges has been extensive with respect to the environment with presentation of the management of coal plants, the installation of equipment that improves emission quality in the atmosphere, progress toward photovoltaic solar energy and thermal, geothermal generation, and energy efficiency. The chance to learn about advanced renewable energy programs has allowed us to have a better vision of how we can use our natural resources better, in a sustainable manner. This has helped us transform into a regulator that is a connoisseur of technologies, costs and sustainable programs that will help stabilize energy rates, and free us from petroleum.

The support from USAID has been important for us, receiving and contributing to ideas, although there is still a lot to do. Nicaragua is just starting the conversion of the energy matrix and taking the first steps in the regional market transformation. The projects with the PUC, Texas as much as California, are a guide to obtain successful outcomes in our country. We take advantage of these projects through the accumulated experience, implementing new regulatory strategies that allow us to be more efficient and productive, benefitting our country.

After a year with profitable help, we trust that USAID's future vision will contemplate the continuation of the cooperation with INE through NARUC regarding energy regulation since our institution is professional and wants the best for our country, knowing the opportunities these agreements provide us.

Do not hesitate to contact me, I say goodbye to you.

Sincerely,

Jose David Castillo S.
President Board of Directors

D. Nigeria – Michigan

Nigeria-Michigan		
July 2008	December 2008	August 2009
Partnership Inaugurated in Nigeria	2nd Partnership Exchange held in Michigan	3rd Partnership Exchange in Nigeria

A partnership between the Nigerian Electricity Regulatory Commission (NERC) and the Michigan Public Service Commission (MPSC) began in July of 2008. From July 2008 – August of 2009 there were 3 exchanges (2 in Nigeria, 1 in Michigan). It is expected that NARUC will continue this partnership under its new Cooperative Agreement *ENSURE*. Illustrative topics that have been addressed to date include regulation of competitive markets, consumer protection, efficiency, natural gas regulation, encouraging investment in the natural gas sector, and performance monitoring and benchmarking.

The partnership has helped NERC to see first hand, in the US, the cooperative relationship between utility companies and their regulatory counterparts. It should be noted that in early 2009 all NERC commissioners were removed from the agency, due to political influence. In spite of this, NARUC has been able guide the partnership to focus capacity building on mid to senior level staff. The Nigeria/Michigan partnership can be a useful tool as NERC seeks to establish greater independence from political influence. This greater independence will be needed to help NERC create a more favorable investment environment in Nigeria.



2nd Nigeria-Michigan Exchange – December 2008

Accomplishment #1 – Creation of an “Alternative Dispute Resolution Unit”

Since the third partnership exchange between the Nigerian Electricity Regulatory Commission and the Michigan Public Service Commission, NERC staff created an alternative dispute resolution department. After hearing how MPSC’s department provided opposing parties in utility complaints an alternative to costly litigation, NERC felt that a similar department would be helpful in Nigeria.

Accomplishment #2 – Bill being sent to parliament to change law that establishes the commission to enable greater independence

NERC is currently in the process of sending a bill to parliament to change the law that establishes the Commission, hoping to establish greater independence. This will allow the Commission to better lead sector reform for better performance and to allow market competition, complete the privatization process, and to have legal authority to sanction utilities when they are in violation of the law.

Accomplishment #3 – Encouraged and influenced regional regulatory harmonization in West Africa

NERC has encouraged and influenced regional efforts to establish the West African regional energy regulator, encouraged transmission interconnectivity within the sub region, and sought to promote the completion of the West African gas pipeline which will assist in the generation and distribution of electricity to the west coast of Africa. Discussions with Michigan have helped NERC see the importance of regional cooperation. Cross border trade of electricity and natural gas will require a greater harmonization and cooperation from countries in the region. Efforts in the partnership that discuss ways in which to establish greater harmonization and cooperation will be influential in establishing a more sound investment climate as rules for the region are more clearly defined.

Institutional Success Story

The partnership has given us insight into international best practices which gave us an opportunity to explain to government , legislators, utilities and other stake holders that regulation can be done in a fair and transparent manner and we can all work together to make it happen in Nigeria and we are pushing some legislation to that effect.

– Usman Arabi, Assistant General Manager, NERC

Perspectives from the Michigan Public Service Commission

The Nigeria partnership is an encouraging one where I personally see the enthusiasm of the Nigerian Electric Regulatory Commission’s (NERC) approach to regulating an industry that is government-run as recently as 2005.

The NERC members share their hopes, challenges, and successes, and the MPSC staff members eagerly provide their thoughts. This partnership – well conceived and executed -- is one that is truly collaborative.

Together, we look forward to seeing the development of a market-based electric generation industry that includes consumer protections against rate shock.

–Orjiakor Isiogu, Chairman, MPSC

Perspectives from Nigeria

I believe this partnership has been quite useful to us in NERC as it has broadened our perspectives and also allowed us to see the similarities in the function we perform with that of the Michigan PSC. I hope that NARUC and USAID will still be able to sustain this partnership in the short to medium term as there is still a lot that we can gain from this interaction.

– Ifey Ikeonu, Assistant General Manager, NERC

E. Rwanda – Missouri

October 2004	2005
Partnership Inaugurated in Rwanda	2 nd Partnership Exchange – Cancelled*

The first regulatory partnership activity was a great success as RURA, the Missouri PSC, and the Delaware PSC all committed their time and offered diligent preparation not only throughout the week-long activity but also during the period preceding the visit. Throughout each day, questions were addressed and the discussions were lively and often continued into the evening. Both RURA and the Missouri PSC staff's participation and enthusiasm during the meetings illustrate that there is a tremendous amount of support for the partnership. Attendance of approximately 80 participants each day, following the opening day, emphasized the overall interest and support.

*Note: The Rwanda/Missouri Partnership was discontinued due to a change at the ministry level. The new minister twice would not approve travel for the next planned exchanges.



1st Rwanda-Missouri Exchange – October 2004

Accomplishments: The meetings focused on the broad fundamentals of regulation, such as authority, autonomy, accountability, structure, functions, etc. Other topics included consumer affairs and public participation as well as rate design. The exchange included key stakeholders such as government officials, public and private companies, and consumer groups by including workshops and round-table discussion on the economic benefits of impartial/independent regulation. The meetings were well attended with over 100 participants including ministers, public and private companies and industries, and concluded with a press conference which included radio, television, and print media. RURA's efforts to promote the activity also included large banners through out the city.

Perspectives from the Regulator

Following that regulation is a new concept in economic environment, the present workshop constitutes partly an awareness activity leading to participation of the regulatory concepts and principles, it is our sincere hope that your ideas and discussions during this workshop will help to inspire and move forward these particular initiatives.

– Mr. Bonaventure Niyibizi, Chairman, RURA

RURA woos US firms in energy pact

By Joan Wangui & Innocent Gahingana

The Rwanda Utilities Regulatory Agency (RURA) has signed a bilateral cooperation with a US-based National Association of Regulatory Commissioners (NARUC), aimed at partnering in the energy regulatory sector.

The partnership has Rwanda that is represented by the Chairman of the Board of RURA, Bonaventure Niyibizi, Jason Czyz, representing NARUC and, Hon. Robert M. Clayton of the Missouri Public Service Commission.

The agreement included the signing of a Memorandum of Understanding (MoU), in order to launch the Energy Regulatory Partnership tripartite partnership.

"During the week-long partnership activity, both regulatory bodies will be learning from each other's experiences in dealing with regional energy operators," said Niyibizi, who added that the talks seeks to address broad fundamentals of regulation. He described these as: authority, autonomy, accountability and structure. Others are functions, consumer affairs, public participation and rate design.

"The partnership will also help in building capacity in the regulatory agency and to share information and experiences of our two countries," said Niyibizi.

Jason Czyz of NARUC said

that the energy regulatory partnership program is a vehicle for the exchange of experience and information between US and international regulatory bodies, aimed at improving regulatory practices and fostering long-term sustainable relationships between regulatory bodies of both countries.

"The US Public Utility Commissions will work with RURA in developing its institutional capacity in the market-based regulation," Czyz pledged.

He noted that the US has vast expertise in the energy regulation sector and that it partners with many agencies across the world. "For Rwanda, the partnership comes in handy to encourage investment in the public utilities sector," he added.

Commissioner Robert Clayton said that the partnership will enable both agencies to achieve the best principles of regulation and the consumers' concern.

Established in September 2001, RURA is charged with ensuring access to public utility services to a greater number of users, fair competition among economic operators and, the efficient exploitation of national resources. This, RURA officials say, addresses the double objective of achieving good governance and socio-economic development.

Rwanda Utilities Regulatory Agency will take the frontline to regulate the energy sector.

4. RURA in partnership with the National Association of Regulatory Utility Commissioners (NARUC-USA) to organise the first Workshop on the regulation of Public Utilities.

As everybody can might be aware, regulation is a new concept in the worldwide particularly in Africa, the above mentioned Workshop has been organised for High ranking officials, operators, consumers and the staff. It is in that context that several stakeholders of RURA are to take one-week training starting on 25th ending on 29th October 2004 at Hotel Novotel Windsor Umubano.

The Workshop will mainly focus on the regulation which govern public utilities such as telecommunication network, electricity, water management and transportation among others. Speakers from the National Association of Regulatory Utility Commissioners (NARUC-USA) and from RURA will have the opportunity to go in deep the regulatory framework activities.

On the other hand, the Workshop will enable stakeholders to come to round table discussions on the economic benefits of independent Regulatory Agency.

It will also be a golden opportunity of launching a good cooperation between RURA and NARUC by signing a Memo of Understanding.

Lastly, participants will also analyse the reasonable rates of return, the regulatory body and other regulated companies that will enable them to protect the interests of the state and privately owned utilities. They will finally acquire knowledge on the regulatory roles that would encourage foreign investors.

To our invitees, you are most WELCOME !

REGULATED PUBLIC UTILITIES

- Telecommunications networks/Services ;
- Electricity ;
- Water & Sanitation (waste management) ;
- Extraction & Distribution of Gas ;
- Transport of passengers and goods.

K.Jean.Baptiste
PRO/Rwanda Utilities Regulatory Agency

OCTOBER 27, 2004 THE NEW TIMES

F. Zambia – Pennsylvania

Feb 2005	Jul 2005	Mar 2006	Dec 2008
Inaugural PS Exchange, Zambia	2 nd PS Exchange, Pennsylvania	3 rd PS Exchange, Zambia	Concluding 2-day workshop, Zambia

This partnership created a framework through which NARUC’s members (public utility regulators) worked with the Energy Regulation Board to help develop its institutional and technical capacities in market-based regulation. In 2007, the Government removed the board members of both the ERB and the utility (ZESCO), prior to completion of their terms. This type of political interference in the regulatory process emphasized the importance of multi-year programs to support the need to have an autonomous commission. While most partnership activities focus on exchanges between the international and U.S. regulators, certain activities can be opened to a larger audience of other stakeholders to reinforce the role and responsibilities of all involved in the energy sector. NARUC’s final activity worked with the new ERB regulators to focus on sound regulatory practices to bolster their commission and addressed barriers to private investment in the electricity sector and seeks ways in which the ERB can overcome these barriers.

Accomplishment #1 – Cost of Service Study

The PA PUC discussed the importance of carrying out detailed cost of service studies, including basic components, marginal cost pricing, etc. With this preparation, in 2007 the Zambia ERB published a cost of service study on ZESCO, the state owned utility.

Accomplishment #2 – Determining the Rate Base and Revenue Requirements

The partnership gave the Zambia ERB firsthand experience in determining the rate base and revenue requirements of a utility, which has assisted the ERB in proposing new guidelines for its own rate review process. This ensures a unified and consistent approach to the collection and reporting of information from electricity utilities to the ERB

Accomplishment #3 – Exposure to a role-playing exercise which simulated application of administrative law

A real regulatory situation highlighted specific roles of each participant, leading the ERB to consider the importance of having an administrative law judge. This could potentially lead to a more formalized complaints procedure to determine rate cases at the ERB.

Perspective from Zambia

The two interns, Nambula and Kafula, have reliably informed us that you [PA PUC] went out of your way to ensure that the two had a pleasant internship. We wish to assure you that the knowledge and experience acquired by the said officers is invaluable and will go a long way in helping us improve our regulatory role in Zambia.

– F. Mwangala Zaloumis, Chairwoman, ERB/Zambia

Perspective from the Pennsylvania Public Utility Commission

This partnership provides the Pennsylvania Public Utility Commission with a unique opportunity to share our knowledge and technical expertise as well as learn more about the international regulatory environment. We believe the Pennsylvania Public Utility Commission is widely recognized in the U.S. as a leader in moving towards viable energy markets and this partnership will allow us to share our experiences with the Energy Regulation Board of Zambia.

– Wendell Holland, *Chairman, Pennsylvania Public Utility Commission*

2 TIMES OF ZAMBIA, Wednesday, February 23, 2005

ERB, US energy body sign MoU



•MPOMBO

By Times Reporter

THE Energy Regulation Board (ERB) has signed a Memorandum of Understanding (MoU) with the United States National Association of Utility Regulation Commission (NARUC), represented by the Pennsylvania Public Utility Commission, to exchange experiences and information on improving regulatory practices in the two institutions.

Signing on behalf of ERB at Pamodzi Hotel in Lusaka yesterday, chairperson Mwangala Zaloumis said the MoU was a historical occasion for Zambia's developing energy sector.

Ms Zaloumis also said the partnership would help ERB address some of the many challenges the institution was facing as an energy regulator in the country.

"I have no doubt that this partnership will help us address some of the many challenges we are facing as regulators in the country.

"We are keen to learn from our counterparts in the United States as we exchange valuable experiences and information," she said.

She said the ERB would be committed to ensuring that the programme succeeded, adding that the board would seek to maximise every opportunity in its future endeavours.

She also said that there was need to establish and maintain a strong regulatory

framework, which would attract the much-needed investment for the energy sector.

Signing on behalf of NARUC, the Pennsylvania Public Utility Commission chairperson Wendell Holland said the MoU would help the two institutions to foster development in the energy sector.

And witnessing the signing ceremony, Energy Minister George Mpombo said the partnership would give the ERB the opportunity to learn from its counterparts in the USA who had been regulating energy for a long time.

He also said that Government was in the process of reviewing the energy policy to attract investment in the country.

He also thanked the American government for making the partnership possible.

And American ambassador to Zambia Martin Brennan expressed hope that the MoU would help ERB to apply best practices in Zambia.

NARUC, through cooperation and funding of US\$ 175,000 from the United States Agency for International Development, would implement and oversee the partnership.

V. CAPACITY BUILDING

A. Creation of the Bangladesh Energy Regulatory Commission

The Bangladesh National Assembly passed the BERC Act in 2003, creating the first energy regulatory agency in Bangladesh. The BERC Act vests the Commission with a great deal of authority, including the ability to license, set tariffs, protect consumers, arbitrate disputes, sanction regulated entities, and a number of other powers. The BERC's mandate gives it regulatory authority over electricity, natural gas, and petroleum. In April 2004, the Government of Bangladesh (GoB) appointed the first two Members (Commissioners) to the BERC.

From 2004 – 2008, NARUC worked to develop and enhance the capabilities of the BERC. Initially, NARUC focused solely on the BERC but as its Program for Regulatory Capacity Building evolved, the project developed into a two pronged approach: building the capacity of the BERC and working with the Consumer Association of Bangladesh (CAB) to

encourage consumer participation and consumer education about the energy sector (see section V.B.ii below).

The beginning phases of the project consisted of assisting the Members with securing office space, furniture, interpreting the BERC Act, creating an organizational chart and position descriptions, drafting operational regulations, and lobbying the government to provide resources for the operation of the Commission.

In addition to assisting the BERC with laying the groundwork for its operation, a NARUC consultant worked with the Members on a daily basis to explain the fundamentals of energy regulation; focusing on developing a regulatory commission that works within the social, political, and economic realities of Bangladesh. Throughout the duration of the project, NARUC concentrated on designing suggestions and solutions which are feasible for Bangladesh yet based on well recognized best practices and principles of utility regulation.

In 2005, the Commission and NARUC drafted a licensing regulation and held a public hearing that invited stakeholders to comment on the regulation, some of which were incorporated into the revised licensing regulation. This was the first time a public hearing had been held related to the energy sector. Despite initial resistance to the idea of holding a public hearing, the BERC Members (commissioners) were surprised by the level of participation from stakeholders as well as how fruitful the questions and comments were to drafting the final version of the license regulation.



Participants at the BERC's First Public Hearing

As part of the license regulation, the BERC and NARUC created license applications and a schedule of fees. The licensing regulation is important to the operation of the BERC because it

provides an independent source of funding through fees and establishes the groundwork for the BERC's regulatory authority over energy companies. Despite holding a public hearing, in which the Government of Bangladesh (GoB) participated, the government decided that it needed to review the licensing regulation before allowing it to be published in the official gazette. The GoB took more than one year to review the licensing regulation, causing substantial delays to the development of the BERC.

List of Regulations and Other Key Documents

- **Organizational Chart.** The organizational chart provides a schematic of the structure the BERC will adopt when it moves forward with hiring staff. According to the GoB, the organizational chart needs to be approved by the appropriate ministries. Despite it being one of the first tasks completed by the BERC and NARUC, the government not unconditionally approved the organization chart by March 2008.
- **Terms of Service for Staff.** The service regulation outlines the BERC's employment policies, terms, conditions, and general information on employees' rights and responsibilities.
- **Position Descriptions for Staff.** The position descriptions explain the functions of senior staff and departmental heads at the BERC, as outlined in the organizational chart.
- **Budget, Accounts, and Reporting Regulation.** This regulation describes the powers of the BERC to use its funds for the functioning of the Commission. It also provides for auditing in order to ensure transparency and proper use of the funds entrusted to the BERC.
- **BERC Fund Regulation.** This regulation authorizes the BERC to set up its own bank accounts and oversight mechanisms for the proper use of funds. The BERC fund regulation also empowers the Commission to take out loans for the operation of the agency.
- **Statistics (also concerning docketing).** The statistics regulation establishes the standards and procedures by which parties file information with the BERC. The regulation also provides for the basic requirements for accessing information filed with the BERC as well as limits situations in which the BERC will deem certain information confidential.
- **Ethics (rules of conduct).** The code of conduct stipulates how conflicts of interest should be handled, post-service restrictions, restrictions on personal investments and ownership interests in regulated entities, limits on political activities, and sanctions for violations. Overall, the code of ethics seeks to avoid even the perception of impropriety.
- **Dispute Settlement.** The dispute settlement regulation deals with both disputes between regulated entities and disputes between regulated entities and consumers. More needs to be done to spell out how a dispute will be settled and made binding, through such methods as arbitration. However, this regulation provides the BERC with a foundation upon which to build.
- **Licensing (including applications, fee schedule, and regulations for small power producers and license waivers).** All entities engaged in electricity generation, transmission, transportation, marketing, storage, distribution and supply of energy must apply to the BERC for a license or seek a waiver. The licensing regulation also requires a licensee to provide the BERC with information about the installation or service so that the BERC has enough information to properly regulate the entity. The fees derived from the licenses provide the BERC with operational funding independent from the government's budget.
- **Meeting.** The meeting regulation describes the types of meetings the BERC may hold other than hearings. For instance, public meetings to address important issues, procedures and circumstances for holding administrative meetings (closed meetings), emergency meetings, and how to conduct meetings and the amount of time needed to properly give notice to all Members of the BERC.
- **Hearing.** This regulation describes the basics of how to conduct a formal hearing. The regulation also describes procedures for both contested and uncontested matters as well as applicable notice provisions and appeal procedures.

- Electricity Generation Tariff Methodology. This regulation provides information about how to calculate the tariff for an electricity generator. It is important to note that per the BERC Act, independent power producers with power purchase agreements executed before the establishment of the BERC do not need to file for a BERC approved tariff.
- Electricity Distribution Tariff Methodology. The electricity distribution regulation outlines the methodology to be used to calculate the rate distribution utilities may charge consumers for electricity. The regulation includes data requirements for distribution companies as well as application procedures.
- Electricity Transmission Tariff Methodology. The transmission methodology regulation includes a code of conduct for transmission providers which provides for non-discriminatory access to the transmission system. This regulation offers the BERC some flexibility to adapt and change to the circumstances of Bangladesh's evolving energy sector.
- Natural Gas Transmission Tariff Methodology. As with all of the tariff methodologies, the natural gas transmission tariff methodology provides an example calculation sheet for stakeholders for their ease of use when compiling their tariff applications for the BERC's approval. A hearing examiner's manual will need to be prepared when the BERC begins to regularly hold formal public hearings, especially hearings on rate cases.
- Natural Gas Distribution Tariff Methodology. Currently, the price a consumer pays for natural gas is based on the number of burners they have in their home (2 or 4). The natural gas distribution tariff methodology is designed to move companies and consumers to a cost of service calculation which will also need to be coupled with an effort to meter consumers. Some consumer activists criticize the current burner pricing structure as promoting waste of the country's natural gas resources since a consumer is not charged based on actual usage.

In addition, the BERC and NARUC drafted a number of regulations that are integral to the rate-making process, such as the hearing regulation, but they were still not passed (gazetted) when NARUC's project ended in March 2008. The draft tariff methodology regulations prepared with the BERC will provide the Commission and regulated entities with a basis upon which to conduct a cost of service rate analysis in order to determine the level of rate adjustments needed. The methodologies include the latest design features, such as a fuel pass through clauses to further encourage the development of privately-owned generation.

While it is difficult to quantify, perhaps NARUC's single greatest contribution to the BERC consisted of its daily presence at the Commission from 2004 - 2008. As an in-kind contribution to program, the BERC donated office space for NARUC's consultants. Due to this proximity, the BERC regularly called on NARUC's consultants to assist on a variety of issues, such as ministerial requests for comments on the revised Captive Power Policy, Small Power Policy drafts, the proposed Natural Gas Act, and a variety of other substantive and procedural matters. In addition to sharing U.S. experiences through regular training activities at the BERC, NARUC provided the Commission with examples of regulatory systems in Europe and Eastern Europe as well as Africa, South Asia, and the Caribbean.

B. Public Involvement in Energy Regulation

For two major projects, NARUC moved beyond its focus on energy regulators to examine and support efforts to increase public participation in the regulatory process. Enhancing its efforts in Bangladesh, NARUC worked with the Consumer Association of Bangladesh for two years to educate local experts on their role in the energy sector. In 2006, NARUC also

conducted a comprehensive survey of consumer associations/organizations around the world to examine best practices for engagement with energy regulatory agencies.

C. Consumer Association of Bangladesh

One of the primary reasons for the development of utility regulation in the United States centered on consumer outcry about the practices of privately owned infrastructure monopolies. Unlike in the United States, consumers have traditionally had almost no voice in energy matters in Bangladesh and the private sector's participation has been limited to several independent power producer projects and natural gas extraction. From early 2006 – early 2008, NARUC endeavored to foster understanding about the role of the BERC, consumer protections, and create consumer demand for a fully functional regulatory commission.

NARUC's partner in this endeavor, the Consumer Association of Bangladesh (CAB), is the oldest and most established consumer organization in Bangladesh, with a membership network of more than 450 district leaders. CAB's traditional focus has been on food quality, truth in advertising, women's health, etc., but the Association recognizes the link between adequate and reasonably priced energy services and its other programs.

The joint workshops organized by NARUC and CAB consisted of training district leaders about the BERC and forums for discussing pressing energy sector issues, such as the lack of electricity and billing practices. On average, 40 district leaders in five groups attended the workshops, which lasted two days each. NARUC, CAB, and the BERC also organized workshops for journalists who cover the energy sector in Bangladesh to encourage their participation in Commission proceedings. NARUC and USAID's assistance to CAB was mostly in the form of training, orientations, seminars, workshops and one conference. The forums and workshops consisted of a lively exchange of views with a high level of female participation for the activities held in Dhaka.

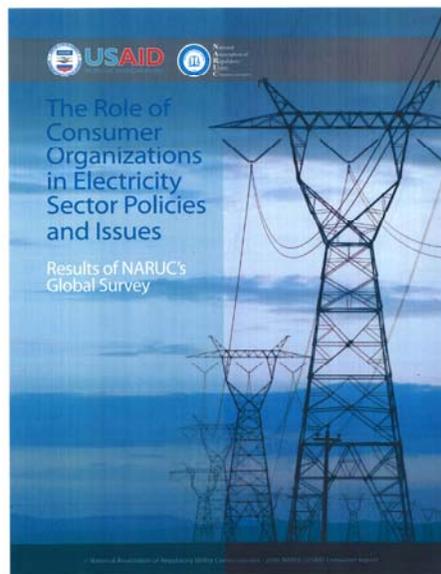


The partnership between CAB and NARUC culminated in a National Conference on January 21, 2008, which brought together more than 500 district leaders to discuss energy sector and other consumer issues. As a capstone project, NARUC presented CAB and the BEREC with a model regulation to create a sustainable funding mechanism to provide consumer organizations with the monetary means to participate in BEREC proceeding and continue consumer education.

D. The Role of Consumer Organizations in Electricity Sector Policies & Issues: The Results of NARUC's Global Survey

<http://www.naruc.org/Publications/NARUC-06CONSUMER-REPORT.pdf>

In 2006, NARUC focused on consumer protection issues by examining how consumer groups and utility regulatory bodies interact (if no regulator existed in a particular country, NARUC looked at how the groups interacted directly with their utilities). This report discussed the results of a global survey of consumer associations and consumer advocates conducted by the NARUC from May-June 2006. The survey was developed to better understand how and to what extent consumer groups around the world interact with regulators, utilities, and government ministries on electricity issues. A regulatory body functions best when it is accountable not only to investors, but also to consumers. Therefore, as arbitrators, regulatory bodies should strive to fairly balance the needs and goals of these two constituencies. While some regulators have developed rigorous public awareness, public participation, and outreach programs, the burden of representing and advocating for consumers is on civil society-based consumer associations and governmental agencies, such as consumer advocates.



With the end of the Cold War and the growth of market economies, an increasing number of countries created regulatory bodies for essential services, such as energy and water. Due to the technical characteristics of these network industries, they are natural monopolies and therefore require regulation.

The development of regulatory bodies in many countries has been encouraged by the donor community as a way to promote good governance and transparency of the operations of network industries as well as attract investment. However, many times the newly created regulator focuses almost exclusively on the investor aspect of regulation to the detriment of consumer issues. Given the deficiency of generation, the lack of wires or pipes, and the age of the infrastructure, significant capital investments are necessary simply to keep the existing networks operational, let alone increase access to a greater number of people.

Although understandable, the approach of concentrating on investor issues has led to some significant problems in the function and operational capacity of regulatory bodies created over the past fifteen years and their ability to address consumer issues. The primary impetus for creating regulatory bodies in the United States and Canada arose from the outcry of consumers, not that of the investors. And furthermore, conditionality on donor loans are often not enough to result in a functional regulatory body—the value of regulation needs to be embraced by the consumers and for that the regulator must be of value to the consumer.

Before formally administering its survey, NARUC first contacted regulators around the world, requesting information on consumer organizations that had appeared before their agencies or others they knew about. This information was then supplemented with extensive web research, resulting in a database of more than 300 consumer associations, consumer advocates, and environmental groups.

KEY FINDINGS:

- The greatest impediment to consumer organization participating in the electricity sector is a lack of resources. Most of the responses to the NARUC survey came from organizations that deal with many important consumer issues, electricity being only one area of focus. Regulation is complicated and requires both legal and economic expertise. To be successful at analyzing sector data and in turn forming a position on electricity sector issues requires organizations to have a broad range of skills. Furthermore, skills in public relations are an absolute necessity if a consumer organization hopes to reach out to consumers to: 1) determine the priorities and needs of consumers, and 2) to translate consumer goals into an effective advocacy strategy.
- Based on the NARUC survey results, it is clear that consumer organizations understand that the role of the regulator is to balance the needs of both consumers and investors. However, overall, the survey participants states that regulators do not adequately address consumer issues. In particular, participants noted the lack of (or weak) consumer affairs departments within regulatory agencies as a factor contributing to their perspective that the regulator does not adequately meet consumers' needs. Based on the results of the survey, it appears as though the creation or bolstering of consumer affairs departments with regulatory agencies would go a long way to improving relations between regulators and consumer organizations. Encouragingly though, most survey participants notes that they have the opportunity to participate in hearings and regulatory meetings. More than 76% of respondents indicated that they participate in regulatory meetings or hearings and the same number responded that they regulator's documents are open and accessible.
- Another key area of the survey concerned whether consumer organizations collaborate with universities and other consumer and environmental groups. Forty-three percent of respondents indicated that they work with universities, and it appears that a number of consumer organizations who collaborate with academic institutions do so for the purpose of conducting research and to have a source for volunteers. The use of volunteers to disseminate information appears to be the most

common form of volunteer participation, based on the survey results. However, the volunteered time of professionals, such as lawyers, is also a valuable resource for the few associations that acknowledged professional in-kind contributions. In-kind professional contributions appear to be an area where consumer organizations have the opportunity to maximize their resources.

- Consumer organizations use a variety of methods to reach out to consumers about electricity issues, especially by way of the media and the taking of complaints. The survey results also illustrate two common methods of representing consumers: 1) participation in regulatory hearings and meetings, and 2) having members serve on boards and official committees. As noted, many of the consumer organizations surveyed participate in regulatory hearings and meetings in addition to submitting formal comments to regulators and ministries. The survey also revealed some innovative ways of working with the media, even to the extent of creating television and radio programs on consumer issues.

Consumer organizations, regulators, governmental officials, and utilities are working together to make their electricity sectors stronger and improve consumer protections. To be sure, there are also areas where significant improvement is needed such as: sustainable funding for consumer organizations, “de-mystification” of the regulatory process, adequate consumer affairs departments within regulatory agencies, formalization of dispute resolution processes and enforcements, formalization of consumer rights and responsibilities, etc. Some of these areas, such as the formalization of consumer protection regulations, can easily be achieved through the exchange of experience between regulators and consumer organizations in different countries. Indeed, the political will must be present in order to pass the regulations and put in place effective enforcement measures.

The lack of political will is a problem for both consumer organizations and regulators, especially in countries where the regulator has been created as a result of a donor condition. A new regulator may lack the necessary political capital to act as an independent and impartial body designed to rationalize and improve an energy sector. By raising awareness about the role that a regulator can potentially play in assuring consumer rights, the regulator can gain much needed political capital for fending off political interference (political interference, both overt and covert, is usually the greatest single impediment to the functioning of a nascent regulator). The demand for an effective regulator is not going to come from within the nascent regulator or from with the government; it has to come from consumer organizations. For this reason, if the donors want effective regulators and thus effective energy sectors in developing countries, there must be effective consumer organizations. A regulator serves the two pronged purpose of protecting investors and protecting consumers. If one of these two responsibilities is not being fulfilled, then the adoption of regulation is a failure.

E. GRN Conferences

<http://www.globalregulatorynetwork.org/Resources/1stConferenceProceedings.htm>

<http://www.globalregulatorynetwork.org/Resources/2ndGRN/Home.htm>



1st GRN Conference – Namibia – June 2003

NARUC implemented two Global Regulatory Network (GRN) Conferences, the first in Windhoek, Namibia (2003) and the second in Bamako, Mali (2004). Both of these conferences provided a unique opportunity for energy regulators in Africa to exchange information with regulators from around the world. Some of the major themes of the conferences included: regulatory transparency, encouraging investment, promoting public participation, consumer protections, etc. These conferences augmented the profile of regulators in Africa and the second one contributed to the Malian regulator being asked by their Ministry to participate in high-level contract negotiations with a foreign utility.



2nd GRN Conference – Mali – July 2004

F. Information Dissemination through Website Assistance

In addition to creating the AFUR and OOCUR websites, under the auspices of the GRN program, NARUC developed websites for energy regulators in Namibia and Ethiopia. NARUC provided technical assistance to the energy regulator in Cameroon on their website and gave impetus to ACERCA to create a website. These sites have boosted public access to regulatory decisions and information.

NARUC also maintained information on GRN activities (conferences, workshops, trainings) at www.globalregulatorynetwork.org. Documents from the bilateral regulatory partnerships were posted at www.narucpartnerships.org.

G. International Handbook on Regulatory Treatment of Renewables

In order to promote the use of renewable energy sources (RES) and energy efficiency (EE) in the restructuring of energy markets around the world, NARUC is developing a practical guide that assembles, in a user-friendly format, the experience, knowledge, and lessons learned in this area for easy reference by new energy regulators. (This handbook was initiated in August 2009 and will continue under a new NARUC/USAID cooperative agreement with final publication planned for June 2010.)

This unique handbook will ultimately present the issues, opportunities, and methods that regulators can consider to incentivize energy efficiency and renewable energy sources. It will include real-life case studies, pros and cons of various policies and practices, and highlighted best practices and success stories from around the world. The handbook will include a discussion on how regulators can implement best practices in their respective countries. Special attention will be given to the issues faced by transitioning and developing countries.

VI. NARUC'S CONTRIBUTION

“Providing information to our international colleagues allows us [U.S. regulators] to really examine our practices and assess whether we should make improvements in our own regulatory policies. These exchanges are truly two-way learning experiences.”

***- The Honorable Frederick F. Butler, NARUC President (2008-09),
former Chair of the NARUC Committee on International Relations,
Commissioner, New Jersey Board of Public Utilities***

In 1998, NARUC received its first cooperative agreement from USAID's Bureau for Europe and Eurasia to share best practices in energy regulation and develop an association for regulators in that region. With the award of this cooperative agreement from USAID's Bureau for Economic Growth, Agriculture, and Trade (EGAT) in 2002, NARUC began a new era of engagement in the global regulatory arena. NARUC Commissioners and Commission Staff have had the opportunity to share their experiences while also learning from their international counterparts. NARUC's leadership has been committed to the success of this program from the

beginning, with members of the Executive Committee participating in GRN activities on a regular basis.

The involvement of U.S. regulators in joint activities with ACERCA, AFUR, OOCUR, and RERA has enabled regulators from Central America, the Caribbean, and Africa to remain on the cutting edge of regulatory issues while also retaining the interest of commissioners and staff from more experienced participating commissions. Per the USAID/NARUC cooperative agreement, NARUC provides the expertise of U.S. commissioners and commission staff as an in-kind contribution to GRN program activities, including the regulatory partnership program. NARUC has exceeded the in-kind requirement outlined in the agreement, thanks to the generous time and efforts of U.S. commissioners and staff members. To date, representatives from more than half of the U.S. commissions have participated in USAID-funded activities, with the value of NARUC membership's in-kind contributions and other matching costs to the GRN program totaling \$585,068. Moreover, many of NARUC's bilateral partnership programs have been endorsed by the state governors who acknowledge the importance of state government support of USAID programs.

The contribution of time and effort by NARUC commissioners and staff has enabled international regulators to learn from the more than 100-year history of regulation in the United States. In addition, NARUC staff has worked closely with their counterparts in ACERCA, AFUR, OOCUR, and RERA to develop long-term program and financial sustainability plans.

In selecting U.S. commissioners and staff to participate in its international programs, NARUC seeks regulatory experts who have the ability to share information in a proactive, positive manner that takes into account the differing political and social issues faced by regulators in transition and developing countries. Several NARUC members have become deeply involved with the GRN program and partnerships, building relationships that allow for exchange of information and resources outside of formal activities.

VII. CONCLUSION

NARUC's regulatory partnerships built bilateral relationships between U.S. and international regulatory commissions. These multi-year relationships created strong bonds, allowing the international regulators to quickly advance their regulatory skills and policies. In many instances, the international regulators adapted policies and procedures from their U.S. partners, which was a more efficient way to prepare these documents. The partnerships and participation in GRN activities proved to be a two-way learning path, with U.S. commissions re-examining their own practices as they shared information with their international partners.

NARUC's experiences with ACERCA, AFUR, OOCUR, and RERA has shown that it often takes more than a few years of donor support to have a regional regulatory association achieve a level of financial and programmatic sustainability. This reinforces the need to commit funding for enough years to reach the level of institutional capacity that allows an association to achieve its objectives and maintain its operations even when there are leadership changes within and less donor funding from outside.

NARUC members have repeatedly stated the benefits of their participation in programs under NARUC/USAID cooperative agreements. The relationships forged through longer-term programs, such as partnerships, will continue well into the future. NARUC members and staff will continue to engage in activities to promote the exchange of regulatory best practices. In fact, at the conclusion of the World Forum on Energy Regulation IV (October 2009), NARUC committed to lead the Working Group on Best Practices, Training, and Education under the newly established International Confederation of Energy Regulators (ICER)¹. Because of the relationships that NARUC built through GRN activities, NARUC has already successfully re-engaged several international associations to participate in this ICER working group.

¹ <http://www.worldforumiv.info/Forum-Outcomes/Forum-Outcomes/Announcement-of-International-Confederation-of-Energy-Regulators-ICER.html>