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CREATION OF A SUSTAINABLE REGIONAL REGULATORY ASSOCIATION AND PROMOTION OF BEST PRACTICES IN NATIONAL ENERGY REGULATION:

Lessons Learned from 10 Years of Regulatory Capacity Development in Central/Eastern Europe & Eurasia

Prepared by the

National
Association of
Regulatory
Utility
Commissioners

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National Association of Regulatory Utility Commissioners

Erin Hammel Skootsky, Director, International Programs
Martina Schwartz, Manager, International Programs
NARUC
1101 Vermont Ave, NW, Suite 200
Washington, DC 20005 USA
Tel: 1-202-898-2210
Fax: 1-202-898-2213
eskootsky@naruc.org
www.naruc.org

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ACRONYMS

AERS	Energy Agency of the Republic of Serbia
ANRE	National Agency for Energy Regulation of the Republic of Moldova
CEE	Central & Eastern Europe
CEER	Council of European Energy Regulators
CIS	Commonwealth of Independent States
E&E	Central/Eastern Europe and Eurasia region
EC	European Commission
ERC	Energy Regulatory Commission of the Republic of Macedonia
ERE[1]	Electricity Regulatory Authority of Albania
ERO	Energy Regulatory Office of Kosovo
ERRA	Energy Regulators Regional Association
EU	European Union
FERC	Federal Energy Regulatory Commission (U.S.)
HEO	Hungarian Energy Office
HERA	Croatian Energy Regulatory Agency
MACRUC	Mid-Atlantic Conference of Regulatory Utilities Commissioners
MOU	Memorandum of Understanding
NARUC	National Association of Regulatory Utility Commissioners
NIS	Newly Independent States
NGO	Non-governmental Organization
RTO	Regional Transmission Organization
SEA[2]	State Energy Agency of the Republic of Kyrgyzstan
SEE	Southeast Europe
SEWRC[3]	State Energy and Water Regulatory Commission of Bulgaria
TC	Tariff Council of the Republic of Azerbaijan
TSO	Transmission System Operator
UNMIK	United Nations Interim Administration Mission in Kosovo
USAID	United States Agency for International Development
USoA	Uniform System of Accounts
WG	Working Group

[1] In June 2008, the Electricity Regulatory Authority of Albania became the Albanian Energy Regulatory Entity and assumed the mandate of regulating both the electricity and natural gas.
[2] In 2007, the State Energy Agency of the Kyrgyz Republic became the State Department of Fuel and Energy Regulation and was incorporated into the Ministry of Industry, Energy and Fuel Resources of the Kyrgyz Republic.
[3] In 2005, the State Energy Regulatory Commission of Bulgaria became the State Energy and Water Regulatory Commission of Bulgaria and assumed the regulation of water services, in addition to power, natural gas and heat regulation.

I. EXECUTIVE SUMMARY

Background

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 government 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.

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 and management practices and promote energy sector reform by advocating that countries and regions look at successful 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. The different policy, regulatory, and market structures of individual States provide the opportunity for NARUC to select specific regulatory practices from within its membership of State commissions whose market development is similar to the situation in the targeted region during knowledge transfers and information exchange.

With the award of this cooperative agreement from the United States Agency for International Development (USAID) in 1998, 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 ERRA activities on a regular basis. In large part due to this program's success, NARUC members enthusiastically supported the development of programs with other regional regulatory associations and international regulators.

The Context

The NARUC regulatory development work took place within the broader USAID energy sector reform program involving the regulatory framework, utility restructuring, development of energy markets, and privatization. The NARUC/USAID cooperative agreement began as a three-year program, with regional funding provided by the Energy and Infrastructure Division of the Bureau for Europe and Eurasia, U.S. Agency for International Development (USAID). Within the first year, energy regulators from the Central/Eastern Europe and Eurasia region ("E&E Region") showed their commitment to the establishment of a regional association – the Energy Regulators Regional Association (ERRA). USAID, in turn, showed its dedication to

assisting the regulators to create a viable, sustainable organization by extending NARUC's cooperative agreement three times, for a total 10-year period.

Through its agreement, NARUC became part of USAID's three-prong approach to developing, supporting, and sustaining the nascent energy regulators in the E&E region. The USAID development assistance method included:

(a) Regional regulatory networking and information exchange organized by NARUC.
(b) Partnerships for access to U.S. regulatory practices implemented by NARUC.
(c) Long-term/short-term technical assistance managed by USAID Missions in country.

This approach focused on building skills at the regional (and sub-regional) and national levels. NARUC's regional program to create a regulatory association allowed E&E commissioners and staff to share experiences and best practices with each other and their U.S. counterparts.

The importance of regulatory development, both through ERRA regional activities and bilateral partnerships with U.S. regulatory commissions, was recognized by a record 15 USAID Missions that contributed direct funding to the cooperative agreement. The USAID Missions provided funds to support the participation of the national energy regulators in ERRA regional networking activities and/or to sponsor a bilateral partnership for access to U.S. public utility commission experience. It is also striking to note that many of these missions provided several obligations of funding over the course of the agreement to ensure the national regulators gained new technical skills and enhanced their institutional capacities.

> The objective is to create a regulatory body that has substantial ***autonomy*** from short-term political and other interventions; adequate ***authority*** to establish sound regulatory practices (e.g., tariffs, licenses and monitoring); clear ***accountability*** to assure transparency and credibility, and; ***ability*** to carry out the regulatory functions. A sound, transparent and stable regulatory body and process is important for the government, consumers and investors alike.
>
> - Mr. Robert Archer, Deputy Chief, Energy & Infrastructure, Bureau for Europe & Eurasia, USAID

The professional development activities and training courses implemented by NARUC and ERRA highlight the value of a regional approach because it provided:

(a) USAID economies and efficiencies not achievable by a single USAID Mission. For example, the regional training program displaced the need for multiple USAID Missions financing numerous consultants' development of tariff training courses for the national regulators.
(b) A mechanism for the exchange of experience on common issues among countries that could not be achieved by bilateral programs.
(c) Lessons learned in countries were transferred so that USAID Missions and regulatory bodies did not have to reinvent the wheel when designing regulatory policies and procedures.

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.

Energy Regulators Regional Association

NARUC began implementing the cooperative agreement in 1999 by organizing technical forums, meetings, and study tours; publishing electronic newsletters; and developing a website to enable the 12 established energy regulators in E&E to exchange information and best practices with each other and their U.S. colleagues. When participants expressed the need for an association similar to NARUC, one that could offer a more formal platform for exchanging ideas and learning from each other's experiences, NARUC created a Steering Committee to begin exploring this process. The Steering Committee consisted of six representatives from regulators in the region (Armenia, Hungary, Lithuania, Poland, Russia, and Ukraine). NARUC and USAID supported the Steering Committee through funding of meetings and drafting of governance materials. On December 9, 1999, 14 energy regulators signed the "Founding Principles," which outlined ERRA's basic purpose, objectives, and organizational structure. ERRA was created to focus on information exchange and professional development. The Steering Committee agreed from the beginning that ERRA would not be a policy-making body.

ERRA's purpose and objectives are:

- to improve national energy regulation in member countries;
- to foster the development of stable energy regulators with autonomy and authority;
- to improve cooperation among energy regulators; and
- to facilitate the exchange of information, research, training and experience among members and other regulators around the world.

On December 11, 2000, the 15 "founding members" formally established the Energy Regulators Regional Association (ERRA) and elected a five-member Presidium (executive body) to manage the Association. ERRA was legally registered in April 2001 with headquarters in Budapest, Hungary. Two key documents outline the goals, rights and responsibilities, and functions of the Association – the Constitution and Operating Guidelines. During 2000, all Chairmen convened twice for detailed review and development of the Constitution supported by NARUC and USAID staff. Both documents have been updated over the years to adapt to changing circumstances.

ERRA played an important role in accelerating the development of newly created regulators and their national energy reform efforts. This is especially true of the Southeast Europe region, where regulators joined ERRA as soon as they were established and gained immediate access to best practices and lessons learned from their counterparts in Central Europe and Eurasia. By 2004, ERRA had grown to 22 Full Members and four Associate Members. As of April 2008, ERRA consists of 24 Full Members, two Associate Members, and four Affiliate Members.

The ERRA Presidium was expanded from five to seven members, including the Chairman and Vice Chairman, in May 2004. This ensured the ability for a diverse range of representatives (from Central Europe, Southeast Europe, Eastern Europe, and Eurasia) and addressed the risk of unexpected turnover of members. Several representatives from the first

Presidium term (2000-2002) were members of the pre-ERRA Steering Committee and therefore intimately familiar with the concept and creation of the new association. This consistency from the very beginning was important to ensuring that ERRA's activities achieved the Association's objectives and purpose as outlined in the Constitution.

When NARUC hired the Head of the Secretariat in Budapest in June 2000, it began the process of training and transferring program functions to local staff. NARUC's goal was to transfer the majority of the program implementation duties to ERRA staff while ensuring that program performance continued in a highly professional manner.

ERRA is a unique professional organization in the region due to the fact that since 1998, almost all NARUC and ERRA activities have been conducted in English and Russian. Both languages are included in the Constitution as the official languages of the Association. NARUC and ERRA staff has been required to have high proficiency in both languages in order to serve all members equally.

The Hungarian Energy Office has played a critical role in ensuring the success of ERRA. It has provided free office space to the ERRA Secretariat and in the first few years provided select computer equipment. In addition, HEO representatives have been active within the leadership of the Association, both at the Presidium and Committee levels.

ERRA is widely seen as an example of an extremely successful regional association and is recognized as an important international institution. Significant portions of the ERRA Constitution have been incorporated into other regional associations' documents. ERRA has also established solid relationships with the Regional Electricity Regulators Association (RERA) of Southern Africa and the African Forum for Utility Regulation (AFUR), whose members have increasingly participated in ERRA training programs. ERRA is invited to participate at international events on critical energy issues including the G8 Regulatory Roundtable.

In 2000, NARUC began developing a separate bilateral relationship with the Council of European Energy Regulators (CEER). NARUC successfully involved representatives from ERRA in these and other meetings to promote a strong trilateral relationship among NARUC, ERRA, and CEER. Building on this, through the efforts of the ERRA Secretariat and Presidium, ERRA has developed a strong relationship with CEER. ERRA invites CEER members to participate in its professional development (committee meetings, conferences) and training programs[4]. Approximately one-third of ERRA members are also CEER members, so this collaborative relationship is especially important.

The two Standing Committees – Licensing/Competition and Tariff/Pricing – are at the heart of the Association. The committees and working groups have helped ERRA to define itself and develop its expertise since its inception. (In fact, committee members began to meet informally even prior to the adoption of the Constitution and formalization of ERRA in 2000.) Committee members play a central role in determining the technical issues that ERRA examines

[4] In some cases, regulators from EU Members States participated in ERRA meetings, introducing EU regulatory practices, through bilateral cooperation between ERRA and CEER members and in other cases the CEER Secretariat provided assistance in sending representatives.

through presentations, surveys, and preparation of technical reports and issue papers. The majority of the work products are prepared by committee members on a voluntary basis. In addition, NARUC/USAID funding has allowed for the use of outside consultants to examine new or complex topics as a way to transfer this information to ERRA members. The continuity of committee members has created a very open atmosphere within ERRA committee meetings, which enables deep discussion and understanding of these issue papers. As evidenced in the issue papers[5] prepared and discussed under ERRA's committees and working groups, ERRA members are facing increasingly complex and technical regulatory questions.

Select Key Topics from ERRA Issue Papers:

- ✓ Regulatory Independence
- ✓ Licensing Procedures (harmonization, monitoring, enforcement)
- ✓ Market Structure & Design (privatization, competition, unbundling, monitoring)
- ✓ Cross-border Trade, Regional Market Development
- ✓ Security and Quality of Supply
- ✓ Access to Utility Data, Performance Evaluation
- ✓ Tariff Methodologies & Pricing Policies (wholesale, retail, generation, distribution, renewables, cost structures)
- ✓ Low Income, Social Safety Net, Supplier of Last Resort
- ✓ Public Participation

The issue papers have been one of the most important outputs of ERRA members. They evolved from examination of more basic regulatory principles to evaluation of treatment of specific regulatory issues and exploration of advanced regulatory methodologies. Each committee or working group (WG) has prepared a significant number of these important resource documents:

- Licensing/Competition Committee – 31 issue papers since 1999
- Tariff/Pricing Committee – 24 issue papers since 1999
- Legal Regulation Working Group – 6 issue papers since 2004
- European Union Integration Working Group – 3 issue papers from 2003-2005
- Export/Import Working Group – 2 issue papers from 1999-2000
- Regional Markets Working Group – 1 issue paper in 2001
- Monitoring Working Group – 1 issue paper in 2001

In addition, the ERRA website hosts thousands of presentations from E&E regulators and staff that have been discussed at ERRA meetings.

ERRA is flourishing because of the dedication and voluntary contributions of its members. Presidium members and committee/working group leaders work hard to ensure that ERRA continuously meets member needs and improves its services. In addition, many committee members volunteer to take responsibility for topics to be examined during the course of the year. As ERRA, like other similar associations, will always face a turnover in the leadership/commissioners and staff of its member regulators, there is also emphasis placed on preparing the 'next generation' of leaders within ERRA. For example, particularly strong committee members may receive extra leadership training and/or be nominated to serve as

[5] See Appendix C – list of ERRA technical issue papers.

ERRA training instructors, thereby creating a pool of in-house experts for future leadership positions.

The majority of ERRA professional development activities (such as committee meetings) are closed and for ERRA members only. These member-only activities have allowed regulators to build a strong support system within the region, with ties to U.S. commissions and in some cases select European Union (EU) regulators. They allow for very frank discussions, promote transfer of best practices, and strengthen national regulatory agencies and their frameworks. This was especially important during the early years when regulators were first being created and staffed. Based on this atmosphere, most of the regulators took advantage of the opportunities to ask questions about basic regulatory concepts and practices.

In 2002, ERRA organized its first activity that was open to non-members as part of its sustainability goals: the Energy Investment & Regulation Conference. This annual conference involved extensive planning by the ERRA Presidium, Secretariat, and NARUC and USAID representatives. ERRA's Investment Conference is an unprecedented event – it allows representatives from utilities, financial and strategic investors, consultants, banks, end-users, and other energy stakeholders to meet face-to-face with more than 90-100 commissioners and senior technical staff from 25+ energy regulators. Similar to NARUC meetings, the Investment Conference encourages industry representatives to share the types of environments they need in order to invest in generation and infrastructure improvements and developments. These often focus on stable, predictable, and transparent regulatory processes. Investors want to know that they will not face policies that change on a regular basis, whether by the regulator itself or because of government interference in the regulatory process. Regulators share the energy reforms and policies they are implementing, with the opportunity to pique investor interest in their countries.

The Investment Conference has been vital in building ERRA's international reputation. It averages 225-250 participants annually and includes senior level representatives from the major energy stakeholders in the E&E region and the European Union. Keynote speakers have included Mr. Jean Lemierre, President of the European Bank for Reconstruction and Development (2002 and 2004), Ms. Kathy Sierra, Vice President of Infrastructure, World Bank (2005), and Chairman Joseph Kelliher, U.S. Federal Energy Regulatory Commission (2008).

As ERRA evolved and members faced staffing changes, it became clear that there was a strong need for more formal, structured training to augment the best practices transfer exercised in committee meetings and other professional development activities. In 2002, ERRA formed a Training Advisory Group comprised of representatives of ERRA, NARUC, and USAID. That year, with the assistance of consultants, ERRA conducted a comprehensive survey of ERRA members' training needs and analyzed the potential for providing technical training.

A unique feature of ERRA's "applied" training programs is the use of current and former ERRA member regulators (commissioners and staff members) as instructors. These include regulators with academic (university) backgrounds as well as former industry experts. This characteristic allows ERRA to design training courses that focus equally on practical application and theoretical methodology, and include the transfer of relevant direct experience.

From June 2003 to January 2009, ERRA provided training to 805 members and 294 non-members through its comprehensive training program. The ERRA training initiative features a variety of junior to advanced level bi-lingual courses offered in traditional classroom and/or online formats. All training programs are dual-language (English and Russian) and include preparatory homework, practical exercises, simulations, participant case studies, and exams and systematic evaluation of results.

Based upon the success of the ERRA Summer School on Energy Regulation Practices and New Commissioner Training courses created in 2002 and 2003, ERRA, NARUC and USAID initiated development of a comprehensive "in-house" ERRA training program.

Goals for ERRA Training Program

- ***Meet Member Education Needs.*** In the NARUC Evaluation Report prepared in 2004, ERRA members expressed a strong desire to continue with basic training programs and potentially expand capacity with separate mid-level and new commissioner programs.
- ***Sustainability of the Association.*** At a minimum, ERRA's training should not only be self-financing but also should generate additional revenue to cross-finance other activities of the Association.
- ***Dissemination of the regulatory experiences of the ERRA countries.*** ERRA countries are rich in lessons regarding energy sector reform and regulatory experiences providing important lessons for emerging and developing countries beyond ERRA's current member states.

ERRA/NARUC/USAID developed a three-step process to a new set of modular courses, going beyond the introductory-level summer school. These courses are at a mid- to senior-level and ideally suited for participants who have completed the ERRA summer school and have several years' experience in their positions. Step one included design and development of curriculum, preparation of course materials (presentations, textbook, group exercises, and exam), and pilot-testing in classroom format for ERRA members. Step two included adaptation of the course materials to a custom-designed online platform and pilot testing for ERRA members. NARUC and ERRA benefited from the cooperation of Comillas University (Madrid, Spain) in defining ERRA's approach to e-learning. For these first two steps, the NARUC/USAID cooperative agreement provided funding support for the design, implementation, and participant costs. Finally, for step three, the courses were offered in two tracks – for ERRA member regulators and non-regulators (ex. utilities, consultants, academics) – with a registration fee.

Rounding out its in-house training, ERRA now offers the following intermediate/ advanced modular courses, in both classroom and online versions.

- Monitoring Energy Markets
- Price Regulation & Tariffs
- Electricity Markets
- Introduction to Gas & District Heating Regulation
- Regulatory Information & Public Participation

The Summer School Course on Energy Regulation Practices is offered annually, with a second track added for non-ERRA members. The New Commissioner Training is offered every one to two years, as needed.

It is important to note that many of the Presidium members had strong university affiliations, providing a built-in cadre of academic instructors within ERRA. Furthermore, during one of the early training needs assessments, ERRA/NARUC/USAID learned that almost every ERRA member had at least one commissioner who was a current part-time or former full-time university professor. This resource of expertise was a vital factor in deciding to launch ERRA's training programs.

ERRA has developed a collaborative relationship with the Regional Center for Energy Policy Research (REKK), led by Dr. Peter Kaderjak (former ERRA Chairman and Professor at Corvinus University of Budapest). Dr. Kaderjak and his staff (including former regulators and regulatory staff) have served as course directors and/or course instructors for the majority of ERRA's training programs. In October 2007, ERRA signed a Memorandum of Understanding with REKK to provide ERRA member in-house training services to be developed in consultation with the ERRA Presidium, Training Advisory Committee, and Secretariat Staff; REKK considers training services for ERRA as its priority task. ERRA and REKK coordinate on the development of course curriculum and proposals for instructors from ERRA members. This strong relationship has helped ERRA ensure that its training programs are germane, with a proper balance between theory and practical application (which is confirmed regularly by the participant evaluation process).

Lessons Learned & Results of ERRA

NARUC went well beyond achieving the goals of the USAID cooperative agreement. The regional approach embodied in the ERRA concept and the bilateral partnerships increase the effectiveness of USAID's assistance to these countries. NARUC and ERRA have been instrumental in helping member commissions establish their structure and procedures, playing an important role in promoting regulatory independence and transparency.

Institutional Development Takes Time: It took ten years to create ERRA, from concept to initial organization and development to establishment of professional and financial sustainability.

Institutions Must be Demand Driven and Responsive: One of the most important contributing factors to ERRA's success is that it was demand driven by member regulators. ERRA is truly an organization that is by regulators and for regulators. While USAID provided financial and technical support and the structure of ERRA drew upon the experiences of NARUC, there was substantial control and ownership by the E&E regulators and commission staff from the beginning. ERRA members have been actively involved in defining the purpose, functions, and activities of the Association. The Founding Principles, Constitution, and Operating Guidelines were developed through systematic detailed line-by-line meetings with the Steering Committee and then the full complement of 15 Chairmen at two meetings over the period of a year. This timing allowed the goals and objectives of the Association to be clearly defined and the meetings ensured that all Founding Members had the opportunity to help craft the Association.

The ERRA Presidium and General Assembly remain actively involved in the Association's program activities and financial plans. In addition, the technical

committees and working groups remain vital to defining the topics to be addressed in professional development and technical training through their annual workplan, case studies, and issue papers.

Members Must Make a Voluntary Commitment of Time: From the beginning, regulators and staff provided important voluntary contributions of their time – at the leadership/governance development stages and through preparation of committee issue papers and reports. This contribution came from both ERRA and NARUC regulators and staff.

Institutional Design Must Account for Specific Circumstances:

- **Continual Change:** The regulatory environment is subject to on-going change and increasing demands on regulators due to continued sector reforms, EU Directives, governmental decisions, regulatory incentives, privatization, energy security and climate change. ERRA as an organization has been responsive to changing circumstances and member needs.
- **Constrained Resources:** National regulatory agencies generally have very limited resources. ERRA has developed diverse revenue sources to minimize cost to members.
- **Regulatory Turnover:** Fixed terms and political removal creates continual change in regulatory agencies. The ERRA organizational structure has accommodated this by an expanded Presidium, Vice Chairs on the Committees, and on-going training.
- **Adverse Environment:** Government interference for short-term political reasons and utility opposition are common.

An Effective Secretariat Staff is Critical: The hiring of outstanding Secretariat staff has been vital to the effectiveness and efficiency of ERRA. The Secretariat staff should be given strong credit for developing and implementing activities that have built ERRA's successful international reputation. NARUC staff has played a key role in transferring best practices of association management to ERRA staff. The Secretariat staff is fundamental to the function of the Association. They are tri-lingual and possess excellent management and interpersonal skills needed for institutional management, conference planning, training program design, and logistical support. The ERRA Secretariat staff has been very stable and their institutional memory is very important given the ongoing turnover of commissioners and, to a lesser degree, staff. While there has been turnover within the Presidium each year, the exceptional performance of the Secretariat staff has ensured that the Association continues to achieve success in professional development programs, training courses, and financial sustainability.

Face-to-Face Interaction: The relationships built through face-to-face meetings and trainings allow regulators from various countries to continue to seek information from each other. While electronic communication and online forums are cost effective ways to share best practices, personal interactions cement long-term linkages. While ERRA committee representatives have been meeting three times per year for the past decade, recently members have significantly increased their communication between meetings. Committee members frequently send requests for information on a specific topic and/or

examples of regulatory procedures as new regulatory challenges arise during the year. Because of the in-person committee meetings, members have built strong relationships and quickly send information on their national policies to their counterparts. The majority of chairs, commissioners and staff who have participated in ERRA programs feel that they have personally and professionally benefited through this information exchange forum. It is clear that ERRA members look at regulations and procedures in other ERRA countries when they are revising and drafting documents for their national energy sector.

Since ERRA covers a broad geographic region, it is natural that the energy regulators in each country face some similar and also different challenges. One of the keys to ERRA's success is its effort to be inclusive and relevant for each member. This means that regulators who have 10-12 years of experience and are regulating private energy players in a developing competitive market may be working on very sophisticated issues. Participation in ERRA allows them an opportunity to solicit feedback from their colleagues and further refine policies before implementing them. Those countries who have either only recently created regulators and/or countries where the regulator has been hampered by political interference can potentially avoid some pitfalls along the road to reform by learning from the successes and obstacles faced by their colleagues.

In addition to noting the benefits to their personal knowledge of energy regulation, many ERRA members have used information from ERRA activities to make substantive changes within their regulatory agency. Several countries have created customer service departments, others have reorganized existing divisions, and many have enacted changes to their primary and/or secondary legislation.

On-Going Self-Evaluation and Dissemination: All NARUC and ERRA committee meetings, workshops, conferences, and training courses include a written evaluation (typically 15-20 questions) that is given to participants towards the end of the activity. The questionnaire addresses pre-meeting expectations, the activity itself, and the value of information received. Each committee/WG also prepares a list of priority issues to be examined during the following year that are developed through a voting process. The ERRA Secretariat staff provides the evaluation results for each activity to the ERRA Presidium, committee/working group chairs, and NARUC and USAID representatives.

The evaluation process for ERRA's formal training courses (classroom and online) is especially important as it allows ERRA to make improvements in general and to specific courses. This comprehensive self-evaluation process allows ERRA to monitor its activities and make adjustments as necessary to ensure that it is providing applicable and valuable services.

As part of its self-evaluation process, participants in ERRA professional development and training activities are asked how they will share what they have learned once they return to their home regulatory agencies. The majority of respondents indicate that they provide briefings to their departments and/or entire agencies. Most share weblinks, CDs, and other documentation with their colleagues; with many posting the

materials in their regulators' intranet/electronic library. This transfer of knowledge to other regulatory staff ensures that best practices flow back to the agency, beyond just the individual who attended the meeting or training.

Contributions to Energy Sector Reform: Under the auspices of the NARUC/USAID cooperative agreement, ERRA members have been able to extensively share experiences with each other and their U.S. regulatory counterparts. Through committee/working group meetings, annual conferences, technical workshops, applied training, and other activities, E&E regulators have been able to make significant advances in reforming their national energy sectors and looking at areas for cooperation and harmonization to promote regional improvements.

While the NARUC/ERRA programs have covered a very broad range of topics, there are three main issues where ERRA members have made significant progress. In particular, NARUC/ERRA programs have contributed to the development of:

- Cost-based tariff methodologies
- Regional electricity markets
- Public involvement in energy regulation

ERRA members are clearly focused on developing tariff methodologies that best meet the challenges in their national environments. When NARUC/ERRA programs began a decade ago, regulators were faced with serious non-payment issues and high cross-subsidization across customer classes. E&E regulators have increasingly adopted cost-based and incentive forms of regulation to eliminate cross-subsidies and support efficiency increases of license holders. Most ERRA members have adapted their tariff procedures as they went through privatization and unbundling. ERRA members also addressed treatment of ancillary services and more recently have focused on demand response and energy efficiency.

Various ERRA members also worked collaboratively to address harmonization issues to promote sub-regional markets and broader market cooperation. The Licensing/Competition Committee has recently worked on developing voluntary harmonized licensing procedures of wholesale traders. ERRA members have also concentrated on cross-border capacity allocation, congestion management, market rules, and monitoring/enforcement.

Finally, ERRA members have made noteworthy advancements in involving the public in energy regulation. Some ERRA members adopted public hearing procedures; those in NARUC regulatory partnerships frequently adapted their U.S. counterparts' procedures to their national situation. Most ERRA members have public relations staff that assists the regulators in communicating upcoming issues and decisions. Many ERRA members have also created customer service programs or departments. While regulators around the world all face a similar challenge in drawing criticism for any price increase decisions, participation in NARUC/ERRA activities has encouraged many ERRA members to develop proactive relationships with the media, parliament, non-government organizations (NGOs), consumer groups, and other stakeholders to help

ensure the reasons for the price increase or other regulatory decision are effectively communicated.

Diversification of Funding Sources for Financial Sustainability: It is very difficult for an association to operate solely on revenues from membership dues. Unlike the utilities they regulate, regulators around the world face budgetary constraints. In order to ensure continued strong participation in ERRA, members decided to keep membership dues at modest levels while increasingly assuming the costs of participation in ERRA activities (ex. airfare, hotel) beginning in 2003. NARUC and ERRA staff provided detailed information to each ERRA member country 1-2 years in advance to help them integrate dues, travel, and training costs into their operating budgets. This gradual approach as well as the forecast budget information provided by NARUC/ERRA was critical to ensuring that the vast majority of ERRA members continued to fully participate in ERRA activities.

In examining the revenue sources for similar regulatory associations, it was clear that ERRA would need to develop a variety of revenue sources to supplement membership dues. ERRA's current revenue sources include membership dues, Investment Conference registration and sponsorship fees, training registration fees, the Energy Tariff Database, and in 2008 a grant from the European Commission.

Long-Term Donor Support: Steady long-term donor support is necessary to achieving a viable, efficient international organization. Strong USAID funding ensured that regulators were able to see the value of ERRA as an institution and the impact that participation in ERRA activities provided to their national regulators. Given the financial constraints many national regulatory agencies face, it was important for regulators to see benefits to ensure they would be able to increasingly assume responsibility for the costs of their participation. USAID and NARUC also provided substantive advice and guidance on both organizational development and examination of critical regulatory issues. The active participation of the European Bank for Reconstruction and Development and the World Bank, especially in ERRA's Investment Conference and during financial sustainability planning meetings, was important and validated ERRA's role and credibility.

Regulatory Partnerships & Bilateral/Sub-regional Capacity Building

NARUC serves as the administrator of the bilateral and multilateral energy regulatory partnerships through the financial support from individual USAID Missions and the Bureau for Europe & Eurasia. The partnering institutions have also provided small monetary contributions. The partnerships are typically established for at least two years and can be extended through continued financial support of the Missions.

The Regulatory Partnership Program is designed as a vehicle for the exchange of regulatory experience and information between U.S. and E&E regulatory bodies with the goal of improving regulatory practices, enhancing institutional and operational aspects of the participating commissions and fostering strong 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 partnerships consist of 2-3 exchange visits per year, with venues divided between the U.S. and the foreign partnering commission. The exchanges are demand driven beginning with basic regulatory issues and evolving into more targeted technical topics. There are also opportunities for short-term internships and specialized U.S.-based training. 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.

NARUC's first energy regulatory partnership program for Eastern Europe and Eurasia was established in early 2002. Since then, the program has grown to incorporate the following 14 partnering institutions:

- Albania – Indiana (10 activities, 1 study tour and 1 internship)
- Bulgaria – New Jersey (7 activities and 2 internships)
- Croatia – New York (7 activities and 4 U.S. regulatory training programs)
- Kyrgyz Republic – Washington (6 activities)
- Macedonia – Vermont (5 activities)
- Moldova – Iowa (6 activities)
- Serbia – Pennsylvania (3 activities, 1 internship, 1 U.S. regulatory training program)

NARUC also implemented national regulatory capacity development programs under funding from USAID Missions in Azerbaijan and Kosovo, including workshops, seminars and exchange visits.

The partnership and regulatory capacity development programs have contributed to increased visibility, industry oversight, and expert standing of the foreign partnering agencies in their respective countries. They have led to a number of positive results and accomplishments, such as adoption of new tariff methodologies to eliminate cross-subsidies, establishment of service quality monitoring, implementation of public hearings, development of customer service programs, and creation of market rules.

The partnerships and the in-country capacity development program have also strengthened the institutional arrangements and management practices of the emerging regulatory commissions through more streamlined decision-making, expanded technical staff resources, institutionalized practices and overall understanding of the international regulatory environment. The programs have also offered the U.S. commission partners and regulatory practitioners the chance to expand and re-evaluate their own regulatory practices.

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

The involvement of U.S. regulators has enabled ERRA to remain on the cutting edge of U.S. regulatory issues which are of particular interest to ERRA. Per the USAID/NARUC cooperative agreement, NARUC provides the expertise of U.S. commissioners and commission staff as an in-kind contribution to ERRA activities as well as its 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 ERRA and other USAID-funded activities, with the value of NARUC membership's in-kind contributions and other matching costs totaling $1,547,843.84. Moreover, many of NARUC's bilateral partnership programs have been endorsed by the State governors who acknowledge the importance of foreign policy and development interests. The contribution of time and effort by NARUC commissioners and staff has enabled ERRA members to learn from the 120+year history of regulation in the United States.

II. LESSONS LEARNED ON INSTITUTIONAL DEVELOPMENT OF ERRA

NARUC went well beyond achieving the goals of the USAID cooperative agreement. The regional approach embodied in the ERRA concept and the bilateral partnerships increase the effectiveness of USAID's assistance to these countries. NARUC and ERRA have been instrumental in helping member commissions establish their structure and procedures, playing an important role in promoting regulatory independence and transparency.

❖ *Institutional Development Takes Time*

It took ten years to create ERRA, from concept to initial organization and development to establishment of professional and financial sustainability.

❖ *Institutions Must be Demand Driving and Responsive*

One of the most important contributing factors to ERRA's success is that it was demand driven by member regulators. ERRA is truly an organization that is by regulators and for regulators. While USAID provided sizable resources and the structure of ERRA drew upon the experiences of NARUC, there was substantial control and ownership by the E&E regulators from the beginning. ERRA members have been actively involved in defining the purpose, functions, and activities of the Association. The Founding Principles, Constitution, and Operating Guidelines were developed through systematic detailed line-by-line meetings with the Steering Committee and then the full complement of 15 Chairmen at two meetings over the period of a year. This timing allowed the goals and objectives of the Association to be clearly defined and the meetings ensured that all Founding Members had the opportunity to help craft it.

The ERRA Presidium and General Assembly remain actively involved in the Association's program activities and financial plans. In addition, the technical committees and working groups remain vital to defining the topics to be addressed in professional development and technical training through their annual work plan, case studies, and issue papers. The regulatory environment is subject to ongoing change and increasing demands on regulators due to continued sector reforms required under the EU Directives and increased involvement of sophisticated private investors. ERRA as an organization has been and must continue to be responsive to changing member needs.

❖ *Members Must Make a Voluntary Commitment of Time*

From the beginning, regulators and staff provided important voluntary contributions of their time – at the leadership/governance development stages and through preparation of committee issue papers and reports. This contribution came from both ERRA and NARUC regulators and staff.

❖ *Institutional Design Must Account for Specific Circumstances*

Continual Change: The regulatory environment is subject to on-going change and increasing demands on regulators due to continued sector reforms, EU Directives, governmental decisions, regulatory incentives, privatization, energy security and climate change. ERRA as an organization has been responsive to changing circumstances and member needs.

Constrained Resources: National regulatory agencies generally have very limited resources. ERRA has developed diverse revenue sources to minimize cost to members.

Regulatory Turnover: Fixed terms and political removal creates continual change in regulatory agencies. The ERRA organizational structure has accommodated this by an expanded Presidium, Vice Chairs on the Committees, and on-going training.

Adverse Environment: Government interference for short-term political reasons and utility opposition are common.

❖ *An Effective Secretariat Staff is Critical*

The hiring of outstanding Secretariat staff has been critical to the effectiveness and efficiency of ERRA. The Secretariat staff should be given strong credit for developing and implementing activities that have built ERRA's successful international reputation. NARUC staff has played a key role in transferring best practices of association management to ERRA staff. The Secretariat staff is vital to the function of ERRA and display a range of expertise and skills from institutional management to conference planning to training program design to logistical support. The ERRA Secretariat staff has been very stable and their institutional memory is very important given the ongoing turnover of commissioners and, to a lesser degree, staff. While there has been turnover within the Presidium each year, the exceptional performance of the Secretariat staff has ensured that the Association continues to achieve success in professional development programs, training courses, and financial sustainability.

❖ *Face-to-Face Interaction*

The majority of commissioners and staff who have participated in ERRA programs feel that they have personally and professionally benefited through this information exchange forum. It is clear that ERRA members look at regulations and procedures in other ERRA countries when they are revising and drafting documents for their national energy sector.

The relationships built through face-to-face meetings and trainings allow regulators from various countries to continue to seek information from each other. While electronic communication and online forums are cost effective ways to share best practices, personal interactions cement long-term linkages. While ERRA committee representatives have been meeting three times per year for the past decade, recently members have significantly increased their communication between meetings. Committee members frequently send requests for information on a specific topic and/or examples of regulatory procedures as new regulatory challenges arise during the year. Because of the in-person committee meetings, members have built strong relationships and quickly send information on their national policies to their counterparts.

Since ERRA covers a broad geographic region, it is natural that the energy regulators in each country face some similar and also different challenges. One of the keys to ERRA's success is its effort to be inclusive and relevant for each member. This means that regulators who have 10-12 years of experience may be working on very sophisticated issues. Participation in ERRA allows them an opportunity to solicit feedback from their colleagues and further refine policies before implementing them. Those countries who have either only recently created

regulators and/or countries where the regulator has been hampered by political interference can potentially avoid some pitfalls along the road to reform by learning from the successes and obstacles faced by their colleagues.

In addition to noting the benefits to their personal knowledge of energy regulation, many ERRA members have used information from ERRA activities to make substantive changes within their regulatory agency. Several countries have created customer service departments, others have reorganized existing divisions, and many have enacted changes to their primary and/or secondary legislation.

❖ *On-Going Self-Evaluation and Dissemination*

All NARUC and ERRA committee meetings, workshops, conferences, and training courses include a written evaluation (typically 15-20 questions) that is given to participants towards the end of the activity. The questionnaire addresses pre-meeting expectations, the activity itself, and the value of information received. The ERRA Secretariat staff provides the evaluation results for each activity to the ERRA Presidium, committee/working group chairs, and NARUC and USAID representatives.

The evaluation process for ERRA's formal training courses (classroom and online) is especially important as it allows ERRA to make improvements in general and to specific courses. This comprehensive self-evaluation process allows ERRA to monitor its activities and make adjustments as necessary to ensure that it is providing applicable and valuable services.

As part of its self-evaluation process, participants in ERRA professional development and training activities are asked how they will share what they have learned once they return to their home commissions. The majority of respondents indicate that they provide briefings to their departments and/or entire agencies. Most share weblinks, CDs, and other documentation with their colleagues; with many posting the materials in their regulators' intranet/electronic library. This transfer of knowledge to other regulatory staff ensures that best practices flow back to the agency, beyond just the individual who attended the meeting or training.

❖ *Contributions to Energy Sector Reform*

Under the auspices of the NARUC/USAID cooperative agreement, ERRA members have been able to extensively share experiences with each other and their U.S. counterparts. Through committee/working group meetings, annual conferences, technical workshops, applied training, and other activities, E&E regulators have been able to make significant advances in reforming their national energy sectors and looking at areas for cooperation and harmonization to promote regional improvements.

While the NARUC/ERRA programs have covered a very broad range of topics, there are three main issues where ERRA members have made significant progress. In particular, NARUC/ERRA programs have contributed to the development of:

- Cost-based tariff methodologies
- Regional electricity markets
- Public involvement in energy regulation

ERRA members are clearly focused on developing tariff methodologies that best meet the challenges in their national environments. When NARUC/ERRA programs began a decade ago, regulators were faced with serious non-payment issues and high cross-subsidization across customer classes. E&E regulators have increasingly adopted cost-based and incentive forms of regulation to eliminate cross-subsidies. Most ERRA members have adapted their tariff procedures as they went through privatization and unbundling. ERRA members also addressed treatment of ancillary services and more recently have focused on demand response and energy efficiency.

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❖ *Diversification of Funding Sources for Financial Sustainability*

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❖ *Long-Term Donor Support*

Steady long-term donor support is necessary to achieving a viable, efficient international organization. Strong USAID funding ensured that regulators were able to see the value of ERRA as an institution and the impact participation in ERRA activities provided to their national regulators. Given the financial constraints regulators face, it was important for regulators to see benefits to ensure they would be able to increasingly assume responsibility for the costs of their participation. USAID and NARUC also provided substantive advice and guidance on both organizational development and examination of critical regulatory issues. The active participation of the European Bank for Reconstruction and Development and World Bank, especially in ERRA's Investment Conference and during financial sustainability planning meetings, was important and validated ERRA's role and credibility.

III. 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 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 October 1998, NARUC entered into a multi-year cooperative agreement with the U.S. Agency for International Development (USAID). The goals of the cooperative agreement are to coordinate an information exchange program among the newly created energy regulatory bodies in Central and Eastern Europe and Eurasia (E&E region) and to support the region's energy regulatory bodies in forming a voluntary association - the Energy Regulators Regional Association (ERRA).

USAID provided strategic support for power sector reform in the E&E region, emphasizing legal and regulatory frameworks, restructuring, market development, and privatization. USAID and its contractors worked with ministry and other government officials, utility representatives, NGOs, and other stakeholders to pursue these reform efforts. USAID also closely coordinated with other donors, including the World Bank, the European Commission, and the European Bank for Reconstruction and Development, to maximize support to each country and minimize duplicative programs.

Through its agreement, NARUC became part of USAID's three-prong approach to developing, supporting, and sustaining the nascent energy regulators in the E&E region. This approach focused on building skills at the regional (and sub-regional) and national levels. NARUC's regional program to create a regulatory association allowed commissioners and staff to share experiences and best practices with each other and their U.S. counterparts. The majority of ERRA's professional development activities (ex. committee/working group meetings, annual conference) are open only to member regulators. This forum allows for frank and open dialogue without concern about judgment from outside observers such as utilities or consultants.

In addition to the ERRA-wide activities, NARUC organized a number of smaller projects focusing on sub-regions, including the Baltics and Southeast Europe. Through workshops and study tours, NARUC supported regulators' efforts to harmonize policies, establish regional markets, promote cross-border trade, and enhance energy sector reforms.

NARUC's regulatory partnerships built bilateral relationships between regulatory commissions in the E&E region and the U.S. These multi-year relationships created strong bonds, allowing the E&E regulators to quickly advance their regulatory skills and policies. In many instances, the European 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 ERRA activities proved to be a two-way learning path, with U.S. commissions learning about some advanced practices (such as time-of-use metering) from their international partners.

Reflections on Participation in ERRA

I moved from the staff of a State commission to become the first staff member of a regional organization supporting commissioners from 14 states and one Canadian province. ERRA participation gave me not so much the skills but the vision of how a regional organization can be relevant. The work group structure of the Organization of MISO [Midwest ISO] States was inspired at least in part by the ERRA technical committee structure. In the original concept, our first groups were Markets, Tariffs, and Planning. Being aware of the need to consider regional issues and needs in local decisions has helped the OMS state commissions have an impact on US transmission policies. The OMS commissions

developed a proposal on resource adequacy for the Midwest ISO. The staff and commissioners who were leaders on these projects were participants in ERRA programs and NARUC exchanges."
- William H. Smith Jr., Executive Director, Organization of MISO States

Finally, USAID supported in-country daily technical assistance, such as placing international experts as consultants to the energy regulators and ministry officials. In all of its activities (regional, sub-regional and bilateral), NARUC coordinated with a variety of other USAID contractors and consultants to build upon each others' efforts. For example, NARUC sought the input of in-country consultants along with USAID mission staff in its partnership activities, thereby ensuring that critical topics were addressed and/or reinforced.

The NARUC/USAID cooperative agreement began as a three-year program, with regional funding provided by USAID/Washington. Within the first year, energy regulators from the E&E region showed their commitment to the establishment of a regional association. USAID, in turn, showed its dedication to assisting the regulators to create a viable, sustainable organization by extending NARUC's cooperative agreement three times, for a total 10-year period.

The importance of regulatory development, both through ERRA regional activities and bilateral partnerships with the U.S., was recognized by a record 15 USAID Missions that contributed direct funding to support the regional activities that complemented their bilateral programs. The USAID Missions provided funds to support the participation of the national energy regulators in ERRA activities and/or to sponsor a bilateral partnership between the regulator and a U.S. public utility commission. It is also striking to note that many of these missions provided several obligations of funding over the course of the agreement to ensure the national regulators gained new technical skills and enhanced their institutional capacities.

*USAID Funding Sources for NARUC Cooperative Agreement**

USAID Funding	1999	2000	2001	2002	2003	2004	2005	2006	2007
USAID/W-CEE	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	
USAID/W-NIS	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	ERRA	
USAID/W-SEE		SEE	SEE	SEE				SEE	
Albania			ERRA, PS		ERRA, PS	ERRA, PS	ERRA		
Armenia	ERRA	ERRA	ERRA			ERRA		ERRA	
Azerbaijan					Training		Training		
Bulgaria					PS			ERRA, PS	
Croatia			ERRA	ERRA, PS		ERRA, PS	ERRA		
Georgia	ERRA	ERRA		ERRA		ERRA	ERRA	ERRA	
Kazakhstan		ERRA	ERRA	ERRA	ERRA			ERRA	
Kosovo							ERRA	ERRA	
Kyrgyz Republic		ERRA	ERRA	ERRA	ERRA, PS	ERRA, PS			
Macedonia				ERRA, PS					
Moldova		ERRA	ERRA, PS	PS					
Montenegro							ERRA	ERRA	
Romania	ERRA		ERRA	ERRA					
Serbia			ERRA						PS
Ukraine	ERRA		ERRA		ERRA	ERRA		ERRA	

ERRA denotes USAID funding for participation in ERRA activities.
PS denotes USAID funding for bilateral regulatory partnership with U.S. public utility commission.
SEE denotes USAID/W regional funds for Southeast Europe activities.

C. Basic Concepts for Successful Regulation

The objective is to create a regulatory body that has substantial ***autonomy*** from short-term political and other interventions; adequate ***authority*** to establish sound regulatory practices (e.g., tariffs, licenses and monitoring); clear ***accountability*** to assure transparency and credibility, and; ***ability*** to carry out the regulatory functions. A sound, transparent and stable regulatory body and process is important for the government, consumers and investors alike.

- Mr. Robert Archer, Deputy Chief, Energy & Infrastructure, Bureau for Europe & Eurasia, USAID

Through its regional and bilateral activities, NARUC consistently promoted several key concepts for successful regulation, described below. In sharing U.S. regulatory experiences, NARUC members have found themselves striving to meet some of these same targets. The challenge of political interference in the regulatory process was a strong undercurrent. It should be clearly stated that NARUC representatives to ERRA 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 E&E regulators to adapt relevant practices to the situations in their countries. NARUC has found that the following four characteristics of regulatory bodies are desirable.

- ***Autonomy***
  NARUC recommends the appointment of qualified commissioners with staggered terms to allow for gradual changes of regulatory policies as governments change. The regulator's pay scale should be competitive enough to attract and retain experts. While the regulator's budget shall be reviewed at the highest levels, it should be financed through license fees (not part of the central budget). Once commissioners are appointed, they should not be removed from office except "for cause." In order to ensure sound, predictable decision-making, changes in government should minimally impact the regulator and allow for a gradual transition through appointments.

- ***Authority***
  The regulator should have full authority to set tariffs (if the ministry or another governmental body has the ability to change the tariff, this leads to unpredictable regulation, uncertainty in the energy sector, and reduced investment). The regulator should have the ability to issue short- and long-term licenses to allow the utility to make infrastructure improvements with assurance of the opportunity to earn a fair rate of return. The regulator should play a critical role in the overall energy market reform process and preparation of rules, codes, etc. The regulator also needs access to specific utility data in order to effectively monitor the energy market and enforce penalties for non-compliance.

- ***Accountability***
  The regulator should establish procedures for public hearings and opportunities for the public, media, parliament, ministry, and other stakeholders to understand and participate in the regulatory process. By creating proactive, positive relationships, the regulator can mitigate the negative impact of certain decisions. The regulator's decisions on tariff and licenses should only be appealed to the courts in the case of errors of fact or procedure. The regulator should also post its annual report on its

website, providing an accountability of its activities. In addition, its budget and/or financial report should be presented to the President, Prime Minister, or Parliament to ensure appropriate levels of financing. Finally, the regulators should adhere to a clear code of ethics for commissioners and staff and commissioners should be removed from office only for cause, not for political reasons.

- ***Ability***
  The regulator should ensure sufficient budget resources to provide technical training to its staff; these types of benefits assist with retention of qualified staff.

D. The Regulator's Role in Energy Reform

During the past decade, most of the regulators in the ERRA region have had to issue tariff increases that had significant financial impacts across all categories of customers. The regulator was faced with the challenge of increasing rates not just to cover actual costs, but ultimately to allow the utility the opportunity to earn a fair rate of return, thereby promoting infrastructure investment and improvements. Regulators quickly realized that public information and participation is a critical part of the decision-making process. During a study tour to the U.S. in 1999, one regulator from the Commonwealth of Independent States (CIS) commented on the Pennsylvania Public Utility Commission's practice of meeting with the State Legislature in advance of tariff decisions. While his regulatory agency was trying to increase rates to cover costs, because they did not consult with the parliament in advance, the media presented scathing articles about the parliament's battles with the regulator.

The regulators in the E&E region, as around the globe, play a critical role in reform of the energy sector. Ideally, the regulator should be created and functioning prior to any major changes, including privatization. In 2004, NARUC organized a workshop on privatization for regulators from Bulgaria, Lithuania, Macedonia, Moldova, Romania, and Ukraine. Participants recognized where the regulator should be involved in the privatization process, and where other government officials should take the lead. For example, the consensus was that regulatory agencies should not be part of the privatization committee but should serve as advisors to the selection team. Prior to privatization, issues such as restructuring of debt of the companies being privatized need to be resolved by the government and privileged consumer categories should be abolished. There is a significant role for regulators to play after privatization. They need to negotiate and approve investment plans for rate-of-return (ROR) calculations and requests for tariff methodology changes. It is important to note that the regulators in countries undergoing privatization in 2007-08 face different challenges than those faced by their colleagues during privatization waves in 2003-04 and 1998-99.

Observations from a Former ERRA Chairman

"Participation in the ERRA activities allowed me … to learn the best American experience in energy regulation and to share my concerns, issues and problems with the colleagues from other ERRA members. Participation has significantly enhanced my position as a chairman of the energy regulatory commission as I was able to present good examples, best practices and approaches used in other ERRA countries, and this was a strong argument in proposing and advocating changes in energy legislation, liberalizing electricity and gas markets and introducing private investors. Public hearings were one of the approaches to deal with the customers I have learned and applied at home. Quality of service was first introduced by the Hungarian regulator

– we have learned about it at the ERRA working group meetings. The National Control Commission proposed changes in the legislation on the monitoring of the regulated utilities and on the quality of service, and quality of service indicators were defined."

During an ERRA Presidium meeting, Chairman Jankauskas shared how he invited a group of demonstrators to come into his office to join him for coffee one day. He presented the balancing role of the regulator to protect the consumers' interests (for reasonable prices and good service) while allowing the utility the opportunity to earn a fair rate of return.

There is one story about the cooperation with the consumer groups (showing that cooperation is much better than confrontation – obviously). The leaders of one small, but not very influential consumer protection group, wanted to show themselves as important and devoted consumer advocates (there is a tough competition among the different consumer protection groups). They called for a meeting at the premises of the NCC against the planned introduction of the two-component tariff for small commercial electricity consumers (two-component tariff allows to optimize the network development but is unfavorable for the consumers with inefficient energy use). The picket was about 15 participants only, [but] was very noisy: the traffic was stopped, several police cars were on guard and several TV vans were coming – it looked a nice show for them. And then I just simply invited all the participants of the meeting inside, after some hesitation they agreed (it was cold end of December). We sat at the table and I asked them to present their arguments. In the street they were shouting slogans but you cannot shout slogans just sitting at the table in front of your opponent. Finally, it was a good discussion with a very peaceful result. TV reporters were upset, leaders of that consumer protection group – upset and we won a victory. Various approaches [on] how to react to the consumer complaints we have learned at ERRA from the US regulators, mostly.

- Mr. Vidmantas Jankauskas, former Chairman of the National Control Commission, Lithuania (1997-2007); former Chairman of ERRA (2003-2005)

Regulators in the ERRA region have adopted public hearing processes and increased efforts to proactively communicate with the media, parliament, and government representatives. In several countries, the regulatory bodies were the first to open up economic decision-making to the public and media. While regulators have faced difficult decisions as they strive to move towards market-based pricing, those with strong public education efforts have been able to mitigate negative responses.

IV. ENERGY REGULATORS REGIONAL ASSOCIATION (ERRA)

Press conference announcing establishment of ERRA, December 2000, Bucharest, Romania

A. Establishment of ERRA

1. Creation of an Institution

NARUC began implementing the cooperative agreement in 1999 by organizing technical forums, meetings, and study tours; publishing electronic newsletters; and developing a website to enable the then-12 established energy regulators in E&E to exchange information and best practices with each other and their U.S. colleagues.[6]

When participants expressed the need for an association similar to NARUC – one that could offer a more formal platform for exchanging ideas and learning from each other's experiences – NARUC created a Steering Committee[7]. The Steering Committee consisted of the heads of six E&E regulatory bodies (Armenia – Chairman Vardan Movsesyan, Hungary – Dr. Gabor Szorenyi, Lithuania – Chairman Vidmantas Jankauskas, Poland - Mr. Bogulsaw Zaleski, Russia – Deputy Chairman Kirill Yankov, and Ukraine – Commissioner Lubov Goncharova). The Steering Committee met several times in 1999 and with the assistance of NARUC's then Chair for the Committee on International Relations, Chairman Ron Eachus of the Oregon Public

[6] Since the program's inception, NARUC has conducted all regional activities in both English and Russian.
[7] The major difference between NARUC and ERRA is that NARUC is a policy-setting organization, while ERRA does not include this in its purposes.

Utility Commission, NARUC staff, Ms. Erin Skootsky, and a USAID representative, Mr. Robert Archer, refined the concepts for an international non-profit association. NARUC staff took the lead in drafting key documents, with significant input from the Steering Committee and USAID.

On December 9, 1999, 14 energy regulators signed the "Founding Principles[8]," which outlined ERRA's basic purpose, objectives, and organizational structure.

ERRA's purpose and objectives are:

- to improve national energy regulation in member countries;
- to foster the development of stable energy regulators with autonomy and authority;
- to improve cooperation among energy regulators; and
- to facilitate the exchange of information, research, training and experience among members and other regulators around the world.

In 2000, the Steering Committee met several times with NARUC and USAID representatives to prepare formal documents for the establishment of the Association. Because of the outstanding leadership efforts from senior officials at the Hungarian Energy Office (then President Ferenc Horvath and Dr. Gabor Szorenyi) as well as the central location, the Steering Committee decided to recommend legally creating the Association in Budapest, Hungary. In mid-2000, NARUC hired the first staff person in Budapest, Hungary – Ms. Krisztina Kasza, who became ERRA's Head of Secretariat upon its creation. Ms. Kasza coordinated with a local Hungarian lawyer to ensure that its founding documents were compliant with Hungarian non-profit association requirements.

On October 29-30, 2000, NARUC organized a constitutional review meeting with the chairmen of 15 energy regulatory agencies in the region. During this meeting, the chairmen reviewed and revised both the English and Russian versions of a nine-page constitution[9] describing the proposed association. This meeting was a crucial step in ensuring that the Association represented the interests of all potential founding members. Following the meeting, the chairmen were asked to coordinate with their governments during the next month to ensure they had any necessary approval to join the new association. Each regulator followed its national legal requirements (such as notification to or approval from the parliament or ministry) to ensure they would be able to sign the Constitution at the December 2000 meeting.

[8] See Appendix A – Founding Principles.
[9] See Appendix B for current ERRA Constitution, http://www.erranet.org/AboutUs/Founding/Constitution.

Constitutional Review Meeting, October 2000, Budapest, Hungary

On December 11, 2000, the 15 "founding members" formally established the Energy Regulators Regional Association (ERRA) and elected a five-member presidium (executive body) to manage the Association.[10] ERRA was legally registered in April 2001 with headquarters in Budapest, Hungary. Two key documents outline the goals, rights and responsibilities, and functions of ERRA – the Constitution and Operating Guidelines. Both documents were crafted by NARUC staff in close coordination with ERRA members and have been updated over the years to adapt to changing circumstances.

ERRA played an important role in accelerating the development of newly created regulators and their national energy reform efforts. This is especially true of the Southeast Europe region, where regulators joined ERRA as soon as they were established and gained immediate access to best practices and lessons learned from their counterparts in Central Europe and Eurasia.

[10] In May 2004, the ERRA General Assembly changed the Constitution to expand the Presidium to seven members.

Regulatory Chairs signing the Constitution establishing the Energy Regulators Regional Association (ERRA), December 2000, Bucharest, Romania

As evidenced in the ERRA Constitution, Full Members have equal rights, responsibilities, voting powers, and annual dues fees. This was an important issue since the membership comprises very large and small countries. The General Assembly (comprised of representatives of Full Members) meets annually to discuss and approve budgets, audits, program activities, and other issues. The Presidium meets several times per year and oversees the daily operations of the Association. The General Assembly and Presidium operate in a very open, democratic process with Presidium members elected by the direct vote of the General Assembly.

ERRA, NARUC and USAID representatives commemorating the new Association, December 2000, Bucharest, Romania.

2. Support from the Hungarian Energy Office

The leadership of the Hungarian Energy Office (HEO), notably former President Dr. Peter Kaderjak, Dr. Gabor Szorenyi, and President Ferenc Horvath, played a critical role in the successful creation and sustainability of ERRA. Dr. Kaderjak was elected ERRA's first Chairman in 2000 and served as such through November 2003. Dr. Kaderjak has remained committed to ERRA's success since his departure from the HEO and is an integral part of ERRA's training programs.

Due to operational practicalities, the ERRA Constitution was modified in 2004 to expand the Presidium to seven members with a caveat that one Presidium member must be from the Seat of the Association (Budapest). Dr. Gabor Szorenyi was elected to the ERRA Presidium in 2004 and was elected Chairman of the Association in December 2007 (he was a member of the original Steering Committee as well). Dr. Szorenyi was also the Chairman of the Licensing/Competition Committee from 1998 – 2008, thereby leading the technical research and professional development on a variety of regulatory issues.

Furthermore, under a Memorandum of Understanding with NARUC (and subsequently with ERRA), the HEO has provided office space to ERRA staff since mid-2000, prior to its formal creation. As the ERRA Staff has grown from one person to six members, the HEO has increased the amount of space it has provided on a pro-bono, in-kind basis (current estimated value is approximately 25,000 Euro per year). The HEO also covered the electricity, heat, and cleaning/maintenance costs for this space. The HEO also provided select computer, copier, and other equipment for many years. Staff from the HEO's IT department has assisted with technical

computer issues over the course of the years. Representatives from the financial and legal departments have provided input on ERRA's operational and sustainability plans.

Finally, the HEO has allowed ERRA to use its conference rooms and interpretation equipment for Presidium meetings, committee meetings, and other activities. The support from the Hungarian Energy Office's leadership, staff, and use of its facilities has been invaluable to the success and stability of ERRA.

3. Dual-language Association

Beginning in 1998, almost all NARUC and ERRA activities have been conducted in English and Russian[11]. Both languages are included as the official languages of ERRA in the constitution. NARUC and ERRA staffs are required to have high proficiency in both languages in order to serve all members equally. The costs for professional quality translation and interpretation have been significant, given the volume of written issue papers, presentations, training materials as well as the number of activities. NARUC estimates that it spent approximately $100,000 per year on interpretation and translation. However, ERRA exists to allow information exchange, capacity development, and technical training. To this end, NARUC and ERRA have ensured high quality translation (the majority of which was done by 1-2 individuals who also served as interpreters and therefore had a vested interest in ensuring accuracy).

NARUC and ERRA use simultaneous interpretation for all activities; consecutive interpretation is much slower and reduces the amount of discussion and presentation time. NARUC and ERRA also consistently use a very small pool of interpreters and cover travel costs for them to attend activities in various countries. This was also an important way to ensure high quality and consistent interpretation. While travel costs could have been avoided by trying to use local interpreters in each country, the quality of English<>Russian interpretation would have been significantly lower (especially for activities in countries where Russian was not a major language), thereby decreasing the effectiveness of information exchange among ERRA members. Finally, NARUC/ERRA staff produced several English<>Russian glossaries (with definitions of terms) that were used by ERRA members and interpreters/translators to ensure clear communications on technical issues.

During the first few years, approximately 50% of the ERRA members used the interpretation equipment from English into Russian. With ERRA targeting younger staff through its training and committee meeting activities, it has seen a generational change in language skills for participants from the Eurasia region. Currently approximately 25% of ERRA members use the English<>Russian interpretation since English language proficiency has been increasing in the region.

4. Leadership – the ERRA Presidium

As indicated previously, the ERRA Presidium began as a five-person body and was expanded to seven members, including the Chairman and Vice Chairman. This ensured the

[11] Select activities such as the ERRA European Union Accession Working Group and NARUC's Southeast Europe workshops/projects have been conducted in English only.

ability for a diverse range of representatives (from Central Europe, Southeast Europe, Eastern Europe, and Eurasia). In addition, one person on the Presidium must be from the Seat of the Association (Budapest) to accommodate Hungarian non-profit association regulations as well as financial administrative responsibilities.

Several representatives from the first Presidium term (2000-2002) were members of the pre-ERRA Steering Committee and therefore intimately familiar with the concept and creation of the new association. This consistency from the very beginning was important to ensuring that ERRA's activities achieved its objectives and purpose as outlined in the Constitution. Presidium members are elected for two-year terms by direct voting by the General Assembly representatives. The ERRA Constitution has been modified a few times over the years and now clearly indicates transition processes in the event that a Chair, Vice Chair or other Presidium Member leaves his/her term prior to completion. Unfortunately, on average one to two Presidium Members have departed their positions prior to their full terms due to changes within their national regulatory agencies.

Chronology of ERRA Chairs:		
Dec. 2000 – Nov. 2003	Dr. Peter Kaderjak	Hungary
Nov. 2003 – Dec. 2003	Prof. Dusan Holoubek	Slovak Republic
Dec. 2003 – Apr. 2005	Dr. Vidmantas Jankauskas	Lithuania
Apr. 2005 – Sept. 2005	Prof. Inna Steinbuka	Latvia
Oct. 2005 – Jan. 2007	Mr. Angel Semerdjiev	Bulgaria
Jan. 2007 – May 2007	Mr. Sergei Novikov	Russia
May 2007 – Nov. 2007	Mr. Yusuf Gunay	Turkey
Nov. 2007 – Present	Dr. Gabor Szorenyi	Hungary

The first two Chairmen of ERRA – Dr. Peter Kaderjak (Hungary) and Dr. Vidmantas Jankauskas (Lithuania) – were instrumental in ensuring the professionalism, capability, and operations of the new Association. Both were extremely effective Chairmen, providing clear leadership and vision to develop ERRA into an internationally-recognized organization. They set high standards to ensure that the Chairman and Presidium members should be actively involved in the development and management of ERRA, providing strong guidance to ERRA members and the Secretariat Staff. The early leadership by Dr. Kaderjak and Dr. Jankauskas helped ensure that ERRA matured into a strong, effective organization.

ERRA members are dedicated to its success and this is clearly exhibited in the exciting Presidium Member election process. Elections have taken place every year (due to unanticipated departures), however there are always more candidates than slots available for the Presidium. General Assembly representatives clearly take into consideration the need for consistency (selecting a mix of "old" and "new" Presidium Members each term) and the importance of geographic diversity (representing the sub-regions within ERRA). Presidium Members meet three to four times annually to manage its program and financial activities, oversee training development, design the program for the annual Energy Investment & Regulation Conference, and plan new activities. Presidium Members are just one important category of volunteers that have helped develop ERRA into an internationally recognized expert organization.

5. ERRA Secretariat Staff

When NARUC hired the head of the Secretariat in Budapest in June 2000, it began the process of training and transferring program functions to local staff. NARUC's goal was to transfer the majority of the program implementation duties to ERRA staff while ensuring that program implementation continued in a highly professional manner. In order for NARUC to begin this process, it relied on Dr. Gabor Szorenyi and other HEO leaders to assist with the interview and selection process. Additional program staff members have joined ERRA over the years as NARUC has transferred responsibilities for organizing committee meetings, the training programs have expanded, and other ERRA activities have grown. NARUC's Director of International Programs had managerial and supervisory responsibilities for the ERRA staff. As such, Ms. Skootsky provided program management training, supported ERRA staff as they assumed increasing responsibilities, and conducted annual performance evaluations of the staff during the first few years. ERRA's Head of Secretariat, Ms. Kasza, then assumed these responsibilities as ERRA activity management shifted from NARUC to ERRA staff during the past five years. NARUC's Director of Meetings, Ms. Michelle Malloy, provided excellent training in the organization of larger conferences and the professionalism and high quality of the administrative and management aspects of ERRA's annual Energy Investment & Regulation Conference can be attributed to the knowledge transfer she provided to ERRA staff. ERRA staff continues to use many of NARUC's administrative practices in meeting planning, conference organization, and communication management.

Current ERRA staff: Reka Timar, Krisztina Horvath, Aniko Kiss, Krisztina Kasza Andrea Farkas, Valeria Polubejnik

NARUC has been truly impressed with the level of professionalism and expertise exhibited by the ERRA staff. The staff has been and will be critical to the financial and programmatic self-sufficiency of ERRA. All ERRA staff members are bilingual in the Association's two languages: English and Russian. The ERRA staff provides significant

resources to its members to ensure their ability to participate in ERRA activities. This ranges from visa assistance to negotiations with hotels for rooms (as many ERRA members do not have credit cards to guarantee their payment) to reminders about ERRA products. The ERRA staff has an excellent knowledge of energy regulatory issues and plays a critical role in supporting the committees to achieve their workplan goals, which is far beyond logistical support. ERRA staff develops and analyzes evaluations of every activity in order to refine and adjust programs to best meet member needs.

ERRA staff work with committee/working group leaders and members to develop annual work plans, draft meeting agendas, issue invitations, assist with all logistical issues for committee members (including visas, lodging, travel information), select and negotiate contracts for venues, and facilitate the meetings. More importantly, the ERRA staff takes the lead in working with the Presidium to develop a high-level program for the Investment Conference and Annual Meeting. The staff pursues sponsorship opportunities, creates marketing materials, prepares and follows up on speaker invitations, and provides support to all conference attendees. During the Annual Meeting, the Secretariat prepares all necessary documents, including amendments to the Constitution and/or Operating Guidelines, presentations given by Presidium members on voting issues, membership, financial, and program reports.

ERRA is truly unique in that it has developed a comprehensive "in-house" training program. Most other regulatory associations (such as NARUC and the Council of European Energy Regulators – CEER) have both outsourced their training programs and they offer a very limited number of courses. With the volume of training programs as well as the dual-language nature of the courses, we feel that the ERRA Secretariat staff functions at extremely high efficiency to be able to support the many training programs, intensive Investment Conference, and other ERRA activities (committee meetings, publications, etc). The ERRA staff is actively involved in the design of training curricula and further serves as the coach for the on-line training programs.

During 2008, as NARUC's cooperative agreement came to an end, ERRA's Head of Secretariat took the lead in preparing the necessary protocols and documents to ensure a smooth transfer of final financial responsibility, coordinating with NARUC staff. (Program responsibility had been transferring over the years to ensure that ERRA activities continued in the same professional manner.) These documents included Foreign Travel Policies, Internal Financial Protocols, updates to the Constitution and Operating Guidelines, and detailed annual budgets. NARUC's Chief Financial Officer, Mr. André Parraway, and Finance Manager, Ms. Aida, Timm, traveled to Budapest in 2008 for an internal audit and meetings with potential new accountants and auditors. The ERRA Head of Secretariat is also responsible for preparing the annual budget, overseeing the bookkeeping and audit processes, and monitoring the financial status of the Association. In essence, she serves as an Executive Director and Chief Financial Officer for ERRA.

NARUC is positive that committee members, training participants, conference attendees, and, of course, the Presidium acknowledge the impressive ERRA Secretariat staff and their high level of support to ERRA members. This is further illustrated in the consistently high marks that the ERRA Staff receives from participants on all activity evaluation forms. The ERRA staff

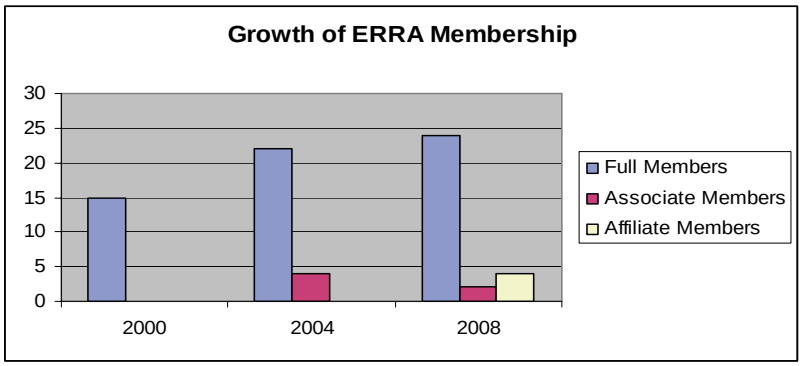
ensures that the Association completes a remarkable number of activities annually. The title of "secretariat" may be misleading in that the roles and responsibilities of the ERRA staff go far beyond drafting simple correspondence. As with all voluntary organizations, the success of the organization is based on the commitment and involvement of the leadership (Presidium, committee chairs) and professionalism and capabilities of the staff.

6. Membership Inclusiveness, Continuity & Expansion

During its initial meetings, the six-member Steering Committee pledged its goal to create an association that was inclusive and addressed a variety of issues as regulators across the region went through privatization, reform, and market development at different paces. As discussed, the dual-language nature of ERRA is a key prerequisite to meet this objective. The leadership, members, and staff of ERRA remain committed to ensuring that the Association is relevant and useful for all of its members.

ERRA Constitution: Article III, Membership
Section 2. Full Members: Energy Regulators[12] with primary responsibility for electricity regulation. Only one Energy Regulator from each country may be a Full Member of the Association.
Section 3. Associate Members:
(a) Additional Energy Regulators (with primary responsibility for natural gas, district heating or other energy areas) from countries located within the Region.
(b) Associations of Energy Regulators from countries located within the Region.
Section 4. Affiliate Members:
(a) Energy Regulators and Associations of Energy Regulators from countries located outside the Region.
(b) Other state authorities within the Region who are not Energy Regulators but who have responsibilities related to Energy Regulation.
(c) Organizations that qualify as Associate Members but choose Affiliate Membership status.
Section 5. Honorary Members: All former Presidents, Chairmen, Commissioners, Directors, or Senior Personnel of Full Members and such other former Energy Regulatory Staff of Full Members as the General Assembly may accept.

ERRA's Constitution defines the various categories of membership and eligibility. ERRA began with 15 Founding (Full) Members in December 2000. By 2004 it had grown to 22 Full Members and four Associate Members.



[12] The words "Energy Regulation" shall mean one or more of the following activities for electricity, gas, or district heating: the legal authority to collect information and to establish or propose rates or prices; to perform licensing functions; and to address consumer rights issues. (ERRA Constitution, Article I, Section 6(b).)

As of April 2008, ERRA consists of 24 Full Members, two Associate Members, and four Affiliate Members.

Full Members (year joined ERRA) (*denotes original founding member)[13]

- ***Albania:** Energy Regulatory Authority of Albania (ERE) (2000)
- ***Armenia:** Public Services Regulatory Commission of the Republic of Armenia (PSRC) (2000)
- **Azerbaijan:** Tariff Council (2007)
- **Bosnia and Herzegovina**: State Energy Regulatory Commission of Bosnia and Herzegovina (SERC) (2004)
- ***Bulgaria:** State Energy & Water Regulatory Commission of Bulgaria (SEWRC) (2000)
- **Croatia:** Croatian Energy Regulatory Authority (HERA) (2002)
- ***Estonia:** Energy Regulatory Department of the Estonian Competition Authority (ECA) (2000)
- ***Georgia:** Georgian National Energy Regulatory Commission (GNERC) (2000)
- ***Hungary:** Hungarian Energy Office (HEO) (2000)
- ***Kazakhstan:** Agency for Regulation of Natural Monopolies (ANMR) (2000)
- ***Kyrgyz Republic:** State Department of Fuel and Energy Regulation at the Ministry of Industry, Energy and Fuel Resources of the Kyrgyz Republic (2000)
- ***Latvia:** Public Utilities Commission of Latvia (PUC) (2000)
- ***Lithuania:** National Control Commission for Prices and Energy of Lithuania (NCC) (2000)
- **Macedonia:** Energy Regulatory Commission of Macedonia (ERC) (2004)
- ***Moldova:** National Energy Regulatory Agency of Moldova (ANRE) (2000)
- **Mongolia:** Energy Regulatory Authority (ERA) (2003-Full Member, 2001-Associate Member)
- **Montenegro:** Energy Regulatory Agency of Montenegro (2005)
- ***Poland:** Energy Regulatory Office of Poland (ERO) (2000)
- ***Romania:** Romanian Energy Regulatory Authority (ANRE) (2000)
- ***Russian Federation**: Federal Tariff Service of the Russian Federation (FTS) (2000)
- **Serbia:** Energy Agency of the Republic of Serbia (2006)
- **Slovak Republic:** Regulatory Office for Network Industries of the Slovak Republic (RONI) (joined in 2001, departed 2006, re-joined in 2008)
- **Turkey**: Energy Market Regulatory Authority of Turkey (EMRA) (2002)
- ***Ukraine**: National Electricity Regulatory Commission of Ukraine (NERC) (2000)

Associate Members (year joined ERRA)

- **Romania:** National Regulatory Authority for Municipal Services of Romania (2004)
- **UNMIK[14]:** Energy Regulatory Office of Kosovo (2005)

Affiliate Members (year joined ERRA)

- **Jordan:** Electricity Regulatory Commission (2007)
- **Saudi Arabia:** Electricity and Co-Generation Regulatory Authority (2008)
- **United Arab Emirates:** Regulation and Supervision Bureau (2008)
- **USA**: National Association of Regulatory Utility Commissioners (NARUC) (2000)

[13] Current energy regulatory agency names listed. (The regulators in Albania, Bulgaria, Croatia, Estonia, Kazakhstan, Kyrgyz Republic, Latvia, and Russia have been restructured and/or changed names.)
[14] The Energy Regulatory Office under the United Nations Interim Administration Mission in Kosovo joined ERRA as an Associate Member in 2005.

ERRA's growth over the past eight years signifies increased recognition of the value that the Association gives in providing formal and informal regulatory training and transfer of experiences. Regulators are often faced with difficult challenges in reforming the energy market, including implementing price increases. ERRA's committee meetings, workshops, and training courses allow them to share experiences, transfer best practices, and better assert their roles and responsibilities. ERRA provides a forum so that regulators realize they are not "alone" and others are facing similar issues. This community of expertise within ERRA allows each national regulator to improve its procedures, decisions, and actions.

"I appreciate face-to-face meetings with my colleagues from other countries and mutual exchange of opinions and experiences as well. I had an opportunity to meet, learn and exchange ideas about the status of energy regulation in the region of Central and Eastern Europe. We have an opportunity to gain information from other countries regarding the legal framework a degree of competition, and level of privatization. I appreciate the ERRA's tariff database. It is useful tool for our tariff experts. We have created a new Department of the Strategic Analysis because of the exchange of information. We have started with an introduction of the Quality Standards of the electricity and gas supplies through our secondary legislation."

- Mr. Jozef Holjenčík, Chairman, Regulatory Office for Network Industries, Slovak Republic

Widespread recognition of the importance of the ERRA community is further illustrated by the fact that eight current ERRA members joined the European Union during the past few years, and thereby joined the Council of European Energy Regulators. While the regulators from the Czech Republic and Slovak Republic left ERRA in 2004 upon entry to CEER, the Slovak Republic's regulator re-joined ERRA in 2008. The fact that these eight regulators remain very active within ERRA, many in leadership positions, indicates that they face a different set of challenges and value the opportunity to promote harmonization, coordination, and reform in their region together. In order to promote continued collaboration with CEER members, ERRA regularly issues invitations for them to join its committee meetings, conferences, and training programs (both as instructors and participants).

ERRA Constitution, Article I, Section 6(c):
The words "Region" or "Regional" shall initially mean the area encompassed by the countries of the Founding Members and may be adjusted as new Full Members join the Association.

While all 15 Founding Members of ERRA remain engaged, the geographical region of ERRA has continued to grow. Following two years as an Associate Member, the Energy Regulatory Authority of Mongolia assumed Full Membership rights in 2003. From the beginning, the ERRA Constitution did not put a specific territorial boundary on the "region" of ERRA. This has allowed newly-created regulators to more easily join ERRA to take advantage of its excellent capacity building activities. It is interesting to note that three agencies from the Middle East have joined ERRA as Affiliate Members in 2007 and 2008. In addition, regulators from several countries in Africa, Asia, and Latin America have attended select ERRA training programs during the past few years.

7. International Recognition

ERRA is widely seen as an example of an extremely successful regional association. Significant portions of the ERRA Constitution have been incorporated into other regional associations' documents. ERRA has also established solid relationships with the Regional Electricity Regulators Association (RERA) of Southern Africa and the African Forum for Utility Regulation (AFUR), whose members have increasingly participated in ERRA training programs.

Through the ERRA Secretariat and Presidium, ERRA has developed a very strong relationship with the Council of European Energy Regulators (CEER). ERRA invites CEER members to participate in its professional development (committee meetings, conferences) and training programs. Approximately one-third of ERRA members are also CEER members, so this collaborative relationship is especially important. NARUC would like to thank several regulators from the European Union who early on recognized the importance of building this relationship: the Honorable Jorge Vasconcelos, former CEER President and former President, Energy Services Regulatory Authority of Portugal; the Honorable Juan Unda, former Commissioner, National Energy Commission, Spain and former Co-Vice Chair, NARUC Committee on International Relations; the Honorable Jacques Troesch, former Commissioner, Energy Regulatory Commission of France; and the Honorable Jacques de Jong, former Director, Office of Energy Regulation, Netherlands.

Through its annual Energy Investment & Regulation Conference, ERRA has developed strong relationships with Eurelectric, the European Federation of Energy Traders, the International Gas Union, the World Bank, the International Energy Agency, the European Bank for Reconstruction and Development, and other major international organizations. ERRA's leadership is invited to speak at a variety of major international conferences, meetings, and training courses.

ERRA has successfully cooperated with the Local Government Initiative of the Soros Foundation and as a result of this cooperation, ERRA implemented a series of information exchange and peer-assistance programs between local government officers and energy regulators. In addition to the programs, ERRA prepared five training materials called:

- Sector Background
- Monitoring
- Performance Measurement
- Price Setting and Revenue Administration
- Meeting Low-Income Consumer Needs

In 2006 Eurelectric approached ERRA in order to involve energy regulators into the implementation of the joint Eurelectric – Electric Power Council of the Commonwealth of Independent States (CIS EPC) project with the aim to compile roadmaps towards compatible energy environment and energy market conditions in the EU and CIS regions.

In June 2005 USAID proposed a donor meeting in London with the aim to review the role of ERRA and to discuss the sustainability of the organization through continued donor funding. As a result of the discussions, select members of the ERRA Presidium met with high level EU commission staff in January 2006 in order to discuss the potentials of EU funding for

ERRA. The discussions laid the foundation for a series of meetings with officials from EuropeAid (AIDCO) of the European Commission. After an extensive dialogue with AIDCO, ERRA in 2007 entered into a subcontract agreement in order to participate in educational programs provided to the INOGATE (www.inogate.org) countries in cooperation with the INOGATE Technical Secretariat. As a continuation of the project in December 2008 ERRA entered into a direct service contract agreement with AIDCO for providing additional educational and technical exchange programs to the INOGATE countries.

8. ERRA's Self-Evaluation Process

All NARUC and ERRA committee meetings, workshops, conferences, and training courses include a written evaluation (typically 15-20 questions) that is given to participants towards the end of the activity. The questionnaire addresses:

- Pre-meeting expectations (advance program; logistical information)
- Activity (appropriateness of agenda in terms of topics, timing, and presentations vs. general discussion; logistical arrangements; strengths, weaknesses, and suggestions for improvement)
- Value of information (content of materials; most useful topics; applicability to daily responsibilities; plans for sharing information within regulatory agency; best speakers)

"Participation at ERRA events has improved the ERC's commissioners and staff knowledge and skills. As a result of the exchange of experience with other ERRA event's participant and as a result of increased scope of work, ERC is in the process of new organizational scheme in order to improve its efficiency. According to the Energy law and based on the gained experience from ERRA meetings, ERC approves Market Rules for the network operators and has influence in the articles structure. Participation at ERRA events, especially at Tariff/Pricing training has enabled me to improve my knowledge of tariff design and I've applied that experience during setting prices of regulated companies."

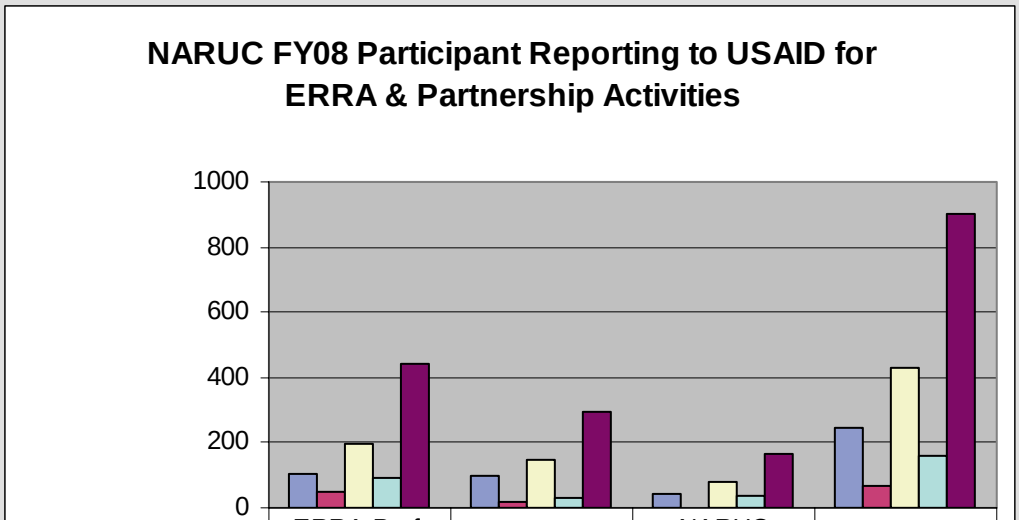
- Ms. Andrijana Nelkova–Chuchuk, Economic Advisor, Energy Regulatory Commission of the Republic of Macedonia

Given the volume of annual activities – eight committee/working group meetings, an annual meeting, the large Investment Conference (approximately 250 participants), 4-6 training courses, 1-2 topical workshops – the evaluation process captures information from several hundred participants from ERRA members as well as non-ERRA member regulators, utilities, NGOs, academic, consulting and other individuals who participate in ERRA's public programs. The ERRA Secretariat staff provides the evaluation results for each activity to the Presidium, committee/working group chairs, and NARUC and USAID representatives. This comprehensive self-evaluation process allows ERRA to monitor its activities and make adjustments as necessary to ensure that it is providing applicable and valuable services. Please see Appendix F for an illustrative example of an activity evaluation summary.

The evaluation process for ERRA's formal training courses (classroom and online) is especially important as it allows ERRA to make improvements in general and to specific courses. For example, based on participant feedback, ERRA may make changes to the curriculum, such as adding/removing certain sessions, allocating more case studies, modifying group exercises, or modifying presentations. In addition, the evaluations allow ERRA to ensure it is using top-level instructors.

B. Promoting Gender Balance

In accordance with USAID goals, NARUC and ERRA have promoted gender balance in all ERRA and partnership activities with regard to E&E and U.S. participants. NARUC has seen a significant increase in the number of female participants at all levels of regulatory staff throughout the world. While the number of female commissioners has remained more limited, it should be noted that the Latvian Public Utility Commission has had two female Chairs, the only regulatory agency in the ERRA region.



	ERRA Prof. Devt (ex. Com Mtgs)	ERRA Training	NARUC Regulatory Partnerships	Total
Women (Europe)	107	97	41	245
Women (Eurasia)	50	16	3	69
Men (Europe)	197	149	82	428
Men (Eurasia)	89	33	38	160
Total	443	295	164	902

(includes only ERRA member regulatory commissioners and staff)

Throughout the years, the Licensing/Competition and Tariff/Pricing Committees and Legal Regulatory Working Group have maintained a balance of 40-50% female representatives. This is significant given that the energy sector in the ERRA region has been historically male-dominated. Beginning in 2000, NARUC organized a "Women in Regulation Leadership" session at each ERRA Annual Meeting. These sessions were hosted by senior U.S. and ERRA female commissioners and allowed junior-, mid-, and senior-level staff and commissioners the opportunity to address areas of special concern. Some sessions were more formal, with training on leadership and public speaking skills. Others were less formal and focused on best practices for effectively functioning as a regulator.

ERRA Tariff/Pricing Committee Members

The leadership and management topics were so effective that NARUC provided additional training opportunities for select ERRA female and male members moving into leadership positions. One year, participants took the Myers-Brigg personality test (in English or Russian) prior to the meeting and the day-long session explored the characteristics of the approximately 30 participants. The vast majority of ERRA regulatory participants were rated as Guardians (about 50% of the U.S. population is categorized as this).

Leadership and Personality Preferences, May 19, 2006, Budapest, Hungary, Presented by Central European University School of Business (excerpt from presentation)

Jungian Personality Types – The 4 main temperaments:

- **Rationals (N T)** – value competence and intelligence. They strive to learn, know, predict, and control the resources in their environment.
- **Idealists (N F)** – value personal growth, authenticity, and integrity. They yearn to develop themselves fully as individuals and to facilitate growth in others.
- **Artisans (S P)** – value freedom and spontaneity. They want to be without constraint, at liberty to act on their impulses, play, and create.
- **Guardians (S J)** – value belonging to a group or community. They maintain stability through responsible, conservative, traditional behavior.

C. Professional Development of Members

ERRA classifies its activities into two broad categories: professional development and training. Professional development activities include:

- Licensing/Competition Committee (3 meetings/year) (1999-present)
- Tariff/Pricing Committee (3 meetings/year) (1999-present)
- Legal Regulatory Working Group (2 meetings/year) (2004-present)
- Annual Meeting (including General Assembly business meeting) (1997-present)
- Energy Investment & Regulation Conference (annual) (2002-present)
- Topical workshops (conducted on an ad hoc basis)

- Technical Exchanges/Apprenticeships (short-term staff exchanges between two members)
- Products & publications (Energy Tariff Database, newsletter, members' directory & profiles, English<>Russian glossary, website resource library – includes all meeting presentations, technical reports/issue papers)
- Website (www.erranet.org)

The two Standing Committees – Licensing/Competition and Tariff/Pricing – are at the heart of the Association. The committees and working groups have helped ERRA to define itself and develop its expertise since its inception. (In fact, committee members began to meet informally even prior to the adoption of the Constitution and formalization of ERRA in 2000.) The committees meet three times a year, including at the ERRA Annual Meeting. Committee members play a central role in determining the issues that ERRA will examine through development of their committee work plans, which are presented to the General Assembly.

The majority of the work products are prepared by committee members on a voluntary basis. In addition, NARUC/USAID funding has allowed for the use of outside consultants to examine new or complex topics as a way to transfer this information to ERRA members. As evidenced in the issue papers[15] prepared under ERRA's committees and working groups, ERRA members are facing increasingly complex and technical regulatory questions.

Select Key Topics from ERRA Issue Papers:

- ✓ Regulatory Independence
- ✓ Licensing Procedures (harmonization, monitoring, enforcement)
- ✓ Market Structure & Design (privatization, competition, unbundling, monitoring)
- ✓ Cross-border Trade, Regional Market Development
- ✓ Security and Quality of Supply
- ✓ Access to Utility Data, Performance Evaluation
- ✓ Tariff Methodologies & Pricing Policies (wholesale, retail, generation, distribution, renewables, cost structures)
- ✓ Low Income, Social Safety Net, Supplier of Last Resort
- ✓ Public Participation

Members of the Licensing and Tariff Committees as well as the Legal Regulation Working Group explore technical topics through presentations, surveys, and preparation of technical reports and issue papers. The issue papers have been one of the most important outputs of ERRA members. They evolved from examination of more basic regulatory principals to evaluation of treatment of specific regulatory issues and exploration of advanced regulatory methodologies. Each committee/WG has prepared a significant number of these important resource documents:

- Licensing/Competition Committee – 31 issue papers since 1999
- Tariff/Pricing Committee – 24 issue papers since 1999
- Legal Regulation Working Group – 6 issue papers since 2004
- European Union Integration Working Group – 3 issue papers from 2003-2005
- Export/Import Working Group – 2 issue papers from 1999-2000

[15] See Appendix C – list of ERRA technical issue papers.

- Regional Markets Working Group – 1 issue paper in 2001
- Monitoring Working Group – 1 issue paper in 2001

In addition, the ERRA website hosts thousands of presentations from E&E regulators and staff that have been discussed at ERRA meetings.

ERRA's core activities (committee meetings, annual conferences, and trainings) continue on an annual basis with the topics addressed changing in accordance with work plan. ERRA strives to serve its members' needs by remaining flexible and demand driven. To this end, several working groups have been created and then discontinued during the past 10 years as member needs have moved on to other topics. The following working groups played an important role in providing information and skills transfer during ERRA's formative years.

- European Union Integration Working Group (2002-2007)
- Benchmarking/Monitoring Working Group (2001-2004)
- Regional Markets Working Group (2001); previously Export-Import Working Group (2000)

Each ERRA Full, Associate, and Affiliate Member may designate one representative to the standing committees and working group (WG). Members are asked to appoint a staff person with day-to-day responsibilities for the topic of the committee/WG for a minimum one-year period to ensure consistency of the committee's overall work products. The committees/WG elect their chair and vice chair from amongst their membership every two years. They also prepare annual work plans, which are reviewed by the Presidium and submitted to the General Assembly as part of ERRA's overall work plan. These plans address not only the topics to be examined, but also the format (i.e. roundtable discussion, technical issue paper, presentation, etc). With NARUC/USAID funding, the committees have enacted competitive 'request for proposal' processes to select outside consultants to prepare a larger issue paper/technical report. This has allowed access to sophisticated and/or complex topics that may have been beyond the scope of members to prepare themselves.

ERRA Legal Regulation Working Group

"The expertise gained in the ERRA events helped me make a significant contribution to Tariff Rules design and work on establishing the regulatory allowed costs and allowing Tariff Lists. Every document this Agency creates is made after consultation of the ERRA database. Momentarily it is in preparation new Energy Law which has entered adoption procedure. This Agency participates actively in this process. A large part of our expertise is based on ERRA activities. We are in the finishing phase of preparing Market Opening. The market for all non-households consumers will be open on 01.01.2009. This Agency is competent for Market design and approval of the Market Rules and has actively been working on these two issues recently. The participation in ERRA helped enormously to cope with this. There are activities in course regarding further capitalization of the EPCG where this Agency is actively engaged. The Agency is active too in designing rules of the cross-border trade. At these activities has been used experiences acquired in the ERRA events."

- Mr. Novak Medenica, Head of the Economic Department, Energy Regulatory Agency of Montenegro

ERRA is flourishing because of the dedication and voluntary contributions of its members. Presidium members and committee/WG leaders work hard to ensure that ERRA continuously meets member needs and improves its services. In addition, many committee members volunteer to take responsibility for topics to be examined during the course of the year. As ERRA, like other similar associations, will always face a turnover in the commissioners and staff of its member regulators, there is also emphasis placed on preparing the 'next generation' of leaders within ERRA. For example, particularly strong committee members may receive extra leadership training and/or be nominated to serve as ERRA training instructors, thereby creating a pool of in-house experts for future leadership positions.

During the past five years, NARUC and ERRA have organized several seminars focusing on building leadership skills. Participants have learned the distinction between leaders and managers, have taken the Myers-Briggs personality test and examined how to bring out the best

skills within themselves and their staff, and learned advanced public speaking tips. As ERRA's international reputation has grown, so too have the presentation and skills of its members. During the first few years, many participants would simply read a pre-written speech during meetings and conferences. NARUC and ERRA staff worked hard to provide an introduction to using PowerPoint presentations (including templates and speaker guidelines), also reviewing/editing member presentations to ensure correct grammar and spelling. In recent years, there has been a vast improvement in the presentation and speaking skills of ERRA member commissioners and staff.

The ERRA website (www.erranet.org) has become an important resource for members and other energy sector stakeholders to learn about the Association and E&E national regulatory agencies. During the first few years, NARUC developed and maintained the ERRA website. In 2003, responsibility for the website was transferred to the ERRA Secretariat Staff and the website underwent a massive reorganization to make it much more user-friendly, key-word searchable, and synchronized between the English and Russian versions. All documents (agendas, participant lists, presentations, reports, issue papers) from ERRA activities are posted on the website. The website also includes resource documents from other sources. The majority of documents are accessible to the public. The current year's Investment Conference proceedings, training curricula and materials, and the Tariff Database are password-protected as they are available with subscriptions/registration fees. In 2007, ERRA moved to paperless committee/WG meetings and participants download documents for their use prior to the meeting.

ERRA tracks usage of its website by monitoring:

- Top Downloads (end/start period of uploading files to or downloading from the website)
- Periods (certain month, year or end/start period)
- Categories (Investment Conferences, Tariff/Pricing, Licensing/Competition Committee, Legal Regulation WG, etc.)
- Files (only selected files).

From 2007 to 2008, ERRA increased the total number of files by 35% from 2,821 to 4,340.

ERRA Website Visits and Downloads in 2008
(pink – 44,346 visits; green – 191,064 downloads)

ERRA Website

D. Steps Toward Sustainability

ERRA has been a needs-driven organization with substantial buy-in from the start. Initially, member commissioners and staff provided substantial voluntary contributions of their time – in the development of the Association's governing documents, preparation of committee issue papers, and participation in ERRA activities. ERRA, NARUC, and USAID officials worked closely together to develop a transition plan to ensure ERRA's long-term financial and professional sustainability.

1. Financial Sustainability

It is very difficult for an association to operate solely on revenues from membership dues. Unlike the utilities they regulate, regulators around the world face budgetary constraints. In order to ensure continued strong participation in ERRA, members decided to keep membership dues at modest levels while increasingly assuming the costs of participation in ERRA activities (ex. airfare, hotel). Beginning in 2003, members were asked to cover airfare for one committee meeting. In 2007, members were asked to cover airfare for all committee and working group meetings (six/year) and airfare for the Investment Conference and Annual Meeting. Finally, in 2008, ERRA members assumed responsibility for their hotel expenses during the Investment Conference and Annual Meeting and began paying registration fees for select training courses (those courses which had completed the pilot testing phases). NARUC and ERRA staff provided detailed information to each ERRA member country one to two years in advance to help them integrate dues, travel, and training costs into their operating budgets. This gradual approach as well as the forecast budget information provided by NARUC/ERRA was critical to ensuring that the vast majority of ERRA members continued to fully participate in ERRA activities.

In examining the revenue sources for similar regulatory associations (ex. U.S., Canada, Southern Africa, Caribbean), it was clear that ERRA would need to develop a variety of revenue sources to supplement membership dues. ERRA's current revenue sources include membership dues, Investment Conference registration and sponsorship fees, training registration fees, the Energy Tariff Database, and in 2008 a grant from the European Commission.

In 2002, ERRA organized its first activity that would be open to non-members: the Energy Investment & Regulation Conference. The majority of ERRA professional development activities (such as committee meetings) are closed and for ERRA members only. These member-only activities have allowed regulators to build a strong support system within the region, with ties to U.S. commissions. They allow for very frank discussions, promote transfer of best practices, and strengthen national regulatory agencies.

ERRA's Investment Conference is an unmatched event in Europe and Eurasia – it allows representatives from utilities, financial and strategic investors, consultants, banks, and other energy stakeholders to meet face-to-face with more than 90-100 commissioners and senior technical staff from 25+ energy regulators. Similar to NARUC meetings, at the ERRA Investment Conference industry representatives have the opportunity to share the types of environments they need in order to invest in infrastructure improvements and developments. These often focus on stable, predictable, and transparent regulatory processes. Investors want to know that they will not face policies that change on a regular basis, whether by the regulator itself or because of government interference in the regulatory process. Regulators share the energy reforms and policies they are implementing, with the opportunity to pique investor interest in their countries.

The Investment Conference has been vital in building ERRA's international reputation. It averages 225-250 participants annually and includes senior level representatives from the major energy stakeholders in the E&E region and the European Union. Keynote speakers have included Mr. Jean Lemierre, President of the European Bank for Reconstruction and

Development (2002 and 2004), Ms. Kathy Sierra, Vice President of Infrastructure, World Bank (2005), and Chairman Joseph Kelliher, U.S. Federal Energy Regulatory Commission (2008).

The annual Investment Conference requires extensive planning. NARUC and USAID representatives worked closely with the ERRA Presidium and Secretariat on all aspects including agenda development, speaker selection, budget planning, and logistical arrangements. Ms. Michelle Malloy, NARUC's Director of Meetings, provided valuable on-site training to ERRA Staff regarding organization and implementation of a large conference, developing processes for hotel vendor arrangements, registration and sponsorship, staff roles, etc.

Themes of ERRA's Energy Investment & Regulation Conferences

2008 - How to Ensure Generation Investment - Renewable Resources: How Have Current Incentives Worked in Terms of Spurring Development of Renewable Generation Resources - Electricity Pricing Trends & Issues - Natural Gas Systems: Investment & Regulatory Issues - District Heating and Combined Heat & Power: Investment & Regulatory Issues **2007** - Regional Energy Markets - Regional Energy Security - Electricity & Gas Market Development: Issues & Directions - Renewables & Energy Efficiency: Regulatory & Investment Framework **2006** - Energy Project Financing and the Regulatory Environment - Privatization and Post-Privatization Investment: Current Regulatory Issues - Role of the Regulator in Security of Supply - Regional Electricity Market: Issues & Directions	**2005** - Investments for Competition & Security of Supply - Public Service & Environmental Obligations: Investment & Regulatory Implications - Regional Market Development Sector Reform, Privatization & Investment - Lessons Learned **2004** - Regulatory Progress to Encourage Investment - Security of Supply – Electricity Sector - Regional Energy Trade - Emerging Issues in Energy Regulation **2003** - Private Participation in the Energy Sector - Competition in the Electricity & Gas Markets - Regional Electricity Trade - Pricing Policies **2002** - Privatization & Competition - Pricing & Investment Policies - Regional Electricity Trade

The ERRA Presidium and Head of Secretariat work closely throughout the course of the year to define the conference themes, select speakers, and promote the event. ERRA also has solicited input from several major stakeholders and consultants to ensure that the conference topics are of mutual interest to regulators and participants from the broader energy sector. The conference was held in Budapest, Hungary in 2002, 2003, 2004, 2005, 2006, and 2008. In 2007 it was held in Istanbul, Turkey and ERRA leadership decided to hold it outside of Hungary every other year to attract additional participants.

The top-level speakers ERRA has been able to attract along with the highly professional organization of the conference have played a vital role in strengthening ERRA's reputation and

credibility. ERRA is seen as an active and important player in the regional and larger international regulatory and utilty community. The recognition ERRA has gained through the Investment Conference has enhanced non-member participation in its training programs.

During the 1st Energy Regulation & Investment Conference, utility representatives had the opportunity for individual meetings with country delegations. April 2002, Budapest, Hungary

Registration and sponsorship fees from the Investment Conference also provide operational funding for ERRA. From 2002-2008, the NARUC/USAID cooperative agreement covered the core costs for the Investment Conference. This allowed ERRA to build a significant financial reserve, which is meant to be available only in critical budgetary situations. As noted previously, the General Assembly has opted to keep membership dues at a modest level as they have increased their internal budgets to cover full participation costs (travel and registration) for ERRA activities. Dues currently cover approximately 10% of operating costs[16]. Therefore, ERRA, along with NARUC and USAID representatives, looked to create activities to cover operational expenses. The Investment Conference was an important first step and continues to provide a good source of funding for ERRA's budget. The two-day ERRA Annual Meeting (which includes the General Assembly business meeting and concurrent committee and chairmen's sessions) is traditionally held immediately following the Investment Conference. This ensures that a significant number of regulators attend the Investment Conference (which is necessary for attracting registered participants).

[16] For comparison's sake, NARUC's budget is comprised of 10% from member dues, 30% from registration and sponsorship fees for its triennial conferences and other meetings, and 60% from grants.

2. Professional Sustainability through Training

As ERRA evolved and members faced staffing changes, it became clear that there was a strong need for more formal, structured training to augment the best practices transfer exercised in committee meetings and other professional development activities. In 2002, ERRA formed a Training Advisory Group comprised of representatives of ERRA, NARUC, and USAID. That year, with the assistance of consultants, ERRA conducted a comprehensive survey of ERRA members' training needs and analyzed the potential for providing technical training.

In 2003, ERRA launched its Summer School: Introduction to Energy Regulation (junior level), which is the flagship course. Following this success, ERRA decided to organize the summer school on an annual basis and in 2004 added a roundtable style training course for newly appointed commissioners. In 2005, ERRA, NARUC, and USAID representatives committed to develop a comprehensive "in-house" training program for ERRA members by ERRA members that would offer a range of junior to mid-senior level courses. The technical courses (mid-senior level) were pilot-tested first in classroom format, then adapted and piloted in an online format. Following pilot-testing, the courses can be opened to two tracks: regulators and non-regulators (ex. utilities, consultants, academics).

A unique feature of ERRA's training programs is the use of current and former ERRA member regulators as instructors. This characteristic allows ERRA to design training courses that focus equally on practical application and theoretical methodology and include the transfer of relevant direct experience. It is important to note that many of the Presidium members had strong university affiliations, providing a built-in cadre of academic instructors within ERRA. Furthermore, during one of the early training needs assessments, ERRA/NARUC/USAID learned that almost every ERRA member had at least one commissioner who was a current part-time or former full-time university professor. This resource of expertise was a vital factor in deciding to launch ERRA's training programs.

ERRA has developed a collaborative relationship with the Regional Center for Energy Policy Research (REKK), led by Dr. Peter Kaderjak (former ERRA Chairman and Professor at Corvinus University of Budapest). Dr. Kaderjak and his staff (including former regulators and regulatory staff) have served as course directors and/or course instructors for the majority of ERRA's training programs. In October 2007, ERRA signed a Memorandum of Understanding with REKK to provide ERRA member in-house training services to be developed in consultation with the ERRA Presidium, Training Advisory Committee, and Secretariat Staff; REKK considers training services for ERRA as its priority task. ERRA and REKK coordinate on the development of course curriculum and proposals for instructors from ERRA members. This strong relationship has helped ERRA ensure that its training programs are germane, with a proper balance between theory and practical application.

From June 2003 to January 2009, ERRA has provided training to 805 ERRA members and 294 non-members through its comprehensive training program. The ERRA training initiative features a variety of junior to advanced level bi-lingual courses offered in traditional classroom format and/or e-learning. All training programs are dual-language (English and Russian) and include preparatory homework, practical exercises, simulations, participant case studies, and exams and systematic evaluation of results.

List of ERRA Training Courses by Year

DATE	COURSE	FORMAT
2003		
February	Joint ERRA-CEER Training Course for Electricity Regulators of EU Accession Countries	Classroom (5 days); pilot
July	1st Summer School: Introduction to Energy Regulation	Classroom (5 days); pilot
2004		
July	2nd Summer School: Introduction to Energy Regulation	Classroom (5 days)
2005		
June	New Commissioner Training	Classroom/roundtable (3 days); pilot
July	3rd Summer School: Introduction to Energy Regulation	Classroom (5 days)
October – December	Pilot E-learning Course on Energy Regulation	Online (6 weeks); *pilot course with Comillas University in Spain to test concept of e-learning with ERRA members*
December	I. Monitoring Activities of Energy Regulatory Commissions	Classroom (4 days); pilot
2006		
January	II. Regulatory Information & Public Participation	Classroom (3 days); pilot
March	III. Price Regulation & Tariffs	Classroom (4 days); pilot
June	2nd New Commissioner Training	Classroom/roundtable (3 days)
July	4th Summer School: Introduction to Energy Regulation	Classroom (5 days)
October – December	I. Monitoring Activities of Energy Regulatory Commissions	Online (6 weeks); pilot
2007		
February	Introduction to Energy Regulation	Classroom (5 days); 2 tracks *(first offering to non-members)*
February – April	III. Price Regulation & Tariffs	Online (6 weeks); pilot
June	3rd New Commissioner Training	Classroom/roundtable (3 days)
July	5th Summer School: Introduction to Energy Regulation	Classroom (5 days); 2 tracks
2008		
January	IV. Electricity Markets	Classroom (5 days); pilot
January – March	II. Regulatory Information & Public Participation	Online (6 weeks); pilot
March	III. Price Regulation & Tariffs	Classroom (4 days); 2 tracks
May – June	IV. Electricity Markets	Online (6 weeks); pilot
June	4th New Commissioner Training	Classroom/roundtable (3 days)
July	6th Summer School: Introduction to Energy Regulation	Classroom (5 days); 2 tracks
November	V. Introduction to Gas & District Heating Regulation[17]	Classroom (5 days); pilot course

➢ ERRA's First Classroom Training

In February 2003, ERRA and CEER implemented a joint training program on electricity regulation based on a Memorandum of Understanding signed in December 2002. The course

[17] The Gas & District Heating Regulation course was part of the overall comprehensive training plan, but due to scheduling was pushed back to late 2008 and funded outside the auspices of this cooperative agreement. It is included in this listing to show the five technical courses that were developed after the Summer School and New Commissioner Training.

focused on issues for the EU accession States to introduce them to the EU's market plans and energy directives, featuring EU regulators as instructors. Thirty-four participants from 14 regulators attended, from Albania, Bulgaria, Estonia, Georgia, Hungary, Latvia, Lithuania, Mongolia, Poland, Romania, Russia, Slovak Republic, and Turkey. The ERRA Secretariat handled all administrative and logistical arrangements.

As has become the case for almost all ERRA training programs, there were more applicants than slots for this course. ERRA regularly maintains waiting lists (for last minute cancellations) for its various training courses.

➢ Introduction to Energy Regulation "Summer School" (annual since 2003)

In 2003[18], ERRA launched its flagship training course – the weeklong Introduction to Energy Regulation. The ERRA "summer school" course provides the technical, economic and legal skills that are needed to design and manage successful regulatory systems for the electric power industry. The course focuses on three major modules: Basic Economics of Regulation; Tariff and Pricing Issues; Licensing and Competition Issues in a level of depth that meets the professional needs of staff in regulatory commissions.

1st ERRA Summer School on Energy Regulatory Practices, July 2003, Budapest, Hungary

The summer school became ERRA's first "in-house" training program. It exemplified the model of peer-to-peer education by utilizing experienced and noteworthy ERRA members as course instructors. The course is designed to assure the transfer of practices and information from experienced regulators to new or young regulatory staff. At the same time, the course

[18] From 2003-2008. ERRA received small grants (approximately 3,500-5,000 Euro/year) from the Central European University to supplement USAID/NARUC funding for the summer school course.

ensures that practices and lessons accumulated by energy regulators of the Central-Eastern European region are transferred to recently established organizations of other European regions.

In 2007, a second track was added to accommodate increased participation. The first track is reserved for regulators. The second track is open to the public, including regulators from outside the region, government officials, ministry representatives, and graduate students. The two groups have several combined lectures and group exercises, but the majority of their sessions are held concurrently. This allows ERRA member regulatory staff to learn in a very open environment with their peers. As ERRA developed its plans for financial self-sustainability, the idea of opening two tracks for select courses proved to be an economically sound decision for the Association's operating expenses.

➢ Pilot-testing the Concept of Online (e-learning) Training for ERRA Members

In 2005, representatives of the ERRA Training Advisory Group met with officials from the National Energy Commission of Spain and Comillas University in Madrid to examine the online Energy Regulation training course they had prepared for Latin American regulators. Before making a significant investment in curriculum development for an ERRA online course, the Training Advisory Group recommended engaging the services of Comillas University. CEER covered translation of the materials from Spanish to English, since they planned to use them as well, and NARUC/USAID covered translation into Russian for ERRA's use. Comillas provided the instructors and online platform.

Pilot-testing of a dual-language online course was necessary to determine if ERRA members would take advantage of this format and achieve the objectives of the course. When the 2003 Training Assessment Report was released, it discussed online learning as a target training style and was met with some hesitation initially. This was due in large part to the slow Internet access and/or limited computer access that some ERRA members, especially in Eurasia and Southeast Europe, had. In addition, it was unclear if a simultaneous dual-language platform in English and Russian would allow for real interaction among the students.

The final program report for this online pilot course found that approximately two-thirds of the students who had registered the course actually completed it. This was on par with the two courses Comillas had implemented for Latin American regulators and is considered good. One important finding was that successful students spent about 10-15 hours per week on the seven-week course. As ERRA moved to implement its own online courses, it notified applicants as well as their regulatory chairmen of this requirement. By having the chairmen "approve" for their participating staff to do some of the course during their normal workday, ERRA achieved much higher success rates of completion in future online course.

ERRA staff took their first steps into the world of online training by assuming the role of the coach. Because of some significant difficulties with the Comillas platform, the coach was very active in assisting students to participate in the course and serving as an intermediary between Comillas' IT representatives and ERRA member students. While the platform and other technical difficulties were very frustrating to students as well as ERRA staff managing the

project, it ensured that ERRA's staff could take the lead in designing a more user-friendly online course platform for ERRA's future courses.

➢ ERRA's New Commissioner Training (annual since 2005)

This three-day course allows newly appointed presidents and commissioners to engage in discussions and seek guidance on issues of energy sector regulation from the experienced peers as they assume their new regulatory functions. The training program combines "classic" regulation under the traditional vertically-integrated industry structure with up-to-date issues of regulation in developing a competitive industry environment. The program is limited to approximately 12 commissioners to ensure an open dialogue-style forum. Current and former senior ERRA commissioners serve as facilitators/instructors in addressing management of a regulatory body, European energy policies, security of supply, market models, price setting, and monitoring roles.

By the end of 2005, 183 commissioners and staff (including 92 women) had been trained through ERRA's Summer School, New Commissioner Training, and other leadership courses. The ERRA/NARUC/USAID Training Advisory Committee moved on to development of five modular/technical courses at the intermediate-senior level. The plans for a comprehensive ERRA training program that built upon the successes of the professional development activities highlighted the value of a regional approach because it provided:

- USAID economies and efficiencies not achievable on a bilateral basis. This regional training program displaced the need for each USAID Mission to finance consultants' development of tariff training courses for the national regulator.
- A mechanism for the exchange of experience on common issues among countries that could not be achieved by bilateral programs.
- Lessons learned in countries were transferred so that USAID Missions and regulatory bodies did not have to reinvent the wheel when designing regulatory policies and procedures.

➢ ERRA's Intermediate/Advanced Classroom & Online Courses

Based upon the success of the ERRA training courses created and implemented from 2002-2005, ERRA, NARUC and USAID looked to develop a comprehensive "in-house" ERRA training program. All training programs are dual-language (English and Russian) and include preparatory homework, practical exercises, simulations, participant case studies, and exams and systematic evaluation of results.

Goals for ERRA Training Program

- *Meet Member Education Needs.* In the NARUC Evaluation Report prepared in 2004, ERRA members expressed a strong desire to continue with basic training programs and potentially expand capacity with separate mid-level and new commissioner programs.
- *Sustainability of the Association*. At a minimum, ERRA's training should not only be self-financing but also should generate additional revenue to cross-finance other activities of the Association.
- *Dissemination of the regulatory experiences of the ERRA countries*. ERRA countries are rich in lessons regarding energy sector reform and regulatory experiences providing important lessons for emerging and developing countries beyond ERRA's current member states.

ERRA/NARUC/USAID applied a ***three-step process*** to implement a new set of modular courses, going beyond the introductory level summer school. These courses are at a mid-senior level and ideally suited for participants who have completed the ERRA summer school and have several years' experience in their positions. Step One included design and development of curriculum, preparation of course materials (presentations, textbook, group exercises, and exam), and pilot-testing in classroom format for ERRA members. Step Two included adaptation of the course materials to a custom-designed online platform and pilot-testing for ERRA members. For these first two steps, the NARUC/USAID cooperative agreement provided funding support for the design, implementation, and participant costs. Finally, for Step Three, the courses were offered in two tracks – for ERRA member regulators and non-regulators (ex. utilities, consultants, academics) – with a registration fee.

For the online courses, ERRA worked with an IT education provider to custom design a dual-language platform. ERRA was able to draw upon its experiences with the Comillas University platform to make sure the platform was user-friendly and available for those with slower Internet connections.

There are two very valuable lessons that were learned during the Comillas University pilot course and then ERRA's first online course. First, it is important that the student's supervisors and chairmen fully support their participation in the online course. Students spent about 10-12 hours per week during the online courses. Therefore, when sending notices of online trainings, ERRA addresses the invitations to the chairmen, inviting them to nominate participants and asking them to allow their participants to spend part of their workday on the training course materials and exercises. Without this support, it is very difficult for the students to try to complete all the work only on weekends or in the evening.

The second equally important lesson learned was the role of the coach. Unlike the Comillas course, ERRA elected to have the role of the coach filled by an ERRA Secretariat staff person. The coach monitors students' progress on a daily basis, assists with IT/log-in difficulties, prompts students about due dates to ensure they do not fall behind, and coordinates with the course director and instructor to ensure lively interaction. Due to the strength of the ERRA Secretariat serving as the coach, ERRA has been able to maintain a completion rate of approximately 65-75%, which is comparable with other online courses. (The typical online course drop-out rate of 30% is due to a variety of reasons including IT difficulties, insufficient time to keep up, and/or diversion to major work-related projects.)

During the first two E-learning courses that were organized by ERRA, the participants from the Energy Agency of the Republic of Serbia had highest ranking[19]. After AERS staff succeeded in these ERRA E-learning courses, information about the remarkable results was published on the website of the AERS. The press took the information from the AERS site and published it in the Serbian media. The Serbian Radio Television (RTS) invited AERS staff to make a guest appearance in the Morning News on the first channel of the RTS, which has the highest viewership. During the seven-minute interview Nebojsa Despotovic, AERS Senior Expert for Economic Affairs, was invited to explain electricity pricing policy in Serbia including social tariff policy, role of the AERS as well as to present the European regulatory

[19] The AERS participants were Mr. Nebojsa Despotovic and Ms. Jasmina Trhulj .

practice, ERRA organization, ERRA e-learning courses and results that AERS staff has achieved.

I have advanced into senior staff since the time I have attended first e-learning course. I cannot say that I have gained promotion directly due to e-learning courses, but the knowledge, experience and good results I have obtained during a course probably have indirectly influenced my approach to work and tasks that had to be done which at the end resulted in the promotion. The courses helped a lot in working on the grid code, distribution code, market code and information code, namely market monitoring issues.

-Ms. Jasmina Trhulj, Senior Expert for Electricity,
Energy Agency of the Republic of Serbia

Once each course was pilot-tested in both classroom and online formats, ERRA could then move forward in its objectives to contribute to the sustainability of the Association by offering the course at a registration fee. ERRA has successfully implemented these courses by offering a two-track enrollment, reserving one track for ERRA members and the second track for other international regulators, industry representatives, and other stakeholders.

Since these mid-level courses were designed as modules, NARUC and ERRA have been able to implement in-country training programs in Kosovo and Azerbaijan. NARUC and ERRA worked with participants and other stakeholders to design custom programs, drawing from materials prepared for different courses.

Rounding out its in-house training, ERRA now offers the following intermediate/ advanced modular courses, in both classroom and online versions.

- Monitoring Activities of Energy Regulatory Commissions
- Price Regulation & Tariffs
- Electricity Markets
- Introduction to Gas & District Heating Regulation
- Regulatory Information & Public Participation

Excerpt from ERRA Online Training User Guide

ERRA – EDU.WEB 4.0 User Guide

Course modules

Course modules

Course modules and other training materials	Language			
0. Introduction	English	0%		launch / запуск
1. Economics of competitive markets	English	0%		launch / запуск
2. Supply and demand characteristics of electricity	English	0%		launch / запуск
3. Wholesale markets for electricity	English	0%		launch / запуск
4. Network issues in electricity markets	English	0%		launch / запуск
5. Market power and antitrust in electricity markets	English	0%		launch / запуск
6. Final Test	English	0%		launch / запуск
0. Введение	Russian	0%		launch / запуск
1. Экономика конкурентных рынков	Russian	0%		launch / запуск
2. Характеристики предложения и спроса на электроэнергию	Russian	0%		launch / запуск
3. Оптовые рынки электроэнергии	Russian	0%		launch / запуск
4. Сетевые вопросы на рынках электроэнергии	Russian	0%		launch / запуск
5. Рыночная власть и борьба с монополией на рынках электроэнергии	Russian	0%		launch / запуск
6. Заключительный тест	Russian	0%		launch / запуск

1-14 First - Previous - Next - Last 14

1

On this page you can find the list of course modules of a given course. You can start accessing the training materials by clicking on the launch button next to their titles.
The launch function is available only for those modules and materials when your current status meets the pre-requisites set by the instructor of the course.

Important Note: After each module there is a test assignment. You can decide when to begin solving the tests, but you cannot pass to the next module without reading carefully the relevant pages and submitting the test of the previous one. Your scores will be given according to your submitted answers. After clicking on SUBMIT button as the last step, you can check the correct answers and compare them with your answers.

Example from Online Platform

➢ Apprenticeship/Technical Exchange Program

In order to promote the exchange of technical information and best practices among its Full Members, ERRA (under the auspices of the NARUC/USAID Cooperative Agreement) established a limited number of travel subsidies for the ERRA Technical Regulatory Exchange Program. The purpose of the travel subsidies is to promote bilateral assistance and training projects within the Association, while taking into consideration budgetary constraints faced by many member regulators.

The travel subsidies were used to support "job shadow placements" and training initiatives between partner regulators. Applications were reviewed and approved on a rolling basis and this was a cost-effective way to promote bilateral information exchange at the staff level. From 2002-2007, the ERRA Secretariat staff facilitated 22 exchanges on issues such as legal framework, customer service, tariff formulation, and electricity market design.

Participants' reports are available on the ERRA website: www.erranet.org/OtherActivities/ExchangePrograms.

E. Sustainability Plan

In 2008, ERRA completed its successful transition from USAID (donor) funding, under the NARUC cooperative agreement, to full financial sustainability. This was a major goal of the cooperative agreement and was an evolutionary process. For the first few years, the NARUC/USAID cooperative agreement covered all costs for members to participate in activities (travel, hotel, meals, and core costs such as conference room, interpretation equipment, etc). This was an extremely important starting point as it allowed members to fully realize the value of ERRA and its activities.

The oldest regulators in the region (Hungary and Ukraine) were established in 1994. As NARUC began full program activities in 1999, the newly established regulators were faced with a myriad of challenges. Many had been created as conditions of donor funding for infrastructure improvement and were challenged by their national ministries for tariff and/or licensing approval. The energy sectors needed significant reform and investment and were coping with issues such as privatization, utility management restructuring, serious rate increases, and up to 90% non-payment by customers. These nascent regulatory agencies did not have budgets to provide training and capacity development for commissioners or staff. By covering participant and organizational expenses for the first few years, this allowed members to fully realize the potential benefits of participation.

It is very likely that if regulators had been required to pay all or part of their participation costs, only a small group would have been active in ERRA activities. USAID's early commitment to full funding allowed regulators to attend several events, thereby realizing the value of ERRA activities in terms of building their technical expertise and ensuring that members bought in and committed fully to the success and sustainability of the Association.

Beginning in 2003, NARUC and ERRA asked ERRA members to cover select travel costs. Because ERRA members had realized the full benefit of participation (due to full funding from USAID in 1999 and 2000) and because of detailed information provided by NARUC and ERRA staff that allowed them to plan their budgets, many ERRA members met this new target[20]. The first few years it was travel for one to two committee meetings; in 2007 it became travel and hotel for all committee/working group meetings (six/year). During 2008, members were asked to fund their travel, hotel and/or registration for all ERRA meetings and training programs. By 2007, only a few countries needed outside financial support to participate in ERRA activities (namely Kazakhstan, the Kyrgyz Republic, and Moldova). NARUC is pleased that there has not been any major decline in participation by ERRA members due to financial constraints. The funding transition process, which took place over the course of five years, allowed the regulators time to allocate sufficient funds to be able to fully participate in ERRA activities.

When ERRA was established in 2000, the Full Member annual dues were set at $1,000 and the Constitution stipulated that they must be set each year during the Annual Meeting. The ERRA General Assembly has elected to keep the annual membership dues at very modest levels,

[20] As indicated, an unprecedented 15 USAID Missions contributed funds to the NARUC cooperative agreement to support the regulators in their countries. These funds were used to cover core activity costs and also served as travel stipends for select countries who could not meet the goal of covering their participation costs in ERRA activities due to significant budgetary constraints.

noting that members have obligated additional travel and training funds in their organizations' budgets. (Several ERRA members have noted that it is easier for them to increase the line items in their budgets for training as opposed to membership fees.) As of 2008, the Full Member dues are 3,000 Euro per year.

This gradual transition in financial responsibilities accomplished two goals: firstly it allowed regulators to fully commit to and engage in ERRA as it was building itself and secondly it allowed regulators to plan for and/or justify increases in their budgets to cover participation costs.

In 2008, ERRA Secretariat staff, Presidium Members, and NARUC and USAID representatives collaborated to prepare accurate operating budgets for ERRA[21]. ERRA is in the process of prioritizing activities to realize a balanced budget. In addition, during the past few years, ERRA, with support from NARUC and USAID representatives, has engaged in a series of discussions with representatives from the European Commission (including AIDCO and the Directorate General for Transport and Energy). In December 2008, ERRA received funding from the European Commission to organize training courses for regulators, government officials, and other participants in the Eurasia region (342,000 Euro for a two-year program). The funds generated from non-members, including registration fees for training courses and the Investment Conference, contribute in an increasing amount to the financial sustainability of ERRA.

[21] Previous budgets submitted to the ERRA General Assembly were based on NARUC's program budget since core activity costs were funded under the USAID cooperative agreement and very few expenses passed through ERRA's books.

V. ERRA'S IMPACT ON NATIONAL REGULATORS – LESSONS LEARNED

A. Impact on Commissioner/Staff Professional Development

The majority of commissioners and staff who have participated in ERRA programs feel that they have personally and professionally benefited through this information exchange forum. It is clear that ERRA members look at regulations and procedures in other ERRA countries when they are revising and drafting documents for their national energy sector.

ERRA has a variety of activities that target junior to advanced regulatory staff along with new and long-serving commissioners. The wide range of programs allows larger participation from members, thereby enhancing the technical expertise of an ever increasing group of regulators.

The participation of the Albanian Regulator in ERRA activities has been very important concerning our internal regulatory practices, our way of approaching regulatory issues and procedures and our organization chart. We have been able to realize visit exchanges and experience exchanges with our regulatory bodies in the region that have encountered our same situations. We have been able to ask questions to other ERRA members and get an answer on their regulatory practices.

Speaking from my personal position, we did not have a Foreign Relations Sector before in our Regulator, I was only a specialist but due to the intensive work relations we had with ERRA we created the sector and I was to serve as an ERRA Liaison and Point of contact for my Regulator.
We have created a public relations sector within the Legal Dept. (which has helped us to get closer contact with the public), we have created two separated sectors, one for monitoring and one for licensing to be focused on specific areas.

- Ms. Eda Gjergji, ERRA liaison, Chief of Foreign Relations, Energy Regulatory Entity of Albania

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Participation in ERRA activities has been very helpful in my daily work. I have learned about the fundamental concepts of regulation in summer school organized by ERRA in Budapest, Hungary. Another interesting activity was that on monitoring activities of regulators in December 2005. I have had the opportunity to participate many times in Licensing Committee meetings and I think that what I learned in those meetings helped me to be prepared to deal with my daily work as a Licensing Expert and since July 2007 as Head of Licensing Sector.

- Mr. Elis Sala, Head of Licensing Sector, Energy Regulatory Entity of Albania

Through informal discussions at ERRA activities and following a short written survey, regulatory staff members are advancing within their agencies as they increase their level of knowledge. Several participants noted the important role that ERRA activities and information from the website played in enhancing their understanding of complex regulatory issues.

Participation in ERRA and gained information allowed me to enlarge theoretical and practical knowledge and allowed me to advance in my job – from head of division to the head of department.

My agency's participation in ERRA had a positive impact on the knowledge and skills of the agency's commissioners and staff. Specifically, it allowed us to revise entirely and develop newly the tariff methodologies, requirements on financial reports submitted to the commission, to enhance publicity and transparency of the Commission activity, make it closer to the best international practice.

Participation in ERRA strengthened my agency's ability to influence the country's progress in reforming energy sector, strengthening the legal framework necessary to establish market conditions and especially to privatize the energy sector entities. My agency's participation in ERRA had positive effect on the quality of the agency's regulatory decision-making process and interaction with other governmental agencies, regulated entities and other energy sector stakeholders.

- Mr. Armen Arshakyan, Head of Tariff Policy Department, Public Services Regulatory Commission of Armenia

From my personal experience, I have a better understanding of reasons behind regulatory processes within liberalization of energy markets. Therefore I can communicate better to staff from energy utilities which largely do not understand why things are changing.

- Mr. Hrvoje Brlecic, Associate in Sector for Gas and Oil, Croatian Energy Regulatory Agency

The impact is huge. As a relatively young regulator, other regulators' experiences and best practices are very important for us. It will take time to specify all skills and information gained during the above mentioned meetings and conferences. As a result of the expertise gained during the mentioned meetings I have been advanced [to the] post of Acting Head of Legal and Licensing Department.

In cases when my department was in situation to bring any decision on different issues, I was using resources from the ERRA web page or ERRA publications, searching for similar documents from other ERRA members and very often even to contact colleagues from other ERRA members in order see what are their experiences and best practices.

[W]e are a relatively young regulator with staff without any significant experience and with huge competencies in energy sector. Besides other ways of learning about the sector, the ERRA trainings, meetings, workshop where we had the chance to contact, communicate with other regulators, to exchange the experiences and different data was absolutely important in strengthening our office. This strengthens of our office is visible in official and unofficial communications with other institutions and the respect gained as a result of that. My country is entering in a new period of market opening (construction of new power plants-some of them based on renewable energy sources, privatization of the distribution network etc.) and I'm sure our office is ready to deal with this.

- Mr. Afrim Ajvazi, Acting Head of Legal and Licensing Department, Energy Regulatory Office, Kosovo

It is also evident that the relationships built through face-to-face meetings and trainings allow regulators from various countries to continue to seek information from each other. While electronic communication and online forums are cost-effective ways to share best practices, personal interactions cement long-term linkages. While ERRA committee representatives have been meeting three times per year for the past decade, recently, members have significantly increased their communication between meetings. Committee members frequently send requests for information on a specific topic and/or examples of regulatory procedures as new regulatory challenges arise during the year. Because of the in-person committee meetings, members have

built strong relationships and quickly send information on their national policies to their counterparts.

Before I started to work in Energy Agency I understood some basics concepts of regulation. Now I really improved my specific skills about regulation. ERRA help me find a lot of materials and documents useful for everyday work at AERS. My colleagues and I really used a lot of information we learned through ERRA for our daily job duties so in that way we have influence on Serbian progress in reforming energy sector, strengthening the legal framework necessary to establish market conditions, introducing competition in the energy market and privatizing energy sector entities. International regulatory practices were useful for AERS and help us to making a team for consumer complaints. AERS has an influence in a development of regional energy market, development of ITC mechanism. ERRA tariff data is useful for comparison and benchmarking purposes so we are using energy tariff data in order to compare energy prices for electricity among countries [and for] incentive regulation.

- Ms. Dijana Unkovic, Senior Expert for Economics and Finance, Energy Agency of the Republic of Serbia

B. Impact on the Development of Regulatory Agencies

In addition to noting the benefits to their personal knowledge of energy regulation, many ERRA members have used information from ERRA activities to make substantive changes within their regulatory agency. Several countries have created customer service departments, others have reorganized existing divisions, and many have enacted changes to their primary and/or secondary legislation.

While the NARUC/ERRA programs have covered a very broad range of topics, there are three main issues where ERRA members have made significant progress. In particular, NARUC/ERRA programs have contributed to the development of:

- Cost-based tariff methodologies
- Regional electricity markets
- Public involvement in energy regulation

ERRA members are clearly focused on developing tariff methodologies that best meet the challenges in their national environments. When NARUC/ERRA programs began a decade ago, regulators were faced with serious non-payment issues and high cross-subsidization across customer classes. E&E regulators have increasingly adopted cost-based and incentive forms of regulation to eliminate cross-subsidies. Most ERRA members have adapted their tariff procedures as they went through privatization and unbundling. ERRA members also addressed treatment of ancillary services and more recently have focused on demand response and energy efficiency.

Various ERRA members also worked collaboratively to address harmonization issues to promote sub-regional markets and broader market cooperation. The Licensing/Competition Committee has recently worked on developing voluntary harmonized licensing procedures. ERRA members have also concentrated on capacity allocation, congestion management, market rules, and monitoring/enforcement.

ERRA members have made noteworthy advancements in involving the public in energy regulation. ERRA members adopted public hearing procedures; those in NARUC regulatory

partnerships frequently adapted their U.S. counterpart's procedures to their national situation. Most ERRA members have public relations staff that assists the regulators in communicating upcoming issues and decisions. Many ERRA members have also created customer service programs or departments. While regulators around the world all face a similar challenge in drawing criticism for any price increase decisions, participation in NARUC/ERRA activities has encouraged many ERRA members to develop proactive relationships with the media, parliament, NGOs/consumer groups, and other stakeholders to help ensure the reasons for the price increase or other regulatory decision are effectively communicated.

As part of its self-evaluation process, participants are asked how they will share what they have learned once they return to their home commissions. The majority of respondents indicate that they provide briefings to their departments and/or entire agencies. Most share weblinks, CDs, and other documentation with their colleagues; with many posting the materials in their regulators' intranet/electronic library. This transfer of knowledge to other regulatory staff ensures that best practices flow back to the agency, beyond just the individual who attended the meeting or training.

As a result of the exchange of information, experience and training, the role of our regulatory agency has increased. We are better prepared to act as a real regulator in the market. We have fulfilled our responsibilities as a regulator in accomplishing the secondary laws, and also we have reviewed our methodologies of tariffs, based on latest development of our country. An applicable example might be a new market model, which was approved by the Government of Albania during the first months of 2008. ERE played an important role in that process.

The information taken during ERRA's meetings and participation of consultants helped us in accomplishing our methodologies of tariffs. Meanwhile, I want to mention that in approving of system of account, we have been helped by Bulgaria (member of ERRA), viewing their system of account. Meanwhile, our regulator has played an important role during the phase of privatization of distribution sector, the process which is going to be finalized in near future.

- Ms. Indrit Baholli Chief of Tariff Sector (ERRA Tariff Committee member), Energy Regulatory Entity of Albania

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The participation at ERRA has given us the right view on how to create the best relation with the governmental agencies, how to involve them in the hearing sessions, and in the working groups for the drafting of our secondary legislation. We have been strengthened as a regulator and we have established a stronger position in the issues related to the electricity market and privatization process. By having the possibility to meet with our regional and South-East Europe countries we have been able to gather info on the tariff level on market and on privatization issues and we have tried to implement that and reflect that in our country situation. This way we have made comparisons and we have been able to follow their best practices.

We consider [it] a privilege to be member of this Association and to have been able to participate in all the ERRA activities, trainings and programs because this has influenced for good the results of our every day activities and as an Institution as a whole. Our staff has been increased professionally and our regulator's role in the sector has been strengthened, to the public as and to the other agencies as well.

- Ms. Eda Gjergji, ERRA liaison, Chief of Foreign Relations, Energy Regulatory Entity of Albania

We made the change in all the secondary legislation:

- *Regulation of license procedure.*
- *Market model for wholesale of electricity.*
- *Market model and market rules.*
- *Rules and Procedures for organization, direction functioning of ERE.*

- Ms. Eva Hyna, Legal Specialist of License Department, Energy Regulatory Entity of Albania

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In my knowledge our current organizational chart has been developed based in other ERRA countries examples. Last year our institution had an expansion. Technical departments were reorganized and new sectors facing directly and closely one specific problem were introduced. For example in Licensing and Monitoring Department were introduced three sectors: Licensing Sector, Monitoring Sector and Power Market Sector.

During the current year, our institution has collaborated closely with the Ministry of Energy in the Distribution Operator privatization process. All our activities have been transparent and all documents and decisions approved by our institution were available for public inspection. I think that all principles proclaimed by ERRA activities for transparency, nondiscrimination, access of public in regulatory practices were respected during all our activities.

Our institution was and continues to be a significant player in the distribution privatization process. Also in accordance with this process we improved most of our secondary legislation. I can mention the new market model designed by ERE and other power sector players and approved by Council of Ministers, licenses for public wholesale supplier, license for retail supplier.

- Mr. Elis Sala, Head of Licensing Sector, Energy Regulatory Entity of Albania

ERRA members are dealing with complex regulatory issues as they strive to improve the energy sectors in their countries. During several activities in 1999-2001, NARUC members introduced relatively new concepts such as the role of the regulator in educating the public, building proactive relationships with parliament, and creating a sound, transparent regulatory agency. It is clear that ERRA members have made tremendous progress in building constructive relationships with various stakeholders, including the public, media, government, and industry.

Our agency has always considered it very important to involve the public in regulatory decision-making process (stakeholders are involved in the process of coordinating tariff methodology). The knowledge that we have got from participating in ERRA has helped us to make good decisions. Training camp for new agency workers gives them a good overview of the energy sector of many countries. This has helped them to get involved with the energy sector easily.

- Ms. Tiina Maldre, Senior Expert, Estonian Competition Authority

Before I started to work in Energy Agency, I had worked in the national power industry. In that time, I understood some basics concepts of regulation but in my opinion I really improved my specific skills and expertise. Apart from that, I found a lot of documents and reports that I have never come across before, and I got a chance to meet a lot of experts who help me in my personal development.

In Serbia, we have recently started with regulation of energy activities. ERRA offers us a great

opportunity to learn from other countries which have a lot of experience in this field. We adopted methodologies and tariff systems two years ago and these days we are changing and improving them. Also, we deal with a lot everyday problems – for example accounting unbundling and we will start with gathering data for some future programs – introduction of incentive regulation, benchmarking process, quality regulation. I also participate in a team which will be responsible to determine feed in tariffs for renewable generation. I really used a lot of information I learned through ERRA for my daily job duties.

We encourage public participation in the regulatory process. For example these days we have proposed some changes of Methodologies for setting tariff elements for calculating prices for access to and use of system for electricity transmission and distribution, as well as for calculating electricity prices for tariff customers. Regulated entities and other stakeholders are included in this process and they have sent us their comments about all issues which they disagree or do not understand. Agency fully takes into consideration their comments in a process of adopting final decisions. We also collaborate with Ministry of Energy and Ministry of Finance in a process of changes energy laws and secondary legislation. As I mention above, my agency actively participates in a team which will be responsible to determine feed in tariffs for renewable generation.

- Mr. Nebojsa Despotovic, Senior Expert for Economics and Finance, Energy Agency of the Republic of Serbia

Since ERRA covers a broad geographic region, it is natural that the energy regulators in each country face some similar and different challenges. One of the keys to ERRA's success is its effort to be inclusive and relevant for each member. This means that regulators who have 10-12 years of experience may be working on very sophisticated issues. Participation in ERRA allows them an opportunity to solicit feedback from their colleagues and further refine policies before implementing them. Those countries who have either only recently created regulators and/or countries where the regulator has been hampered by political interference can potentially avoid some pitfalls along the road to reform by learning from the successes and obstacles faced by their colleagues.

[Participation in ERRA] has strengthened the ability of the Authority to influence the progress in the energy sector As I have mentioned above especially regarding the issue of monitoring the activities of market participants… and also the settlement procedure. We also benefit from the implementation to improve the consumers' rights and to ensure full competition. In general the cooperation between the ERRA Countries is perfect. All the Committee Members are very helpful in terms of supporting the colleagues.

- Mr. Nilufer Senturki, Lawyer, Energy Market Regulatory Authority of Turkey

C. Impact on Regulatory Practices in the Region

NARUC was the first organization to introduce the concept of independent market monitoring to Southeast Europe. The Southeast Europe Electricity Market Monitoring Project brings together regulators, transmission system operators (TSOs), and market operators from Southeast Europe, as well as representatives from the European Commission, and select regulators from the Council of European Energy Regulators. The Southeast Europe Electricity Market Monitoring Project[22] (2006-2008) (www.naruc.org/see_monitoring) focuses on improvements in cross-border regional electricity trade and the development of the competitive

[22] See Section VII.M for details on the Southeast Europe Market Monitoring Project.

market accompanied through a monitoring mechanism to detect anti-competitive market behavior, market design flaws and market power.

NARUC also organized a series of Uniform Chart of Accounts workshops (2007-2008) for regulatory and utility representatives in Southeast Europe to focus on harmonization of the energy sectors to promote increased cross-border trade. NARUC coordinated with another USAID contractor, Pierce Atwood law firm, which provided the workshop facilitator.

While developing the rules on public hearings, we referred to best practices we were acquainted with during ERRA events. We use the knowledge gained during ERRA events in reporting to the Parliament and our communication with other governmental bodies. It is our opinion that the activities of our regulator that use best practices, learned during ERRA events, have had a positive impact on the overall situation of the sector, especially in the field of market opening, unbundling of vertically integrated utilities.

The commission's participation in ERRA has had a positive impact in a range of our activities concerning regional energy issues. It has enabled exchange of experiences on different issues. ERRA's initiative on Southeast Europe chart of accounts has improved the quality of entity commissions' regulatory chart of accounts. Experiences gained within ERRA's activities provided good basis for our participation in many regional energy sector issues, particularly cross-border trade (initiative on mutual recognition of licenses, coordinated auctions, inter TSO compensation).

- Mr. Edin Zametica, Chief of Staff, State Electricity Regulatory Commission, Bosnia & Herzegovina

The experiences exchanged through ERRA have certainly widened our horizons in terms of various solutions related to regulatory issues, which are taken into account in drafting and passing secondary legislation under our jurisdiction (methodologies, tariff systems, and various codes we approve), as well as in the process of giving opinions and views on draft amendments to primary legislation that we were consulted about.

It has contributed to the overall ability to be proactive on a regional level, especially within the Energy Community institutional framework, i.e. the ECRB [Energy Community Regulatory Board] and its working groups and task forces, and the Athens and Maribor Fora. Example: the work conducted on the harmonization of licensing regimes within the ERRA Licensing and Competition Committee has provided a sound basis for further elaboration of this topic within the respective task force of the ECRB Electricity Working Group (and this task force is lead by AERS).

- Nikola Radovanovic, Senior Legal Expert for System Affairs, Energy Agency of the Republic of Serbia (AERS)

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ERRA training courses have important place in capacity building of AERS staff. While the basic and medium courses are perfect, advanced courses may be improved by wider introduction of practical regulatory knowledge. ERRA issue papers are very useful for training purposes and identification of best practices and, in less extend, for implementation of new practices in NRA. Technical exchange programs are extremely valuable for AERS, since they are tailored to AERS needs, and cover advanced regulatory issues in detail. Tariff database is another success story of ERRA; [it is] regularly used by AERS economic experts, especially during price reviews.

Broad participation of AERS in ERRA activities (workshops, summer school, commissioners' training, e-learning, committee activities, conferences etc.) increased the overall knowledge base of AERS staff on

regulatory issues. ERRA programs were compatible with AERS own programs of capacity building, contributing to efficient operation of AERS (all pricing regulations for electricity and natural gas issued in first year of operation; licensing and dispute settlement functions fully operational; active participation in activities of Energy Community institutions etc.).

Furthermore, the analysis of possible trading licenses harmonization performed by ERRA Licensing/ Competition Committee will be considered by ECRB within the efforts to simplify the licensing regime in the Energy Community. USAID financed SEE Market Monitoring Project set the basis for future market monitoring activities within a part of the Energy Community (8th region). The distribution benchmarking performed by the Tariff/ Pricing Committee is a promising exercise, potentially valuable for regulators which envisage introduction of incentive based pricing.

Distribution benchmarking is the most promising new activity of ERRA. Efforts should be made to finally agree on the set of data used, identify regulators interested in the benchmarking (not necessarily all ERRA members), further improve the methodology, expand it to natural gas sector and perform the data collection annually.

- Mr. Petar Maksimovic, Secretary General,
Energy Agency of the Republic of Serbia

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

With the award of this cooperative agreement from USAID in 1998, 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 ERRA activities on a regular basis. In large part due to this program's success, NARUC members enthusiastically supported the development of programs with other regional regulatory associations and national regulators, some of which were funded by the USAID Bureau for Economic Growth, Agriculture and Trade and Missions in Africa and Asia.

The involvement of U.S. regulators has enabled ERRA to remain on the cutting edge of regulatory issues and retain the interest of commissioners and staff from more experienced member commissions. Per the USAID/NARUC cooperative agreement, NARUC provides the expertise of U.S. commissioners and commission staff as an in-kind contribution to ERRA activities as well as its 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 ERRA and other USAID-funded activities, with the value of NARUC membership's in-kind contributions and other matching costs totaling over $1,547,843.84. 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 value to me came primarily in the broader policy context. As a leader of NARUC, I often used ERRA as an example/context/teaching reference for discussion of many contemporary challenges facing U.S. regulation. It is my belief that the ERRA experience has been overwhelmingly positive for NARUC commissioners and staff.

- The Honorable James Y. Kerr, III, NARUC President (2006-2007); former Commissioner, North Carolina Utilities Commission

The contribution of time and effort by NARUC commissioners and staff has enabled ERRA members to learn from the more than 100–year history of regulation in the United States. As the former Chairman of the Bulgarian commission noted in 2000, shortly after his commission's establishment, he hoped to draw upon the regulatory experiences of the U.S. and neighboring countries to leap-frog past the mistakes of others.

I don't take regulatory policy and decisions for granted – [participation in ERRA] caused me to re-examine regulatory practices and underlying purposes. Having that network to tap can lead to a more

timely and effective remedy. These shared experiences invited innovation and fresh ideas, sometimes leading to new solutions to the never-ending challenges.

I have had to do much research and learning to prepare for the meetings and trainings, so my knowledge base has been expanded and deepened. These programs and discussions encourage regulators here at home to re-examine regulatory practices and underlying purposes. In particular, reexaminations and some shifts in policy positions, such as demand reduction and energy efficiency programs and transparency issues in monitoring.

We in the U.S., and Ohio on a retail level, have been struggling with market conditions and competition at the same time the ERRA countries have. I believe we have shaped competition, reform and the regulatory environment together.

Contact gained through regulatory exchange programs are invaluable; this is true from a regulator to regulator perspective, but also leads to contacts with economic development potential. Direct participation in these partnerships enables Ohio to be part of the globalization equation in a unique way that is not available to others.

- Ms. Kim Wissman, Director, Department of Energy & Environment, Public Utilities Commission of Ohio; Executive Director, Ohio Power Siting Board

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 ERRA members. Several NARUC members have become deeply involved with the ERRA technical committees and working groups, taking the lead in drafting lengthy reports, preparing detailed comparative analyses, and serving as roundtable leaders.

The [ERRA] papers are very good resources as they provide an intensive study of various issues and are very thorough and well researched. I have used them periodically relative to preparing positions on issues before my Commission and/or to prepare for settlement discussions.

The preparation and research that I have done to make presentations on topics at ERRA meetings has been educational and useful in terms of the work that I do domestically. Additionally, I have learned things that were useful by attending various ERRA meetings – things that were useful in addressing current issues in domestic cases.

- Ms. Denise Parrish, Deputy Administrator, Wyoming Office of Consumer Advocate, Wyoming Public Service Commission

As ERRA explored ever more sophisticated topics over the years, commission staff participated more often in committee meetings. Since ERRA asked its regulatory agency members to appoint senior staff with daily responsibilities in the topics of the committees and working group, it made equal sense for NARUC representatives to come from the commission staff instead of commissioner level. NARUC commissioners played strong roles in the Investment Conference, have served as voting moderators during ERRA's election process at General Assembly meetings, and have served as instructors for select ERRA training courses.

California strives to be a world leader on energy issues. Being aware of events in Eastern Europe and Central Asia gives perspective on what we are doing or planning to do. Issues regarding gas supply,

LNG, nuclear power, greenhouse gas/climate change, RPS, audits, transparency, antitrust, energy security, public power, among others, are all topics that both ERRA members and Californians face or have faced. I am a far better regulator by being aware of the big picture, and of what countries that were under communism experienced. ERRA members have a perspective on the fundamental question of regulation vs. free markets that Californians just don't have.

All of the topics I made presentations on are directly relevant to my job as well, so I used (or will use) the materials I developed for ERRA to train co-workers. I have become more aware of problems in the way we handle things as I have developed these materials, and have changed the way I do things to attempt to minimize the problems.

Participation in ERRA has changed my life. I have a developed a kinship with former Soviet bloc regulators that I never expected, friendships in countries I never thought I would visit, and a true appreciation for what life is and was like in countries that were formally behind the Iron Curtain. Every American should have this experience. Many Americans – including me - were raised with no information about life in these countries, even though our parents and grandparents came from this region of the world.

As a regulator, I feel I have a better appreciation for the big picture through my participation in ERRA and my friendship with ERRA members. So much of regulation depends on one's fundamental political and economic philosophy, one's attitude toward free markets, regulation, big government, and capitalism. One cannot fully appreciate our system without knowing something about how other systems have done things, about what life is and was like under different political and economic regimes.

Everything I have learned and thought about as a regulator is more real and more relevant as a result of my work with ERRA.

- Ms. Sarah R. Thomas, Administrative Law Judge,
California Public Utilities Commission

NARUC's accounting staff has closely monitored its financial transactions, reviewed its books and audits, and provided advice to the ERRA Financial Committee. NARUC's Chief Executive Officer and Finance Manager traveled to Budapest in the Fall of 2008 to assist with the interview and selection process of new accountants and auditors for ERRA. (This change was necessary due to the increased amount of financial activity as ERRA assumed full financial responsibility for all of its activities.)

NARUC's Executive Director and Chief Financial Officer will continue to serve as voluntary resources and provide advice on overall management and governance issues as requested by ERRA.

NARUC remains fundamentally committed to the success of ERRA. It plans to set aside funding from its own budget to ensure limited participation in select ERRA activities. It will also serve as a strong virtual linkage with U.S. regulators and will continue to solicit input from them in response to ERRA member inquiries.

VII. Regulatory Partnerships & Bilateral/Sub-regional Capacity Building

A. Introduction

For the past decade, NARUC has been assisting international regulators improve their institutional practices and enhance their technical understanding of market-based regulations. Several of them have noted over the years that the regulatory partnerships have proven to be an innovative way to bring together experts from the same industry to discuss arising issues in the energy sector and provide a testing ground for analyzing various regulatory tools, methodologies, techniques, and day-to-day operations.

NARUC established its first partnership program for Eastern Europe and Eurasia in early 2002. Since then, the program has grown to incorporate the following 14 partnering institutions:

- Albania – Indiana (10 activities, one study tour and one internship)
- Bulgaria – New Jersey (seven activities and two internships)
- Croatia – New York (seven activities and four U.S. utility strategy training programs)
- Kyrgyz Republic – Washington (six activities)
- Macedonia – Vermont (five activities)
- Moldova – Iowa (six activities)
- Serbia – Pennsylvania (three activities, one internship, one U.S. utility rate school)

NARUC also implements in-country regulatory capacity development programs for Azerbaijan and Kosovo. For each of these programs, we work closely with a broader regulatory audience including the national regulators, governmental institutions, consumer organizations, and other energy sector stakeholders in advancing the regulatory dialogue.

B. Key Findings and Lessons Learned

The partnership and in-country regulatory capacity development programs have led to the number of positive results and accomplishments described in detail in the subsequent pages.

Overall findings can be summarized as follows:

- The partnerships have increased the visibility, industry oversight and expert standing of the foreign partnering agencies in their respective countries, and have equipped them with relevant techniques and practices to argue for greater autonomy.
- The partnerships and the in-country capacity development programs have also strengthened the institutional arrangements and management practices of the emerging regulatory commissions through more streamlined decision-making, expanded technical staff resources, institutionalized practices, and increased understanding of the international regulatory environment.
- The individual bilateral programs can be credited with significantly narrowing the technical knowledge gap between the U.S. and emerging regulatory institutions in Eastern Europe and Eurasia, primarily in the sphere of price regulations, licensing, and customer support.

The regulatory agencies from the U.S. and abroad have established strong professional synergies which have outlived the term of each partnership as well as regulatory tenures of individual members and staff. The partnerships have allowed an increased number of female regulators to participate actively in all program aspects, including exchange visits, study tours, internships, utility strategy courses, and other training opportunities. The programs have also offered the U.S. commission partners and regulatory practitioners the chance to expand and re-evaluate their own regulatory operations.

It is important to note that while significant results were achieved in the partnership and capacity-building programs, political interference in the reform and regulatory process was an issue that many partners faced. However, the partnerships gave the regulators and technical staff positive U.S. experiences that allowed them to argue more effectively for greater authority and regulatory independence. In some cases, the regulator faced considerable government interference and control in its decision-making authority.

C. Background and Purpose of NARUC's Regulatory Partnership Program

NARUC serves as the administrator of these partnerships through the financial support from individual USAID 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.

SNAPSHOTS OF PARTNERSHIP SUCCESSES

Albania-Indiana: The Albanian regulator initiated public hearings on price and quality of supply issues and implemented a more streamlined decision-making process. Additionally, Albania restructured its regulatory agency based on institutional discussions with their Indiana partners.

Bulgaria-New Jersey: Bulgaria improved its relations with customers and consumer advocacy groups as a result of two tailored internships at the New Jersey Board of Public Utilities.

Croatia-New York: Croatia implemented electric tariff methodologies for its restructured markets as a result of the New York Commission's discussions on competition and unbundling. Croatian regulators also adopted some of the incentive regulatory practices, methodologies for natural gas storage and pricing for new customers.

Kyrgyz Republic-Washington: The Kyrgyz regulator implemented a number of legal practices and procedural tools following examples of the administrative law judge functions in Washington.

Macedonia-Vermont: The Macedonian commission considered many new regulatory practices in application of energy efficiency, demand-side management programs, monitoring and price reviews. Additionally, the Macedonian regulatory authority now conducts effective public hearings and has a better understanding on the role of other stakeholders in the regulatory process.

Moldova-Iowa: Moldova improved its consumer education and public involvement functions.

Serbia-Pennsylvania: The Serbian regulators are seeking to improve specific technical capacities and methodologies for price regulations in the power and natural gas sectors, and to gain better understanding of regulatory functions in addressing fuel poverty.

D. The Partnerships

Albania – Indiana

The energy regulatory partnership program between the Albanian Energy Regulatory Entity (Enti Rregullator i Energjise Elektrike - ERE) and the Indiana Utility Regulatory Commission (IURC), established in July 2002, is NARUC's longest bilateral partnership to date. Through executive-level bilateral meetings, technical staff discussions, site visits, and other training opportunities, both partners have shared many useful experiences, addressed difficult policy issues, and explored best practices. This program has been of critical importance as Albania continues to strengthen its energy regulatory framework and implement just and independent regulations so its national energy markets can operate fairly and transparently.

The ERE-IURC partnership program provided a highly interactive forum for mutually constructive exchange of ideas and information to the benefit of both regulators. In the early stages of both the partnership program and ERE's existence, the partners limited their regulatory discourse to basic issues of mostly administrative and institutional nature. However, as the partnership progressed, the meetings focused on more sophisticated policy implementation issues, specific case studies, simulated regulatory processes and situations, and analyses of applications. The IURC became very interested in learning about the development of the Southeast Europe regional energy market and Albania's efforts to address power sector complexities and serious deficiencies in the utilities management operations. On the other hand, ERE was emboldened to explore more sophisticated practices and tools in order to improve its technical capacities, the international experience of its staff, structural operations, and understand market-based regulatory issues. On each occasion, the Indiana Commission provided its own experts as well as external speakers from partnering State and federal institutions to implement effectively the exchanges and respond to the rapidly evolving technical and procedural needs of the Albanian regulator.

Throughout the partnership, the Albanian regulator has undergone major institutional changes and expanded its internal technical staff capacities to respond effectively to both the growing regulatory responsibilities as well as new regional obligations in the Southeast Europe Energy Community process. Frequent Albanian commissioner turnover presented difficulties in partnership activities because they resulted in the need for some retraining on issues previously addressed. To the ERE's credit, though, and unlike the typical approach in the United States, former Commissioners often continued within the ERE structure in a staff or advisory capacity which provided some level of continuity to the partnership activities. ERE has been able to gradually strengthen its standing within the country and be regarded as an expert institution directing regulatory tasks in the energy sector in coordination with the national government and other energy sector stakeholders.

ERE was established in 1996 as a national energy regulator but needed substantial time to strengthen its institutions, establish transparent regulatory procedures, adopt effective secondary legislation, and learn from international practices of peer regulators, including IURC. There are three major regulatory areas in which the Albanian regulators benefited most as a result of the regulatory partnership program:

Accomplishment #1 – Application of various price regimes and regulations to improve tariffs

The Albanian partners have consistently requested various topics for discussions under tariff development and rate-case processes to learn about different techniques of applying cost-based and incentive forms of regulation as they have faced challenges in adopting optimal levels of prices and gradually eliminate cross-subsidies. Indiana Commission utility analysts and tariff experts have periodically reviewed tariff proposals submitted to ERE for opinion by the Albanian Power Corporation (KESH), and have scheduled simulated or real utility rate cases at the Indiana Commission to offer ERE an opportunity to observe the analytical and stakeholder process first-hand. Technical sessions between IURC and ERE have equipped the Albanian regulator with a good understanding of the tariff methodologies and ERE now conducts its price reviews with more confidence and expertise. ERE now mandates tariffs that are fully absorbed by each consumer group without the need for cross-subsidization. ERE played a significant role in defining and developing the regulatory framework with USAID technical assistance for the privatization of the Albanian Distribution Company.

Accomplishment #2 – Improved understanding of market restructuring and regional market developments

In the sphere of market development and restructuring, the Albanian regulators have visited the Midwest Independent Transmission System Operator (MISO) and the PJM Interconnection, two U.S. regional transmission system operators, to discuss issues related to operations of the U.S. bulk transmission system, capacity allocation, and various wholesale pricing models. These discussions have helped the Albanian partners in applying some of the tools and concepts in the Southeast European regional market development. Partners have also discussed unbundling and privatization of various parts of the Albanian Power Corporation (KESH) to transform it into a Western-style company with efficient operations, sound accounting system, and transparent planning process. Development of cross-border transmission lines has also been addressed as a regional priority both in the Midwest and Southeastern Europe to increase the energy security of both regions. ERE was an active and constructive participant in the working group that development the competitive electricity market and has played its role in the establishment of new cross border transmission links to increase Albania's energy security.

Accomplishment # 3 – Institutionalization of formal hearing processes and dispute resolution

IURC assisted ERE in establishing a formal process for conducting regulatory hearings. ERE now conducts sound hearings on power interruptions, service quality, dispute settlement and other customer issues. ERE has been eager to implement many IURC proposals, including consumer protection and formal dispute settlement processes. An ERE customer department staff member spent a week at IURC, working with her counterparts to observe all aspects of the Indiana Commission's consumer education and service. Following her formal internship, the staff returned to ERE with a proposal to establish a separate consumer services division. The Albanian regulator now advertises and conducts hearing sessions on price proposals and other energy issues. As a result, the general public is becoming more aware of the regulator's authorities and tasks in the country's power sector. ERE's website features comprehensive resources about all aspects of ERE's work and decisions as well as an interactive section for

input by the consumers on the decision-making aspects of the Albanian regulator. This resource has been modeled after the interactive features offered to the Indiana consumers.

To expand the regulatory experience and perspectives of the Albanian regulator, the final partnership activity took place in Pennsylvania and Washington, D.C., in May 2008, as a study tour on technical and energy policy issues. This gave the senior Albanian regulators a broader perspective about other State and federal power sector stakeholders. As the Electricity Regulatory Authority has been recently mandated with developing the regulatory environment for the natural gas sector in Albania, its members and staff are keen on acquiring necessary experience and perspectives.

Staff from the Indiana Commission; Tirana, September 2007

In summary, NARUC has been very effective in establishing and sustaining long-lasting synergies between the Albanian Energy Regulatory Entity and the Indiana Utility Regulatory Commission because of each commission's active leadership and strong interest in addressing pertinent and controversial issues. NARUC has been an important conduit in providing its member resources to introduce regulatory practices of other State U.S. commissions and in its impact on bolstering ERE's regulatory functions, procedural capacities, decision-making processes and understanding of market-based regulations. At the end of 2008, ERE is continuing to address its ever evolving regulatory role in Albania's power sector restructuring and interested in establishing, under the auspices of NARUC's regulatory partnership program and financial support of the USAID Mission in Tirana, a new regulatory partnership program to engage another U.S. State public utility commission in discussions on advanced market issues and natural gas regulations.

INSTITUTIONAL SUCCESS STORY
The Albania-Indiana partnership has enriched all aspects of our [ERE] work and transformed our organization into a confident and mature regulator. Our Indiana partners have equipped us with much

needed knowledge and skills to carry out sound regulatory practices for years to come.
- Mr. Bujar Nepravishta, Chairman of ERE

PARTNERSHIP PERSPECTIVES FROM INDIANA

A strength in the Albanian institution is seeing change implemented and professionalism being institutionalized. As an example, IURC conducts hearings to allow for public input and to allow parties to participate in the ratemaking process. We have encouraged ERE to do the same. We come back in a year and the ERE is conducting hearings. Likewise with rate design and eliminating long-standing subsidized rates. This has been the most positive and satisfying outcome of our bilateral relations. The staff and Commissioners have always been professional and highly educated and seemed to truly want to solve whatever regulatory or managerial problem they were faced with and do what is right for their country, consumers and utilities."
- Mr. Jerry L. Webb, Director of Project Management Oversight, IURC

While staff and Commissioners changed on the Indiana Commission and the ERE during the partnership, our discussions and training addressed increasingly complex technical and legal issues. This was a definite sign of progress for the new Albanian commission and also provided educational value to the Indiana Commission.
- Mr. Scott R. Storms, General Counsel, IURC

Bulgaria – New Jersey

The energy regulatory partnership program between the State Energy and Water Regulatory Commission (Държавна Комисия за Енергийно и Водно Регулиране - SEWRC) of Bulgaria and the New Jersey Board of Public Utilities (BPU) was established in May 2002. Much like the Indiana-Albania partnership, New Jersey and Bulgaria explored diverse regulatory topics and shared many experiences through executive-level bilateral meetings, staff technical discussions, peer mentoring, site visits, formal internships, and other training opportunities.

Commissioners and staff from New Jersey and Bulgaria during their sixth exchange; Sofia, September 2004

The Bulgarian regulatory commission has stated on numerous occasions that the partnership with New Jersey provided an engaging forum, reinforced many concepts and established practices and analytical approaches in the SEWRC's institutional arrangements, such as pricing methodology, transmission planning, service reliability, demand-side management, consumer education and stakeholder consultations, as well as general administrative and procedural functions. The partnership allowed for both agencies to work together in improving their respective decision-making techniques and contributed to strengthening the Bulgarian regulator's autonomy and role in the national energy sector. Moreover, the partnership gave the BPU the opportunity to share with their Bulgarian colleagues experiences that have made them a leader in the competitive U.S. regulatory market and active participants in the regional regulatory institutions (PJM, MACRUC). At the same time, it gave the BPU the opportunity to gain a greater understanding of the Southeast European regional energy market institutions, processes, and challenges.

During their five-year partnership, 2002-2006, SEWRC focused its efforts on improving its practices in the three major areas that have resulted in the following accomplishments and lessons learned:

Accomplishment #1 – Institutionalization of customer service programs and improvement of stakeholder process

Three out of seven partnership activities between the New Jersey BPU and SEWRC featured detailed discussions on the role of stakeholder process, public consultations, and customer education in the energy regulatory process. The Bulgarian regulators expressed the need to learn about working more effectively with consumers, improving the interface with the utilities, establishing viable customer service and assistance programs with service quality monitoring components as well as improving the overall consultative process among various energy stakeholders in the country. The staff at the BPU Department of Customer Assistance offered its valuable experience, knowledge, and established practices about handling consumer disputes, utility service inquiries, payment arrangements, public outreach, dispute resolution, and billing issues. Additionally, the SEWRC participated in two internship programs through which its customer department staff spent two weeks each learning from their U.S. peers about various practices regarding the customer complaint and dispute resolution process. The Bulgarian regulators noted that as a result of extended discussions and direct access to experts and best practices, they markedly improved their overall responsiveness to consumer complaints and are better equipped to handle rising inquiries from the general public following the energy market restructuring.

Accomplishment #2 – Enhanced understanding of competitive retail market issues, market rules and structures

In the course of the partnership program, the Bulgarian energy sector underwent major restructuring resulting in several energy price revisions, aggressive privatization program of the State-controlled utility NEK, unbundling of the utility operations, and overall market orientation of the national energy sector policies. The Bulgarian regulators took advantage of the BPU's long-standing experience in retail competition, oversight of competitive and regulated utility services, and understanding of other restructuring challenges including wholesale regional issues through the power pool arrangements. As a result, the SEWRC regulators issued price decisions

which took into consideration elimination of cross subsidies that distorted market structures and encouraged excessive consumption of energy for the heating purposes. Additionally, the SEWRC regulators gained better understanding of market competition, regional transmission operations, service quality and benchmarking under restructured market, and regional power pool dynamics in the U.S.

Accomplishment #3 – Enhancement of the role, autonomy and influence of the regulatory agency

One of the key aspects of the BPU-SEWRC bilateral partnership program was the institutional strengthening of the Bulgarian commission by increasing its authority, autonomy and accountability in the national energy sector. The Bulgarian regulator will continue to play an important role in the ongoing development and implementation of the market model, as it will be formulating market and pricing rules for the balancing market. The methods of regulation will also become more complex and the impact of regulatory decisions more significant at this stage of the continued restructuring in the sector. Therefore, putting market structures in place will increase the significance and functions of the regulatory body and result in their transformation. As a result of the peer consultations with the New Jersey regulator, the SEWRC is better equipped with understanding its changing role and functions in the transformed energy sector.

In summary, the regulatory partnership program between the New Jersey and Bulgarian regulatory agencies has significantly strengthened SEWRC's decision-making capacities, enhanced its structures, overall institutional standing and technical expertise. The Bulgarian regulator is better equipped to analyze arising regulatory challenges and complexities of the evolving energy sector.

INSTITUTIONAL SUCCESS STORY

There have been important changes at SEWRC since the beginning of the partnership. We are not the same. The partnership has been extremely valuable to SEWRC and I would like to thank USAID and NARUC for making the cooperation possible.

- Prof. Konstantin Shushulov, Chairman, SEWRC

REGULATORY PERSPECTIVES FROM BULGARIA

I'm deeply impressed by the organization of BPU's regulatory work which allows for the effective settlement of the consumer issues, and ensures safe and reliable protection of their rights. In my opinion, SEWRC must use the NJ BPU experience and apply various practices of organizing costumer assistance and public outreach.

- Ms. Viktoria Dzhermanova, Senior Expert, SEWRC
(Participant of the 2004 Internship program at NJ BPU)

STATE ENERGY AND WATER REGULATORY COMMISSION
8-10, Dondukov Blvd., 1000 Sofia, tel. (359 2) 9888730, fax (359 2) 9888782

Honorable F. Butler, Commissioner
First Vice President of NARUC
NARUC
USA
Fax: (202) 898 2213

May 28, 2008

Dear Vice President Butler,

In reference to the recognition of SEWRC/NJ BPU partnership program 2002-2006 during the 8th ERRA Annual Conference in Budapest I would like to express the readiness of the State Energy and Water Regulatory Commission to continue the cooperation with our partner New Jersey Board of Public Utilities.

As an EU Member State regulator the SEWRC main task now is to promote the development of an effective and competitive electricity and gas market. To improve the effectiveness of regulation at that stage of the energy market liberalization we need to share regulatory experience in the following areas:

- implementing a power exchange market
- promotion of renewable energy sources (RES)
- water supply and sewerage services regulation
- customer protection

To this end we would like to ask you to consider the possibilities for continuing cooperation activities between our commission and the NJ BPU.

Sincerely,

Prof. Dr. Valentin Kirchev PhD
Vice-Chairman
State Energy and Water Regulatory Commission

Croatia – New York

The energy regulatory partnership program between the Croatian Energy Regulatory Agency (Hrvatska Energetska Regulatorna Agencija - HERA) and the New York State Public Service Commission (NY PSC) was established in the spring of 2003. In the course of their six-year cooperation, the New York partners have witnessed significant institutional, operational and legislative changes in Croatia's regulatory sphere. HERA's predecessor – the Croatian Energy Regulatory Council (CERC) – represented the country's first regulatory framework and was primarily involved in the process of analyzing licensing applications submitted by the national energy companies, issuing permits for energy activities, and preparing secondary legislation to further define the scope of its own regulatory activities. From 2004-2005, CERC underwent major changes in its institutional and regulatory framework that increased its authority and autonomy. The Council was restructured into its present-day successor, HERA, which conducts its activities as an independent non-profit regulatory entity responsible for monitoring the market to ensure non-discrimination, effective competition, and the efficient functioning of the internal market. HERA consists of a five-Member Managing Council, whose members are proposed by the Croatian Government and appointed by the Parliament, and the Technical Services, whose staff conduct regulatory activities.

HERA's main regulatory authorities and tasks include:

- Issuing licenses for carrying out regulated energy activities.
- Ensuring transparent and non-discriminatory functioning of the energy market and adherence to the public service obligation.
- Formulating energy prices to be set on the basis of approved tariff systems.

During their inaugural activity in Zagreb in November 2003 and a reciprocal visit by CERC in Albany, New York, in March 2004, the partners discussed regulatory and institutional challenges in their respective commissions and developed a work plan for subsequent cooperation, focusing primarily on the development and monitoring of market activities in Croatia, tariff and incentive pricing techniques for all energy sectors, as well as establishing working relations with the energy sector stakeholders. It became evident that the Croatian Council lacked authority, autonomy, and resources to do its limited functions adequately. Working relations between CERC and the Croatian Parliament and executive branch were characterized by ambiguity in the legal framework under which the Croatian Council operated, including the tariff approval process. Tariffs for regulated energy activities were proposed by the Ministry of Economy, Labor and Entrepreneurship upon the opinion of the regulator, with the final approval by the Government. Furthermore, the Council had only one expert staff member and its working arrangement with the Energy Institute of Hrvoje Požar (EIHP), an expert scientific institution established by the Croatian Government to support the strategic development of the national energy sector, was characterized by lack of properly defined tasks and duplicative authorities set forth in the energy legislation.

Following the establishment of an effectively new and strengthened regulatory body – HERA in 2006 – both partners explored more advanced institutional and operational issues including specific technical applications in tariff methodologies, harmonization and transparency in data collection processes and reporting requirements, accounting practices, development of natural gas regulatory framework, and consumer protections. Partnership meetings became more

substantive and consultative in nature due to intense information sharing and exchange of relevant experiences, especially in pricing methodology, natural gas market development, and regulatory monitoring and reporting. Presentations and questions from the Croatian regulator were more structured and the partners continued to solicit much-needed technical assistance in many areas of its regulatory work through a regular exchange of emails and pertinent documents (new package of energy legislation outlying HERA's new authorities). Both commissions became more aware of each other's strengths and resources, and their motivation to work together laid the foundation for the regulatory synergies that last to this day. Commissioners and technical staff engage in regular electronic communication and consult each other on various aspects of day-to-day regulatory operations. Specific to HERA's current interest, the New York natural gas experts continue providing assistance on reviewing methodologies and secondary legislation as the Croatian regulators near the development of the robust regulatory framework for the domestic gas sector.

Staff from HERA and New York PSC visit the New York ISO; Albany, NY, October 2006.

Amidst aggressive national regulatory reorganization, and energy sector restructuring introduced through the Southeast Europe Energy Community Treaty, the liberalization of energy markets in Croatia was initiated and continues to the present day. As a result, the partners resumed their meetings after a two-year hiatus during which various regulatory competencies were established between the governmental entities and HERA.

Partners adopted a peer-mentoring approach and delved into more advanced issues of tariff applications, licensing procedures, public-service obligations, natural gas regulations, incentive regulatory mechanisms, and consumer issues. The regulatory linkages have been renewed with more dedication and an almost unspoken sense of urgency on the part of the Croatian regulators to try to make up for the period of partnership inactivity. During their

closeout activity in June 2008 in Zagreb, the New York partners observed in their Croatian counterparts a high degree of professionalism, and institutional efficiency. New York representatives noted HERA's increased technical expertise in the power and natural gas sectors through expanded staff resources and more consistent exposure to U.S. and regional regulatory practices and institutions. HERA is now more confident in its regulatory mandate and the Croatian regulators feel more secure in requesting very specific regulatory assistance in the emerging topics such as treatment of renewable energy sources and the specific aspects of the natural gas regulations.

The HERA-NY PSC partnership can be credited with contributing to the following notable accomplishments:

Accomplishment #1 – Application of natural gas regulatory framework

Croatia's natural gas sector has been undergoing accelerated changes fueled by EU (Directive 2003/55/EC) and national (Gas Market Act of adopted in March 2007) legislation. The HERA regulators focused on receiving valuable information about natural gas tariff systems and harmonization issues including legal, organizational and decision making unbundling of the transmission and distribution system operators, dispute settlements, access to the transmission, and natural gas storage. An ambitious gas release program is being carried out for further liberalization and creation of full competition in the national market. As a result of the partnership consultations, HERA staff is well equipped with analytical tools to carry out various regulatory tasks of information gathering and processing.

Accomplishment #2 – Improved technical understanding of incentive regulatory tools including regulatory treatment of renewable energy and pricing methodologies

As Croatia evaluates compatibility and harmonizes its secondary legislation on renewable energy sources with that of the Southeast Europe Energy Community requirements, HERA staff hass solicited specific information and case studies from the New York partners to assist them in understanding of regulatory issues for renewable energy. HERA recognizes that although the 2004 energy legislation is favorable toward renewable sources of energy, the level of implementation and regulatory treatment are still inadequate and require further understanding. Some of the by-laws are still in the preparation and there is as of yet no complete and stable legal and regulatory framework on renewable energy sources. The Ministry of Economy, Labor and Entrepreneurship has to enact the Regulation on Utilization of Renewable Energy Sources and Co-generation. As a U.S. leader in green energy applications and solutions, New York has offered invaluable regulatory assistance in the form of case study analysis and peer mentoring and as a result, HERA staff has a better understanding of various approaches and practices they can use in their work.

Accomplishment #3 – Strengthening of institutional and operational aspects of Croatian regulatory agency

The transformation of HERA that we have witnessed during the six years of this bilateral partnership has been astounding. The agency started with a handful of technical staff that was also tasked to work with the Energy Institute of Hrvoje Požar (EIHP). Their work was not well defined and they often encountered overlapping authorities and legal ambiguities. The legal and regulatory frameworks are now well established with HERA directing and overseeing the regulatory aspects of the ongoing restructuring process. Furthermore, the institutional and

operational boundaries are well established as a result of partnership discussions on stakeholder process. HERA, now in its fourth year as a restructured agency with recently acquired new premises, has established itself as a highly reputable and independent expert regulatory entity, employing 43 technical staff and Members of the Managing Council who have taken on complex tasks of coordinating regulatory policies with overall energy strategy directed by the Ministry of Economy.

In summary, the Croatia – New York partnership has greatly enhanced HERA's institutional and technical capacities and expanded the regulatory perspectives of the New York Commission to include the non-US practices and experiences. Many New York regulators, especially those who have participated in multiple exchanges, have noted over the years that the partnership program has given them an opportunity to re-evaluate their own techniques, programs and approaches, and consider some of the applications and practices from HERA and the wider Southeast Europe region. The nature of HERA's inquiries and discussions has changed dramatically, with HERA staff now exploring issues beyond the regulatory basics. Over the years, partners have come to respect and appreciate each other's perspectives and tools of addressing emerging issues in regulation.

This USAID-supported partnership created a useful and pragmatic testing ground for many regulatory concepts, tools, practices, experiences and techniques that the regulators from Croatia and New York were able to share and exchange. In the words of President of the HERA Managing Council Tomo Galić, spoken during the closeout ceremony in June 2008, "a series of exchange visits between HERA and the New York State Public Service Commission increased exponentially our understanding of modern market-based regulatory practices."

INSTITUTIONAL SUCCESS STORY

HERA's participation in NARUC's regulatory partnership program has had a great effect on our agency's ability to introduce, approve and change tariff methodologies, consumer prices and policies. The agency has been able to influence our country's progress in advancing the legal framework necessary to establish market conditions, introduce competition and privatize energy sector entities. The partnership has exposed us to opinions on numerous issues including secondary legislation, regulations, operational aspects, technical applications and overall regulatory conduct).

- Dr. Mićo Klepo, Director, Thermal Energy Division, HERA, and former CERC Chairman

PERSONAL SUCCESS STORY

Personally, I found the Program informative and educational. Particularly enlightening was hearing about past experiences and outcomes in the early stages of regulation in NY / US and then relating them to our own set of circumstances. I would eagerly seize the opportunity to visit NYS PSC in order to fully apprehend, or even participate in the inner works of a US regulator.

- Mr. Zlatko Zmijarević, Senior Associate, Electricity Division, HERA

PARTNERSHIP PERSPECTIVES FROM NEW YORK

My overall impression of the program was that it was a very innovative approach to exchanging institutional knowledge between countries. My own experience in utility regulation has been primarily NYS-focused but with a more general awareness of federal issues and happenings in other States. Sometimes such a focus can be a bit blinding and can narrow thinking. The Partnership gave me an opportunity to examine how other countries faced similar challenges and to learn about what methods

they employed to solve problems. So I feel that I gained knowledge and experience that I would not otherwise have acquired.

- Mr. Charles M. Dickson, Director of Utility Rates and Services, NYS PSC

This partnership started five years ago - - despite changes in some personnel on both sides, it continued strongly with seven sessions held. Since the inception of the partnership, we have seen significant change at HERA. Initially, the staffing levels were limited to the Commissioners and very few staff. In our most recent visit we observed significant additions to professional staff. We note that the staff at HERA are not only very technically competent but also full of energy and highly motivated. In the initial visits we observed a good amount of confusion in roles and responsibilities among different agencies in Croatia with energy oversight, and with interpretation of newly enacted laws. Now it seems there is a lot more clarity and generally a clear sense of what HERA needs to do.

- Mr. Rajendra Addepalli, Deputy Director/Electric, Office of Electric, Gas and Water, NY PSC
- Mr. Thomas Dvorsky, Director, Office of Electric, Gas and Water, NY PSC
- Mr. Michael J. Scott, Deputy Director of Gas, Water and Safety, NYS PSC

HRVATSKA ENERGETSKA REGULATORNA AGENCIJA
CROATIAN ENERGY REGULATORY AGENCY

ZAHVALNICA

dodjeljuje se

Američkoj agenciji za međunarodni razvoj (USAID) za višegodišnje partnerstvo, suradnju i stručnu pomoć na području regulacije energetskih djelatnosti koja je trajno doprinijela uspostavi i jačanju Hrvatske energetske regulatorne agencije.

Tomo Galić dipl. ing.
Predsjednik Upravnog vijeća HERA

U Zagrebu, 4. lipnja 2008.

CERTIFICATE OF APPRECIATION

hereby granted to

the United States Agency for International Development (USAID) for years of partnership, collaboration and professional assistance in the field of regulation of energy activities resulting in lasting contribution to the establishment and strengthening of the Croatian Energy Regulatory Agency.

Tomo Galić
President of the Managing Council of HERA

In Zagreb, June 4, 2008

HRVATSKA ENERGETSKA REGULATORNA AGENCIJA
CROATIAN ENERGY REGULATORY AGENCY

ZAHVALNICA

dodjeljuje se

Nacionalnom udruženju energetskih regulatornih povjerenstava (NARUC) za višegodišnje partnerstvo, suradnju i stručnu pomoć na području regulacije energetskih djelatnosti koja je trajno doprinijela uspostavi i jačanju Hrvatske energetske regulatorne agencije.

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Predsjednik Upravnog vijeća HERA

U Zagrebu, 4. lipnja 2008.

CERTIFICATE OF APPRECIATION

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the National Association of Regulatory Utility Commissions (NARUC) for years of partnership, collaboration and professional assistance in the field of regulation of energy activities resulting in lasting contribution to the establishment and strengthening of the Croatian Energy Regulatory Agency.

Tomo Galić
President of the Managing Council of HERA

In Zagreb, June 4, 2008

Kyrgyz Republic – Washington

The energy regulatory partnership program between the State Energy Agency (SEA) of the Kyrgyz Republic (now the State Department of Fuel and Energy Regulation at the Ministry of Industry, Energy and Fuel Resources) and the Washington Utilities and Transportation Commission (WUTC) was established in August 2003. During their four-year regulatory cooperation, 2003-2006, the Kyrgyz and Washington partners executed two commissioner-level exchanges and four technical meetings in Olympia and Bishkek, and explored a variety of regulatory issues and broader energy sector challenges facing their agencies and geographical regions. The bilateral partnership exposed the Kyrgyz regulators to a variety of WUTC's administrative, procedural and technical practices, and enhanced SEA's understanding of the U.S. regulatory environment.

Commissioner Philip Jones and Utility analyst Tom Schooley from the Washington Commission discuss transmission planning issues at a dispatching center; Bishkek, July 2006.

Over the years, the partners addressed more challenging issues of regional energy trade, and the role of governments and regulators in stimulating national economic investment programs. In this regulatory area, the Kyrgyz regulators had an opportunity to meet with several federal agencies (the Bonneville Power Administration and the Federal Energy Regulatory Commission), State utilities and industry practitioners to learn about the stakeholder process and their respective decision-making authorities. The most sensitive discussion proved to be the corruption practices and missed opportunities to develop the credibility in the Kyrgyz energy sector for the benefit of the consumers and investors alike. As the Washington regulators noted, political interference, which is very prevalent in Central Asia, greatly diminishes prospects for conducting transparent regulation and subjects regulators to undesirable influence.

The partnership has led to a number of positive results and accomplishments despite major institutional setbacks, curtailed decision-making powers and frequent technical staff changes in the Kyrgyz agency. We would like to highlight SEA's improved efforts to ensure best practices in areas of specialized applications such as tariff regulations, legal functions within regulatory institutions, filing requirements and procedures, dispute resolution, and consumer relations. More specifically, three regulatory areas dominated the partnership discussions and can be highlighted as having broadened the perspectives of the Kyrgyz regulators with best practices and approaches.

Accomplishment #1 – Enhanced understanding of regulatory institutions, processes and authorities

In the course of the four-year partnership between the SEA and the WUTC, the institutional setting, management practices, fiscal autonomy, and decisional powers of the Kyrgyz regulator underwent dramatic changes in the name, scope of authority, and leadership. Frequent changes of the top decision-makers and politically-motivated incursions into the institutional and fiscal autonomy often incapacitated SEA's authority and decision-making processes and undermined its regulatory standing in the country. The Washington regulators methodically presented the merits of an independent regulator and the importance of insulation from the political process. Partners discussed relevant issues of regulatory appointments, politically-motivated discharges, transparency in decision-making, and other institutional practices.

Accomplishment #2 - Support for corporate management and sound commercial practices in the energy sector

Despite a consistent policy dialogue between the Kyrgyz government and the donor community, power sector infrastructure reforms have been limited because of a lack of political commitment. This has contributed to the underdevelopment of the national energy sector and also adversely affected the institutional standing of the energy regulator. The SEA-WUTC partnership discussions revealed that efforts to finance the infrastructure development are likely only possible after serious tariff reforms and willingness to allow commercial (private) management through various forms of foreign ownership. The SEA regulators learned about different concession models as a form of private investment schemes to enhance the viability of their energy sector. However, the government argued that energy has a vital place in the national economy and the ownership control should remain in the Kyrgyz Republic.

Accomplishment #3 – Development of sound tariff policy and utility reform

Price regulation discussions proved to be most dynamic and significant as the Kyrgyz regulators strived to learn about implementing sound, market-based tariff methodologies. As the WUTC partners explained, subsidies-driven tariff structures that do not cover the true costs of generation, transmission and distribution have a disastrous affect on the financing of the whole electricity sector and ensure that none of the electricity companies can viably support their activities. Various simulation exercises exposed the SEA regulators to such concepts as revenue requirements, cost of service studies and other tariff-setting techniques. The Kyrgyz regulators also visited several utilities operating in the States of Washington and Oregon to learn about sound utility practices.

In summary, technical staff from the State Energy Agency of the Kyrgyz Republic who was actively involved in the partnership has advanced in their respective positions and responsibilities. They have gained much comparative knowledge about the U.S. regulatory practices as well. For example, accountants and regulatory analysts have been able to take on new and more advanced responsibilities, based in part on the knowledge and skills acquired through the partnership program. Similarly, the WUTC regulators have praised the partnership program as having offered them an opportunity to learn about the Central Asian regional energy issues and the efforts to establish credible regulatory institutions.

PARTNERSHIP PERSPECTIVES FROM WASHINGTON

I found partnership participation, training, discussion and NARUC's website to be the most valuable means of comparing local practices, policies and issues with those of other jurisdictions and nations. For all involved, the most valuable aspect of our partnership with the Kyrgyz Republic has been the realization and understanding of problems facing developing nations in the delivery of safe, reliable and economic energy resources to their citizens. We have come to appreciate the complex economic, technical, political and social barriers to energy system development in developing nations. We found the experience to be very valuable and would welcome an opportunity to participate again. The objective of all partnership efforts was to enable and support regulatory reform within Kyrgyz energy sector. I believe that we accomplished the training and support objectives set forth for the partnership.

- Commissioner Patrick J. Oshie, Washington UTC

INSTITUTIONAL DEVELOPMENT

The SEA-WUTC partnership has allowed our agency to work more effectively and carry out various regulatory functions with the benefit of the international comparative practices. In connection with the introduction of market reforms in the Kyrgyz Republic, we would welcome another opportunity to form a close partnership to explore such concepts and learn from the U.S. regulators.

- Translated excerpt from a letter of Director Erkin Abdykalykov to NARUC

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ӨНӨР ЖАЙ, ЭНЕРГЕТИКА ЖАНА ОТУН
РЕСУРСТАР МИНИСТРЛИГИНЕ КАРАШТУУ
ОТУН – ЭНЕРГЕТИКАЛЫК КОМПЛЕКСТИ
ЖӨНГӨ САЛУУ БОЮНЧА МАМЛЕКЕТТИК
ДЕПАРТАМЕНТ

ГОСУДАРСТВЕННЫЙ ДЕПАРТАМЕНТ ПО
РЕГУЛИРОВАНИЮ ТОПЛИВНО-
ЭНЕРГЕТИЧЕСКОГО КОМПЛЕКСА ПРИ
МИНИСТЕРСТВЕ
ПРОМЫШЛЕННОСТИ, ЭНЕРГЕТИКИ И
ТОПЛИВНЫХ РЕСУРСОВ
КЫРГЫЗСКОЙ РЕСПУБЛИКИ

STATE DEPARTMENT ON REGULATION IS FUEL –ENERGY COMPLEX UNDER MINISTRY OF INDUSTRY, ENERGY AND FUEL RESOURCES AN KYRGYZ OF REPUBLIC

720055, город Бишкек, ул. Ахунбаева, 119 Телефоны: (0312) 56-02-76, 56-03-13 Факс: (0312) 56-02-76
119 Ahunbaeva st., Bishkek city, 720055 Phone: (0312) 56-02-76, 56-03-13 Fax: (0312) 56-02-76

№ 06/426 «15» 08 2007 г.

На ваш № _____ « » 2007 г.

NARUC
Старшему менеджеру
международных программ
г-же Мартине Шварц

Уважаемая Мартина!

Выражаем Вам и NARUC благодарность за предоставляемую возможность возобновления программы партнерства. Предыдущая программа партнерства показала, что обмен опытом между регуляторами США и Кыргызстана имеет большие перспективы, уроки и опыт, полученные нашим регулятивным органом в рамках данной программы, позволяют нам как регулятору работать эффективнее и выполнять функции регулирования с учетом международных стандартов.

Вместе с тем, ситуация в энергетике Кыргызстана меняется в сторону развития рыночных отношений. Предполагается приватизация энергетических компаний и внедрение в широком формате рыночных принципов. В этой связи роль регулятора усиливается, необходима разработка четких и прозрачных процедур для эффективного обеспечения баланса интересов участников рынка. Поэтому, основательная техническая помощь в рамках возможной программы партнерства со стороны регулятивных органов США, имеющих огромный опыт работы в условиях рынка, была бы для нас буквально бесценна.

Еще раз выражаем благодарность и надеемся на дальнейшее плодотворное сотрудничество.

С уважением,

Директор **Абдыкалыков Э.**

STATE DEPARTMENT ON FUEL AND
ENERGY COMPLEX REGULATION
UNDER THE MINISTRY OF
INDUSTRY, ENERGY AND FUEL
RESOURCES OF THE KYRGYZ
REPUBLIC

119 Ahunbaeva st., Bishkek city, 720055 Phone: (0312) 56-02076, 56-03-13 Fax: (0312) 56-02-76

No. 06/426 « 15 » 08 2007.

To your No. _____ «_____» _____ 2007.

NARUC
To Manager of
of International Programs
Ms. Martina Schwartz

Dear Martina!

We would like to express our gratitude to you and to NARUC for the opportunity to renew the partnership program. The previous partnership program showed that exchange of experience between the U.S. regulators and regulators of Kyrgyzstan has promising future, lessons and experience gained by our regulatory body in the framework of this program enables us as regulators to work more efficiently and to carry out functions related to regulation taking into account international standards.

At the same time, the situation in the energy sector of Kyrgyzstan changes towards development of market relations. Energy companies are expected to be privatized and market principles have to be introduced on a large scale. In connection with that the role of the regulator would become more important, and it is necessary to elaborate clear and transparent procedures to ensure efficient balance of interests of all market participants. That is why serious technical assistance is necessary in the framework of the possible partnership program from U.S. regulatory bodies that have enormous experience of working in market conditions; that would have been really literally invaluable to us.

Once again we want to express our gratitude and hope for further fruitful cooperation.

Sincerely

Director /signature/ E. Abdykalykov

Macedonia – Vermont

The energy regulatory partnership program between the Energy Regulatory Commission of the Republic of Macedonia (Регулаторна Комисија за Енергетика на Република Македонија - ERC) and the Vermont Public Service Board (PSB) was established in March 2004 with an inaugural executive-level partnership exchange in Skopje. Over their three-year regulatory partnership from 2004 through 2006, the Macedonia and Vermont regulators implemented two commissioner-level and three technical meetings where they discussed a broad range of regulatory issues, including administrative procedures, institutional frameworks, public utility licensing process, customer interface and stakeholder relations, and a host of other pertinent topics on the energy sector restructuring.

Established in 2003, ERC is an independent regulatory body which conducts its activities based on the Macedonia's Law on Energy and is composed of five Commissioners elected by the Parliament of the Republic of Macedonia. ERC directs regulatory activities in the electricity, natural gas, and district-heating sectors; its main requirements are to:

- Ensure safe and secure energy supply to the final consumers.
- Establish tariff systems and prices.
- Establish authorization procedures (licenses for generation, distribution, supply).
- Develop and oversee applications of grid and market codes.
- Direct dispute settlement and protection of consumers.
- Promote competitive energy markets with transparency and non-discrimination.

The ERC-PSB bilateral partnership program exposed the Macedonian regulators to the operations of the Vermont commission, as well as other U.S. State, regional (Midwest ISO, New England ISO), and federal (FERC) regulatory agencies. The partnership provided a valuable exchange of regulatory practices and techniques to develop and direct energy sector activities. As noted by the ERC staff, the partnership was instrumental in developing a better understanding of innovative regulatory concepts and tools in application of energy efficiency, demand-side management programs, monitoring, and price reviews. As a result, the Macedonian regulatory authority now conducts effective public hearings with broad stakeholder participation and has a better understanding of the role of public consultations in the regulatory process.

As Macedonia started to harmonize its national energy policies with those of the European Union, the ERC regulators focused their partnership discussions on several issues, including energy efficiency and development of renewable energy sources as part of the country's efforts to diversify its energy portfolio; best practices in customer service and quality control; and, various aspects of price regulations, methodologies and tariff design. In the parallel process of developing the Southeast Europe regional energy market and institutions through the Energy Community Treaty (signed by the Republic of Macedonia in June 2005), ERC exchanged with Vermont valuable experience and information on regional markets, cross-border cooperation and performance of competitive wholesale, and retail markets.

The ERC- PSB partnership has led to a number of positive results. These benefits include: exposure to live hearings and staff meetings at the Vermont Commission; discussions at regional transmission organizations (New England ISO, PJM) on the structure and functions of regional markets; observation of file management, regulatory data collection and reporting

mechanisms to enhance internal and external information flow; and, simulating exercises on designing and implementing various tariff structures. Such opportunities have assisted the ERC and the VT PSB in reviewing, self-examining and improving their own regulatory processes and functions.

Five Commissioners from the Energy Regulatory Commission of Macedonia participate in a public hearing at the Vermont Public Service Board; Vermont, June 2004.

The most noted direct transfer of experience and skills acquisition includes:

Accomplishment #1: Improved understanding of the role of energy efficiency, energy conservation and demand-side management programs.

Partnership discussions focused on regulatory practices and the implementation of industry technologies to provide for efficient energy use, policy guidance, and overall regulatory framework. The ERC regulators have been introduced to institutional issues and technical programs in the residential and industrial sector, including establishment of a statewide energy efficiency utility to administer demand-side management programs, mechanisms for supplying and delivering energy efficiency to consumers, adopting preferential tariffs for producers of renewable energy sources, and, among other responsibilities, establishing efficiency standards and labeling of household appliances. As a result of this exposure to various aspects of renewable energy and demand side management programs, ERC is now more confident in understanding of methodologies, programs and practices in incorporating energy efficiency into the utility services. ERC collaborates with the Macedonian Center for Energy Efficiency (MACEF) on broadening the national energy efficiency dialogue, and promoting energy efficiency measures in commercial and household applications.

Accomplishment #2: Strengthening of consumer protections, service-quality monitoring and public relations.

In the consumer sector, ERC learned how to protect better the interests of its consumers by establishing a more streamlined dispute-settlement process in response to rising consumer complaints about inadequate service and erroneous billing. The ERC staff worked closely with the PSB experts to learn about specific procedures to improve the customer service. Another transfer of experience had to do with improved collections through a more sophisticated billing system that had eliminated poor accounting practices and simple lack of information. ERC has considered implementing the billing templates used by utilities in Vermont to reflect accurately the consumer usage data and other critical accounting practices. The Macedonian regulators also enhanced their understanding of regulatory policies and mechanisms for eligible and vulnerable customers.

Accomplishment #3: Enhanced experience in conducting price reviews and preparing tariff methodologies

The Macedonian regulators have acquired relevant skills in conducting effective price reviews, within the constraints of the existing law, analyzing cost of utility service studies, designing tariff methodologies, and setting final prices for different consumer classes. Additionally, ERC tariff experts learned about the importance of establishing adequate pricing signals through elimination of cross-subsidies and discriminatory pricing policies. The practice of gathering tariff documents from utilities strengthened ERC's understanding of the stakeholder process. However, despite the evidence of progress in the sphere of price regulations, the recent government action on the tariffs has inhibited sound price reforms.

INSTITUTIONAL SUCCESS STORIES

The Macedonian ERC is still in the early stages of development and institutional formation. All experiences and knowledge gained throughout the partnership activities with the Vermont PSB and other state and federal policymakers and practitioners will influence and contribute towards the improved effectiveness in our day-to-day regulatory conduct.

- Response from ERC evaluation form, May 2005

The 'self-examination' involved in explaining the work of PSB and learning how the ERC is approaching its duties have made me re-think the ways through which PSB can improve its own organization and practices.

- Mr. Kurt Janson, General Counsel, Vermont Public Service Board

Moldova – Iowa

The energy regulatory partnership program between the National Agency for Energy Regulation of the Republic of Moldova (Agenției Naționale pentru Reglementare în Energetică - ANRE) and the Iowa Utilities Board (UB) was established in July 2002 as one of NARUC's first bilateral energy partnerships. As the partnership program was in its infancy, the goal of pairing a U.S. State public utility commission and a regulatory agency in Eastern Europe was to create long-lasting professional synergies for improving mutual technical capacities, practices, and institutions in the regulatory sphere.

In the course of their three-year regulatory partnership from 2002 through 2004, the Moldova and Iowa regulators implemented two executive and four technical exchanges. The

regulators discussed issues ranging from regulatory frameworks and legislative aspects to market-based tariff methodologies, privatization of energy enterprises and consumer protections.

Since its establishment in 1997 by the Government of Moldova Decree No. 767, ANRE has undergone a major transformation in its institutional framework, authorities and activities directing the development of the power, natural gas, petroleum and district heating sectors. As an economic regulator, ANRE issues licenses, promotes an appropriate tariff policy and is responsible for establishing relevant consumer-rights protections. In the initial formative stages as an independent regulatory entity, ANRE has directed its efforts to develop a regulatory system of power sector activities in Moldova, developing and implementing normative acts necessary for license issuance and monitoring, approval and application of tariffs, and resolution of consumer disputes. By the extension of the energy legislation package of 1998 (Electricity Law; Natural Gas Law), ANRE was vested with the authority to set electricity, heat and gas tariffs. As indicated by several members and senior staff throughout the partnership, tariff regulation of natural gas, electricity, and heat produced by the local combined heat and power plants was one of the most daunting challenges ANRE faced during the initial regulatory period.

Commissioners and staff from the Moldova Commission and the Iowa Utilities Board during their third partnership exchange; Des Moines, IA, March 2004

The Moldova-Iowa partnership program accentuated the practical regulatory experience of the U.S. regulators, and provided a focused discussion forum for addressing ANRE's legislative framework, practices and regulatory functions. Among the partnership's most noted accomplishments are the following skills, impacts, and achievements highlighted by the Moldovan regulators:

Accomplishment #1 – Improved understanding of normative, procedural and technical capacities of regulatory agencies

The Moldovan regulatory agency has strengthened its legal framework through the process of issuing and enforcing secondary legislation. Additionally, as ANRE staff pointed out in the partnership surveys, the program has facilitated the development of various organizational and administrative functions which sustain and complement their technical and analytical work. They have become more aware of the consultative process with energy sector stakeholders and have implemented a number of procedural and issue-specific hearings to develop further their relations with the public utilities. As Marin Profir, ANRE's Executive Director, pointed out, "the decision-making process has become more extensive but at the same time more detailed, transparent and credible. The latter attribute has lent itself to our participation in the development of primary energy legislation at the invitation of national lawmakers."

Accomplishment #2 – Institutionalization of secondary legislation for consumer protections, service quality and dispute settlement

As a result of the partnership discussions, ANRE was able to establish a department for customer protections and service quality, using the long-standing experience of their Iowa partners in enhancing consumer outreach and education. Consumers in Moldova are now more aware of ANRE's functions with respect to service quality regulations and, according to the agency, consumers actively participate in the public hearing sessions and general discourse related to the service issues such as power outages and service interruptions. Additionally, ANRE has adopted a formal consumer complaint process and dispute resolution, which they employ to resolve standing grievances.

Accomplishment #3 – Strengthening of legal framework, including establishment of auditing and monitoring functions and procedural transparency

As partners delved into more technical subjects of their discussions, the Moldovan regulators learned about the importance of monitoring functions with respect to license compliance, service quality and market performance. As a result of peer discussions with their Iowa partners, ANRE strengthened its capacity to carry out transparent monitoring and enforcement responsibilities and facilitate fair market competition as those emerge and evolve. The Iowa partners have equipped ANRE with their own tools, approaches and best practices for employing sound monitoring functions.

PERSONAL SUCCESS STORY

The most important and personally enriching aspect of the partnership program was the knowledge of how U.S. regulators conduct economic analysis and fundamental, step-by-step process of establishing and approving tariffs through optimal and appropriate price regulation practices. As most positive, I reckon the juxtaposition of my personal opinions and ways of understanding in the regulatory sphere with those of my professional peers and U.S. regulators.

- Mr. Alexandru Mija, Deputy Director of Department for Tariff Policy and Economic Analysis, ANRE

Serbia – Pennsylvania

The energy regulatory partnership between the Energy Agency of the Republic of Serbia (Агенција за Енергетику Републике Србије - AERS) and the Pennsylvania Public Utilities Commission (PA PUC) was established in the fall of 2007. Both partners have met three times since the partnership inception – October 2007 in Belgrade, April 2008 in Harrisburg, and September 2008 back in Belgrade – and have created a solid foundation for one of the strongest bilateral regulatory partnership programs administered by NARUC through funding from USAID.

During their inaugural exchange, the partnering agencies learned about their respective institutional operations and developed a fluid work plan in which they established a timeframe for meetings. Additionally, the partners identified major areas of information sharing. From the very beginning, the Serbian regulators expressed a strong desire to learn about advanced regulatory issues and share their experience in transitioning to market-based practices including setting tariffs, ensuring quality supply, monitoring utility services, and establishing market rules and codes. The introductory exchange focused briefly on institutional issues in order for the partners to familiarize themselves with operational aspects of their respective agencies. These initial exchanges moved quickly to more complex issues and challenges including price regulation and tariff setting in electricity and natural gas sectors, regional electricity market functioning, quality of supply, electricity sector restructuring and network unbundling, regulatory and industry practices in reducing losses, accounting systems, monitoring, and service quality. The Pennsylvania regulators were acquainted with the Southeast European regional institutional arrangements and the Serbian partners discussed challenges including cross-border capacity issues, transmission network upgrades, and market monitoring.

Representatives from the Pennsylvania Commission, Energy Regulatory Agency of the Republic of Serbia, NARUC, and USAID during the MOU signing ceremony for the inaugural partnership meeting; Belgrade, October 2007.

As the meetings progressed, the Serbian regulators demonstrated their utmost interest in fully utilizing the partnership resources and the long-standing experience of the Pennsylvania Commission in introducing and monitoring the operations of competitive retail services in the power and natural gas sectors. The second and third partnership activities featured discussions, analytical exercises and case studies on commercial, technical and monitoring considerations in cross-border trade, electricity market structures, market monitoring and mitigation, regional market development including transmission capacity allocation and system adequacy, supply quality, contracts and settlements procedures, supplier of last resort, and other relevant issues. Additionally, two senior technical staff from AERS participated in a one-week regulatory training in California and a one-week internship program at the Pennsylvania PUC in May 2008 in order to receive more rigorous exposure to technical issues in regulation and advance their technical understanding of select issues in price regulation, including a simulation of utility tariff proceedings.

AERS periodically submits numerous electronic requests for expanding the partnership discourse with more sophisticated topics, simulative exercises, consultative sessions and other capacity-building measures and training opportunities to enhance its operations and understanding of the comparative market-based regulations. This active and timely approach for information exchange has strengthened its staff's technical expertise and overall understanding of various regulatory concepts, techniques and practices employed by U.S. State and federal agencies.

Although only in its second year, the Serbia-Pennsylvania partnership has already progressed to discussions on advanced regulatory concepts and practices, with both partners challenging each other on intricate problems and practical solutions. The partnership can be credited with the following improvements in the AERS' regulatory operations:

Accomplishment #1 – Enhanced understanding of market operations and rules

All three partnership activities to date have featured extended sessions, consultations, and site visits on specific topics in market frameworks, monitoring operations, and functions. The Serbian regulators have gained comparative knowledge about U.S. wholesale and retail market operations and discussed applicable issues with the state and federal regulatory agencies including the PJM RTO and FERC. AERS technical staff have praised the partnership for creating strong synergies and contributing to their better understanding of technical aspects, applications, and methodology which they are able to apply in their work on the Southeast Europe energy market processes.

Accomplishment #2 – Improved technical capacity of regulatory staff

The partnership program has allowed all AERS staff to improve their technical knowledge of various regulatory issues. More specifically, two AERS staff participated in a formal internship program, job shadowing and an intensive one-week utility rate school. Each of these opportunities has allowed them to improve significantly their technical understanding and expand their regulatory experience with international comparative knowledge and networking. As a result, they have gained analytical skills that they can apply in their daily assignments.

Accomplishment #3 – Enhanced methodology in conducting price reviews

The partnership activities have featured several sessions and consultations on conducting step-by-step price reviews and the methodology that is employed in this process. As a result, the

Serbian regulators have adopted additional techniques and tools, and are using their partners' experience and guidance in conducting more efficient tariff analysis.

In summary, the Serbia-Pennsylvania partnership program has shown how two active partnering institutions can engage each other on challenging regulatory issues in the evolving energy sectors. Both partners work very closely and through multiple channels of communication as they exchange timely feedback on future activities and most appropriate formats to maximize their experience and resources. Both regulators have established strong synergies and are looking forward to furthering their cooperation in the future through direct consultations.

INSTITUTIONAL SUCCESS STORY

The results of the partnership program will influence future organizational changes [at AERS]. We are planning to analyze more deeply effectiveness and adequacy of current organization and practices. I think that key results of two programs in 2007 and in the spring of 2008 lie in the improvements of technical knowledge and experience of the AERS staff in specific aspects.

- Mr. Ljubo Maćić, President of AERS

REGULATORY PERSPECTIVES FROM SERBIA

The effects of our participation in the Partnership program could be described as those that will produce real effects in the mid-term. Namely, the capacity building of the professional staff and commissioners of a regulatory authority, i.e. their knowledge of the "wider picture," as well as the specific regulatory mechanisms that are in place in various jurisdictions, represents the best basis for setting up and implementing a sound regulatory framework and practice. This knowledge represents the greatest asset of any regulatory body, which should ensure optimal results, and it is my view that it is exactly this knowledge that we have obtained during the Partnership so far. The exchange of experience will certainly help AERS in giving a significant contribution to the discussions and actions that are underway on the establishment of a well-functioning SEE Energy Market under the auspices of the Energy Community Treaty, but also in enhancing our activities on a national level in terms of energy market development.

- Mr. Nikola Radovanović, Senior Legal Expert for System Affairs, AERS

Енергетска сарадња Пенсилваније и Србије

Вашингтон – Енергетска комисија америчке савезне државе Пенсилваније очекује веома добру сарадњу са српском Агенцијом за енергију, јер су проблеми са којима се та два тела суочавају врло слични или истоветни, а то су високе цене и изналажење нових, разноликих извора енергије, изјавио је председник комисије Вендел Холанд. „Верујем да ће наше партнерство бити успешно", рекао је за „Глас Америке" Холанд, који је био у посети Београду. „Разменићемо искуства како бисмо изградили енергетски регулаторни систем којим бисмо помогли економски развој Србије и региона", рекао је Холанд и при том подсетио да „Комисија енергетског сектора Пенсилваније постоји већ 70 година, док је српска Агенција за енергију основана пре непуних пет година". Холанд је, такође, рекао да би представници српске агенције требало у првој недељи априла да бораве у САД, ради настављана размене идеја. **Танјуг**

Newspaper *"Politika"*, No. 33901, page 15, March 25, 2008

Energy partnership between Pennsylvania and Serbia

Washington, DC – PA PUC is looking forward to a fruitful cooperation with the Energy Agency of the Republic of Serbia, having in mind that both regulators are facing similar or identical problems, such as high prices and searching for new, diverse energy sources, said the PA PUC Chairman Wendell Holland. "I believe that our partnership is going to be successful", said for the "Voice of America" Chairman Holland, who has visited Belgrade. "We are going to exchange experience in order to build an energy regulatory system that would help the economical development of Serbia and the region", said Holland and reminded that "PA PUC is operational for 70 years, while the Energy Agency of the Republic of Serbia was founded less than 5 years ago". Holland also said that representatives of the Serbian regulator are about to come to the US in the first week of April in order to continue the exchange of ideas.

Newspaper *"Politika"*, No. 33901, page 15, March 25, 2008

Partneri sa Pensilvanijom

BEOGRAD - Agencija za energetiku Srbije i Komisija za komunalne delatnosti (PUC) Pensilvanije potpisali su juče Sporazum o saradnji, u cilju razmene informacija u oblasti regulative i tehničke primene u sektorima električne energije i prirodnog gasa. Partnerstvo dve institucije omogućiće regulatorima u Srbiji da imaju bolji pristup regulatornom okruženju u SAD, a PUC Pensilvanije imaće priliku da se upozna s novim tehnikama i metodologijama, i stekne uvid u regulatornu praksu u jugoistočnoj Evropi. (TANJUG)

***"Press Daily"*, November 2, 2007**

Partnership with Pennsylvania

Belgrade – The Energy Agency of the Republic of Serbia and the Pennsylvania Public Utility Commission (PA PUC) have signed a Memorandum of Understanding yesterday. The aim of the partnership is exchange of information in the area of regulation and technical implementation in electricity and natural gas sectors. The partnership between the two institutions will provide better insight into US regulatory environment to the Serbian regulator, while PA PUC will have the opportunity to get acquainted with new techniques and methodologies, as well as an insight into the SEE regulatory practice.

***"Press Daily"*, November 2, 2007**

E. Regulatory Training at U.S. Institutions

Annual Regulatory Studies Program at Michigan State University: CAMP NARUC, August 2002

Under the auspices of the energy regulatory partnership program, NARUC has sponsored three members from the Croatian Energy Regulatory Agency (HERA) for participation in the two-week Annual Regulatory Studies Program at the Michigan State University. This program, endorsed by NARUC and affectionately known as Camp NARUC, is designed exclusively to meet the needs of public-sector regulatory professionals. Presentations cover all aspects of the regulatory process, as applied generally and particularly to the electricity, natural gas, water, and telecommunications sectors. Our Croatian partners noted that the program allowed them to study modern regulatory theory, institutions, and processes. Additionally, they learned timely, essential, and practical information, perspectives, and decision-making tools that they have applied at home.

The program has also given them a unique opportunity to form lifelong networks with other professional colleagues in the regulatory policy field from the U.S. and other countries around the world.

The Public Utility Research Center (PURC)/World Bank International Training Program on Utility Regulation and Strategy, June 2007; January and June 2008

Under the auspices of the energy regulatory partnership program, NARUC has sponsored one member and four senior regulatory staff from the Croatian Energy Regulatory Agency (HERA) for participation in the two-week biannual intensive regulatory strategy course organized jointly by the Public Utility Research Center (PURC) at the University of Florida and The World Bank. This international training course is designed for utility regulators and regulatory staff to enhance their economic, technical, and policy skills required for implementing policies and managing sustainable regulatory systems for infrastructure sectors. Our Croatian partners noted that the program allowed them to be immersed in studying various regulatory case studies, practical exercises and network with leading regulatory practitioners and peer regulators from around the world to gain comparative regulatory perspectives.

NARUC Utility Rate School: Basics of Rate-setting, May 2008

NARUC sponsored two senior regulatory staff from the Energy Agency of the Republic of Serbia (AERS) for participation in the Utility Rate School endorsed by NARUC's Committee on Water. This program is applicable to all regulatory industries and presents an opportunity for rigorous hands-on skills instruction in public-utility ratemaking. The rate school features a mock rate case that follows aspect of the process - from establishing revenue requirements, to determining the allowed rate of return, to designing rates. Our Serbian partners have noted that this intensive training program was extremely beneficial for their understanding of various aspects involved in the ratemaking process. The course also provided them with an exposure to current issues and trends in the energy sector as well as an excellent networking experience for exchange of relevant information.

These diverse training opportunities have expanded the partnership program format by allowing the partnering institutions to be exposed to broader regulatory discourse, network with industry experts and regulatory practitioners, and exchange valuable experience.

F. Formal Internship Program

Under the auspices of the regulatory partnership program and based on the interest of the partners, NARUC arranges short-term (one- to two-week) internship programs which allow the foreign partners to work with a peer regulator(s) at the partnering U.S. institutions on a common set of regulatory issues. The purpose of the internship is to observe the day-to-day functions and operations at a regulatory agency, have broad access to information and learn techniques, methodologies and best regulatory practices in relevant departments. The internship offers a unique opportunity to transfer the acquired knowledge and skills to an intern's home commission environment.

Select staff members from the international regulatory agencies coordinate closely with their U.S. State commission mentors and prepare detailed training plan which encompasses a number of case studies, exercises, and specific tasks and is implemented in the home

environment of the partnering U.S. commission. The internships provide a unique opportunity to shadow a regulatory counterpart and analyze various issues as they arise. Moreover, the foreign regulators are able to participate in regularly scheduled commission meetings, hearings and other activities to gain first-hand experience about how U.S. State commissions conduct their daily activities. The interns are well integrated in the partnering commission departments and acquire valuable and immediately transferrable analytical skills.

NARUC sponsored the following internship programs:

- Bulgaria – New Jersey (March 2003): Guidelines on Customer Service and Consumer Protections
  (Results: Contributed to developing secondary legislation at SEWRC to ensure customer safeguards and establish a formal dispute resolution process)
- Bulgaria – New Jersey (September 2004): Public Relations, Customer Complaint Process and Dispute Resolution
  (Results: Enhanced SEWRC's understanding of the consultative process among various energy sector stakeholders and contributed to incorporating several practices regarding customer support)
- Albania – Indiana (June 2005): Public Outreach, Consumer Protections, Low-income and Vulnerable Consumer Utility Programs
  (Results: Institutionalized a formal hearing process on consumer-related issues and reorganized the internal structure of the commission to incorporate a separate consumer relations department)
- Serbia – Pennsylvania (May 2008): Price Regulations, Charts of Accounts, Rate Case Simulation
  (Results: Enhanced AERS' understanding of the comprehensive utility tariff approval process and transferred various techniques and skills to process rate filings)

G. Southeast Europe Market Regional Electricity Monitoring Project

In October 2005, NARUC co-organized a workshop with CEER to introduce the concept of market monitoring, examine U.S. practices, and discuss the potential for monitoring in countries in Southeast Europe. The workshop participants, representing regulators, transmission system operators, market operators, and other stakeholders, looked at each country's status and situation. In November 2006, NARUC organized a second workshop to launch a pilot project to engage the services of U.S. and European experts to work with regulators and TSOs to collect and analyze data.

Background to the Project

The Treaty Establishing the Energy Community went into effect July 1, 2006. Under the Treaty, the contracting parties (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Montenegro, Romania, Serbia, and UNMIK) agree to work together to create electricity and gas markets that are integrated with the EU Internal energy markets. The Treaty requires the contracting parties to adopt EU energy, competition and environmental acquis communautaire. The Treaty also creates an Energy Community Regulatory Board (ECRB).

There is substantial interest in market monitoring and transparency issues in the European Union and among the members of the Energy Community. The European Commission (EC) Electricity Directive addresses monitoring as does the DG TREN[23] Note (January 14, 2004) on The Role of Regulatory Authorities. The recent EC Energy Sector Inquiry-Preliminary Findings identified issues related to monitoring including the lack of adequate data availability and transparency. In the Energy Community process two initiatives have addressed the monitoring issue. The regulatory benchmarking undertaken by The Council of European Energy Regulators Southeast Europe Working Group (CEER SEE WG) identifies the existing monitoring capabilities in the regulatory bodies most of which were established in the last three years. In addition, the CEER-NARUC Workshop on Monitoring of Competitive Electricity Markets held in Athens, October 4-5, 2005, established the technical foundation and rationale for market monitoring. The EC Mini-Forum on October 6-7, 2005, concluded that a monitoring program proposal would be developed by USAID and put forward at the June 2006 Athens Forum.

The importance of data transparency and availability for achieving a competitive electricity market has also been addressed recently by the European Regulators Group for Electricity and Gas (ERGEG), the Electricity Transmission System Operators (ETSO), Eurelectric and the European Federation of Energy Traders (EFET). All reflect the need for transparent and available data with illustrative examples of what is needed. The monitoring function will require access to and collection of many of the same data.
The design and pilot testing of the regional competitive electricity market monitoring will provide experience and lessons learned for decisions to be made on longer term arrangements for the opening of the market in 2008.

Purpose/Objective

The purpose of this pilot project was to develop an approach to market monitoring and to test its implementation so that decisions can be made with respect to the institutionalization of market monitoring in the Energy Community. This approach developed performance indices and screens that identify anticompetitive market conduct, market flaws and market power.

The objectives were to:

1) Design data collection and analytical elements for market monitoring;
2) Conduct a pilot test of data collection and market analysis; and
3) Draw lessons from this experience and make recommendations on the implementation of a market monitoring function before the Energy Community market for non-residential customers opens in 2008.

Approach

Global experience indicates the importance of having in place a monitoring capability at the time of market opening. The focus of the work will be on: (a) short-term identification of anticompetitive behavior; (b) market-design problems; and (c) market power and structure. The scope of the monitoring will focus on cross-border trade and not national transactions which are the responsibility of the national regulators. National data will, however, be needed.

[23] European Commission's Directorate-General Energy and Transport.

A consortium of U.S. and European expertise implemented the monitoring design and pilot test. NARUC provided related support and expertise from the U.S. or European regulatory organizations as needed.

- The U.S. expertise was provided by Potomac Economics. They are a leader in the field of monitoring and competitive assessment of wholesale electricity markets.
- Cambridge University, Faculty of Economics: Professor David Newbery and other faculty members have done extensive research and analysis on European electricity issues and markets including the work "A Review of the Monitoring of Market Power."
- Corvinus University, Regional Center for Energy Policy Research (REKK): Dr. Peter Kaderjak and staff have carried out analytical work on electricity market issues and have familiarity and experience with the Southeast Europe energy issues.

These implementers will coordinate with TSOs, national regulators and the Energy Community Regulatory Board (ECRB), which has established a working group on cross-border electricity.

Conclusion

Due to the success of the project and strong participation by regulators and TSOs, the pilot was extended beyond the original 12-month scope. Data was collected from December 2006 – June 2008. In late 2008, a transition monitoring plan was prepared and approved to institutionalize market monitoring in the Southeast Europe region. 2009 will be a transition phase which is guided by the ECRB Electricity Working Group. During this time, the ongoing monitoring of the regional wholesale markets will continue, including analysis of congestion events and potential causes of congestion. In addition, the USAID-funded consultants will monitor the development of the coordinated auction mechanism and the implementation of a monitoring function for the Coordinated Auction Office and Coordinated Auction.

All monitoring reports, workshops documents, and related materials are available at www.naruc.org/see_monitoring.

H. Baltics Regional Working Group

From 2000-2004, NARUC organized several workshops and study tours for regulators and utility representatives from Estonia, Latvia, and Lithuania, with select participation by U.S. regulators. These activities allowed the three Baltic regulators and utilities to advance efforts to create a Common Baltic Electricity Market.

I. Azerbaijan Public Service Regulation Development Program

NARUC has been supporting the government of Azerbaijan, various energy stakeholders, and regulatory institutions in their understanding of market-based regulations and international regulatory practices since 2004.

In 2004-2005, several senior Azeri officials from the Parliament (Milli Mejlis), the Cabinet of Ministers and related ministries (the Ministry of Economic Development, and the Ministry of Industry and Energy), and the broader non-governmental community participated in four NARUC seminars and study tours, both in Azerbaijan and the wider-ERRA region. These activities provided valuable information and introduced various concepts and international approaches to regulatory autonomy, tariff setting and economic (price) regulation, utility management practices, regional

issues, and the regulatory-government interface. NARUC members and ERRA regulators discussed in-depth regulatory fundamentals of institutional and fiscal autonomy, accountability and reviewed various procedural and administrative practices in their respective agencies.

In the fall of 2005, the Law on the "Organ regulating communal services in Azerbaijan" was drafted and created the Tariff Council of Azerbaijan with a rate-setting mandate in the energy sector and other public service areas. In 2005-2007, NARUC expanded its regulatory assistance through targeted institutional and technical capacity-development of the newly formed Tariff (Price) Council of Azerbaijan, the utility sector and government officials. Two topical in-country workshops featured modules on fundamentals of economic regulation, approaches to monitoring of licensed market activities, introductory and advanced issues in tariffs and price regulation, utility finances, electricity supply and cost analysis, service quality, incentive price regulation, and regional energy developments. The workshops also featured interactive panel discussions from local experts on Azerbaijan's energy sector reforms and practical exercises for building analytical skills. In 2006, the Tariff Council became a full member of ERRA and three senior Tariff Council staff also participated as observers in the USAID/NARUC Partnership Summit and the World Forum on Energy Regulation III. In this period, NARUC consistently supported participation of the Tariff Council technical staff in ERRA programs - committees, working groups, annual investment conferences, and technical training programs.

Representatives from the Tariff Council and USAID discuss critical aspects of energy sector reform in Azerbaijan; Baku, July 2007.

In 2008, NARUC further expanded its technical capacity development program for Azerbaijan to include regulatory synergies and identified a priority partner in the Energy Market Regulatory Authority of Turkey (EMRA) to work as a mentor to key Azeri Tariff Council staff on a

broad set of technical applications, case studies, issue analyses, virtual information exchange, and regional energy interests. The first Technical twinning program was implemented in Ankara in March and initiated strong and ongoing professional linkages between the two agencies. NARUC continues to sustain this partnership through targeted information exchange and issue-specific peer mentoring as the Tariff Council continues to establish itself as an expert regulatory agency.

In July 2008, NARUC implemented an advanced Regulatory and Tariff Workshop in Baku by engaging the Tariff Council, relevant ministries, the utility industry, and other local stakeholders in interactive sessions on market-based regulatory principles, best practices in tariff construction and forecasting, cost analysis, private investment and participation in the energy sector, regional energy trading and other relevant issues to continue promoting sound energy regulation, market-oriented reforms, and regional cooperation. The workshop featured expert panels and lectures by senior regulators from the United States and the ERRA-wide region.

In the last five years, NARUC has actively bolstered the technical capacities development and institutional growth of the Tariff Council of Azerbaijan through targeted regulatory assistance, exposure to international practices, particular skills development and promotion of sound energy regulation. The price-setting agency has, as a result, strengthened its institutional standing in the country, improved its understanding of economic regulation and administrative practices, and has become better equipped in its mandate of reviewing, analyzing, and advising competent ministries on complex price proposals.

NARUC has provided capacity development to the Tariff Council through a number of activities which can be categorized as follows:

1) **Regulatory in-country training program**
   A series of in-country regulatory training activities implemented in 2007-2008, focused on particular aspects of energy regulation and responded to the specific capacity-building needs of the Tariff Council as the agency evolves and matures in its role as an expert national regulatory authority. These activities involved NARUC State regulators, ERRA members, and regional experts as well as a wide variety of local Azeri stakeholders in discussing Azerbaijan's energy sector challenges and ongoing reform process through curriculum modules, interactive exercises, topical panels, and case studies. The workshops have since expanded with a focus on specific topics of interest and emerging trends in energy regulation. Additionally, such seminars transferred implementable skills and expanded analytical approaches.

2) **Technical twinning program (apprenticeship) with a lead mentor**
   The twinning program between the Azeri agency and the Energy Market Regulatory Authority (EMRA) of Turkey has been infused with direct expert-to-expert contact, mentoring functions and targeted instructional aspects, allowing the Tariff Council staff to observe daily functions and integrated operations of the Turkish regulators. Technical staff members are paired based on similar job functions and work together on a common set of problems and real-life cases. This instructional strategy offers a unique 'testing' ground for theoretical tools, techniques, concepts and approaches. Twinning programs also allow counterparts to retain professional linkages following the conclusion of

periodic exchanges and continue peer reviews through virtual information exchange. The Azeri and Turkish regulators met in March 2008 in Ankara and plan to organize periodic exchanges in the future to support each other's advances in the regulatory sphere.

3) **Institutional Support for ERRA-wide Training**
Institutional support of the Tariff Council has also included access to the Association's training courses, technical exchanges, signature programs (Summer Schools, New Commissioner Training) and international energy symposia (Annual Conference) to network with international regulatory experts and discuss emerging issues in the fast-changing energy industry.

В Баку обсуждают тарифы на коммунальные услуги

«ТУРАН». В Баку в отеле Park Inn открылся семинар на тему "Регулирование и тарифы" при финансовой поддержке USAID. Соорганизаторами семинара выступают Национальная ассоциация членов комиссий по регулированию коммунальных предприятий США (NARUC), Региональная ассоциация органов регулирования энергетики (ERRA) и Тарифный совет Азербайджана. В семинаре принимают участие представители распределяющих компаний, НПО. Участники семинара рассмотрят и обсудят проблемы коммунальной сферы Азербайджана, ознакомятся с опытом работы и регулирования коммунальной сферы США и Турции, а также выскажут мнения о путях реформирования коммунальной системы в Азербайджане. В частности, внимание будет уделено таким темам, как концепция регулирования энергетики, основы тарифов для коммунальных предприятий, распределение тарифов по различным категориям потребителей, защита прав потребителей и др. Первый день семинара был посвящен вопросам формирования тарифов в энергетической сфере.

"*ECHO*", SOCIO-POLITICAL REVIEW, www.echo-az.com, July 22, 2008-12-13

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July 22, 2008-12-13

Tariffs for utility services are being discussed in Baku

"TURAN". In Baku, in the Park Inn Hotel a workshop "Regulation and Tariffs" was launched with financial support of the USAID. Co-organizers of the

workshop were the U.S. National Association of Regulatory Utility Commissioners (NARUC), Energy Regulators Regional Association (ERRA) and the Tariff Council of Azerbaijan. Attendees of the workshop are representatives of distribution companies, NGOs. Participants of the workshop will consider and discuss problems of the utility sphere of Azerbaijan, will get familiar with experience of operations and regulation of the utility sector of the US and Turkey, and will also express their opinions about ways of reforming the utility system in Azerbaijan. In particular, attention will be paid to such topics as the concept of energy regulation, basics of tariff design for utilities, allocation of tariffs by various consumer categories, protection of consumer rights, etc. The first day of the workshop was devoted to issues related to tariff design in the energy sector.

No. 79, Tuesday, 8 May 2007 "Zerkalo"

4

В Баку проходит тренинг по усилению потенциала Тарифного совета

• Я.РАФАИЛОВ

Вчера в Баку прошел тренинг для технического состава Тарифного совета Азербайджана в рамках проекта USAID и Национальной ассоциации членов комиссии по вопросам регулирования коммунальных предприятий (NARUC), по усилению потенциала Тарифного совета (ТС), который действует с 2004 года. Как сообщил директор регионального центра по исследованиям энергетической политики Питер Кадержак, основной целью в проведении тренинга является повышение знаний о методах, целях и понятиях об оценке и определении структуры тарифов в энергетическом секторе.

Международные эксперты из Венгрии, Литвы и США проведут дискуссии о социальном влиянии ценовых решений, преимуществах эффективных цен, о проектировании и планировании тарифов, основных экономических способах и методах регулирования цен в отдельных секторах. "Данная интенсивная программа тренингов подготовлена в соответствии с техническими потребностями Тарифного совета и преследует цель - оказание содействия долгосрочному регулированию энергии, технической помощи, обмена информацией и развитию правильного управления", - сказал Питер Кадержак.

Тренинги проводятся в рамках проекта развития регулирования коммунальных услуг в Азербайджане и пройдут с 7 по 11 мая. В первый день тренингов П.Кадержак провел презентацию принципов и теории регулирования электроэнергии.

В тренинге также приняли участие сотрудники ТС, Министерства экономического развития, Министерства промышленности и энергетики, а также представители правительственных органов, принимающих решение и представляющих предложения в энергетическом секторе страны. Группу представителей Тарифного совета возглавил руководитель секретариата ТС Эльшан Асадов.

"На данном тренинге Тарифный совет Азербайджана изучает опыт США и Европы в области регулирования коммунальных тарифов. Уже проведено несколько мероприятий, которые показывают, что нынешняя ситуация в нашей стране, в коммунальном секторе позволяет постепенно довести тарифы до международного уровня и ТС принимает меры", - отметил Э.Асадов. "Понятие "регулирование тарифов" не следует рассматривать как повышение тарифов, поскольку здесь уделяется внимание и улучшению качества оказываемых услуг", - подчеркнул Э.Асадов.

Кроме того, Э.Асадов заявил, что продолжается изучение предложений, поступивших в ТС по регулированию тарифов в области связи и железнодорожного транспорта. "По здравоохранению работы завершились, и в заседании ТС было отмечено, что необходимо внести изменения в законодательство страны. В соответствии с распоряжением Кабмина должны быть внесены изменения и уточниться сферы, которые будут платными", - сказал руководитель секретариата.

Отметим, что в Тарифный совет Азербайджана постоянно поступают новые предложения по изменению тарифов на различные виды услуг, представленные предложения затрагивают телекоммуникационную, транспортную и другие сферы. "Тарифный совет регулярно собирается, и очередное решение может затронуть регулирование тарифов по разным услугам. Предложения могут поступать от различных структур, совет - коллегиальный орган, и его решение важно", - считает Э.Асадов. Напомним, что последнее решение Тарифного совета затронули повышение цен на энергоносители, коммунальные услуги, услуги органов полиции, Госкомитета по земле и картографии, на транспортные пассажироперевозки. Хочется отметить, что существует глобально-мировая экономика, и процессы глобализации развиваются вне зависимости от желания той или иной страны. В данном случае Азербайджан уже превратился в составную часть глобальной экономики. Сегодня одной из стратегических целей Азербайджана является вступление в ВТО, чего нельзя сделать, игнорируя правила игры, диктуемые Международным валютным фондом, Всемирным банком, Европейским банком реконструкции и развития и другими международными институтами.

Newspaper *"Zerkalo"*, # 79, Tuesday, 8 May 2007

In Baku, training is being conducted in order to strengthen the potential of the Tariff Council

Ya. Rafailov

Yesterday, in Baku, training was conducted for technical personnel of the Tariff Council of Azerbaijan in the framework of the project of the USAID and the National Association of Regulatory Utility Commissioners (NARUC) on strengthening of the potential of the Tariff Council (TC), which operates since 2004. As the director of the Regional Center for Energy Policy Research (REKK) Peter Kaderjak said the main goal of conducting trainings was improvement of knowledge about methods, goals and notions related to evaluation and determination of the structure of tariffs in the energy sector.

International experts from Hungary, Lithuania and the USA would hold discussions about social impact of price decisions, advantages of efficient prices, about designing and planning of tariffs, main economic ways and methods of price regulation in certain sectors. "Such an intensive training program was prepared in accordance with technical needs of the Tariff Council and is aimed at contributing to long-term energy regulation, technical assistance, exchange of information and development of correct management", Peter Kaderjak said.

Trainings are held in the framework of the project for development of regulation of utility services in Azerbaijan and will take place from May 7 to 11. On the first day of training P. Kaderjak presented principles and theory of electricity regulation.

Employees of the TC, Ministry of Economic Development, Ministry of Industry and energy took part in the training, as well as representatives of governmental bodies that make decisions and give proposals in the energy sector of the country. The head of the Secretariat of the Tariff Council Elshan Asadov was the leader of the group of representatives of the TC.

"At this training the Tariff Council of Azerbaijan gets familiar with experience of the United States and Europe in the field of regulation of utility tariffs. Several events have been conducted so far, which show that the current situation in our country in the utility sector allows brining tariffs to the international level, and the TC takes relevant measures", E. Asadov said. "The notion "tariff regulation" should not be viewed as increase of tariffs, as here we also pay attention to improvement of the quality of provided services", E. Asadov emphasized.

In addition, E. Asadov said that they continue to consider proposals received by the TC concerning regulation of tariffs in the field of communications and railroad transport. "Work on healthcare has been completed, and at the TC meeting it was noted that it is necessary to introduce changes in the legislation of the country. In accordance with the order of the Cabinet of Ministry changes have to be made, and sectors have to be specified, which will be on a paying basis", the head of the Secretariat said.

We have to note that the Tariff Council of Azerbaijan keeps receiving new proposals concerning changes in tariffs for various types of services; the proposals are related to telecommunication, transport and other sectors. "The Tariff Council meets on a regular basis, and the next decision might touch upon regulation of tariffs for various services. Proposals might come from different structures, the council is a collegial body and its decision is important", E. Asadov believes. We have to remind that recent decisions of the Tariff Council were related to increase of

prices for energy, utility services, services of police, the State Committee for Land and Mapping, for passenger traffic. We would like to note that there is global world economy and processes of globalization develop irrespective of desires of this or that country. In this case Azerbaijan has already turned into a component of the global economy. Today one of strategic goals of Azerbaijan is joining the WTO, which cannot be achieved by ignoring rules of the game dictated by the International Monetary Fund, World Bank, European Bank for Reconstruction and Development and by other international institutions.

J. Kosovo Regulatory Capacity Development Program

The regulatory capacity development program for Kosovo is NARUC's newest international regulatory project aimed at enhancing technical and operational aspects of the Energy Regulatory Office (ERO) and educating various energy sector stakeholders in Kosovo about market-based regulations and comparative international regulatory practices.

In the fall of 2007, NARUC conducted the first in-country thematic workshop for a broad local audience consisting of the regulator, the governmental institutions, energy utilities, consumer organizations, the press and the academic community. The workshop provided an introduction to the fundamental principles of economic and energy regulation, discussed roles and responsibilities of stakeholders in the regulatory process, and compared sector-specific regulatory approaches, case studies, methodologies and applications from various regulatory agencies in the ERRA-wide region and the United States.

Training workshop director Vidmantas Jankauskas of Lithuania discusses Tariff issues with the representatives from Kosovo's transmission and generation/distribution companies; Pristina, November 2007.

Participants in the workshop discussed energy sector reform, with a particular emphasis on the regional benefits for Kosovo and broader institutional issues, including the critical role regulators play in the reform process and the importance of regulatory autonomy, authority and accountability. An overview of Kosovo's energy sector developments to date and challenges ahead were presented to provide context and draw parallels with experiences of other countries in the region. Discussions examined the contribution of specific regulatory tools to addressing key priority issues in Kosovo's energy sector, and the regulators and other industry practitioners presented basic regulatory models, alternative price regimes and assessed various outcomes.

The workshop also provided detailed information on the most important regulatory task: price regulation and tariff setting. This equipped the participants with basic approaches and methods of tariff design, and drew attention to the often conflicting social objectives involved in the process. Regulatory practitioners introduced financial analysis and proper cost accounting as two of the basic inputs of effective tariff development and control. The workshop instructors also presented various price adjustment regimes, showed different ways of assessing the value of a utility company, and demonstrated various outcomes of applying different tariff methodologies and rate structures.

As a result of the workshop, the participants strengthened significantly their knowledge of technical and procedural aspects of price formation and control for integrated utility enterprises and unbundled services, and considered key aspects, issues and policy guidelines for regional regulatory cooperation in Southeast Europe. The workshop also exposed the local stakeholders to varied regulatory experiences that could be applied in the liberalization process of Kosovo's energy sector.

APPENDIX A – FOUNDING PRINCIPLES

Energy Regulatory Organization for Central/Eastern Europe & Eurasia

Following are proposed Founding Principles for the establishment of an Energy Regulatory Organization for Central/Eastern Europe and Eurasia.

Purpose

The purpose is to (1) improve national energy regulation in member countries (including enhancing regulatory methods and practices), (2) foster development of stable energy regulatory bodies with autonomy and authority (separate legal entities), and (3) improve regulatory cooperation.

Objectives

The objectives of the organization are to:

Increase communication, and exchange of information, research and experience among regulators in the transition countries;

Increase access to the regulatory information and experience around the world, and promote opportunities for training.

Membership

The proposed categories of membership are:

1. *"Full Members":* Regulatory bodies that have responsibilities for energy regulation with primary responsibility for electricity regulation.
2. *"Associate Members":* Individual regulators with energy regulatory responsibilities, technical staff of the member regulatory bodies and others with energy regulatory responsibilities.
3. *"Affiliate Members":* Regulatory bodies outside the region.

The Founding Members are the energy regulatory bodies of Armenia, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Poland, Romania, Russia, and Ukraine. Future membership may be from the energy regulatory bodies of other countries, subject to their establishment of an energy regulatory body and approval by the Council of the organization.

Governance

The organization will consist of:

(1) an Assembly;

(2) a Council

Participation in the governance of the organization is limited to Full Members (represented by the head of the organization or person designated), all of whom are members of the Council. The Council may establish an Executive Board.

A governing document with legal standing will be developed describing the organization and its operation.

Administrative

Administration of the activities and new organization will be addressed in two phases (1) short-term transition period with gradual shift of activities to the region; and (2) on-going

operation of the organization.

It is proposed that initiation of administrative work of the Energy Regulatory Network as well as the establishment of the organization be based initially at the Hungarian Energy Office and supported by the National Association of Regulatory Utility Commissioners (NARUC).. NARUC would continue its role, including control over financial matters, and gradually transfer work to the staff based in Hungary.

Long-term options will be developed further for consideration by the Council.

Activities

The organization will carry out activities approved by the Council within its financial resources. Some illustrative activities are:

- Annual Energy Regulatory Conference
- Technical Committee meetings and development of issue papers, analyses and publications (glossary, etc.)
- Regulatory study tours (within member countries, the European Union, and the United States)
- Newsletter
- Web Site and Internet communications
- Technical Conferences (for non-regulators, etc.)
- Maintenance of Directory of Regulatory Bodies 0 Training

Financial Sustainability

The objective is to achieve an independent financially sustainable organization. A financing plan will be developed that is staged over time, e.g., transition, medium-term (3-5 years), long-term 5-10 years. Some sources of financing to be examined are: Membership Fees, Fees for Annual Conference, Committee Meetings, Technical Conferences, sale of publications, Training, Foundation Grants and Endowment.

Signed 9th of December, Budapest, Hungary

Energy Regulatory Commission of Armenia

State Energy Regulatory Commission (Bulgaria)

Energy Market Inspectorate (Estonia)

Georgian National Electricity Regulatory Commission

Hungarian Energy Office

Agency of the Republic of Kazakhstan for Natural Monopoly Regulation, Competition Protection, and Small Business Support

State Energy Agency under the Government of the Kyrgyz Republic

Energy Regulation Council (Latvia)

National Control Commission for Prices and Energy in Lithuania

National Energy Regulation Agency (Moldova)

Energy Regulatory Authority (Poland)

National Electricity and Heat Regulatory Authority (Romania)

Federal Energy Commission (Russian Federation)

National Electricity Regulatory Commission (Ukraine)

Addendum

Names of Signers of "Founding Principles" document

Commissioner Ashot Hovsepyan
Energy Regulatory Commission of Armenia

Commissioner Dr. Todor Ivanov

State Energy Regulatory Commission (Bulgaria)

General Director Allan Sepp
Energy Market Inspectorate (Estonia)

Chairman Elizbar Eristavi
Georgian National Electricity Regulatory Commission

Acting President Ferenc Horváth
Hungarian Energy Office

Deputy Chairman Serik Kurmangaliev
Agency of the Republic of Kazakhstan for Natural Monopoly Regulation, Competition Protection and Small Business Support

Director Ularbek Mateev
State Energy Agency under the Government of the Kyrgyz Republic

Chairman Jānis Dauškāns
Energy Regulation Council (Latvia)

Chairman Vidmantas Jankauskas
National Control Commission for Prices and Energy in Lithuania

Commissioner Veaceslav Chilat (Director)
National Energy Regulatory Agency (Moldova)

President Dr. Leszek Juchniewicz
Energy Regulatory Authority

President Dr. Jean Constantinescu
National Electricity and Heat Regulatory Authority (Romania)

Deputy Chairman Kirill Yankov
Federal Energy Commission (Russian Federation)

Chairman Olexander D. Svetelik
National Electricity Regulatory Commission (Ukraine)

APPENDIX B – ERRA CONSTITUTION & OPERATING GUIDELINES

CONSTITUTION

Energy Regulators Regional Association

Article I
Introductory Provisions

Section 1. Name of the Association: Energy Regulators Regional Association

Section 2. Abbreviation of the Association: ERRA

Section 3. Applicable Law: The present Constitution was prepared based on the Law on Associations No. II 1989 of the Republic of Hungary.

Section 4. Status: The Association is a legal entity and non-profit organization.

Section 5. Principal Office: The Seat of the Association is Köztársaság Tér 7, Budapest 1081, Hungary.

Section 6. Definitions: The following words, when used in this Constitution, shall have the following meanings:

(a) The words "Energy Regulator" shall mean the national regulatory commission, office, agency, council, authority or inspectorate with autonomy and authority that has responsibility for Energy Regulation with primary responsibility for electricity regulation.
(b) The words "Energy Regulation" shall mean one or more of the following activities for electricity, gas, or district heating: the legal authority to collect information and to establish or propose rates or prices; to perform licensing functions; and to address consumer rights issues.
(c) The words "Region" or "Regional" shall initially mean the area encompassed by the countries of the Founding Members and may be adjusted as new Full Members join the Association.
(d) The words "Senior Personnel" of an Energy Regulator shall mean the Chairman, Director, President, Commissioner, Deputy Director or other Senior Manager.
(e) The words "Energy Regulatory Staff" shall mean the individuals employed by an Energy Regulator.

(f) The words "Association Staff" shall mean the individuals employed by the Association, which individuals may also be employees of Full Members.

Article II
Purpose & Objectives

Section 1. Purpose: The purpose of the Association is to:
(a) improve national energy regulation in member countries (including enhancing regulatory methods and practices);
(b) foster development of stable Energy Regulators with autonomy and authority; and
(c) improve cooperation among Energy Regulators.

Section 2. Objectives: The objectives of the Association are to:
(a) increase communication, and the exchange of information, research and experience among Members, and
(b) increase access to energy regulatory information and experience around the world and promote opportunities for training.

Section 3. Operation: In order to achieve its goals, the Association may use donations, grants, Membership Dues, and conference fees, and may engage in non-profit entrepreneurial work or endow foundations to cover the costs of its operation. The Association does not carry out entrepreneurial activity primarily, does not have an interest in profit making, uses its revenues with the sole aim to serve the interests of the Association, and cannot endanger its purpose.

Article III
Membership

Section 1. Membership. Member admittance shall be through application to the General Assembly. Decisions about membership admittance, category, and status are decided by two-thirds vote of the General Assembly. The General Assembly may adopt procedures and guidelines that define further the criteria for membership and rights and responsibilities of members as well as govern membership applications.

Section 2. Full Members: Energy Regulators with primary responsibility for electricity regulation. Only one Energy Regulator from each country may be a Full Member of the Association.

Section 3. Associate Members:
(a) Additional Energy Regulators (with primary responsibility for natural gas, district heating or other energy areas) from countries located within the Region.
(b) Associations of Energy Regulators from countries located within the Region.

Section 4. Affiliate Members:
(a) Energy Regulators and Associations of Energy Regulators from countries located outside the Region.
(b) Other state authorities within the Region who are not Energy Regulators but who have responsibilities related to Energy Regulation.

(c) Organizations that qualify as Associate Members but choose Affiliate Membership status.

Section 5. Honorary Members: All former Presidents, Chairmen, Commissioners, Directors, or Senior Personnel of Full Members and such other former Energy Regulatory Staff of Full Members as the General Assembly may accept.

Section 6. Founding Members: The Founding Members are the Electricity Regulatory Authority of the Republic of Albania, Energy Commission of the Republic of Armenia, State Energy Regulatory Commission of the Republic of Bulgaria, Energy Market Inspectorate of the Republic of Estonia, Georgian National Energy Regulatory Commission, Hungarian Energy Office, Agency of the Republic of Kazakhstan for Natural Monopoly Regulation, Competition Protection and Small Business Support, State Energy Agency under the Government of the Kyrgyz Republic, Energy Regulation Council of the Republic of Latvia, National Control Commission for Prices and Energy of the Republic of Lithuania, National Energy Regulatory Agency of the Republic of Moldova, Energy Regulatory Authority of the Republic of Poland, Romanian Electricity and Heat Regulatory Authority, Federal Energy Commission of Russian Federation, and National Electricity Regulatory Commission of Ukraine. As Founding Members, these Energy Regulators are conferred Full Member status.

Article IV
Rights and Obligations of Members

Section 1. Full Members:
(a) have all the rights – including active and passive voting rights - and must fulfill all the obligations provided to them in the present Constitution;
(b) are entitled to participate in the organs and activities of the Association;
(c) are entitled to designate Representatives to and to be elected to the organs of the Association;
(d) are entitled to put forward suggestions or proposals and/or initiate actions for adoption by the General Assembly or Presidium;
(e) are obliged to pay all Annual Membership Dues imposed by the Association in compliance with the terms of this Constitution.

Section 2. Associate, Affiliate and Honorary Members:
(a) are entitled to attend the Annual Conference;
(b) are entitled to put forward suggestions or proposals for consideration by the General Assembly;
(c) are required to fulfill obligations imposed by this Constitution or the General Assembly;
(d) are not entitled to vote and cannot be nominated for officers of the Association.

Section 3. Annual Membership Dues: The Annual Membership Dues of the Association for the first year for Full Members is the Hungarian Forint equivalent of USD 1 000 (one thousand) - which should be paid in one amount when entering the Association. Annual Membership Dues for the following years for the Association shall be established by the General Assembly as provided in this Constitution.

Section 4. Obligation to Promote Association Objectives: It is the obligation of all Members to promote the purpose and objectives of the Association through participation in its activities and otherwise.

Section 5. Membership Termination: Membership terminates on the basis of:
(a) a written request for withdrawal by the member; or
(b) expulsion for nonpayment of Annual Membership Dues, according to Article IX, Section 2; or
(c) cessation of the organization's operation or existence without designation of a legal successor; or
(d) death of the individual person in the case of an individual membership.

Article V
Structure of the Association

Section 1. Overview: The Association will consist of a General Assembly and a Presidium.

Article VI
General Assembly

Section 1. Assembly: The Association's supreme body shall be the General Assembly, comprised of all Full Members. The Assembly shall supervise the activities and affairs of the Association, including matters of program and objective definition.

The Assembly shall elect a Chairman, Vice-Chairman, and Presidium from among its Representatives.

Section 2. Assembly Functions and Authority: The Assembly has the exclusive authority to:
(a) make membership application and expulsion decisions;
(b) establish and amend this Constitution;
(c) review and direct actions of the Chairman or Presidium and establish guidelines to instruct their decisions and actions;
(d) establish the date and place of the Annual Conference of the Association;
(e) adopt Guidelines and Procedures that are consistent with this Constitution for the conduct of the Association's affairs;
(f) establish Standing and other Committees;
(g) oversee the finances of the Association – adoption of an Annual Budget, establishment of Annual Membership Dues levels, and acceptance of the Annual Report of the Presidium;
(h) merge the Association with another non-profit organization or decide upon dissolution of the Association; and
(i) make decisions in all matters which fall into the exclusive authority of the General Assembly as provided by this Constitution.

Section 3. Assembly Representatives: The General Assembly shall consist of each Full Member of the Association. Every Full Member is restricted to one vote only on matters that come before the Assembly. A Full Member is entitled to designate a maximum of two

Representatives from its Senior Personnel to attend and participate in Assembly Meetings. The number of the Assembly Representatives may not influence the number of the votes. Each Full Member is entitled to one vote, irrespective of the number of its Representatives present at the Assembly Meeting.

Section 4. Assembly Officers: The General Assembly shall elect a Chairman and Vice Chairman from among its Representatives by majority vote. The election of Assembly Officers shall be by secret ballot. The Chairman and Vice Chairman must be from different Full Members, are not remunerated, and shall each serve two-year terms.

(a) The Chairman shall call and preside at Assembly and Presidium Meetings, schedule votes of the Assembly and Presidium, and prepare the agenda for the meetings of each with the assistance of Association Staff. In case of extended incapacity or departure from the position of the Chairman, he/she is replaced by the Vice Chairman and is designated as Acting Chairman. The Presidium with a vote of simple majority appoints one of its Members to serve as Acting Vice Chairman. The Acting Chairman and/or Acting Vice Chairman shall serve in their capacities until the next annual General Assembly whereupon elections will be scheduled for a new Chairman and/or Vice Chairman to serve a two-year term. The Chairman has the right to make decisions and to act on all matters that do not fall into the exclusive authority of the Presidium or General Assembly as provided by this Constitution, but all such decisions or actions may be reviewed or modified by the Presidium or General Assembly.
(b) The Chairman shall also oversee, subject to Assembly and Presidium review, the financial, budget, and cash management functions and activities of the Association; shall report on the Association's financial status at an Assembly Meeting at least once per year; and shall initiate requests before the Assembly to establish an Annual Budget, propose Annual Membership Dues for Members, and state the termination of membership status by deleting the member from the registry. The Chairman shall be assisted in his/her duties by Association Staff.
(c) The Chairman is the lawful representative of the Association in one person. However, to exercise his/her right to allot from the banking account of the Association, the signature of a second designated individual is also required. In order to withdraw money from the banking account, the signature of the Chairman and another Presidium Member is required.

Section 5. Assembly Meetings: The Assembly shall meet at least once a year. All the Full Members and Officers shall be invited to the Assembly Meeting. Those who are invited are entitled to make comments and recommendations for any question. Minutes must be taken at each meeting, which shall be signed by the Chairman, the recorder, and an Assembly Representative of a Full Member who has a mandate from the Assembly to certify the minutes.

(a) An Assembly Meeting shall be held at the Annual Conference in conjunction with the Standing Committee Meetings, while the second and any further meetings shall be held when called by the Chairman or the Presidium. In addition, the Chairman shall also call an Extraordinary Assembly Meeting to be held within thirty days whenever he/she is presented with a Petition signed by one-third of Assembly Representatives requesting that a meeting be held or upon order of the Court.

(b) No Assembly Meeting shall take place unless a quorum of at least two-thirds of the Association's Full Members have a Representative present.

Section 6. Notice and Voting Procedures for Assembly Meetings. All measures require a majority vote of the Assembly for adoption, unless a two-thirds vote is specified in this Constitution.

(a) Thirty days written notice and an agenda must be provided for each Assembly Meeting. Notice of Assembly Meetings and the agenda must include a statement of each matter that is proposed to come before the Assembly for decision at that Meeting. The Assembly may act upon matters not included in the Agenda by a two-thirds vote except those matters as set forth in Article VI, Section 6 (d) may be acted upon only after due and proper notice has been given as required in this Constitution.
(b) The requirement for thirty days written notice and agenda for Extraordinary Meetings can be waived (as defined in Article VI, Section 5 (a)) with a two-thirds vote of Full Members. The Chairman and those Assembly Members requesting such an Extraordinary Meeting shall provide the agenda and notice fifteen days prior to the meeting.
(c) Each Full Member shall have one vote. Voting at Assembly Meetings shall be an open vote by voice unless a secret ballot is requested by five Full Members through their Assembly Representative(s). In the case of a tie vote, the vote of the Full Member represented by the Chairman shall be decisive.
(d) The following require a two-thirds vote by the Assembly: changes to this Constitution; new member approval; adoption of the Annual Budget and associated Annual Membership Dues; change in Seat of the Association; member expulsion for nonpayment of Annual Membership Dues; waiver of member expulsion for nonpayment of Annual Membership Dues; and dissolution or merger of the Association.

Article VII
Presidium

Section 1. Presidium: A Presidium shall be established to act upon the Assembly's behalf respecting Association operations and planning during the period between Assembly Meetings. The Presidium is the representative and executive body of the Association. It is subordinated directly to the Assembly.

Section 2. Presidium Functions and Authority: The Presidium has the exclusive authority to:
(a) act as the Association's administrative body and representative towards third parties;
(b) employ Association Staff;
(c) transfer its representative rights to Association Staff with regard to limited and specifically defined matters;
(d) propose actions or decisions to the Assembly for its adoption on matters which fall within the Assembly's exclusive authority;
(e) pass decisions in all questions which do not fall into the exclusive authority of the General Assembly as provided by this Constitution;
(f) review the financial and cash management functions and activities of the Association;
(g) report on the Association's financial status at an Assembly Meeting at least once per year;

(h) initiate requests before the Assembly to establish an Annual Budget; and
(i) propose Annual Membership Dues for Members.

Section 3. Presidium Members: The Presidium shall include the Chairman and Vice Chairman and shall consist of five additional Assembly Representatives (each from separate Full Members) elected by secret ballot, majority vote of the General Assembly. The Presidium Members serve for a two-year period from the date of election and are eligible for re-election. One member of the Presidium must be from the same country as the Seat of the Association.

Section 4. Presidium Meetings: The Chairman can convene a meeting of the Presidium with fifteen days notice. The Presidium shall meet at least once each year and shall meet if requested by three of its Members. The Presidium sets its own procedures and agenda. The Presidium shall report on its activities to the Assembly at least once a year or more often if required by the Assembly and shall act only consistent with any guidelines established for it by the Assembly. A quorum of Presidium members is present if the Chairman or Vice Chairman and three additional Members are present. In the case of a tie vote, the vote of the Chairman shall be decisive.

Section 5. Presidium Voting Procedures: The Presidium shall act upon a majority vote of its members when a quorum is present. The Presidium is entitled to vote in a written format. The written format of voting can be initiated by the Chairman by faxing ballots to each Presidium Member which letters shall explain the matters upon which a vote is requested and provide a means of indicating the Presidium Member's vote. The ballots should be answered by Presidium Members within five days of their receipt by faxing the signed ballot with the vote indicated to the Chairman.

ARTICLE VIII
Activities of the Association

Section 1. Activities: The activities of the Association shall be planned each year in advance by the Assembly, may reflect the recommendations of all Members, and shall be set forth in a written annual workplan which shall be provided to all Full Members. Association activities may include but are not limited to the following:
(a) Annual Conference (as defined below in Section 3);
(b) Standing Committee meetings and development of issues papers, analyses and publications;
(c) regulatory study tours;
(d) newsletter;
(e) website and Internet communications;
(f) technical conferences (for non-regulators);
(g) maintenance of Directory of Members; and
(h) other matters which advance the objectives of the Association.

Section 2. Standing Committees: The Association may have one or more Standing Committees. Standing Committees shall include one individual from each Full Member as a voting member, and may include additional non-voting individuals if approved by the Committee Chair. The Assembly shall encourage each Full Member to appoint member(s) to the Standing Committees to promote continuity and stability over a period of time.

Standing Committees shall define their activities and adopt a workplan consistent with the Association's objectives and any guidelines adopted by the Assembly, and shall elect the Committee Chairman. Each Standing Committee shall meet at least once per year (at the Annual Conference) and shall prepare an annual report and/or analytical paper. The Chairman shall provide at least thirty days written notice of a committee meeting and an agenda.

The Committee may adopt its own internal operating procedures not inconsistent with this Constitution and/or other Association Guidelines and Procedures.

Section 3. Annual Conference: The Association shall have an Annual Conference at which the General Assembly and Standing Committees shall meet. The Annual Conference shall include all categories of Association Members.

Article IX
Finances of the Association

Section 1. Annual Budget: The Presidium, assisted by Association Staff and by the U.S. National Association of Regulatory Utility Commissioners (NARUC) during the transition period established in Article IX, Section 3 below, shall prudently manage the finances of the Association.

(a) At each Annual Conference, the Chairman shall present the Assembly with a proposal for an Annual Budget, including the level of Annual Membership Dues for the coming year. The Assembly shall adopt or modify the Annual Budget with a two-thirds vote.
(b) The Association may seek to supplement its income from Annual Membership Dues with grants obtained from Foundations, Donors, or other sources and may seek to establish an endowment to support its activities and objectives. Establishment of an endowment for the Association and specification of its management structure shall be adopted by a majority of the Assembly.
(c) All funds of the Association shall be promptly deposited to the credit of the Association in the banks selected by the Presidium that comply with the International Accounting Standards.
(d) In order to obtain financial, bookkeeping, legal, insurance and other services, the Association is entitled to enter into contracts with third parties.

Section 2. Annual Membership Dues Assessment and Expulsion for Nonpayment:

(a) The Assembly shall assess Annual Membership Dues upon each Full, Associate, or Affiliate Member and issue an invoice requesting payment by the due date specified by the Assembly.
(b) The Presidium shall advise the Assembly at any meeting of any Members with an overdue balance of Annual Membership Dues, which have remained overdue for more than a six-month period. The Assembly may vote to expel such Members from the Association in accordance with the written notice and right to reinstatement provided in item (c) below.
(c) The membership rights of those members who fail to pay their Annual Membership Dues within twelve months of the due date, despite receiving written notice of it, shall be suspended until such Annual Membership Dues are paid. This provision can be waived in

part or in its entirety by a two-thirds vote of the Assembly. The Association shall provide written notice to said members of their suspension and shall reverse said suspension immediately upon payment of the amount due. After a two-year period from the date of suspension, the General Assembly shall expel members who have failed to pay their Annual Membership Dues.

Section 3. Transitional Provisions: During the Association's initial two years of operation, the Assembly may request and the U.S. National Association of Regulatory Utility Commissioners (NARUC) may provide program assistance and financial advisory and cash management services upon mutual consent.

Article X
Closing Provisions

Section 1. Required Signatures: All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Association shall be signed by the Chairman and one individual from among the Vice Chairman, or Presidium Members.

Section 2. Maintenance of Books and Records & Annual Report: The books and records of the Association shall be overseen by the Presidium. The Association's fiscal year shall be the twelve months ending December 31. An Annual Report stating the financial condition of the Association and its principal activities during the prior twelve months shall be prepared. Minutes shall be maintained for all Assembly and Presidium Meetings.

Section 3. Language. All legal documents required for submission to Hungarian authorities shall be in Hungarian, with translation provided into English and Russian for Members. The activities of the Association shall be conducted in English and Russian.

Section 4. Dissolution & Merger; Disposition of Assets: The Association may be dissolved or merged with another non-profit organization if such dissolution or merger is approved by a two-thirds vote of the Assembly. Upon dissolution of the Association, assets and property, after payment of all liabilities and obligations and any necessary expenses, shall be distributed to any successor entity(ies) having similar objectives and serving the needs of Energy Regulators in the Region. If no successor entity exists, then such assets and property shall be distributed to the Full Members of the Association. In the latter case, such assets and property shall be allocated amongst such Full Members or their governments in the same percentage as Annual Membership Dues were paid to the Association by the Full Members during the prior two years prior to dissolution.

Section 5. Association Liability: Association Members shall not be required to pay on account of any Association liability, debits, obligation, fee, court judgment, or other governmental obligation any sum or monies from their own assets or funds. All such Association liabilities of whatever kind shall be paid solely from the value of the assets of the Association.

Budapest, December 11, 2000

Modified February 23, 2001
Modified May 6, 2003 by the ERRA General Assembly
Modified May 17, 2006 by the ERRA General Assembly
Modified May 23, 2007 by the ERRA General Assembly
Modified April 23, 2008 by the ERRA General Assembly

Gábor Szörényi
Chairman

Energy Regulators Regional Association (ERRA)

Operating Guidelines

I. Membership

Section 1. Membership Application Form.

The Secretariat shall prepare Membership Application Forms for the categories of Full, Associate, and Affiliate Members and a Registration Form for Honorary Members. The Application and Registration Forms shall be approved by the Presidium.

Section 2. Membership Application Process.

In the event that an organization applies for Full Member status but does not meet the requirements stated in Article III of the Constitution, the Presidium may ask the Secretariat to send notice to the applicant to this effect and invite the applicant to re-apply for Associate and/or Affiliate Member status.

Section 3. Honorary Membership Registration Process.

Two months prior to the Annual Conference, the Secretariat shall ask each Full Member for candidates for consideration of Honorary Membership. The Secretariat shall prepare a list of candidates for submission to the Presidium. Candidates can include former commissioners and/or staff who have provided significant value to ERRA during their tenure at their Regulators. The Presidium shall present a list of candidates for Honorary Membership to the General Assembly at the Annual Conference for confirmation.

Section 4. Directory of Members.

The Secretariat shall maintain a complete and current directory of all Members and distribute updated versions to all Members at least twice per year electronically.

II. General Assembly

Section 1. Assembly Meetings - Quorum.

Per Article VI, Section 5(a), Section 5(b), and Section 6(b) of the Constitution, two-thirds of the Association's Full Members must have a Representative present to meet quorum at Assembly Meetings and/or Extraordinary Assembly Meetings. The Assembly Representatives shall inform the Secretariat at least 14 days in advance if they will not be able to attend a specific meeting so that a meeting may be postponed if Quorum is not anticipated and thus financial resources may be preserved.

Section 2. Full Member Voting Authority.

Per Article VI, Section 3 of the Constitution, "every Full Member is restricted to <u>one</u> vote only on matters that come before the General Assembly. A Full Member is entitled to designate a maximum of two Representatives from its Senior Personnel to attend and participate in Assembly Meetings." The Chairman of the Full Member Energy Regulator shall inform the Chairman of ERRA in writing in advance which of its Assembly Representatives shall vote in the name of the Full Member at a specific meeting.

Section 3. Full Member Interim Written Voting Procedure.
The General Assembly is entitled to vote in a written format on issues which are not set forth in Article VI, Section 6(d) of the Constitution in order to address issues outside of a formal Assembly Meeting. In the case of the interim written voting procedure, the vote shall be cast by the Chairman of the Energy Regulator rather than its Assembly Representatives. The written format of voting can be initiated by the Chairman by faxing a Voting Letter to each Full Member to the attention of the Chairman. The Letter shall explain the matters upon which a vote is requested and provide a means of indicating the Members' vote. The Voting Letters must be answered by Full Members within 10 days of their receipt by faxing the Letter with the vote indicated and the signature of the Chairman back to the Secretariat.

Section 4. Provisions on Notice.
Whenever the Constitution requires the giving of notice to Full and/or Associate Members, such notice shall be deemed given if written notice is provided by fax or email to assure timely notice and the Member provides confirmation (either by fax or email) of receipt of said notice.

III. Secretariat

Section 1. Location of Secretariat.
The Association's Secretariat shall be located in the same city as the Seat of the Association.

Section 2. Functions
The Secretariat provides administrative assistance to the General Assembly, to the Presidium and to the Standing Committees. The head of the Secretariat reports directly to the Chairman. The Secretariat's main responsibilities are:

- Serve as liaison between Members of the Association
- Organize Presidium Meetings, General Assemblies and Standing Committee Meetings
- Prepare Agendas and Conference materials for these meetings
- Prepare the first draft of the annual workplan and the budget
- Prepare 3 newsletters per year
- update the website of the Association
- Maintain the Directory of Members of the Association
- Draft, propose, and implement the long-term financing plans of the Association
- Other duties as may be assigned by the General Assembly, Presidium or Chairman.

Section 3. Staff
In accordance with Article VII, Section 2, the Presidium has the authority to hire Staff for the Association. The Chairman shall conduct an annual performance and salary review for each staff member and present his/her findings to the Presidium.

IV. Activities of the Association

Section 1. Standing Committee – Chairmanship.
Each Committee shall elect its Chairman and Vice Chairman by a majority vote with the first terms beginning in the Spring of 2001. Each term shall be for a two-year period with the possibility of re-election. In the event that a chairman leaves his/her position before the end of his/her term, the Vice Chair shall assume the Chairman position until the next scheduled

election. In the event that both the chairman and vice chairman leave their positions, the committee shall elect an interim chairman and vice chairman at its next scheduled meeting. The Chairman shall ensure that the Committee submits its annual report and/or analytical papers to the General Assembly.

Section 2. Activities for Full Members
Full Members are entitled to participate in the following activities and products:

- Energy Regulation & Investment Conference
- Annual Conference
- General Assembly (with voting authority)
- Standing Committee Meetings
- Working Group Meetings
- Training Courses
- Technical Workshops/Seminars
- Apprenticeship/Technical Exchange Program
- Energy Tariff Database
- Website
- Newsletter
- Other activities as approved by the Presidium

Section 3. Activities for Associate Members
Associate Members are entitled to participate in the following activities and products:

- Energy Regulation & Investment Conference
- Annual Conference
- General Assembly (as non-voting members)
- Standing Committee Meetings (by invitation of the committee chair)
- Working Group Meetings (by invitation of the committee chair)
- Training Courses
- Technical Workshops/Seminars
- Apprenticeship/Technical Exchange Program
- Energy Tariff Database
- Website
- Newsletter

Section 4. Activities for Affiliate Members
Affiliate Members are entitled to participate in the following activities and products:

- Energy Regulation & Investment Conference
- Annual Conference
- General Assembly (as non-voting members)
- Training Courses
- Website
- Newsletter

Section 5. Activities for Honorary Members
Honorary Members are entitled to participate in the following activities and products:

- Energy Regulation & Investment Conference
- Annual Conference
- General Assembly (as non-voting members)
- Website
- Newsletter

V. Finances of the Association

Section 1. Additional Fees.

In addition to the provisions outlined in Article IX, Section 2 of the Constitution and in accordance with the annual budget, the Presidium may make proposals regarding additional fees. The Association may assess dues and fees upon Members and non-members for attendance at Association events such as the Annual Conference, Committee Meetings, and Technical Conferences, and charge for publications or for participation in training and other activities.

Section 2. Competitive Bids.

Each contract for an amount larger than Euro 5,000 shall be awarded by the Presidium after a request for competitive bids. Competitive bids may be dispensed with when only a single source is qualified to perform the work. In this case, the Presidium may waive the requirement for competitive bids for contracts between Euro 5,000 and Euro 25,000. For contracts less than Euro 5,000, the contract shall be awarded by the Chairman and the Presidium Member authorized to draw upon the Association's financial accounts. For contracts exceeding Euro 25,000, the competitive bid process must be utilized.

The selection of the successful contract recipient shall be based on an evaluation by the Presidium of the price, experience, reliability, expertise, and performance methodology. ERRA shall collect a minimum of three proposals/bids, if feasible. If three proposals are not received, the ERRA Secretariat staff shall prepare a memo to file explaining who the bids were sent to and which recipients responded with proposals.

Section 3. Payment Authorization.

The Presidium may permit the Head of the Secretariat of ERRA to pay receipts and invoices for standard expenses (such as telephone and internet bills and office supplies) in the amount of EUR 500 or less by means of a petty cash request submitted to the Chairman. General office expenses above EUR 500 shall be paid by the Chairman and the Presidium Member authorized to draw upon the Association's financial accounts, in accordance with Article X, Section 1 of the Constitution. The Chairman is entitled to initiate bank transactions via electronic access to the Association's bank account; however, prior to the initiation of any such transaction, he/she shall obtain the written approval (consent) of one other Presidium Member.

Section 4. Financial Audit.

The Presidium shall make arrangements for an internal annual audit. In addition, the Association shall under take any financial or program audits as may be necessary if additional sources of income are generated through donations, grants, endowments, and/or other fees according to Article II, Section 3 of the Constitution.

Section 5. Annual Report.
In accordance with Article X, Section 2 of the Constitution, the Chairman shall distribute the Annual Report, including a program summary and financial audit report, to all Members one month prior to the Annual General Assembly electronically..

Section 6. Financial Committee.
The Assembly has the authority to establish a Financial Committee of up to 5 members, including 1 Presidium Member, 1 NARUC Representative during the transition period, and 3 other Full Member representatives. The Presidium may nominate candidates and the Assembly shall approve those nominations. The Financial Committee Member terms shall be two years, with the possibility of reappointment.

The Financial Committee shall assist the Presidium in the management of ERRA and shall have access to all records of financial transactions. The Committee's duties shall include, but not be limited to: preparation of Association's business plan (for adoption by the Assembly); preparation of proposals to improve financial sustainability of ERRA; review of Association's books and records at least once per year; preparation of internal annual audit; preparation of written evaluation of any external financial or program audits; preparation of financial portion of Annual Report; and other duties as may be delegated by the Presidium.

Section 7. Head of Secretariat
The Head of the Secretariat has the authority to sign labor contracts for other Secretariat staff. In addition, the Head of the Secretariat has the authority to sign contracts for implementation of specific activities in accordance with the approved annual workplan. Furthermore, the Chairman may delegate written authority to the Head of the Secretariat to sign contracts (maximum value Euro 25, 000) for activities outside of the annual workplan.

Approved: December 2001 by the ERRA General Assembly
Modified: May 2003 by the ERRA General Assembly
Modified: May 17, 2006 by the ERRA General Assembly
Modified: May 23, 2007 by the ERRA General Assembly

APPENDIX C – LIST OF ERRA ISSUE PAPERS

http://www.erranet.org/Library/ERRA_Issue_Papers

Licensing/Competition Committee	
Potential Implementations of Demand Side Approach in ERRA Countries	2008
Market Operator (Regulatory Oversight)	2007
Mutual Recognition of Licenses - Potential Simplification of Licensing Procedure of the Trading Activity	2006
Development of the Energy Market Monitoring Process in ERRA Countries	2005
Supplier of Last Resort: An Overview of its Implementation in ERRA Member States and representative Countries in the EU	2005
Evaluation of the Status of Security of Supply in ERRA Countries	2004
Public service obligations regarding electricity distribution activity	2003
Status of third party access guidelines in ERRA member countries	2003
Statutory licensing process regime	2003
Structural comparison of ERRA member electricity markets	2003
Benchmarking in ERRA Countries	2002
Structural Comparison of ERRA Member Electricity Markets	2002
The Negative Experience of the Kazakh Regulator with Concessions and Leasing	2002
Dispute Resolution	2002
Cross-Border Capacity Allocation Methods	2002
Glossary of Terms for Cross-Border Capacity Allocation	2002
Monitoring, Measuring and Assuring the Competitiveness of Energy Markets	2001
Electricity Market Development and Market Contractual Agreements in the USA, in the EU Members and in the Member Countries of ERRA	2001

Unbundling of Electric Sector Services to Structurally Separate Monopoly and Competitive Activities	2001
Operational Models in CEE/Eurasia	2000
What we have learned from our Licensing /Monitoring practices?	2000
Developing Competition in Electricity and Natural Gas Wholesale and Retail Markets – The Changing Role	2000
Measuring Electric and Natural Gas Supply	2000
Limits on the Scope of Issues Within the Authority of Energy Regulators	1999
Regulatory Actions to Limit or Correct Abuse of Market Power	1999
Amendments to Energy Licenses Initiated by the Regulator	1999
The Most Important Legal/Statutory Elements for Regulation of the Energy Sector	1999
Elementary Elements of Licensing	1998
Monitoring	1998
License Enforcement	1998
Capacity Limits in Licenses and Licensing Periods	1998
Financial Qualifications and Creditworthiness of License Holders for New and Existing Utilities	1998
Tariff/Pricing Committee	
Economic Issues Related to Tariff Development	2008
Connection of New Customers, Capacity Enlargement and Overview of Connection Charges in the ERRA countries Procedures and rules for the examination of documents on tariff approvals. Benchmark regulatory reporting requirements in the ERRA countries. System of Auditing	2007
Green Energy Pricing	2006
Efficiency Factor's Determination (X-Factor)	2006
Cost Allocation and Methods for Distribution and Supply	2005
Performance Evaluation for Power Distribution Companies	2004

Issues in the Determination of Tariffs for Ancillary Services	2003
Pricing Policy for Small Independent Generators	2002
Two-part tariffs for electric power consumers	2002
System Tariffs in the Electricity Sector	2002
Structure of the Power Sector and Rates Charged For Monopoly Services	2001
Cost Allocation Between Heat And Electric Power In Combined Energy Production At Cogeneration Plants	2001
Differentiated tariffs in wholesale and retail markets	2001
Utility Asset Privatization and the Competitive Supply Markets	2000
A Regulator's Role in the Development of Needed Private Generation Projects	2000
Development of Tariffs for Efficient and Reliable Electricity Supply at least cost	2000
Low-Income Customers – Meeting Their Needs	2000
Public Involvement in Energy Regulation	2000
Cross-subsidies	1999
Technical Losses and Commercial Losses	1999
Privatization and Regulatory Control: Integrating the Regulatory Agency into the Overall Regulatory Framework	1999
Assessing and Incorporating Fixed Assets and Investment Programs into Tariffs	1999
Procedures for Tariff Reviews and Revisions	1999
EU Integration Working Group	
Combined Heat & Power in ERRA Countries	2005
Quality of Electricity Supply	2004
Environment Protection - Comparative Survey	2003

Legal Regulation Working Group	
Regulatory Independence	2008
Legal Aspects of Pricing in Regulated Industries	2007
Access and Availability of Utility Data: The Energy Regulatory Perspective	2007
Status, Functioning and Role of the Regulator	2006
Glossary of Legal Terms	2004
Legal Regulation in ERRA Member Countries	2004
Export/Import Working Group	
Regulation of the Import and Export of Energy	1999
Electricity Trade and the Role of Regulator	2000
Regional Markets Working Group	
Aspects regarding the Development of Regional Electricity Markets	2001
Monitoring Working Group	
Mechanism of Monitoring and Enforcement of the Conditions of the Licensed Activities	2001

APPENDIX D – ERRA ENERGY TARIFF DATABASE

http://www.erranet.org/Products/TariffDatabase

In 2002, the ERRA Tariff/Pricing Committee launched the Energy Tariff Database, collecting detailed quarterly electricity and gas information from member countries. The database was reformatted in 2007 to be more interactive and information back to 1998 was added. The database features:

- Official Electricity and Natural Gas Data of the ERRA Members Countries from 1998 until present in US Dollars and in EUR (as of 3-4 Quarters of 2007) updated every six months.
- Statistical data on 25 countries and 4 Country Groups (Commonwealth of Independent States (CIS); Central Eastern Europe (CEE), Southeast Europe (SEE) Other
- Electricity price categories include Producer, Wholesale, End-user (Residential, Non-residential) Prices, Electricity Consumption.
- Natural Gas price categories are Wholesale, End-user (Residential, Non-residential) Prices. Definitions for all price categories are provided.
- Quarterly Electricity Prices for Residential and Non-residential Consumers.
- User friendly format, option to export data into Excel sheets for application in Power Point Presentations and energy industry analyses.
- Producer, Wholesale and End-user prices for Electricity.
- Wholesale and End-user Prices for Natural Gas.
- Per capita Electricity Consumption.
- Composition of Tariffs (Wholesale/Retail Margins, Taxes).

Database Sample 1

	Electricity Residential Prices, US Cent / kWh					
	2008 / 4		2008 / 3		2008 / 2	
	Pre-tax	Total	Pre-tax	Total	Pre-tax	Total
Albania	9.1798	11.0113	8.9604	10.7548	9.5209	11.4203
Arab Emirates	4.0839	4.0839	4.0839	4.0839	4.0872	4.0872
Armenia	6.54	7.8473	6.6762	8.0101	6.6777	8.0126
Azerbaijan	5.4287	7.4878	5.4287	7.4878	5.344	7.371
Bosnia and Herzegovina	11.5475	13.5082	8.2316	9.6329	12.7797	14.9531
Bulgaria	9.3681	11.2431	9.25	11.0972	8.8436	10.6153
Croatia	12.0943	14.755	12.173	14.8511	11.9593	14.5895
Estonia	8.1834	10.4342	8.5093	10.8184	9.7007	12.4053
Georgia	8.1198	9.5808	8.1198	9.5808	9.4825	11.1888
Hashemite Kingdom of Jordan	0	0	0	0	7.8268	8.1085
Hungary	16.9496	20.3395	18.9004	22.6781	25.0467	30.0614
Kazakhstan	0	5.0041	0	5.0346	0	4.3446
Kyrgyzstan	1.8107	1.8107	1.9875	1.9875	1.7042	1.7042
Latvia	12.6026	13.2332	12.6026	13.2332	13.3333	14
Lithuania	9.7352	11.4891	9.7314	11.4815	10.9467	12.9168
Macedonia	5.937	7.0056	5.4932	6.482	6.6932	7.8979
Moldova	0	0	0	0	10.4127	10.4127
Mongolia	4.9241	5.4166	4.9241	5.4166	4.5937	5.0531
Montenegro	11.5238	13.4933	11.2025	13.1022	9.7941	11.4591
Poland	0	0	17.9602	21.909	18.2504	22.2657
Romania	10.1569	12.141	10.1569	12.141	14.3068	17.1248
Russia	4.8211	5.6921	4.8211	5.6921	5.7728	6.8157
Serbia	6.5462	7.7245	8.3174	9.8144	8.2239	9.7041
Slovakia	17.9097	21.3234	19.6097	23.3043	21.0422	25.0429
Turkey	12.8235	15.8144	14.5935	17.9512	12.4521	15.3225
UNMIK Kosovo	7.1014	8.274	6.1562	7.0871	7.1853	8.263
Ukraine	2.4675	2.987	3.7624	4.5545	3.9256	4.7521

Database Sample 2

	Natural Gas Wholesale Prices, USD / GJ					
	2008 / 4		2008 / 3		2008 / 2	
	Pre-tax	Total	Pre-tax	Total	Pre-tax	Total
Albania	0	0	0	0	0	0
Arab Emirates	0	0	0	0	0	0
Armenia	0	0	0	0	0	0
Azerbaijan	1.2729	1.5475	1.2729	1.5475	1.2531	1.5233
Bosnia and Herzegovina	0	14.82	0	13.712	0	23.2121
Bulgaria	11.1667	13.4028	9.0139	10.8194	9.2249	11.0713
Croatia	0	0	0	0	0	0
Estonia	0	0	0	0	0	0
Georgia	6.3533	7.3413	6.2275	7.1976	6.2028	7.3776

APPENDIX E – SAMPLE ERRA ACTIVITY EVALUATION SUMMARY

Licensing/Competition Committee Meeting
October 4-5, 2007
Zagreb, Croatia

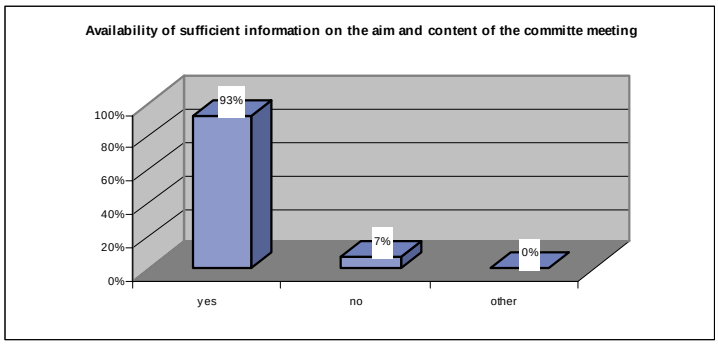
Summary of Evaluations

The Secretariat collected 15 evaluation forms from the participants of the Committee Meeting, 12 were completed in English, 3 in Russian language.

The questions were as follows:

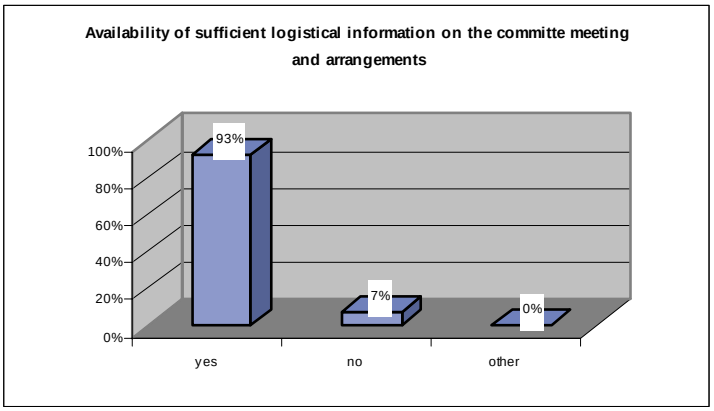
I. PRE-COMMITTEE MEETING EXPECTATIONS

1. Do you feel that you had sufficient information about the aims and content of the committee meeting?



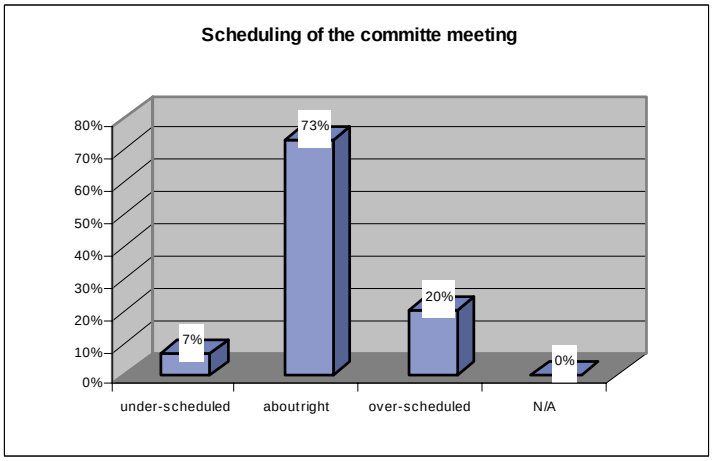
Other:

2. Did you receive sufficient logistical information regarding the committee meeting and the arrangements?

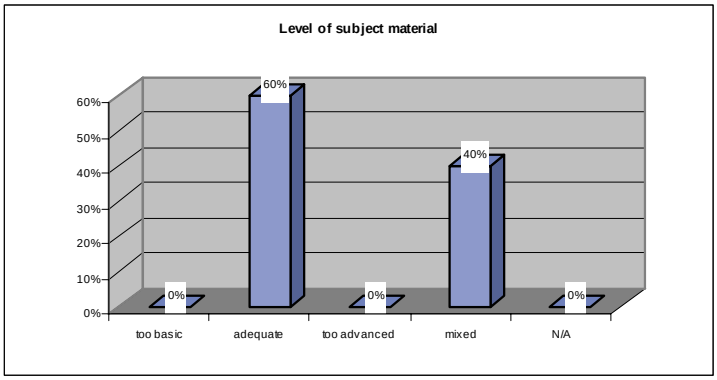


II. COMMITTEE MEETING EVALUATION

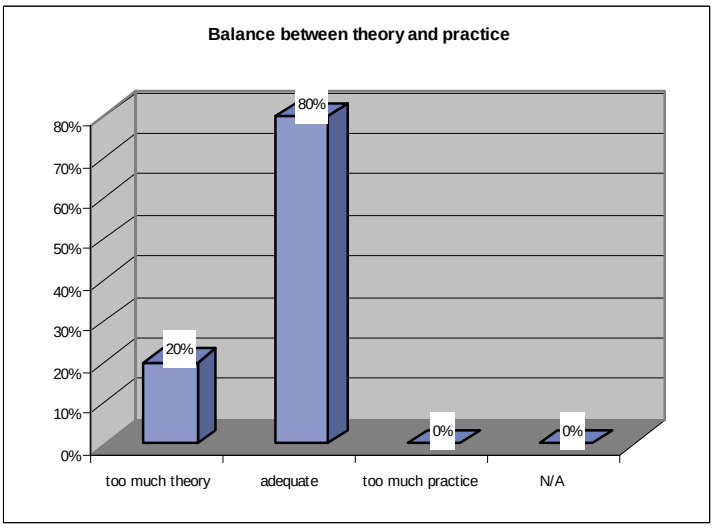
3. Do you feel the committee meeting was:



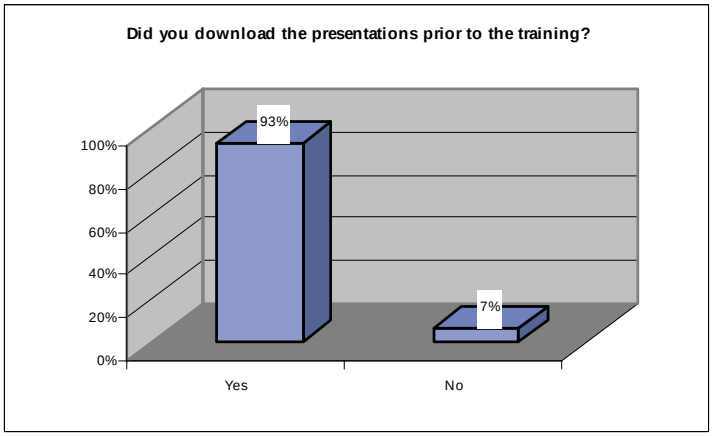
4. Did you find the subject material to be at a level:



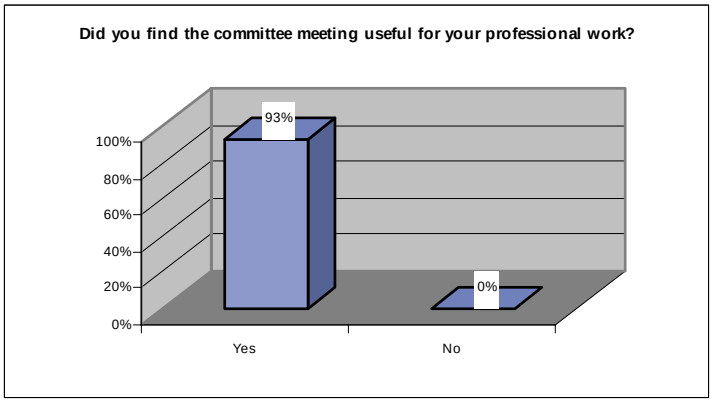
5. Did you find the balance between theory and practice:



6. Did you download the presentations posted on the website prior to the meeting?



7. Did you find the committee meeting useful for your professional work?



If yes, in what ways?

- We are now in the phase of building of a great number of renewables and there is big interest in granting licenses for trading with electricity
- Exchange of experience is always useful
- Overview of experiences of other regulators
- Harmonizing licensing process for traders, better understanding on the role of regulator regarding Market Operator (for license conditions)
- Contact people, common problems
- Watching issues from different perspectives is always profitable
- All topics discussed in the meeting are relevant with latest changes in my country
- Experience from others, some new views regarding competition
- All ways!
- Since my work is connected to licensing in every field of energy the meeting was what it should be
- Yes, but less than I expected! Yes, because you always get to know something new and useful.

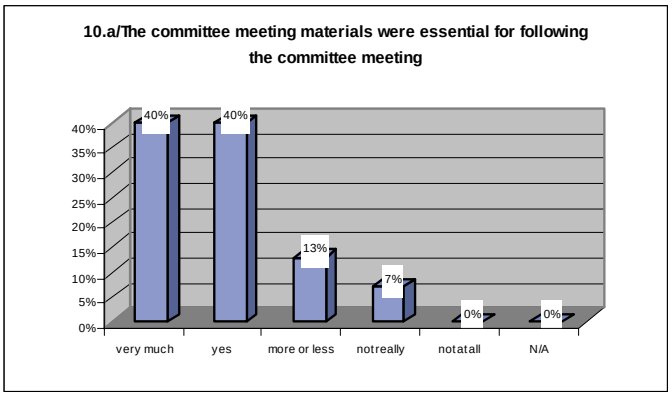
8. The most important thing you learned during this committee meeting was about:

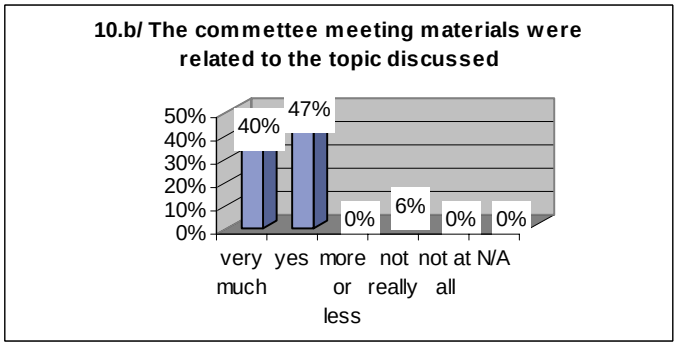
- About procedure and some legal and technical issues about licensing of electricity traders and new renewables
- Market Operator functions and different submarkets, different terminologies. Licensing practice of traders in other members.
- Role of market operator
- Most of us are afraid of changes
- I found the topics regarding energy market very interesting
- We must share the experiences because the market is so DYNAMIC to follow (monitor)- Problems in general are the same. And we can find solutions easily and proactively.
- About the possibilities of organizing the market of electric energy and in this plan about the role of the regulator
- Maybe it is a bit funny, but I can see that the process is slow at the regulators with a lot experience in other countries

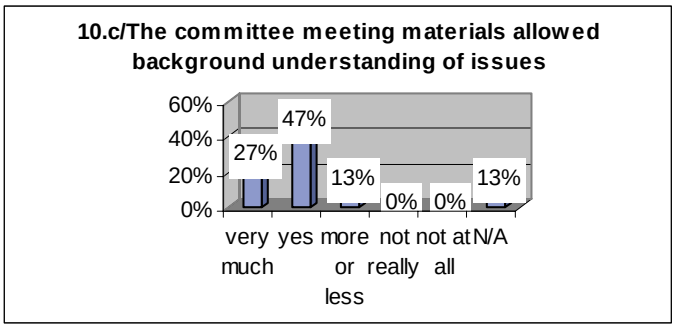
9. How will you share the info you learned with your colleagues and staff?

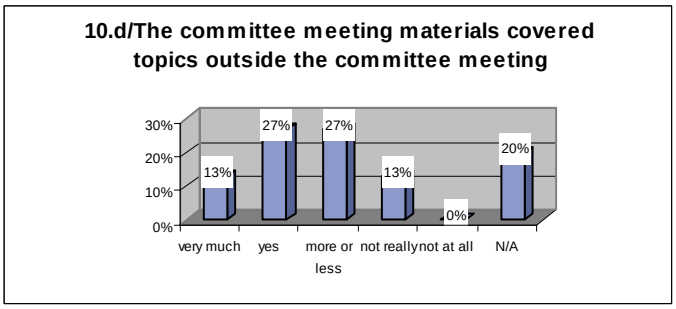
- By e-mail and special folder that is open for that occasion
- Via internal IT infrastructure
- Written report
- Detailed memo on HEO intranet. All presentations on HEO intranet.
- Minutes, daily work
- Through letters published in the Bulletin of my office
- I will share materials together with my comments
- On meeting
- I'm going to prepare a report for this meeting
- I will report and deal all the documents from the meetings
- Circulate the presentations and the report that I will prepare
- Show the materials and give necessary explanation

III. COMMITTEE MEETING MATERIALS



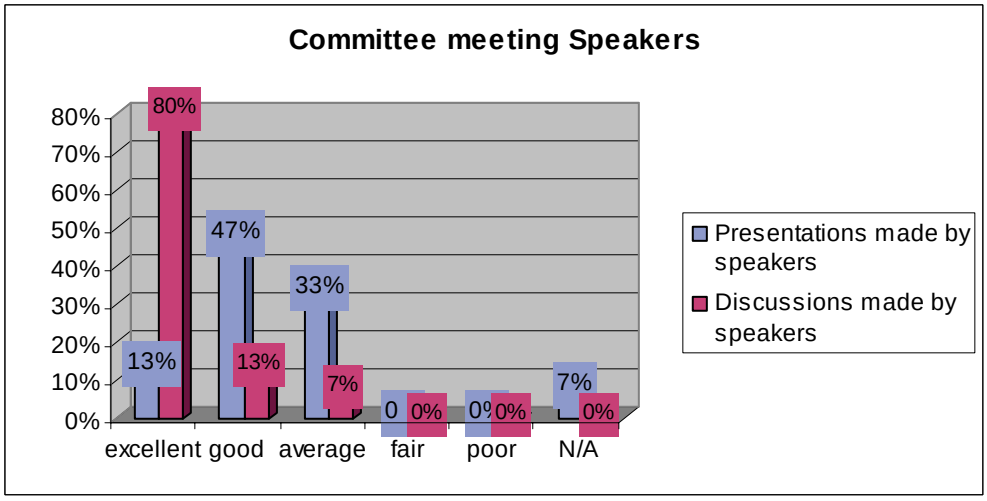




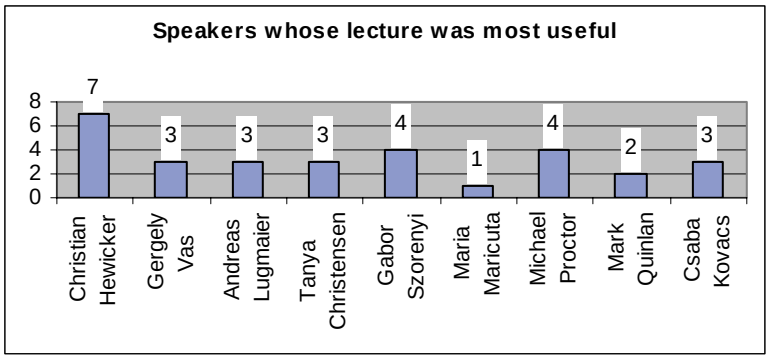


IV. COMMITTEE MEETING SPEAKERS

11. Which activities of the committee meeting were the more useful for you (Please rank them using a scale from 1- (not at all) to 5 – (very much):



12. Please list those speakers whose lectures were the most useful for you (number of votes):



13. What were the strengths of the committee meeting?

- Direct approach to the problems with mutual recognition of licenses
- Discussions
- Discussion on potential harmonization of licensing procedure of traders (different arguments)
- Possibilities to exchange views
- The mixture of the experiences
- Presentations of competent speakers, intensity of the meeting
- Discussions
- The openness for discussions and willingness to help

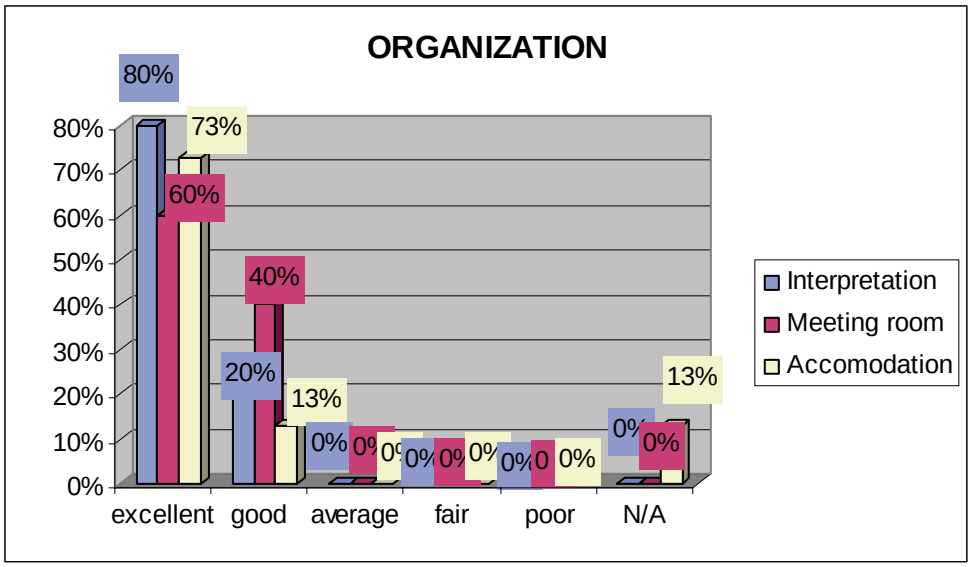
14. What were the weaknesses of the committee meeting?

- It need much more time for solving these problems
- Discussion themes should be announced. Discussion should be moderated and should produce decisions/opinions
- Limited activity of some members
- Spread of themes
- Too much theory
- Too long presentations, not always connected to the issue
- A lot of issues but little time. I liked the discussions of mutual understanding of licensing in detail.

15. In your opinion, what would be useful improvements to the committee meeting?

- For this type of problem I suggest step by step in resolving procedure
- Keep the present level on quality. Sometimes activity (through e-mail) between meetings
- Keeping the time schedule
- To concentrate on one or two issues
- Increased presentation on application. More EU presentation (France, Germany) than the USA one.
- More discussions. Ask a question and ask everybody to tell how it works in their country.
- A lot of issues but little time. I liked the discussions of mutual understanding of licensing in detail.

V. ORGANIZATION



Comments:

- Coffee break could have been better!
- Please offer coffee after lunch
- Like always!

19. Additional comments or suggestions:

- Very well organized by Secretariat
- It is not the best solution that speakers are sitting on their places. It is difficult to focus both on slides and the speaker.
- Great thanks to ERRA Secretariat ladies for their effort of organizing meeting.
- Thanks!
- We should not let the meeting to be a routine, that is just to get over it.

For copies of this publication, please contact Miles Keogh (mkeogh@naruc.org) or Bevan Flansburg (bflansburg@naruc.org).

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