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NARUC

**The National
Association
of Regulatory
Utility
Commissioners**

**Evaluation of the NARUC
Regional Energy Regulatory
Program for Central/Eastern
Europe & Eurasia and the
Development of the
Energy Regulators
Regional Association**

Prepared by the
National Economics
Research Associates

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**Evaluation of the
NARUC Regional Energy Regulatory Program
for Central/Eastern Europe & Eurasia
and Development of the
Energy Regulators Regional Association (ERRA)**

Prepared for the
National Association of Regulatory Utility Commissioners

By the
National Economics Research Associates

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ACRONYMS

CAMPUT	Canadian Association of Members of Public Utility Tribunals
CEE	Central & Eastern Europe
CEER	Council of European Energy Regulators
CEU	Central European University
CIDA	Canadian International Development Agency
ERRA	Energy Regulators Regional Association
EU	European Union
FERC	Federal Energy Regulatory Commission
ISO	Independent System Operator
NARUC	National Association of Regulatory Utility Commissioners (U.S.)
NATO	North Atlantic Treaty Organization
PHARE	Pologne Hongarie Assistance à la Reconstruction des Economies
SCADA	System Control and Data Acquisition
SEE	Southeast Europe
TSO	Transmission System Operator
USAID	U.S. Agency for International Development

I. EXECUTIVE SUMMARY

Background

The National Association of Regulatory Utility Commissioners (NARUC) is a non-profit, quasi-governmental organization founded in 1889 whose mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. NARUC's membership is comprised of the public utility commissions in the 50 states, the District of Columbia, Puerto Rico and the Virgin Islands, and associate members from over 20 other countries. Member agencies regulate the activities of telecommunications, electricity, gas, and water utilities.

In the mid-1990s, NARUC expanded its outlook beyond the United States. As part of this commitment, in October 1998, NARUC entered into a three-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 (CEE/Eurasia) and to assist them in the establishment a voluntary regulatory association.

NARUC Activities Under the Cooperative Agreement

I. Establishment of the Energy Regulators Regional Association (ERRA)

NARUC began implementing the cooperative agreement by facilitating the exchange of information and best practices among the new energy regulators in CEE/Eurasia and their U.S. counterparts. Efforts included organizing study tours, technical forums, and meetings, and creating electronic newsletters and a website. When participants expressed the need for an association similar to NARUC, NARUC helped define the organization and draft its critical documents. As of May 2004, ERRA's membership had reached 22 full and four associate members.

The purpose and objectives of ERRA are:

- to improve national energy regulation in member countries;
- to the foster 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.

With financial and technical support from USAID and NARUC, ERRA has evolved into an internationally recognized association that offers its members valuable professional development and regulatory training opportunities. ERRA enables regulators to exchange information through technical committees, working group meetings, and annual conferences; publishes statistical information and newsletters; provides training and regulatory exchange activities; and maintains an extensive website of resources (www.erranet.org). Each year, the committees prepare a series of issue papers examining a variety of energy and regulatory practices and discuss successful applications and lessons learned. In addition, committee

members share regulatory updates about their countries, prepare presentations on specific issues, and engage in roundtable discussions. Currently, ERRA has four staff in Budapest, Hungary, including the head of the Secretariat. NARUC has three staff in Washington, D.C., including the NARUC program director, who provide program support and financial oversight.

II. NARUC Partnership Program

Beginning in 2002, in addition to the ERRA regional-wide programs, the cooperative agreement provided funding for a bi-lateral partnership program between national energy regulatory commissions in the CEE/Eurasian region and U.S. state regulatory commissions.

Participating commissions include:

- Albania/Indiana
- Bulgaria/New Jersey
- Croatia/New York
- Kyrgyz Republic/Washington
- Macedonia/Vermont
- Moldova/Iowa

Typically, the partnerships involve two or three exchanges per year during which commissioners and staff from the CEE/Eurasian commissions visit the offices of their U. S. counterparts—and vice versa. Between visits, commissions exchange regulatory information via email.

Evaluation of the USAID/NARUC Cooperative Agreement

In 2004, as requested by USAID, NARUC called for an independent evaluation to assess the cooperative agreement's impact and accomplishments, the benefits to ERRA's members, and the achievements of the programmatic goals defined by NARUC and USAID, and opportunities for improvement. The evaluation centered around four key issues:

1. Has NARUC met the USAID cooperative agreement's mandate through its implementation of the program?
2. How effective has the development and management of ERRA been?
3. What is the impact of NARUC and ERRA on the CEE/Eurasian regulators' capacities?
4. What are the primary directions that ERRA and NARUC should pursue in the future?

Significant Impacts of EERA on the Development of Regulatory Agencies

The USAID/NARUC cooperative agreement supports the newly created energy regulatory bodies in CEE/Eurasia as they organize themselves and address their regulatory responsibilities. Based on feedback from ERRA's membership, NARUC appears to be succeeding admirably in this effort. ERRA has provided its members with a foundation for improving the quality of their agencies' work and decision-making processes through the exchange of ideas, development of relationships with commissioners from other countries, and improved interaction among members, their governments, and other energy sector stakeholders.

Specific areas of NARUC/ERRA's assistance and influence are commission structure and procedures, methodologies, and training. NARUC/ERRA's studies of organizational and legal

issues have been useful in the initial structuring regulatory commissions. ERRA has been particularly influential in assisting regulatory commissions with designing procedures that bolster their independence. The association has also helped its members to understand the importance of transparency in the regulatory decision-making process and to identify practical approaches to achieve this transparency, especially with public relations and consumer outreach.

Through the participation of U.S. commissioners and senior staff, NARUC has provided ERRA members with important information on regulatory methodologies and approaches, which has helped members in their own analyses and deliberations. The members give ERRA high praise for its ability to identify timely subjects and provide knowledgeable experts to introduce important regulatory issues.

Moreover, ERRA has been highly successful in providing training opportunities for its membership. In particular, new and junior staff benefit from ERRA's "summer school" program. For more advanced policy training, ERRA has worked with instructors from the Council of European Energy Regulators (CEER) to provide important information on the European Union (EU) energy directives.

Effect on Energy Regulatory Reform and Development

The NARUC/ERRA program aims to support and strengthen member regulatory agencies to enable them to be agents of change in their countries and regions. During the evaluation, ERRA members recounted their achievements and directly credited many of their accomplishments to their participation in the Association. Through ERRA, the regulators now monitor neighboring energy sectors and use the experience of other ERRA members as benchmarks for their own sectors and companies. They have been able to influence their countries' energy policies by working with their ministries and improving relationships with companies and consumer protection associations. Members also cite ERRA's influence in the reform of their individual energy sectors; with specific emphasis on their conversion to unbundled, privatized and competitive industries as well as their ability to draft, propose and implement legislation related to the opening of their markets. Both ERRA and the regulatory partnerships complement and contribute to NARUC's ongoing support of sub-regional regulatory activities in Southeast Europe and the Baltic region.

Impact of NARUC/ERRA Programs

The evaluation team asked ERRA members how they valued program activities and materials, how satisfied they were with the association, and how they believed ERRA has impacted CEE/Eurasian energy regulation.

To measure the value of ERRA activities and materials, the evaluation team asked members how often they referred to various ERRA resources and publications each month. While responses depended primarily on the professional occupation of the respondent, members also made a number of useful suggestions about additional information they would like to see on the ERRA website. On average, members rated ERRA's leadership and the Secretariat as *very effective*, the communication among ERRA members as *effective to very effective*, and communication between members and regulated entities in their countries as *effective*. Based on the evaluation, it appears that members feel comfortable offering program comments and

suggestions at ERRA meetings. On average, members also expressed a *moderate* degree of confidence that they would be able to cover an increasing share of the costs for their participation in ERRA activities.

During the evaluation, ERRA members were also asked to rate the program's impact on their commissions on a scale of 5 (large positive value or impact) to 1 (not useful or no impact). The vast majority of respondents rated all of the programs (committees, working groups, annual meetings, conferences and training) as either a 5 or 4. They rated the value of the information provided by fellow regulators (ERRA members and U.S. participants) as most valuable, followed by information from private sector participants, and lastly, information from representatives of multilateral agencies. Regarding the value of various ERRA documents and materials, respondents gave the highest marks to the on-line database of CEE/Eurasian electricity and gas tariffs (i.e., Energy TariffData) and to the ERRA website, followed by the newsletter and country reports. Members rated most topics (e.g., tariffs, licenses, grid codes) as a 5 or 4, with all topics receiving a 5 from at least some respondents. In general, members were also satisfied with the length and frequency of meetings.

Evaluation of the Partnership Program

Currently six members of ERRA also participate in the NARUC Regulatory Partnership Program (Albania, Bulgaria, Croatia, the Kyrgyz Republic, Macedonia, and Moldova). These respondents rated the value of the partnership program highly, both in terms of the information provided and relationships made, and a few lamented the impending end of their particular partnership. Members noted that the partnerships provide them with valuable opportunities to observe how U.S. commissioners perform their regulatory activities and have been useful in helping them to establish transparency in their own meetings and hearing procedures, particularly with respect to public participation. And, because only a limited number of CEE/Eurasia regulatory staff can participate in U.S. activities, bringing U.S. commissioners and staff to the region exposes a larger number of CEE/Eurasian staff to U.S. regulatory methodologies.

Achievement of the Programmatic Goals of the USAID/NARUC Cooperative Agreement

Members were asked to rate the degree to which the NARUC/ERRA program has succeeded in achieving the programmatic goals of the USAID/NARUC cooperative agreement. Goal #1 is "to assist and support the efforts of the energy regulators in the CEE/Eurasian region to develop a stable, efficient, and competitive electric industry and to ease the transition into the privatization of utility industries through information exchange among the regulators of the region." Of the 35 responses, 15 rated the program as *excellent* in meeting this goal, while 19 rated it as *good*, and one member rated the program as *average*.

Goal #2 is "to support the CEE/Eurasia region's energy regulators in their exploration of formalizing their relationship and the formation of a voluntary association." Of the 31 responses, 17 rated the program as *excellent* in meeting this goal, 11 rated it as *good*, and three rated the program as *average*.

Role of Assistance and Factors External to the USAID/NARUC Cooperative Agreement

The three areas in which external assistance can play an important and supporting role to the NARUC/ERRA program are:

- In-country assistance programs, funded by local USAID missions.
- Funding from other national aid programs and from multilateral aid organizations.
- Grant support for ERRA related activities.

Funding has been forthcoming from all three sources to varying degrees. By far, the most important source of assistance comes from “buy-ins” made by 12 local USAID missions.

The primary factor affecting the NARUC/ERRA program is the ERRA members’ political environment. Unlike in the United States where commissioners serve set terms and can only be removed for just cause, many CEE/Eurasian governments have the ability to replace commissioners at any time (and these newly appointed commissioners can then bring in their own staff). The effect of these external events can be mitigated by exposing a wide breadth of their commissioners and staff to ERRA meetings, partnerships, and technical exchanges to increase the likelihood that trained personnel would remain even if several were replaced.

Key Components of Success

- The involvement of U.S. regulators, in the ERRA program itself and in the partnership program.
- The continued involvement of advanced CEE/Eurasia commissions and their willingness to transfer knowledge to other countries in the region that are just beginning to assume regulatory responsibilities.
- The effectiveness of the Secretariat in managing daily operations of the association.
- The support of each commission’s government.

Challenges Encountered: Implemented and Recommended Resolutions

Several administrative challenges were identified during ERRA’s establishment, including language barriers, lack of Internet access among members, difficulties disseminating information within member agencies, over-extending the capacity of the Secretariat, and members’ limited knowledge of the full range of ERRA’s activities. The NARUC/ERRA Secretariat is aware of these problems and has taken steps to resolve them and to mitigate their impact on the program.

More substantive program issues include the increased size of the organization, which may require that some meetings be restructured to allow enough time for meaningful discussion. With the growth of ERRA, disparities have risen in the stages of development between member commissions and the status of their energy sectors, and in geographic orientations. However, these developmental disparities may be a transitional problem that will be alleviated as new countries gain more regulatory experience. Meanwhile, ERRA’s current approach appears to be succeeding—offer basic training courses to junior staff through the summer school program while committees focus on cutting-edge issues. Geographic disparity is a more complex issue,

and the evaluation team recommends that ERRA hold special sub-regional sessions on issues related to particular regions.

There is also a substantial interest in having the more advanced CEE/Eurasian commissions work together on specific topics of mutual interest. ERRA could develop more working groups (technical/topical subgroups of the full committees) which could meet several times per year. The full committee could then come together annually and discuss the subgroups' reports and recommendations.

ERRA's training programs, particularly the summer school, are very important in educating junior member staff on general regulatory issues. However, as the number of more experienced members increase, there is also a need for more advanced and focused training activities. ERRA could also develop sessions aimed specifically at new commissioners held separately from the general training programs.

The final issue raised in the evaluation involves the future funding of ERRA. Significant planning is needed to ensure ongoing support for the ERRA Secretariat's work and funding for the continued participation of ERRA and NARUC members. A partial solution may be to assist member commissions in augmenting their own budgets, thereby assuming a larger financial responsibility for their participation in ERRA activities. ERRA's own avenues for increased funding include the Investment Conference, subscriptions to Energy TariffData, and opening training sessions to non-members.

Future Direction of NARUC/ERRA

ERRA expects that most of the countries that recently joined the EU will maintain dual membership in both ERRA and CEER in the foreseeable future. However, beyond the next year or two, it is expected that some ERRA members will leave the association to focus exclusively on the Council of European Energy Regulators and the EU. At the same time, there are still a few new regulators being established in Southeast Europe. Though the geographic focus of ERRA may shift to the Southeast and Eurasian regions, it is anticipated that ERRA's membership will remain substantial at approximately 18-20 regulatory agencies. The ERRA Secretariat currently maintains a good working relationship with CEER's Secretariat and their designated commissioner liaison to ERRA.

NARUC's leadership has been committed to this program since its inception. NARUC has created enduring linkages with ERRA, both on the association-to-association level as well as the member-to-member and commission-to-commission levels. Looking toward the future, NARUC is likely to continue to support its ties with ERRA, providing assistance and resources to the best of its ability.

II. KEY FINDINGS

- NARUC is succeeding admirably in achieving the goals of the USAID/NARUC cooperative agreement: coordinating an information exchange program among the newly created energy regulatory bodies in CEE/Eurasia and supporting formation of a voluntary regulatory association.
- The regional approach embodied in the ERRA concept and the bilateral partnerships, which bring U.S. commissioners and senior staff together with CEE/Eurasian commissions, increase the effectiveness of USAID's assistance to these countries.
- The involvement of US commissioners and senior staff is critical to the success of ERRA and to maintain the interest of the more advanced commissions in ERRA.
- Involving commissioners and staffs of more advanced ERRA member commissions is critical in transferring knowledge to newer, less experienced commissions.
- The ERRA Secretariat is highly regarded by the members. However, while program staff should help members when feasible, they should not allow themselves to be diverted to performing detailed tasks at the expense of their principal association management responsibilities.
- ERRA members are very satisfied with the various components of the ERRA program, but as the organization has evolved, they recommend possible changes to the structure and operations of the committees.
- The partnership program is highly regarded by both the CEE/Eurasian regulators and their U.S. counterparts.
- NARUC and ERRA have been instrumental in helping member commissions establish their structure and procedures, playing an important role in promoting commission independence and transparency.
- Member commissions praise NARUC/ERRA for identifying timely regulatory subjects, cutting-edge methodologies, and involving knowledgeable experts in ERRA activities.
- The training provided to member commissions—both at ERRA's summer school and through the work of the committees and working groups—has been critical in increasing commission capabilities. Members have expressed the desire for advanced training programs and expanded activities geared specifically toward new commissioners.
- ERRA is adept at overcoming the administrative problems posed by language barriers, limited Internet access among some members, dissemination of information within member agencies, and making members aware of the full range of the association's activities. However, ERRA needs to increase its members' awareness of the underutilized Technical Regulatory Skills Exchange/Apprenticeship Program.
- The commission-to-commission differences in capacity resulting from commissioner and staff turnover appear to be diminishing; the newer commissions are rapidly catching up.
- Geographic disparities can be mitigated by providing special sessions on regional issues.
- Significant planning is required to ensure ongoing support for funding the ERRA Secretariat and the continued participation of ERRA and NARUC commissioners and staff.
- Most ERRA members whose countries joined the EU have stated their intent to remain involved with ERRA, especially given ERRA's good working relationship with CEER.

III. BACKGROUND

The National Association of Regulatory Utility Commissioners (NARUC) is a non-profit, quasi-governmental organization founded in 1889 whose membership includes the governmental agencies (public utility commissions) engaged in the regulation of utilities and carriers in the 50 states, the District of Columbia, Puerto Rico and the Virgin Islands. NARUC also has associate members from over 20 other countries. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. Specifically, NARUC's member agencies regulate the activities of telecommunications, electricity, gas, and water utilities. The organization provides services to its members in three major areas: communication and outreach to federal agencies, Congress, courts, and the White House; meetings and education; and domestic and international programs.

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. As part of this commitment, in October 1998, NARUC entered into a three-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 (CEE/Eurasia) and to support the region's energy regulatory bodies in forming a voluntary association.

IV. NARUC ACTIVITIES UNDER THE COOPERATIVE AGREEMENT

A. Energy Regulators Regional Association (ERRA)

1. Establishment of ERRA

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 CEE/Eurasia to exchange information and best practices with each other and their U.S. colleagues.¹ 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. The steering committee consisted of the heads of six CEE/Eurasian regulatory bodies. NARUC helped to define the scope and intent of the organization, and drafted its critical documents. On December 9, 1999, 14 energy regulators signed the "founding principles," 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.

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 describing the proposed association (www.erranet.org/AboutUs/Founding/Constitution).

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.² ERRA was legally registered in April 2001 with headquarters in Budapest, Hungary.

¹ Since the program's inception, NARUC has conducted all regional activities in both English and Russian.

² In May 2004, the ERRA General Assembly changed the Constitution to expand the Presidium to seven members.

As of May 2004, ERRA consists of 22 full members and four associate members:

Full Members (year joined ERRA) (*denotes original founding member)³

- ***Albania:** Electricity Regulatory Authority of the Republic of Albania (ERE) (2000)
- ***Armenia:** Public Services Regulatory Commission of the Republic of Armenia (PSRC) (2000)
- **Bosnia and Herzegovina:** State Energy Regulatory Commission of Bosnia and Herzegovina (SERC) (2004)
- ***Bulgaria:** State Energy Regulatory Commission of Bulgaria (SERC) (2000)
- **Croatia:** Croatian Energy Regulatory Council (CERC) (2002)
- **Czech Republic:** Energy Regulatory Office of the Czech Republic (ERO) (2001)
- ***Estonia:** Energy Market Inspectorate of Estonia (EMI) (2000)
- ***Georgia:** Georgian National Energy Regulatory Commission (GNERC) (2000)
- ***Hungary:** Hungarian Energy Office (HEO) (2000)
- ***Kazakhstan:** Agency for Regulation of Natural Monopolies and Protection of Competition (ANMR) (2000)
- ***Kyrgyz Republic:** State Energy Agency under the Government of the Kyrgyz Republic (SEA) (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) (2004)
- ***Poland:** Energy Regulatory Office of Poland (ERO) (2000)
- ***Romania:** Romanian Electricity and Heat Regulatory Authority (ANRE) (2000)
- ***Russian Federation:** Federal Tariff Service of the Russian Federation (FTS) (2000)
- **Slovak Republic:** Regulatory Office for Network Industries of the Slovak Republic (RONI) (2001)
- **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)
- **Romania:** National Natural Gas Regulatory Authority of Romania (2002)
- **Russian Federation:** Inter-regional Association of the Regional Energy Commissions (2001)
- **USA:** National Association of Regulatory Utility Commissioners (NARUC) (2000)

³ Current energy regulatory agency names listed. (The regulators in Latvia and Russia have been restructured.)

2. ERRA Activities

With financial and technical support from USAID and NARUC, ERRA has evolved into an internationally recognized association that offers its members valuable professional development and training. Many ERRA members are currently organizing their energy sectors to comply with the EU Directives on Electricity and Gas while others are establishing their own sub-regional markets (e.g., the Common Baltic Electricity Market and the Southeast Europe Regional Electricity Market). Furthermore, some members are reinvigorating energy trading to better manage their domestic energy requirements.

ERRA enables regulators to regularly exchange information and best practices. It holds technical committee and working group meetings and annual conferences; publishes statistical information and newsletters; provides training and exchange activities; and maintains an extensive array of resources on its website (www.erranet.org). This helps promote transparency both of the regulatory agencies and within the energy sectors of member countries. The association provides forums for regulators to discuss specific country and/or regional challenges, and when possible, resolutions to key energy issues.

a. Technical Committees, Working Groups and Workshops

Since 1999, NARUC and ERRA have organized two meetings per year of the Licensing/Competition and Tariff/Pricing Committees. These meetings provide participants with an opportunity to share information, identify and evaluate best practices, and discuss key regulatory issues. ERRA members designate one representative to each committee—approximately two-thirds of committee members are senior technical staff and one-third are commissioners.⁴ NARUC and ERRA encourage members to assign permanent committee members for a minimum of one year, if not longer. This has generated a high degree of committee member continuity and stability and ensures that the committees continue to advance their research and studies, progressing from general topics into specific technical issues.

Each year, the committees prepare a series of issue papers on energy and regulatory practices, in which they explain successful applications and lessons learned. In addition, committee members share regulatory updates about their countries, prepare presentations on key issues, and engage in roundtable discussions on “hot” topics. During the first two years of committee meetings, USAID provided outside consultants to assist committee members in preparing issue papers. However, as ERRA members gained more regulatory experience, they took on the responsibility of developing these papers themselves.⁵ In October 2002, the Tariff/Pricing Committee developed “Energy TariffData,” a comprehensive database of member electricity and natural gas prices and statistics from January 2000 to present. ERRA offers non-members a subscription to the database as a means to generate funds for the association’s long-

⁴ The energy sector in the ERRA region is usually male dominated, so it is important to note that approximately one-third to one-half of the committee members are women.

⁵ See Appendix B for a detailed listing of the committee issue papers.

term sustainability and to make accurate information available to investors and others interested in the region.

ERRA's Licensing/Competition Committee oversees two topical working groups that are actively exploring regulatory issues. The Monitoring/Performance Standards Working Group prepared papers and met in 2001 and in 2004, and the Regional Markets Working Group (formerly the Export-Import Working Group) prepared papers in 2000 and 2001.

In June 2002, the Council of European Energy Regulators (CEER) invited ERRA members who were EU accession candidate countries to meet with them. Ten ERRA members convened prior to this meeting to identify and discuss key issues and challenges they wanted to explore as they prepared for EU accession. The participating ERRA members created a list of 26 key topics, with detailed suggestions on how to approach these issues, and agreed to form the ERRA EU Accession Working Group. Several ERRA members stated that CEER was impressed with ERRA's level of sophistication and organization as it presented the priority list and proposed actions for future cooperation. ERRA's EU Accession Working Group held six meetings between September 2002 and May 2004, focusing on the key topics identified at the June 2002 meeting. The working group meetings have included at least three and up to seven representatives from CEER. Following the accession of seven ERRA members to the EU in May 2004, ERRA expanded the group into ERRA's EU Integration Working Group. This group includes non-accession countries and "border" countries such as Ukraine, Moldova, Russia, and others who would like to keep abreast of EU directives and market design policies.

In February and September 2004, NARUC and ERRA also organized legal regulatory workshops to analyze legal practices in ERRA member countries, the United States, and the EU. Members demonstrated overwhelming interest in developing a working group for the lawyers of ERRA member commissions to explore critical issues such as sanctions, appeals, and the collection of information.

b. Annual Meetings

Since 1999, NARUC and ERRA have organized annual meetings for CEE/Eurasian regulators to share experiences and help design the association's future activities. These meetings provide an opportunity for ERRA member energy regulators to analyze topics in closed plenary sessions and roundtable discussions. In addition, the two technical committees meet during the Annual Meeting and present their issue papers before the entire association. At this time, the Association also holds its General Assembly (governing body) Meeting, open to all members, during which it approves the annual work plan, budget, and elects ERRA's officers.

In April 2002, ERRA and NARUC organized the Energy Regulation and Investment Conference, which provided a unique opportunity for 220 strategic investors, energy regulators, and utility company officials to meet and share information. ERRA/NARUC organized the 2nd and 3rd Investment Conferences in 2003 and 2004, which were equally well attended by senior-level participants. The Investment Conference is significant for providing members with an important service while attracting registration and sponsorship funds to support the association's operating expenses.

c. Other ERRA Activities

In addition to Energy TariffData, ERRA also regularly publishes an electronic newsletter, membership directory, and member profiles – all of which are available on ERRA's website (www.erranet.org). The website also has an extensive resource library on energy and regulatory issues.

ERRA and NARUC have organized a variety of exchange programs. These include several study tours to the U.S. for committee members, an in-depth regulatory peer review between Hungary and Lithuania, and a number of technical skills/apprenticeships (bilateral short-term job shadow placements) between ERRA members.

In 2003, ERRA also developed two training programs for its members. The first program, organized jointly with CEER, focused on EU issues (ERRA is in contact with CEER about follow-up activities). The second is the International Training Program on Energy Regulatory Practices, also known as the ERRA summer school, first held in July 2003. This summer school is aimed at junior level regulators. The program's instructors are ERRA member commissioners and senior technical staff. In 2004, the program was opened to a few select outside students who applied through the Central European University (CEU, co-organizer of the 2003 and 2004 summer school program).

d. Secretariat – NARUC and ERRA Staffing

NARUC began implementing activities under the cooperative agreement in February 1999 by hiring a program director in its Washington, DC office. A second staff person was hired in August 2000 to begin developing the program's website and to assist the program director. In November 2001, NARUC hired a third staff person as the number of activities continued to expand and the partnership program began. In total, the NARUC office currently has three program staff devoted to ERRA and partnership activities. The program director maintains daily communication with the ERRA Secretariat staff in Hungary and continues to provide supervisory and management support. The two program officers implement six regulatory partnerships and provide logistical support to the ERRA staff. During the past five years, NARUC's director of meetings has also trained ERRA staff in developing professional conference management skills. Members praise ERRA staff for their organization of the Investment Conference, which is further validated by the steady increase in industry participants and corporate sponsorships each year.

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. NARUC (and subsequently ERRA) entered into a Memorandum of Understanding with the Hungarian Energy Office, which generously donated office space and some computer equipment to the ERRA Secretariat as an in-kind contribution.

The ERRA Secretariat currently consists of four program staff implementing ERRA activities. The Secretariat now organizes all technical committee and working group meetings, the ERRA Annual Meeting and Investment Conference, as well as the Presidium meetings. In

addition, ERRA staff oversees the publication of the newsletter, member directory, member profiles, and the dissemination of information to members. In late 2003, NARUC also transferred responsibility for the ERRA website to the ERRA Secretariat. ERRA staff restructured the website and continues to expand and update its dual-language (English and Russian) resources, which contain all relevant program information as well as a reference library.

B. NARUC Partnership Program

In addition to the ERRA programs, the cooperative agreement also funds bilateral partnerships between national energy regulatory commissions in the CEE/Eurasia region and U.S. state regulatory commissions (see www.narucpartnerships.org).

NARUC began implementing the energy regulatory partnership program in early 2002, which currently includes partnerships between Albania/Indiana, Bulgaria/New Jersey, Croatia/New York, Kyrgyz Republic/Washington, Macedonia/Vermont, and Moldova/Iowa. Typically the partnerships involve two or three exchange activities per year, during which commissioners and staff from CEE/Eurasian commissions visit the offices of their U. S. counterparts—and vice versa.

Partners	Start Date	No. of Activities⁶
Electricity Regulatory Authority of Albania & Indiana Utility Regulatory Commission	July 2002	5
State Energy Regulatory Commission of Bulgaria & New Jersey Board of Public Utilities	May 2002	6 (plus 2 internships)
Croatian Energy Regulatory Council & New York Public Service Commission	March 2003 ⁷	3
State Energy Agency of the Kyrgyz Republic & Washington Utilities and Transportation Commission	August 2003	4
Energy Regulatory Commission of Macedonia & Vermont Public Service Board	March 2004	3
National Energy Regulatory Agency of Moldova & Iowa Utilities Board	July 2002	6

During the first two activities, the partnerships focus on the authority, autonomy, accountability, organization, administration, and functions of the partnered regulatory agencies. Following the development of a detailed work plan, technical staff participate in exchange activities that focus on detailed issues such as tariff design, consumer protections, public hearings, and public relations. Most activities include site visits to utility offices, generation

⁶ Number of activities scheduled through October 2004.

⁷ The first exchange activity for Croatia-New York was held in March 2003, however in August 2002 NARUC arranged for four CERC Commissioners to attend Camp NARUC at Michigan State University for regulatory training.

facilities, transmission system operators, and/or relevant U.S. federal agencies such as the Federal Energy Regulatory Commission (FERC).

Partners	Key Technical Issues	Additional Site Visits & Meetings
Albania & Indiana	• administration and commission structure (including commissioner-staff communication, staffing, finance and budget, legal framework, etc.) • technical aspects of energy regulation • the relationship between the regulator and other government agencies • tariffs and pricing • legal norms • rules and procedures for beginning a case – role playing exercises • consumer protections • financial rules for market operators • observation of public hearings	• Hydro/Cascades of Vau Dejes (Albania) • Cinergy–PSI Power Plant (IN) • FERC Market Monitoring Office (DC) • KESH (Albanian Electric Co.) • Midwest Independent System Operator (MISO) • Organization of MISO States (IN) • Edison Electric Institute
Bulgaria & New Jersey	• regulatory agency organization, structure, and functions • public relations • generation and investors • distribution networks • infrastructure protection • quality control • technical rules • renewables • legislative framework • tariff review procedures • benchmarking • stranded costs • information processing • consumer education • transparency • confidentiality versus public access • hearing procedures • observation of public hearings	• Chaira Pumped Storage Hydro Power Plant (Bulgaria) • Public Service Electric and Gas Company (NJ) • Bulgarian Minister of Energy and Energy Resources • Parliamentary Committee on Energy in the Bulgarian National Assembly • Bulgarian National Electric Company • Delaware Public Service Commission • Pennsylvania Public Utility Commission • FERC
Croatia & New York	• regulatory functions • consumer relations • relations with other government agencies and the legislature • restructuring • tariff design	• Consolidated Edison's training center • a New York generation facility • New York Independent System Operator

	• rate case procedures • competitive wholesale markets • accounting issues • dispute resolution	• FERC • Mid-Atlantic Conference of Regulatory Utility Commissioners
Kyrgyz Rep. & Washington	• commission responsibilities • market structures • tariffs and pricing • customer service procedures • dispute resolution • relations with the legislature and other government agencies • low-income issues • ethics • public relations • filing procedures • revenue requirements • tariff methodologies • rate design • cost of service • observation of public hearings	• Kyrgyz Parliament • Kyrgyz national grid company • a Kyrgyz distribution company • a Kyrgyz consumer protection association • Kyrgyz press • Kyrgyzgas • Chakhan Hydro Power Station (Kyrgyz Rep.) • Puget Sound Energy • Puget Sound Energy's consumer relations office
Macedonia & Vermont	• fundamentals of regulation • relations with the legislature and other government agencies • hearing procedures • market structure and operations • service quality and reliability • consumer protection • affordability • observation of videotaped public hearing	• Macedonian parliamentarians, government and ministry officials • Electric Power Company of Macedonia • Macedonian Telecommunications Commission • PP-Istok-Skopje district heating plant • Vrutok-Gostivar and Spilje-Debar hydro power plants • New England Independent System Operator • FERC • US Senator James Jeffords • McNeil Generating Station Facility (a wood-chip plant in Vermont) • Omya Quarry Generation Facility (VT) • VELCO Substation (VT) • Searsburg Wind Farm (VT)

Moldova & Iowa	• organizational and functional issues • relations with legislature/parliament and other government agencies • customer service and the complaint process • service quality • tariff and rate issues • revenue requirements • tariff filing procedures • contract issues • rate design • price signals • rulemaking procedures • dispute resolution • public relations • consumer advocacy • licensing issues • competitive markets • accounting and auditing systems • compliance, enforcement, and monitoring • physical plant standards • labor safety • regulatory monitoring • system repair/maintenance budget issues • observation of rate hearing • observation of videotaped town meeting (public involvement)	• a US gas turbine facility • Mid-American Energy Company's system control center • Emery Generating Station (IA) • Cerro Gordo County Wind Farm (IA) • Consumers Energy Cooperative facility (IA) • Iowa Association of Electric Cooperatives • Moldovan parliamentarians • Union Fenosa • Moldelectrica • combined heat and power plant in Chinsau
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Between exchange activities, the two commissions exchange documents and information relevant to the key issues they are facing at the time. Where language skills permit, NARUC also organizes two-week internships at the U.S. commission for the partnered CEE/Eurasian regulator. This job-shadowing opportunity enables the CEE/Eurasian member to thoroughly analyze U.S. regulatory practices while preparing a research report for the use of both partners.

V. EVALUATION OF THE USAID/NARUC COOPERATIVE AGREEMENT

A. Evaluation Team

The initial three-year USAID/NARUC cooperative agreement was extended through September 2004. In September 2003, NARUC submitted a request to USAID for an additional three-year extension. As specified in the agreement and as part of the extension process, in 2004, NARUC organized an independent evaluation of its programs under the cooperative agreement. This evaluation is intended to assess the key impacts and accomplishments of the program, benefits to ERRA members, achievement of programmatic goals, and opportunities to improve the program. In particular, the evaluation team sought to answer the following key questions:

1. Has NARUC met the mandate of the USAID cooperative agreement through its implementation of ERRA?
2. How effective has the development and management of ERRA been?
3. What is the impact of NARUC and ERRA on the CEE/Eurasia regulators' capacities?
4. What are the primary directions that ERRA and NARUC should pursue in the future?

The evaluation team consisted of: Sarah P. Voll and Andrej Juris of the National Economic Research Associates; William M. Nugent, former Maine Commissioner and past president of NARUC; and Erin H. Skootsky, NARUC's Director of International Programs. The team developed a comprehensive questionnaire, which was sent to all ERRA members on April 23, 2004. Mr. Juris and Mr. Nugent attended the fourth Annual Meeting of ERRA and the 3rd Energy Regulation and Investment Conference on May 17-20 and interviewed as many ERRA members as possible. Between May 21 to June 5, Dr. Voll and Mr. Nugent visited the commissions of Hungary, Romania, Albania and Croatia to conduct in-depth interviews with commissioners and staff. From June 26 to July 3, Dr. Voll and Ms. Skootsky visited the commissions of Armenia and Lithuania. Mr. Juris conducted a telephone interview in July with a commissioner of the National Electricity Regulatory Commission of Ukraine.

B. Significant Impacts on the Development of Regulatory Agencies

The two principal goals of the cooperative agreement are to coordinate an information exchange program among the newly created energy regulatory bodies in CEE/Eurasia and to support the region's energy regulatory agencies in forming a voluntary association. The ultimate goal is to support the nascent commissions as they struggled to organize themselves and undertake their regulatory responsibilities. Based on questionnaire responses and in-depth discussions, NARUC/ERRA is succeeding in meeting these goals.

[The] process of initiation, organization and work started at CERC highly corresponds to its attendance and membership in ERRA. ... The participation in ERRA, experiences gathered there and work with excellently experienced commissioners and other experts have been a permanent source of ideas and good fundamentals for improving the quality of CERC work, relations, cooperation and mutual understanding among commissioners, improvements in the decision-making process, as well as interaction with the ministry, regulated entities and other energy sector stakeholders.

- Chairman, CERC/Croatia

A Hungarian staff member simply stated that there was no substitute for ERRA; without ERRA, the Hungarian Energy Office would be isolated in energy policy regulation.

Specific aspects of NARUC/ERRA's assistance and influence can be grouped into three categories: structure and procedures, methodologies, and training.

1. Structure and Procedures

The first regulatory challenge for any new commission is to determine how to organize its agency. Several regulators spoke highly of NARUC/ERRA's studies on organizational and legal issues in structuring their regulatory commissions. Latvian commission staff found NARUC/ERRA's assistance especially helpful in learning the processes and procedures of regulation and receiving advice regarding the structure of the regulator, particularly the separation of the legal department from other departments. They noted that their commission generally uses the same procedures as other countries and that the experience of those countries was a great help to them.

Members cited two areas in which NARUC/ERRA helped influence commission procedures: independence and transparency. First, NARUC/ERRA's emphasis on independence has been critical for members. Regulatory commissions must be independent of political influence and committed to administering programs consistent with their national law, precedent, and sound regulatory principles. The senior energy advisor at USAID/Bucharest cited advice from U.S. regulators, particularly the Maine Public Utilities Commission through the Maine/Romanian partnership, as instrumental in the Romanian commission's achievement of independence. The commission lobbied hard to separate itself financially from the Ministry of Industry and to set fixed terms for its commissioners that were longer than those of their appointing authorities.⁸ This goal was achieved after discussions with neighboring countries and based on advice from U.S. regulators.

Similarly, Armenian regulators pointed to ERRA's influence in facilitating change in their commission's financing, which is now a mandatory fee levied on all regulated entities.

⁸ Commissioners are appointed by the Romanian Prime Minister upon the recommendation of the Minister of Industry and Resources.

(Previously, the Armenian commission's funding was allocated from its government's central budget). Hungarian members stated that they based their statutory elements of autonomy on an ERRA issue paper. Moreover, an Albanian staff member credited ERRA as well as their partnership with Indiana for helping build the capacity of their institution, advising on organizational structure, and assisting with staff position descriptions, which in turn enabled the Albanian commission to participate in the creation of a new law for electricity that strengthened the independence of their agency.

Furthermore, many commissions attribute both their conceptual understanding of transparency and their practical approaches to achieving it to ERRA and the partnership program with U.S. regulators. Albanian, Armenian, Bulgarian, Latvian, Mongolian, Romanian and Ukrainian members all cited NARUC's programs as useful in helping them to understand the importance of transparency and public involvement.

Last year we started a transparent public hearing process, open to consumers and syndicates. I have to give the Indiana Commission a great deal of credit for what we did here. During our exchange visit with Indiana, we saw how to organize hearings and how to make decisions open and transparent to the public.

- former Commissioner, ERE/Albania

As a result, the Albanian commission began to hold public hearings, thereby opening the commission's decision-making process and giving the public a voice in regulation.

A Bulgarian Commissioner noted that his commission's partnership with the New Jersey Board of Public Utilities (BPU) was especially useful in establishing transparent meetings: "At the start, we didn't know what to do to make our meetings and processes transparent. Now we have started to open up our meetings to interested parties and the public. We have learned very practical hearing procedures." Similarly, a Romanian Commissioner recalled a former commission President who returned from a visit to the Maine Commission in May 2000 saying, "we need a bigger (hearing) room to let people come in and participate in our proceedings."

A senior Hungarian official reported that the openness of their procedures is based on what they learned from NARUC commissioners during committee meetings. Mongolia credited ERRA, not only for assisting in the establishment of their internal information system, but also for helping to create their commission's website. Slovakia's Regulatory Office for Network Industries reported that researching U.S. commission regulatory practices during its 2003 study tour helped them to develop transparent market rules. Slovakia has further increased the transparency of its decision-making process by issuing its own newsletter, holding frequent meetings with the media, and improving its website.

RONI has realized a quantity of ideas from ERRA and NARUC members:

- stimulate competition in electricity market by way of electricity trade resulting in preparation of an auction process with Hungary;
- research with respect to the unbundling of the gas market and entry to the gas storage competition (Ohio and Texas examples);
- study of others regulatory authority's structure with result that the RONI's structure has changed last year;
- research some of US PUC's regulatory practice during [2003 Licensing/Competition Committee] study tour resulted in the recommendation to make RONI's regulatory process more transparent for all market participants.

- *Specialist, RONI/Slovakia*

Related to transparency is the progress ERRA member commissions have made in public relations and consumer outreach. During the evaluation, Armenia was most articulate in describing its efforts and successes with respect to these issues and intends to share its public relations experiences with other ERRA members. Armenian regulators have made a number of changes in public and media outreach, including holding meetings with journalists to better explain regulation, publishing booklets on consumer rights, and requiring utilities to publish information on their practices. Moreover, the Armenian commission has held regional meetings outside of the capital of Yerevan in order to improve its dialogue with local governments and utilities. Several commission department heads have prepared television broadcasts on specific issues and have placed announcements in newspapers. Armenia's results are impressive, especially in a utility sector it began regulating just this year: customers now receive a written answer from the water utility within five days. The flow of customer complaints has actually increased because consumers see that they can now get results.

During the evaluation, Albania and Moldova noted that, as a result of their participation in ERRA, they have developed and implemented procedures for working with consumers. In addition, Mongolia has formed a part-time advisory board comprised of consumer and licensee representatives, while other commissions, such as Bulgaria and Georgia, noted an increase in consumer complaints and the need to train additional consumer specialists. The general counsel of Croatia, for example, expressed her frustration that her commission was unable to help those they are responsible for protecting—a clear illustration that the commission understands the importance of responding to consumers.

2. Exposure to Methodologies

Each ERRA member who participated in the evaluation cited specific examples of areas where ERRA has provided important information on regulatory methodologies and approaches that they have then used in their own analyses and deliberations. For instance, Moldovan members stated that they use regulatory ideas presented by member ERRA commissions in their own work. The interaction among ERRA members has enabled commissions to better identify their strengths and weaknesses and improve their performance. In many cases, the exposure to NARUC/ERRA has not only introduced regulatory techniques to member commissions, but has taught commissions how to address certain regulatory issues.

On the basis of international practice, a number of methodological documents either have been developed or are in the process:

- a) Tariff setting methodologies for generation, transmission, and distribution of energy resources (electricity, heat, and natural gas) have been approved. Tariff methodologies are stable in the course of several years, which is a positive signal for companies. Methodology for determination of profit, which depends on the volume of investments has been changed, motivation for use of owner's equity for investment purposes is envisioned.
- b) Procedures and rules for revision of tariffs have been developed. They envision broad participation of stakeholders in the process of tariff reviews.
- c) Quality standards for services have been developed and implemented; licensees are liable for non-observance of the standards (through tariffs)
- d) Accounting standards and reporting systems for regulated companies have been developed and implemented.
- e) An audit department has been established in the Agency, it would allow carrying out regulatory activities in a more efficient way.
- f) Methodology of differentiation of tariffs for electricity by consumption zones and levels of voltage is being developed.

- Director of Tariff Department, ANRE/Moldova

The development and implementation of tariff-setting methodologies was most often mentioned by ERRA members during the evaluation, not only for electricity but for natural gas, district heating, and water as well. Most members cited the benefits of technical pricing aspects of tariff methodologies, such as the application of a weighted cost of capital in calculating a utility's profit, methodologies to encourage investment, calculation of connection fees and pricing ancillary services for opened markets, as well as the components and applications of multi-part tariff designs that differentiate consumption by zones and voltage levels. Other members noted the importance of ERRA's programs as they reviewed and set tariffs. Rate setting is now practiced with broader public participation in many member countries, thereby increasing public understanding and acceptance of rate increases.

The procedure for reviewing and approving tariffs for licensees of regulated industries in Ukraine has been developed on the basis of the procedure for setting monopoly tariffs in Kazakhstan and other international countries. ...Technical losses in distribution, their impact on tariffs, and issues related to the necessary rate of return for inclusion in tariffs which have been discussed at the Tariff Committee meetings have been taken into account when approving the tariff methodology for privatized companies.

- Deputy Head of the Pricing Department, NERC/Ukraine

The other significant types of methodologies introduced to ERRA members relate to licensing. Based on information from ERRA meetings, members adopted procedures for issuing licenses, as well as strategies for monitoring licensees. These strategies include quality of service standards and a review of regulatory enforcement authority and techniques. U.S. and ERRA-member commissions have shared information on unbundling energy sectors, opening markets, and stimulating competition. As a result of ERRA, a number of members have

implemented revised accounting standards and reporting systems for regulated companies, including financial and technical audits.

ERRA members also credit the association for its ability to identify timely subjects and bring in knowledgeable experts to discuss these subjects with members. Current topics include the application of benchmarking techniques, cross border trade and export-import trading rules, interpretation of EU directives (of special importance to new EU member states and accession countries but relevant to all members), and the regulator's role in privatization. Another important new area involves improving legal skills, rules, and regulations to strengthen the commissions' rulings, enabling them to better withstand challenges on appeal.

Members obtain information and support from all aspects of NARUC/ERRA programs: issue papers, committees and working groups, partnerships with U.S. commissions, and the bilateral peer review program. During the evaluation, members provided concrete examples of how these programs have led to changes in the way their commissions operate and regulate their energy sectors.

Romania cites ERRA's first issue paper as instrumental in developing rules for reorganizing its electric sector. Similarly, the Latvian staff based its proposal for calculating gas tariffs on information received from ERRA members in the Tariff Committee meetings. The legal regulatory workshop held in February 2004 was cited as particularly useful in strengthening the legal skills of participants and will likely lead to the development of a glossary of common legal and technical terms, instruction on the appeals process, and enhanced relationships among the legal staffs of the commissions.

Hungary's market monitoring strategy was derived from NARUC presentations as well from FERC's procedures, which were observed by Hungarian delegates during a study tour to the United States. During a seminar in Vilnius, a representative from the Hungarian commission explained their detailed scheme of quality of service requirements, where interested members participated and expressed their views. These remarks and conclusions were carefully considered as Lithuania created its own quality of service requirements.

Moldova noted that bilateral exchanges between countries in the region are particularly useful, calling them a good source of "concrete, practical" ideas and citing a visit from the Romanian commission as especially helpful. Moldova's exchange with the Southeast European countries resulted in their change from a system of unified tariffs to the introduction of differentiated tariffs for customers with different cost characteristics.

Moreover, Romania and Turkey, both confronted with the challenge of privatizing state-owned distribution entities, are discussing the possibility of a technical exchange with each other. In addition, Romania hopes to revise its approach to district heating tariffs by consulting with regulators in Slovakia and the Baltic countries.

The experience and knowledge that we received from our work with ERRA were applied in several areas:

1. Developing and implementing tariff setting methodologies (power, natural gas, and water).
2. Licensing in the power sector.
3. Developing and implementing other regulations, including developing a competitive market, range of services provided, etc.

- *Commissioner, PSRC/Armenia*

3. Training

ERRA provides valuable training to member commissioners and staff. In particular, ERRA's summer school is very important for training new and junior staff. Ukraine, which considers itself one of the most experienced energy regulators in the association, agrees that young staff member participation in ERRA's training programs is vital to the commission. This type of training quickens the transition period for staff to become productive commission members and broadens their understanding of various department functions, particularly those outside their areas of expertise. (For example, it introduces engineers to the concepts of regulatory pricing and economists to system planning). Members also cited the value of professional contacts made at ERRA training programs, which they expect will lead to mutual exchanges via email among junior staff. In addition, the joint program organized by ERRA and CEER provided important information on EU directives for the accession country members.

Additional observations on the training program can be found in Section VIII.B.5.

C. Effect on Energy Regulatory Reform and Development

The NARUC/ERRA program's ultimate goal of supporting and strengthening CEE/Eurasian regulatory agencies is designed to help members become agents of change in their countries and regions. In evaluating the program, the questionnaire included three questions to elicit observations on the effect of participating in ERRA. Specifically, it asked members about their ability to (1) interact with other government agencies, regulated entities and other energy sector stakeholders, (2) influence their country's progress in reforming the energy sector, and (3) understand, participate in, and influence regional developments. Respondents recounted their achievements in all three areas, and directly credited the concepts, information, arguments and contacts they had gained from their participation in ERRA.

1. Quality of Regulatory Decision-making and Interaction with Government and Sector Stakeholders

In addition to exposure to new methodologies and new ways of thinking about regulatory problems, the information gained through participation in ERRA has directly affected the member commissions' decision-making procedures. Through ERRA, the regulators monitor the decisions and the sector characteristics of their neighbors, and, formally or informally, use the experience of other ERRA members as benchmarks for their own sectors and companies. In the words of the Ukrainian regulator, "comparative characteristics of data (tariffs, losses, regulatory methods, etc.) are taken into consideration when making corresponding decisions."

In addition to improvements in transparency, public outreach, and consumer relations, Slovakia, Moldova, and Hungary stated that they have been able to influence their countries' energy policies by working with government ministries and parliamentarians. The Hungarian Energy Office's informal influence on the energy sector is stronger than its actual statutory power. This is supported by the fact that government agencies, licensees, investors, and consumer organizations view its regulations as sound and knowledge-based. The Bulgarian and Armenian Governments have enough confidence in their regulatory agencies to assign them new sectors—water for Bulgaria and both water and telecommunications for Armenia. The responsibilities for Moldova, Ukraine, and Romania have also increased as they continue to demonstrate their effectiveness. In 2002, the Latvian Energy Council was reconstructed as the Public Utilities Commission that covers electricity, gas, district heating, telecommunications, water, transportation, and health care.

All evaluation participants reported that they communicate with other sector stakeholders in their countries. This is important because, historically, new regulatory agencies tend to focus exclusively on consumer protection and do not engage in outreach to other entities that play a role in the regulation of the energy sector. As a result of their participation in ERRA, Croatia, Latvia, and Moldova all reported improvements in their relations with regulated companies and consumer protection associations. Moldova noted better interaction with its ministries as well. The Hungarian Energy Office noted that when it was asked to prepare their new legislative framework, draft new market models, and harmonize their regulatory framework with the EU directives, they always discussed their preparatory work with all stakeholders. Similarly, the Ukrainian regulator stated that "NERC licensees, all interested parties, including consumers, representatives of mass media, public organizations, and general public are invited to take part in the decision-making process."

Members credit ERRA technical meetings and issue papers with assisting them as they develop their secondary legislation. In particular, ERRA was useful to the Albanian commission as it developed its license procedures and to the Slovak commission as it created electric and gas rules, regulatory reporting, and quality standards. In addition, by participating in a peer review exchange with Hungary, Lithuania alerted its ministry to the importance of service quality standards for electricity power supply reliability and to the fact that Lithuania lacks the appropriate standards. The commission prepared a draft version of quality standards, which will likely take effect in January 2005.

Information from NARUC/ERRA programs has also strengthened the regulatory agencies themselves. The Polish regulator, for example, was able to craft and recommend a better design for its regulatory agency to its government. Similarly, the Armenian commission, using ERRA materials and the experience of other ERRA members, convinced their government and parliament that independent financing is essential to the commission's independence. As a result, necessary changes were made to the Armenian Power Sector Law.

2. Reform of the Power Sector

Commissions also cite ERRA's influence in the area of energy sector reform and their conversion to unbundled, privatized and competitive industries. For example, a Moldovan staff member reported that his involvement in ERRA enabled him to actively participate in and

influence the legislative processes in the parliament, government and ministries to successfully adopt the following laws: heating, oil product market, utility service, etc. In addition, the Croatian commission reported that participation in ERRA strengthened its ability to influence its country's progress in reforming the energy sector, particularly activities intended to define the necessary framework to establish market conditions and introduce competition in the energy market. Likewise, the Ukrainian National Electricity Regulatory Commission (NERC) stated that it actively participates in all energy sector reforms by helping to develop laws that regulate relations between natural monopolies and entities operating within a market framework. NERC deals with the promotion of competition in these markets, licenses natural monopolies, and determines the pricing system. It expects the new Law on the National Electricity Regulatory Commission of Ukraine to be adopted by the end of 2004.

ERRA has also influenced other commissions as they have drafted, proposed, and implemented legislation related to the opening of their countries' markets. The Slovak commission has actively engaged in the government process of privatizing electricity generation, resolving the challenge of stranded costs, establishing the framework for equal and fair application of their Acquisition Law, implementing auctions for cross-border trade, and restructuring the vertically-integrated gas sector. In addition, the Albanian commission's proposed Transitory Market Model has been adopted by the Ministries of Industry and Energy.

Based on the discussions during ERRA meetings on relevant examples from international experience, ANRE's representatives gained the necessary knowledge to be applied in the process of issuing the new electricity law and to ensure the transparency and nondiscrimination of the regulatory process.

- President, ANRE/Romania

Meanwhile, Kazakhstan adopted its commission's proposal to develop a wholesale power market. The Kazakhs credit this achievement to their involvement in ERRA licensing committee meetings. The participation of deregulated ERRA countries in these meetings was particularly helpful in assisting the Kazakhs to learn how to organize electricity sales, develop a spot market, and formulate bilateral contracts. Kazakhstan is now completing its privatization of regional distribution companies and expects to be fully liberalized by 2005.

There is no doubt that participation of Kazakhstan in ERRA has had positive impacts. The adoption of the concept of further development of market relations in the power sector of Kazakhstan approved by the Government in February 2004 confirms the fact. Based on the deregulation experience of ERRA countries and due to participation in ERRA meetings, the Agency has proposed reforms in the area of wholesale market development.

- Department Director, ANMR/Kazakhstan

The Romanian commission also participated in the restructuring of its electricity sector, which included unbundling a vertically-integrated company. Today, 40 percent of customers are eligible to choose their suppliers. Furthermore, Mongolia, influenced by the experience of the Hungarian Energy Office, introduced the single-buyer model and has privatized its largest distribution company.

Recently, a senior official in the Polish Energy Regulatory Office noted that Poland is debating whether it should continue or pause on the path toward liberalizing its energy sector. The official gathered information from this year's Investment Conference and ERRA Annual Meeting and noted that this material would enable him to write a strong pro-liberalization editorial for Polish newspapers.

3. Regional Developments

Since 1999, NARUC has held sub-regional meetings for Southeast European regulators. These were a precursor to the "Athens Process," which is the current process for establishing a Southeast Europe Regional Electricity Market. NARUC also organized a study tour to the U.S. for Baltic regulators as they developed their Common Baltic Electricity Market. The work of ERRA and the regulatory partnerships complement and contribute to these ongoing efforts.

ERRA has helped its members work effectively together by promoting personal interaction among the different regions. In fact, the association's programs and interactions at meetings appear to be the most substantial sources of information on regional developments for all ERRA members. Significant growth in information exchange should be expected as the members become more focused and interested in the Baltic, the Black Sea and the Southeast Europe sub-regional markets. An Armenian regulator, for example, thought that in the future ERRA should give more priority to regional cooperation. Armenia is in both the Caucasus and the Black Sea basin, locations where countries have similar problems and hope to find joint solutions.

ERRA meetings have given both Ukrainian and Slovak regulators the opportunity to influence the activities of multinational energy companies operating in their region. Further, the Ukrainian commission states that they exchange experiences both within the framework of ERRA and NARUC and through bilateral exchanges with other former Soviet countries. Other regulators, such as Mongolia, appear to have few or no sources of information on the opportunities and perils of multi-national coordination of energy markets.

In addition, the new EU countries and those who aspire to EU membership rely on ERRA as a means through which they can obtain interpretations of EU requirements. For example, a senior Polish regulatory official stated that he found the information provided through ERRA to be very helpful and "on point." As an organization, ERRA has provided a structured format whereby regulators can meet and share views with their West European counterparts. Through ERRA, members can debate and analyze issues such as cross-border trade and benchmarking. On the other hand, it is clear that demand for the expertise of commissions such as Hungary and Lithuania has been enhanced by EU events. For instance, a senior Hungarian official told the evaluation team that he is often invited to speak about regulatory practices at CEER working group meetings and European Regulators Group for Electricity and Gas (ERGEG) events, as well as through bi-lateral activities with Portugal and Austria.

ERRA's activities at the sub-regional level are important as well. The Croatian commission's chairman called ERRA's regional activities "first rank." The Croatian Energy Regulatory Council's participation in ERRA has directly influenced the commissioners' ability to understand and actively participate in regional (multi-national) developments. The chairman

cited the commission's involvement in the development of the regional electricity and gas market as an example.

More specifically, the Latvian commission noted that developing an issue paper on ancillary services through ERRA helped a staff member understand the regional aspects and complexity of the issue. This commission has regular contacts with other Baltic regulators, is signing Memorandums of Understanding with Ukrainian and Russian regulators, and has established contacts with the Turkish regulator. In addition, Slovakia mentioned the review of multi-national principles and rules on congestion management and developments in the field of communication and cooperation with the transmission system operator.

ERRA regional discussions have also made the Albanian commission acutely aware of the failings of their own transmission system. Albania is on the corridor between Greece and the rest of Europe, and without a proper dispatch center and SCADA⁹ system, they cannot manage the flow of electricity. Albania's lack of system control can force it to operate as an island, sometimes disrupting its neighbors' systems.

While there is clearly value in increasing the emphasis on sub-regional or topic-specific groups, ERRA should not entirely abandon its plenary or full committee meetings. Such meetings help regulators keep an eye on "the big picture," study applicable approaches to regulation, and build relationships among commissioners and staff—especially among those whose commissions are at different levels of development.

D. Impact of NARUC/ERRA Programs

The evaluation team posed specific questions to ERRA members on how they view ERRA activities and materials, their level of satisfaction with the program and the association, and their assessment of the association's overall impact. Forty-one questionnaires were returned from 14 countries. No attempt was made to weight the responses by country. The responses varied widely, depending primarily on the occupation of the respondent; for example, a liaison staff person uses the member directory most often while a tariff specialist is more likely to use the energy tariff database (Energy TariffData). However, to a large extent, the results also reflect the electronic communication resources available at each commission. For instance, staff members at the Armenian commission, with its single Internet link, are bound to access ERRA's website less often than Hungary or Lithuania, who have more resources.

1. Value of ERRA Activities and Materials

One measure of the value of ERRA activities and materials is to determine how often they are used by members. Members were first asked how often they referred to various ERRA resources and publications each month. Depending on the particular respondent and resource, the responses ranged from 10-15 times a month to not at all, with a median response of once or twice a month. The following table summarizes these results:

⁹ SCADA is the acronym for System Control And Data Acquisition.

Table 1: Monthly Use of ERRA Resources		
Resource	Range of Response	Median
Energy TariffData	7-8⇒0	1.0
Newsletter	5⇒0	1.0
Member Directory	5⇒0	1.0
Member Profiles	5⇒0	1.0
Committee and Working Group Reports	10⇒1	2.0
Training Materials	5⇒0	1.0
Website for ERRA Information	10-15⇒1	2.5
Website for non-ERRA Information	10-15⇒1	2.0

When asked what other types of information could be useful to add to the ERRA website, respondents had a wide variety of suggestions, including:

- Copies of new legislation (though all acknowledged potential language barriers); interpretation of articles and information on legal frameworks and procedures.
- Guidelines and regulations adopted by ERRA member commissions; rules and procedures followed by regulatory commissions related to competition and privatization, tariff making, funding of commissions, public hearings, internal regulatory rules and grid codes; changes in structures; and the general status of member regulators.
- Materials on regulation in different countries and modern regulatory practices; deeper insight in general regulatory issues, including:
 - internal organization, structure, responsibilities, functions;
 - distribution of staff and resources; and
 - independence issues.
- Practical licensing experience.
- Survey and analysis of energy (power and gas) sector organization; ERRA member market models; and market design and tariff regimes.
- Information on the concepts and programs for improving tariff policies in ERRA countries and elaboration on methodologies for tariff setting in member countries.
- Technical-economic parameters of systems (general, dynamics); bottlenecks between the grids of different countries; dynamics of changes and trade between countries; and energy flows.
- Information about cross-border tariffs and the development of regional and financial markets, especially the development of the Southeast Europe Regional Energy Market.
- More information about the types of problems regulators face and possible solutions.
- A section on “hot news” from ERRA members.
- “Chat rooms” in which members could directly interact without the need for organized information management by the Secretariat staff.
- Case studies.

- Information on regulation from the World Bank and NARUC.
- News from the European Union – condensed:
 - important directives, decisions, or regulations;
 - important CEER positions on some issues;
- News from the U.S. – condensed:
 - impact of key FERC or PUC decisions to the regulatory regime;
 - impact of particular events (e.g., blackouts).
- Curriculum vitae of regulators; some personal information on ERRA participants and employees (e.g., birthdays); and information on state holidays in ERRA member countries.

One specific complaint about the ERRA website was that information was not updated sufficiently, though most respondents acknowledged that it is the responsibility of the member countries to provide such information to the ERRA staff. One respondent suggested that it would be helpful to post information each quarter on adopted methodological documents and changes in tariff levels, but at the same time noted that ERRA members may not have sufficient time to devote to this task.

2. ERRA Members' Level of Satisfaction

Members were asked to rate ERRA as an association and their involvement from very effective (5) to not effective (1). The numerical results can be seen in the following table:

Table 2: Effectiveness of ERRA		
Component	Range of Responses	Median
ERRA's Leadership	5⇒3	5.0
Value and Quality of the Secretariat's Service	5⇒4	5.0
Communication Among ERRA Members	5⇒2	4.0
Internal Regulatory Information Flow ¹⁰	5⇒2	4.0
External Information Flow From ERRA Members ¹¹	5⇒1	3.0

Both ERRA's leadership and Secretariat received high marks for their effectiveness from nearly all members. The sense of the evaluation team is that any score lower than "4" was probably related more to a peculiarity of the respondent than to the effectiveness of ERRA. In interviews, respondents described the Secretariat staff as "very responsive," "very helpful," "works well," and "highly organized."

¹⁰ Internal regulatory information flow is defined as information from the agency's committee members and other program participants to his or her colleagues within the agency.

¹¹ External information flow is defined as information from ERRA or the regulator to other stakeholders in the regulated sector in the member's country.

The members' only criticism of the Secretariat was that it is possibly too responsive to individual member requests, which takes away from its core responsibilities. For example, members ask the Secretariat to seek information that is not posted on the ERRA or individual member websites, a research function that may not be a proper use of the staff. The Secretariat received high marks for its skills in organizing meetings. However the failure of some ERRA members to provide their travel and logistical information to the office in a timely manner places an unfair burden on the staff.

Extensive, high quality communication among ERRA members is generally considered one of the association's key benefits. Member commissioners and staff value the opportunities to exchange ideas with their colleagues and be part of the international community of regulators. They cited face-to-face meetings as very effective, with between-meeting exchanges also important but somewhat dependent on the electronic capabilities and resources of the individual commissions.

Interestingly, ERRA members use the association in different ways. While many members find the straightforward exposure to issues to be the principal value of ERRA committees, more experienced regulators, such as Romania and Hungary, use the ERRA committees as sounding boards for developing their own ideas. These regulators routinely offer to describe their own countries' current situations or preliminary solutions at various ERRA forums, and listen carefully to the questions and comments offered by their colleagues in the region. Thus, they use the meetings to evaluate ideas, welcoming their colleagues' criticisms as a means to perfect their own practices.

The internal flow of information from those who attend ERRA meetings to colleagues in their own commissions varies by the specific agency. The Secretariat disseminates presentations, reports, and meeting minutes by posting them on its website and providing CDs. In addition, it encourages member commissions to make information available on their own intranets. When visiting individual commissions, ERRA staff emphasizes the variety of electronic resources available to members.

While some ERRA webpages require passwords to access information (e.g., training materials, Energy TariffData, Investment Conference proceedings), it is clear that information is freely available to anyone within a commission who makes an effort to contact the ERRA staff. Whether the information is actually disseminated among the individual agencies depends primarily on how proactive the committee member is upon his or her return from ERRA activities. The majority of members ensure that materials are promptly distributed to their commissions, through seminars and staff roundtables. However, others return from ERRA meetings and tend to turn their attention to matters that have developed during their absence. Moreover, some commissions (Armenia and Croatia, from our interviews) have not yet fully developed their internal and external electronic capacities to make best use of modern communication technologies. However, the Armenian and Croatian commissions are working to resolve these issues—Armenia is expanding its Internet connections and Croatia is training an information technology specialist.

The bilateral partnership activities with U.S. commissions are a very effective means of disseminating information to member commissions. Prior to the actual exchange activities, NARUC assists partners in developing an agenda and ensuring that the U.S. commissioners and staff assemble information that is especially relevant to their Eurasian partners. During the activities, CEE/Eurasian commissions devote nearly 100 percent of their time to the U.S. commissioners, holding general seminars as well as one-on-one meetings.

Finally, members rated ERRA's dissemination of information to other sector participants as effective. However, it appears that most members addressed this issue of the evaluation in terms of ERRA's own visibility among non-regulators. ERRA materials reach sector stakeholders and help bring about new levels of transparency and involvement of all sector participants. The ERRA Investment Conference also helps raise ERRA's profile within the private sector.

3. Assessment of Members' Involvement

In reviewing the ERRA program, the evaluation team also asked members to rate their own involvement and that of their fellow regulators from very positive to negative. Most responded that involvement was either very positive or positive.

The numerical responses on the degree of comfort member commissions have in making suggestions, offering comments or asking questions at ERRA meetings are summarized in the following table. Respondents used a five-point scale to describe their comfort level, with 5 being very comfortable and 1 being very uncomfortable.

Table 3: Members' Involvement		
Response	Range of Degree of Comfort	Median
Degree of comfort	5⇒3	4.0

Regulators from the region are markedly more open to discussing, debating, and sharing ideas compared to when they were first observed at the USAID-sponsored regional conference (a pre-cursor of the ERRA Annual Meeting) in Warsaw, Poland, in 1998. At that time, new regulators were reluctant to speak, possibly because of the political systems from which they came or because they did not yet know or trust their counterparts from other countries in the region.

Today, members are far more willing to question speakers, to speak of their own country's progress and challenges, and to offer suggestions to their colleagues. In part, this is because they have six more years of experience and greater knowledge about their own weaknesses, the options they must consider, and the cost of those options. However, this is also undoubtedly the result of six years of working together through NARUC's programs and ERRA's activities to address common regulatory issues and challenges. Members choose the topics covered at most committee meetings, and the meetings are designed to help members improve their job performance when they return to their own countries. The regulators generally see themselves as colleagues from a region with common problems, converting the energy and economic institutions of centrally directed economies to market economies capable of attracting much needed capital.

4. Ability of ERRA to Cover Costs

Nothing proves the worth of a program to a beneficiary more than the beneficiary's willingness to pay for it. Members were asked to rate their ability to cover an increasing share of the costs for participation in activities on a five-point scale, from 5 (very likely) to 1 (not likely). Most responses were between 4 - 2. The numerical responses were as follows:

Table 4: Ability to Cover Increasing Share of Costs					
Ability to cover additional costs	5 (most likely)	4	3	2	1 (least likely)
Number of Responses	2	13	11	7	3

Under the auspices of the cooperative agreement, NARUC provides support to cover core program costs as well as travel/hotel/meal costs for most ERRA members.¹² Beginning in 2001, NARUC asked ERRA members to assume an increasing responsibility for travel and related costs. From 2001 – 2004, ERRA members covered the cost of travel for their representatives to one of the two committee meetings. Select members have also paid associated costs to send additional representatives to specific activities of significant importance. For meetings of the ERRA EU Accession/Integration Working Group, ERRA members cover their travel expenses. In addition, ERRA members pay annual dues (currently \$1,500) to help support ERRA's general operating costs.

The finances of most East European/Eurasian countries are limited. Therefore, members' willingness to cover some costs associated with their participation in ERRA illustrates the value they place on the association's activities and their commitment to ensuring ERRA's success. However, significant future planning is needed to help members increase their internal budget capabilities and ensure the long-term sustainability of ERRA. As Jean Lemierre, President of the European Bank for Reconstruction and Development, observed this year during his keynote address at the 3rd Energy Regulation and Investment Conference, "The time has come to move to a new approach of better funding of regulators. This is not a message for the regulators, but this is a very strong message for governments. You [regulators] need more money."

One alternate suggestion for funding is a tiered dues structure based on GDP/capita. The caution, however, is that such a structure would burden the most advanced countries (e.g., Hungary or Poland), whose regulators may increasingly rationalize their ERRA participation as "giving back."¹³ However, if these countries see themselves as uniquely situated—as a bridge between East and West—perhaps they will be willing to indirectly fund the participation of less advanced member commissions. The extent that members from "developed" commissions are

¹²Turkey, Mongolia, and three of the associate members cover their own travel/hotel/meal costs.

¹³ When the issue was raised at the May 2004 General Assembly, some ERRA members argued that if the dues were not the same for all, then voting should also be given different weight, which violates the original concept of one equal vote per member.

willing to “give back” and serve as bridges between the EU and the others will depend on the level of contact.

From a more technical viewpoint, the executive director of the Armenian commission noted that including funding for participation in ERRA is not typically a problem if it can be included during the commission’s annual budget deliberations, but obtaining funding on an ad hoc basis later in the year is nearly impossible.

5. ERRA Members’ Assessment of Overall Impact

a. ERRA Programs

ERRA members were asked to rate the value of their participation in various components of the NARUC/ERRA program, the value of the information provided by a variety of experts, and the value of ERRA documents and materials on a scale of 5 (large positive impact) to 1 (no impact). The vast majority of respondents rated all of the components as either 5 or 4.

Table 5: Impact of Program Components		
Program/Meetings	Range of Value of Impact	Median
Technical Committee	5⇒1	5.0
Working Groups	5⇒1	4.5
Annual Meetings	5⇒2	4.0
Energy Regulation & Investment Conference	5⇒3	4.0
Training Programs	5⇒2	5.0

During the evaluation process, members stated that the training programs are especially valuable to their commissions. Several members compared the ERRA summer school to other regulatory training programs, such as NARUC’s Michigan State University program (Camp NARUC) and the World Bank sponsored program through the Public Utility Research Center (PURC) at Florida State University. Both Camp NARUC and the PURC programs are conducted only in English, making them inaccessible to many members, particularly those in Eurasia who are probably in most need of training.¹⁴ In addition, the PURC program is considered very expensive and too intense for some members. Moreover, the members consider the ERRA program more practical and less theoretical than the U.S. programs.

Members stated that they would like ERRA to develop additional mid-level training programs, utilizing materials from the committees and working groups and aimed at staff members with either three to four years of experience or previous participation in the junior level summer program. Such programs are critical now that commission staff retention has regularized and members have gained a higher level of expertise.

¹⁴ Since junior commission staffers are more likely to speak English, the language barrier is expected to diminish over time.

Members also noted a need for sessions aimed specifically at new commissioners, which should be held separately from the general training programs which may potentially be open to other stakeholder staff and personnel in the sector. Such programs could address not only regulatory theory and practice but also focus on issues such as the relationship between commissioners and staff, the role of the chairman, and the interaction between commissions and other government agencies.

b. Value of Information

When asked to rate the value of the information provided by various experts offered by NARUC/ERRA, respondents found the information from fellow regulators (ERRA members and U.S. regulators) most valuable, followed by information from private sector participants, and lastly, information from representatives of multilateral agencies. On a scale ranging from 5 to 1, with 5 being most valuable and 1 being least valuable, members made the following distinctions:

Table 6: Value of Information of Various Experts Provided By NARUC/ERRA		
Expert Type	Range of Value	Median
ERRA Member Regulators	5⇒3	4.0
U.S. Regulatory Partners	5⇒3	5.0
Other U.S. Regulator Participants	5⇒3	4.5
Private Sector Participants at Conferences	5⇒1	4.0
Representatives from CEER	5⇒2	5.0
Representatives from Multilateral Agencies	5⇒1	3.0

Members appreciated the participation of the U.S. regulators, both on partnership and ERRA activities. Several U.S. commissioners noted that without USAID funding to cover the cost of travel of representatives from U.S. commissions, many NARUC members would not be able to participate in ERRA activities. While ERRA members noted that exchanging information with their U.S. counterparts via email is beneficial, they felt that personal interaction with U.S. commissioners and their staff solidifies contacts and provides an even greater advantage for their commissions.

c. Value of ERRA Documents and Materials

Members were also asked to rate the value of various documents and materials offered by ERRA from very valuable (5) to not useful (1). Generally respondents gave the highest marks to the Energy TariffData (database) and the ERRA website, followed by the newsletter and country reports.

Table 7: Value of Documents/Materials		
Document	Range of Value	Median
Newsletter	5⇒3	4.0
Energy TariffData (database)	5⇒3	5.0
ERRA Website	5⇒3	5.0
Country Reports	5⇒2	4.0

Some of the responses suggested modifications to ERRA's communication methods, given the association's evolution over the past few years. While members praised the ERRA website and Energy TariffData, they found the newsletter to be less valuable, noting that it is not always timely and comprehensive. Moreover, several members indicated that it could be replaced by adding some features to the ERRA website. Furthermore, while some members find the country reports given during the ERRA Annual Meeting to be very relevant to their work, the growth in membership has led to the complaint that there are too many members reporting and the reports themselves do not provide a sufficient degree of detail to make them significantly valuable to other members. While the publication of reports may encourage new members to participate in meetings, most members no longer consider them to be best use of the limited time at the conference.

d. Value of Topics

Members were also asked to rate the value of various technical topics presented during ERRA activities from very valuable (5) to not useful (1). Members rated most topics as either a 5 or 4, with all topics receiving the highest rating from at least some respondents.

Table 8: Value of Topics		
Topic	Range of Value of Topic	Median
Tariffs and tariff-making process	5⇒3	5.0
Licenses	5⇒3	5.0
Cross-border trade and transit	5⇒3	4.0
Monitoring	5⇒3	4.0
Electricity	5⇒3	5.0
Gas	5⇒2	4.0
District heating	5⇒1	3.0
Restructuring and unbundling	5⇒3	4.0
Market opening	5⇒2	4.0
Competition and privatization	5⇒2	4.0
Grid codes	5⇒2	4.0
Codes of ethics, internal regulatory rules and practices	5⇒1	4.0

Not all members rated all topics, and some of the responses were likely influenced by the fact that certain topics are particularly relevant at specific times during the development of a member's commission, or to the responder's own responsibilities. Nonetheless, ERRA members generally gave ERRA high marks for identifying new and relevant topics.

One note in the evaluation of topics is the low rating for district heating. Many respondents either did not rate this topic at all or gave it a low mark, presumably reflecting the belief that district heating is not a subject of interest to all commissions since only a few regulate the sector. It is, however, of great interest to those commissions who are charged with its oversight. Members suggested that ERRA establish a fact-finding workshop (similar to the recent lawyers' workshop) to learn more about developments in this sector and to cover the issue in a working group rather than a topic for more general meetings or training sessions.

e. Frequency and Length of Meetings

Members were also asked about meeting frequency and duration of activities. Most respondents found the current timing to be fine, although some of the new EU member countries may find the level of their current activity to be a challenge as they become more involved in EU-related activities. Only respondents from Mongolia and Armenia considered the meetings too short, presumably because of the distance to travel to the meetings.

E. Evaluation of the NARUC Partnership Program

All members that participate in the partnership program with U.S. commissioners rated the program very highly, both in terms of the information received and relationships made. In fact, a few lamented the impending end date of their particular partnership. In general, the alternating exchange activity pattern provides CEE/Eurasian regulators with an opportunity to observe the functions of U.S. commissions. Members noted the impact of activities on meeting transparency, both in terms of public participation and hearing procedures. In addition, the U.S. commission staff visits to the CEE/Eurasian region enable the commissions to expose a greater percentage of their staff to U.S. policies and expertise.

Partnership participants complete evaluations after each partnership activity, indicating how they intend to use the information acquired to improve their regulatory practices. Excerpts from the responses on specific partnership evaluations are listed below:

1. Electricity Regulatory Authority of Albania & Indiana Utility Regulatory Commission

“What we learned during our partnership activity at the Indiana Utility Regulatory Commission will be reflected in our work in Albania. The method in which a rate case or other regulatory matters are processed from the time of petition to the time the commission issues an order, the flow of information between commissioners and staff, etc., will be reflected in our work. As we need to implement many of these procedures, the hands-on examples are very informative.” *Chairman, ERE/Albania*

“This partnership gives us a better view and increases our effectiveness, so that we can organize our first public hearing. And above all, we now understand that before the commissioners make a decision on tariffs, a public hearing is necessary.” *Commissioner, ERE/Albania*

2. State Energy Regulatory Commission of Bulgaria & New Jersey Board of Public Utilities

“It was of special benefit for the representatives from SERC to acquaint themselves with procedures for processing written complaints, and the method of tracking consumer complaints lodged with the New Jersey Board of Public Utilities.” *Vice Chairman, SERC/Bulgaria*

“A large part of the procedures for holding hearings at the New Jersey BPU have been laid down in the new Statute of SERC.” *Secretary General, SERC/Bulgaria*

“SERC’s procedures are based on statutes, which are adopted by the Council of ministers. Each staff member has to be aware of this when conducting his duties. Fortunately, some of the principles of the decision-making process in the U.S. have been laid down in the project of the new statutes. The most significant change obliges staff to report the cases to the commission. Until now, this was done by the commissioners themselves and the role of the staff was not that important.” *Legal Adviser, SERC/Bulgaria*

3. Croatian Energy Regulatory Council & New York Public Service Commission

“New York’s procedures concerning alternative dispute resolution and issues concerning financing of investments [will be applied].” *Commissioner, CERC/Croatia*

4. Kyrgyz State Energy Agency & Washington Utilities and Transportation Commission

"I plan to introduce amendments to the Kyrgyz Administrative Code on business licensing to specify the responsibility of utility companies for failure to meet their obligations to the consumers, as well as failure to meet SEA’s requests." *Head of Technical Expertise, SEA/Kyrgyzstan*

“I personally gained a greater appreciation for regulatory staff. In my opinion, compared to the WUTC, the SEA is understaffed and under-funded, yet it accomplishes a great deal. I was very impressed with the professionalism and dedication of the SEA staff.” *Staff, Legal Dept, WUTC*

5. Energy Regulatory Commission of Macedonia & Vermont Public Service Board

“The ‘self-examination’ involved in explaining the PSB, and learning how the ERC is approaching its duties, made me think about ways that the PSB can improve its organization and processes.” *General Counsel, Vermont PSB*

6. National Energy Regulatory Agency of Moldova & Iowa Utilities Board

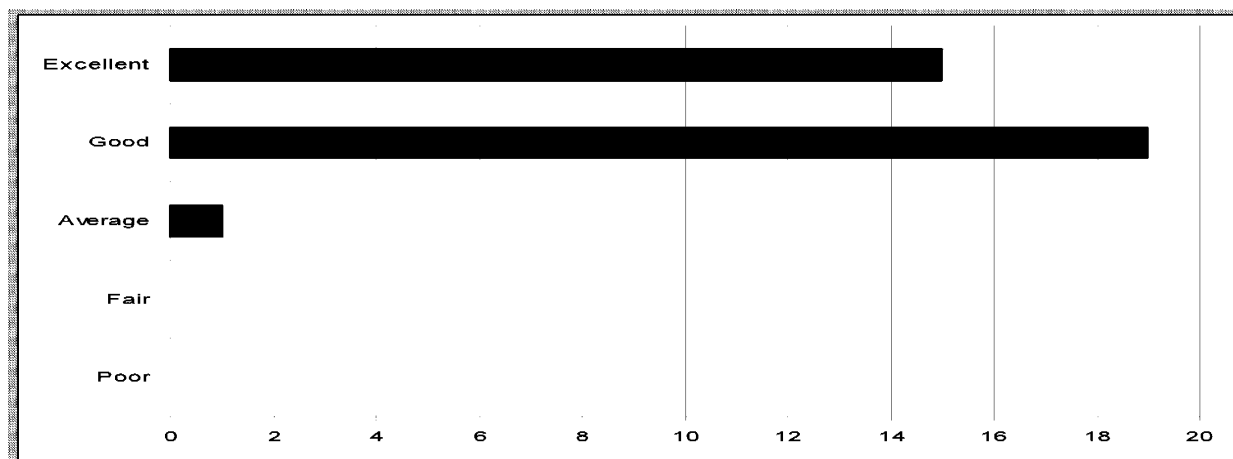
“The information I received advances my knowledge on tariffs in the new economic environment and to avoid making wrong decisions.” *Senior Specialist, ANRE/Moldova*

F. Achievement of the Programmatic Goals of the USAID/NARUC Cooperative Agreement

During the evaluation, members were asked to rate the degree to which NARUC had succeeded in achieving the programmatic goals of the USAID cooperative agreement. Possible grades were excellent, good, average, fair, and poor on the two broad goals, and member responses were consistent with their remarks to the questionnaire’s open-ended questions on value and impact and with their in-depth discussions with the evaluation team.

Goal #1 is “to assist and support the efforts of the energy regulators in CEE/Eurasia to develop a stable, efficient, and competitive electric industry and to ease the transition into the privatization of utility industries through information exchange among the regulators of the region.” Of the 35 responses, 15 members rated ERRA’s effort as excellent, 19 rated it as good, and one rated ERRA as average.¹⁵

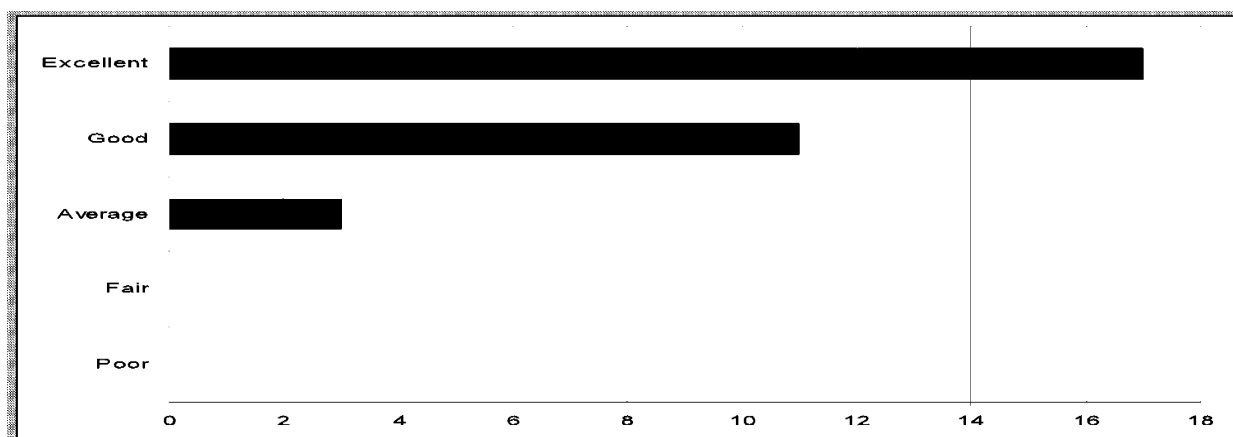
Figure 1: Achievement of Goal #1



An ERRA member from Kazakhstan exemplified most member responses for goal #1 with his comment: “[The] effectiveness of NARUC in achieving this goal is obvious—the proof is recognition of ERRA as a functioning organization created in order to facilitate the exchange of experience and promote studies of progressive regulatory practices among regulators.”

Goal #2 is “to support the CEE/Eurasia region’s energy regulators in their exploration of formalizing their relationship and the formation of a voluntary association.” Of the 31 responses, 17 members rated ERRA as excellent in meeting this goal, 11 rated it as good and 3 rated it as average.

Figure 2: Achievement of Goal #2



The Moldovan response exemplified most member responses with respect to goal #2: “I believe that without NARUC, it would be impossible to address issues related to [the] creation of the association and its operations.” This member also cited NARUC’s “initiative, information and financial support.” A Ukrainian member wrote, “Excellent, NARUC made it possible to carry out exchanges between commissions. NARUC has also presented all information related to regulatory issues, and helped to organize multiple seminars on such topics as competition, privatization, licensing, tariff setting, etc.”¹⁶

¹⁶ Two of the three “average” ratings were respondents from Mongolia, and the responses may reflect Mongolia’s associate membership in 2002-2004 and lower level of participation. The third appears to be answering in terms of NARUC as the parent organization and commented that more information regarding the internal work and priorities of NARUC committees could be useful, but overall, the Secretariat staff “provided very efficient and valuable help to ERRA.”

VI. ROLE OF ASSISTANCE AND PROGRAMS EXTERNAL TO THE USAID/NARUC COOPERATIVE AGREEMENT

A. Role of External Assistance

There are several primary areas in which assistance external to the NARUC program can play an important and supporting role:

1. In-country technical assistance programs administered by local USAID missions.
2. Funding from other national (non-US) aid programs, such as the Canadian International Development Agency and from multilateral aid programs (such as the PHARE¹⁷ program).
3. Grant support for ERRA related activities, such as the Local Government Initiative/Open Society Institute.

1. Local USAID Mission Programs

USAID employs a three-prong approach to regulatory reform in the CEE/Eurasian region: regional capacity building and information exchange (i.e., ERRA); bilateral capacity building and information exchange (i.e., the NARUC partnership program); and in-depth, on the ground technical assistance (i.e., contractors). The partnership program, technical assistance provided by contractors, and the participation of certain ERRA member regulators are funded by local USAID missions. The regional approach embodied in ERRA and NARUC's bilateral partnerships greatly enhances the effectiveness of USAID's assistance in each individual country. ERRA and NARUC work in tandem with the in-country contractors to strengthen regulators in the region and maximize the effectiveness of USAID resources. USAID representatives in Washington as well as local missions ensure that their programs are coordinated with other multilateral programs, especially with regard to the development of the EU market and energy sectors in the New Members States and accession countries.

Through the regional approach, regulators develop a common understanding of the challenges facing their overall region as well as each sub-region's difficulties, which leads to a greater ability to confront these problems. ERRA's activities also work to promote the harmonization of regulatory policies across a region and increase the effectiveness of communication among regulators.

The Romanian experience is an excellent example of how the three approaches work together toward a common goal. The objectives of USAID/Bucharest were threefold: to establish an independent regulator; to transfer knowledge to deal with complex issues, especially those that characterize a transition country; and to introduce public outreach and stakeholder participation. USAID/Bucharest's senior energy advisor believes that they have achieved all three goals. Through USAID/Bucharest's assistance, the Romanian regulatory commission's independence has increased, it is financially independent, and the commissioners now have fixed

¹⁷ Pologne Hongarie Assistance à la Reconstruction des Economies

terms. The senior energy advisor is pleased that the country and commission chose what he considers to be the proper market model and believes that the commission operates in a transparent manner. Lastly, the USAID/Bucharest's senior energy advisor gives NARUC credit for a large portion of these successes. He is pleased with NARUC's program management and considers ERRA to be effective and resource efficient. He finds ERRA to be an excellent means for regulators to share information on similar problems (e.g., stranded costs) and gain confidence in their decision-making abilities. Furthermore, he believes that ERRA promotes regional coordination and harmonization, which is particularly important for the development of the regional energy market in Southeast Europe.

USAID/Tirana also funds an in-depth regulatory support program. The Albania commission prepared its methodologies based on the experiences of Bulgaria, Romania and Ukraine, but it has asked for USAID-funded assistance from a contractor to help with consolidation and drafting of the documents. In addition, while ERRA offers general introductory training programs to staff, the USAID mission has funded an in-depth training program on the management of energy sector system planning.

USAID missions contribute to the funding of the NARUC/USAID cooperative agreement to support their country's regulator in ERRA activities and/or a bilateral partnership. Mission funds significantly increase NARUC and ERRA's capabilities to provide high value programs.

To date, NARUC has received funding from the following missions, most of which contribute funds annually for the following activities:

- Albania (ERRA activities and a partnership)
- Armenia (ERRA activities)
- Azerbaijan (for development of Azeri energy regulator)
- Bulgaria (ERRA activities and a partnership)
- Central Asia Regional Mission (funds for Kazakhstan for ERRA activities and for the Kyrgyz Republic for ERRA activities and a partnership)
- Georgia (ERRA activities)
- Macedonia (ERRA activities and a partnership)
- Moldova (ERRA activities and a partnership)
- Romania (ERRA activities)
- Serbia (for development of Serbian energy regulator)
- Ukraine (ERRA activities)

2. Funding from Other National Aid Programs and Multilateral Agencies

Other national aid programs and multilateral agencies also provide funding assistance to CEE/Eurasian regulators. For example, Albania first participated in a partnership program through the Canadian Association of Members of Public Utility Tribunals (CAMPUT), funded by the Canadian International Development Agency (CIDA), the Canadian equivalents of NARUC and USAID. Currently, CIDA supports 28 countries in the CEE/Eurasian region in their efforts to establish and strengthen market economies and democratic political systems. Some of the initiatives focus on building policy, regulatory, and institutional frameworks

required for successful reform and eventual integration into international and regional organizations, such as the World Trade Organization, the European Union, and NATO.

In addition, the PHARE program is one of the three pre-accession instruments financed by the EU to assist Central and Eastern Europe in preparing to join the EU. Originally created in 1989 to assist Poland and Hungary, PHARE currently covers 10 countries: the 8 new EU member states (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) as well as Bulgaria and Romania. It assists these countries through economic restructuring and political change. PHARE support was reoriented in 1997 to focus on EU accession countries. Thus, while PHARE is limited in the number of countries it supports (e.g., it has withdrawn assistance from Albania, Bosnia-Herzegovina and Macedonia), it supports programs such as the accession partnership between Lithuania and Italy.

Furthermore, a number of the EU countries are discussing the possibility of creating an EU regulators training program. Such a program may offer an opportunity for collaboration and could possibly build on the experience of the recent ERRA/CEER training program.

3. Funding from Grants for ERRA-related Activities

ERRA has demonstrated success in developing programs that meet its objectives while also fulfilling a valuable role outside of the energy sector. In December 2001, ERRA and the Local Government Initiative of the Open Society Institute (LGI) launched a joint project called "Information Exchange and Peer Assistance Program between Local Government Officials and Energy Regulators." The project was based on four issue papers developed by the ERRA Standing Committees, its members, and outside specialists: (1) Monitoring (2) Performance Measurement (3) Pricing and Tariff Systems (4) Low Income Consumers. Under the project agreement, ERRA rewrote and restructured these issue papers into training materials to better address the needs and challenges of local governments of the CEE/Eurasian region. The project was implemented in cooperation with a Hungarian consulting company. The next phase of the project included the dissemination of this information through three regional training programs called "Practical Issues of Local Public Utility Regulation." The training programs were implemented by consulting company specialists and ERRA member regulators, and held in Armenia, Hungary, and Lithuania. This program provided ERRA members with an excellent opportunity to interact with municipality staff and share best practices and regulatory methodologies with local government officials who have similar responsibilities. At the same time, it provided funding assistance for the two ERRA technical committees to meet.

B. Role of External Events

The NARUC bilateral partnership programs with U.S. commissions, the ERRA committees and general meetings, and the technical exchanges provide a cost-effective method to facilitate the exchange of high-quality regulatory information among ERRA member commissions. In combination with the efforts of USAID-funded in-country technical assistance, these programs have been very effective educational tools.

The regulatory environment of the CEE/Eurasian region, however, is less stable than in the United States. CEE/Eurasian governments have the ability to replace commissioners at any time, and new commission leadership can sideline or replace the staff that ERRA/NARUC have spent a great deal of time training. For example, the Georgian commission recently experienced

a wholesale replacement of their commissioners. In contrast, the commissioners of most U.S. commissions are rotated on staggered terms, which ensure a measure of continuity.

In light of the potential for commission staff turnover, it seems advisable to expose as many ERRA member commissioners and staff as possible to the programs. Commissions that expose all of their commissioners and many of their staff members to ERRA meetings, partnerships, and technical exchanges increase the likelihood that “trained” personnel would remain even if several were replaced. This was the case recently in Albania, where the government unexpectedly replaced four of the five commissioners. However, the donors (e.g., USAID, World Bank, the EU) played a role in the retention of trained staff in Albania: they made it clear that they would not be pleased to see their training funds wasted by dismissing staff trained through ERRA/NARUC and other programs. In addition, during a time of high staff turnover, both Albania and Georgia retained a part of their capacity and experience by hiring former commissioners as advisors.

While ERRA and NARUC can help member commissions through activities and training, they cannot require that commissions move forward in areas where their respective governments are not ready. For example, the Croatian government appears hesitant to restructure and privatize its energy industry. Its utility company retains a great deal of political clout and is not ready to have its functions unbundled (it is arguing that legislation should be changed to allow it to remain integrated). Thus far, it has blocked reform and prevented the market from functioning. Thus, while the law complies with EU directives, the structure of the sector does not comply with the directives, and the commission lacks the political influence to persuade the Ministry of Economy to act or authorize the commission to implement reforms. The situation will likely remain unchanged until the EU insists on *de facto* compliance as a condition of its accession.

Nevertheless, USAID funds have been very effective in Croatia. Through ERRA programs, a partnership with the New York commission, and technical assistance, the Croatian commission continues to develop their regulatory expertise. Through USAID funding, CERC personnel and regulators in the region are working together to solve common regulatory problems. The challenge confronting CERC is determining how to obtain clear direction from the Croatian government to most effectively use its skills to modernize Croatia’s energy sector.

VII. KEY COMPONENTS OF SUCCESS

The evaluation team has identified four key areas of success within ERRA: involvement of U.S. regulators, involvement of commissioners and staff from the most experienced member commissions, effectiveness of the Secretariat, and support of each member commission's government.

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 the ERRA partnership program. While the cooperative agreement calls for a 20% contribution, NARUC has exceeded this requirement, 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 totaling over \$750,000. Moreover, many of NARUC's bilateral partnership programs have been endorsed by the state governors who acknowledge the importance of state government support of USAID programs.

The contribution of time and effort by NARUC commissioners and staff has enabled ERRA members to learn from the more than 100-year history of regulation in the United States. As the then 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. Several NARUC members have become deeply involved with the two ERRA technical committees, taking the lead in drafting lengthy reports, preparing detailed comparative analyses, and serving as roundtable leaders. The former chairman of the NARUC Committee on International Relations frequently states that: "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."

Related to this first achievement, the second area where NARUC has succeeded is in *involving commissioners and staff from the most experienced ERRA member commissions*. These members began their involvement in ERRA when they were newly formed commissions with little regulatory experience. As these commissions have gained experience and insight into energy regulation, they have been active in transferring their knowledge to others who are just beginning to assume their regulatory responsibilities. ERRA is fortunate that several of its most skilled members (Chairman Vidmantas Jankauskas of Lithuania, Director Gabor Szorenyi of Hungary, and President Ion Lungu and Commissioner Maria Manicuta, both of Romania) and former commissioner members (Mr. Peter Kaderjak of Hungary and Mr. Dusan Holubek of Slovakia) continue to assist their newly appointed colleagues through informal dialogues and as volunteer instructors in the training programs.

The third key area of success involves the *effectiveness of the Secretariat*. ERRA's Secretariat, with support from NARUC, is central to the management of the association. It circulates information, provides logistical support for meetings, ensures that the lines of

communication are kept open among members between meetings, and organizes the work of the technical committees. It is a role that would be impossible for the members themselves to perform.

Finally, the fourth key component for the success of ERRA and energy reform is the *support of each member commission's government*. While regulatory commissions can be a force of change, they themselves cannot provide the authority or the political will to reshape a country's energy sectors. The European Community's energy directives and the policy support from the World Bank and the European Bank for Reconstruction and Development have been critical in encouraging the governments to reform their energy sectors, including the establishment of independent regulators. USAID itself is a significant policy advocate in several countries, working with and through other international agencies. Together, they provide a strong international consensus in shaping sustainable energy sectors. It is important to note that prior to the establishment of ERRA in December 2000, each of the fifteen founding member regulators obtained the necessary approvals from their governments, ministries, and or parliaments to join this international association. All the regulators were able to successfully persuade their governments of the advances in energy regulation they would be able to make based on exchanging information and experiences with their international colleagues.

VIII. CHALLENGES ENCOUNTERED: IMPLEMENTED AND RECOMMENDED RESOLUTIONS

A. Administrative Issues

Many of the challenges NARUC has encountered in implementing the program relate to administrative functions rather than programmatic issues. The NARUC and ERRA Secretariat staff is aware of these problems and has taken steps to resolve them and to mitigate their impact on the program. Challenges include language barriers, lack of Internet access, difficulties disseminating information within agencies, over-extending the capacity of the Secretariat, and members' limited knowledge of the full range of ERRA's activities.

1. Role of the Secretariat

Members generally had high praise for the Secretariat, with their only criticism being that it is occasionally too responsive to member inquiries. The key task of the Secretariat is to ensure the continued participation of ERRA member commissions by:

- a) continuing and enhancing the exchange of information,
- b) encouraging the harmonization of regional regulatory approaches,
- c) developing plans to ensure ERRA's long-terms sustainability.

ERRA staff's attention to practical program management (e.g., central office information facilitation, meeting development, and logistical arrangements) enables them to effectively and fairly manage the limited financial resources available to the association. While staff should help members when possible, they should not be diverted by such tasks as performing extensive research for members at the expense of their principal association management responsibilities.

2. Language

The two official languages of ERRA are English and Russian; the vast majority of documents are available in both, and meetings and training sessions are held in both languages. NARUC/ERRA hires the same simultaneous translation firm for all of its meetings, and over the years, the translators have become increasingly adept at translating technical terminology. Furthermore, meetings are conducted at a pace suited to the differences in members' skills and discussions are paused to answer attendees' questions. Participants have given the program high marks for the quality of the translation, particularly in the summer school program. There is no expectation that NARUC/ERRA has the means to add other languages to its program, thus excluding commission members who do not speak English or Russian. However, members are aware of this limitation and make efforts to ensure that their colleagues who do not speak English or Russian nonetheless benefit from ERRA. Some commissions have even taken the step of instituting English language classes.

While ERRA makes a great effort to accommodate English and Russian language participants, this effort comes at a cost: the annual translation budget is \$100,000. While almost all ERRA program materials are available in both languages, several ERRA members have expressed a desire to have copies of laws and technical regulations from member countries. Since many of these laws and regulations are only available in local languages and because the budget does not allow for additional translation costs, the evaluation team recommends that

members summarize new documents from their countries in a short paragraph or simply provide the title, translated into English and Russian, and submit the “notice” to the Secretariat for posting on the website (perhaps in the suggested “Hot News” section). Interested members can then contact the issuing member and make their own arrangements to acquire and translate the documents.

While many participants from the Eurasia region do not speak English at this time, the language/translation issue may diminish over time, since younger staffers are more likely to have English language skills. Among the Eastern European countries, most ERRA members speak English, while a few still prefer Russian. In the Eurasian countries, most of the ERRA members speak Russian, although some of the younger staff members are learning English. It is noteworthy that the language classes sponsored by the Armenian commission are in English.

3. Internet Access

NARUC/ERRA depends on the Internet and its website to disseminate information to members, including meeting announcements, agendas, issue papers, committees and working group deliberations, etc. Those commissions with limited Internet access (Armenia, for example, currently has only one dial-up connection), are less able to access information compared to those with greater electronic resources. Members are aware of the problem and are acting to improve their information technology (IT) capabilities.

Meanwhile, ERRA/NARUC also makes much of its information available on compact disks that can be uploaded directly onto a commission’s internal computer system. These materials include a new member package, annual conference proceedings, and materials from ERRA’s summer school and the ERRA-CEER training programs. The new member package CD describes ERRA, its constitution and guidelines, its standing committees, the current work plan and programs, and provides an overview of the materials available on its website. The CD is available in both English and Russian.

NARUC/ERRA conducted two informal IT surveys among ERRA members, in July 2000 and September 2002, with results provided to USAID/Washington. In July 2000, NARUC/ERRA staff asked members about their computer and Internet capabilities. The regulators in Eastern Europe appeared to have a sufficient quantity of computers and reliable Internet access. However, nearly all of the regulators in Eurasia reported having too few computers, as well as slow and expensive Internet access.

The results of the September 2002 survey are attached in Appendix C. This survey more systematically evaluated the number of member commission staff compared to the number of computers and types of Internet connections. In addition, the survey asked certain ERRA members (chairmen, committee members, and designated ERRA liaisons) about their personal use of email, the Internet, and ERRA website to gauge their computer experience and usage. The East European regulators continue to have a sufficient amount of computers, with the majority of staff having personal email addresses and good Internet connections. There have been some improvements among the Eurasian regulators (e.g., a Ukrainian commissioner stated in February 2004 that her commission had sufficient IT capabilities), but many of the

commissions (notably Armenia, Kazakhstan, Kyrgyz Republic, and Russia) still have slow and expensive connections with limited staff access.

4. Dissemination of Information within Commissions

The evaluation team received various and sometimes conflicting reports on the members' ability to disseminate information they received at ERRA meetings to their colleagues back at home. Most commissions reported that all committee members who attend activities bring materials back to their commissions and ensure that they are properly stored either electronically (as recommended by the Secretariat) or in paper archives, so that they are available to all staff. Several commissions noted that they posted the electronic documents on their internal servers or intranets. After activities, members commissions also ensure NARUC/ERRA program participants assist in implementing measures involving the development of relevant documents and changes to existing ones so that their expertise is fully utilized. A few commissions acknowledge that they need to improve their internal communication, and one respondent suggested that ERRA staff meet with member staff to ensure that commissions are performing the appropriate follow-up after association events.

5. Knowledge of the Full Range of ERRA Activities

ERRA strives to ensure that all senior commission members are aware of the full range of NARUC/ERRA programs. The Secretariat publicizes programs by providing new member CD packages and by making formal presentations to all assembled staff whenever they visit a commission.

One program of considerable benefit is the Technical Regulatory Skills Exchange/Apprenticeship Program, for which NARUC provides limited travel subsidies for bilateral exchanges between commissions interested in addressing specific problems of mutual interest. This program, along with all others, is listed on the ERRA website in both languages and notes that the Secretariat is able to assist ERRA members in finding partners if needed. However, during the evaluation, several commissions said that they were either unaware of the program, or knew of it but had not been able to follow through on arrangements to participate. Albania, for example, was interested in exploring legal procedures with Latvia but did not realize that the Technical Skills Exchange Program is a possible vehicle for this type of exchange. In addition, Armenia had expressed an interest in having direct exchanges with the Ukraine on wholesale market development and with the Baltic commissions on district heating but had not yet obtained responses from the Ukrainian commission or contacted Baltic commissions.

It is not clear why this program is under-utilized as the application process is quite simple. Moreover, the more experienced member commissions have made good use of the program: Latvia held a technical exchange with Ukraine on a variety of issues including consumer rights, tariffs, and dispute resolution and another exchange with Turkey on electricity and gas monitoring, competition, and consumer rights. Similarly, a Slovak staff person spent a week at the Hungarian Energy Office focusing on tariffs and pricing, liberalization, eligible consumers, and legislative issues. Several Romanian staff members have also visited Moldova to teach their colleagues about detailed tariff methodologies. Evaluation team members emphasized the virtues of the program during the interviews, but it is evident that the Secretariat should make a stronger effort to advertise this component of ERRA offerings.

The Regulatory Peer Review was established by ERRA to facilitate the exchange of experience and knowledge among member commissions to improve commissions' ability to regulate their energy sectors. Lithuania and Hungary participated in the Regulatory Peer Review in 2002-2003, during which time small teams from each country examined each regulator's laws and practices. In terms of ERRA's objectives, use of the Peer Review for Hungary and Lithuania appears to have been a successful means to exchange information and improve regulatory practices. For example,

- There was an opportunity for frank and open exchanges between colleagues with sufficient expertise to provide credible and authoritative assessments.
- Both regulatory bodies recognized positive aspects of energy regulation, as well as areas of concern, suggestions for improvement and sources of information about alternatives.
- The review was well-received by both bodies and each perceived the feedback and opinions expressed as constructive consultation and advice, not as criticism or judgment.
- Many concerns raised by the review teams were consistent with issues each regulatory body had already been identified internally. Thus, information on those regulatory practices was directly relevant to their interests.
- The reviews established relationships for an ongoing information exchange between the regulatory bodies on a staff-to-staff basis that is not always possible at conferences or ERRA committee meetings.
- The experience provided the basis for a recommended framework for peer review that could be easily be used by other countries within ERRA.

B. Program Issues

1. Size

ERRA's growth, which now stands at 22 full and 4 associate members, has raised several concerns about how the association conducts meetings and addresses issues. The evaluation team found members' views to be varied on this subject.

First, the association's size is likely a problem in terms of encouraging active participation by all members at meetings. However, members had differing opinions on the effect of size on the structure of some of ERRA's current sessions. One commissioner expressed his frustration with the country reports presented during the ERRA Annual Meeting. He thought they were repetitious of the previous year's reports and felt that the rapid-fire sequence of country reports (presented in five to ten-minute time slots) gave no time for meaningful discussion. In contrast, a specialist from Lithuania found the five-minute country updates given during committee meetings to be interesting and said that the summary notes prepared by the Secretariat were very helpful.

2. Member Experience Level

When ERRA was formed, most member commissions had been recently created. Moreover, the commissions were operating in a new political environment and their countries were undergoing significant economic reforms. As a result, members shared common challenges

and were interested in the same issues—independence of commissions, transparency in regulation, role of the regulator, pricing, licensing, etc. All were attempting to create stable regulatory environments and improve infrastructure in order to attract investors. However, over time, disparities have developed in the progress of commissions and in the status of their energy sectors.

This disparity poses a challenge for ERRA. In addition to the association's responsibility to train and provide opportunities for newly appointed commission staff to gain general regulatory knowledge, ERRA must now also accommodate more experienced members who want to explore newer and timely regulatory topics. These members have requested that sessions at the ERRA Annual Meeting and committee meetings be more narrowly focused to address issues in more depth. For example, some members have expressed an interest in hearing from countries that have already made decisions on topics such as independent system operator versus transmission system operator or price cap versus cost of service tariff regimes, and possibly include outside experts in these discussions.

Nevertheless, regulators from the more experienced commissions believe that the new countries are advancing quickly and note the benefit of interacting with commissions that have varying levels of experience, since they are still learning about regulatory issues even as they continue to implement reforms. Meanwhile, ERRA's current approach appears to provide a good balance—offer basic regulatory training courses through the ERRA summer school program and focus its committees on more cutting-edge topics.

3. Geographic Orientations and Interests

Because member commissions come from different geographical areas, there is a natural tendency for them to be more interested in issues related to their regions. For example, a Latvian member noted that there appears to be diverging interests among former Soviet member commissions and EU accession members, as well as East European and Central Asian members. A similar concern was voiced by a Kazakh member, who found issues relating to EU accession interesting but of little practical value to her commission. The Kazakh member expressed interest in meeting with other countries from east (and perhaps immediately west) of the Caspian Sea. She suggested more roundtable discussions or other regional groups, as well as a greater devotion to Central Asia's regulatory issues. Other members indicated that this could possibly lead to the fragmentation of ERRA. While ERRA members have discussed the possibility of having separate groups, they rejected the notion during the evaluation team's interviews for fear that the Central European countries would leave ERRA altogether and focus exclusively on their membership in CEER.

Based on feedback from members, the evaluation team recommends that ERRA hold special sessions on regional issues to mitigate any tendency toward geographical bias within the association. Working groups could be organized into regional sub-groups, with emphasis on regional energy markets and coordination. However, information on EU directives should not be limited to members who are EU accession states. All member commissions could potentially benefit from understanding the EU directives, their interpretations, and related regulatory issues. As noted previously, the ERRA Presidium decided in May 2004 to change the name of the EU

Accession Working Group to the EU Integration Working Group and expand its membership to any interested members.

4. Committee Organization

Members expressed interest in having more experienced commissions work together on focused topics of mutual interest. Several members suggested that ERRA place more emphasis on the working groups, although they stressed that the working groups should not become so specialized that they involve only two to three members. One regulator proposed—and others supported—that the working groups meet more often, perhaps twice or three times a year, while the committees themselves meet perhaps only once a year to more broadly discuss the working groups' reports and recommendations.

Some of the members that participated in the evaluation suggested that the association even take steps to address the specific areas of their responsibilities (e.g., legal, executive director roles). In particular, it was suggested that because legal staff and chief of staff/executive directors have specialized roles and concerns, this warrants the establishment of their own working groups. The evaluation team recommends that the existing working groups and specialized workshops be organized around specific topics. The recent legal seminar provides a good model for such specialized workshops.

5. Training

ERRA's efforts have been critical in training member commissioners and staff. ERRA's summer school is key to training new and junior commission staff. It enables them to more quickly become productive members of their commissions and broadens their understanding of the functions of various departments.

The evaluation team suggests that ERRA maintain its valuable programs aimed at junior level staff. However, as ERRA has grown and a greater percentage of its members have gained significant regulatory experience, there is a need for more advanced and focused training. The joint program—organized by ERRA, with instructors from CEER—provided important information on EU directives to the previous accession country members. In addition, ERRA should consider developing a mid-level program, based on materials from the working groups and aimed at commission staff with three to four years of experience or for those who have already participated in ERRA's summer school program. Separate sessions specifically designed for new commissioners should also be added. Such programs could address not only regulatory theory and practice but also issues such as the relationship between commissioners and staff, the role of the chairman, and interaction between the commission and other government agencies.

6. Future Funding for ERRA

Faced with demands for funding on other projects, USAID would like the members to begin covering an increasing share of ERRA's costs. NARUC currently covers core program costs as well as travel/hotel/meal expenses for most ERRA members, pursuant to the cooperative agreement, with funds reimbursed by USAID. Beginning in 2001, NARUC asked ERRA members to assume an increasing responsibility for travel and related costs, and ERRA members have covered the cost of travel for their representatives to attend one of the two planned committee meetings as well as to send representatives to specific activities. Given the limited

financial resources of many of the CEE/Eurasian commissions, their willingness to cover these expenses illustrates the value they place on ERRA activities and their commitment to ensuring the success of the association.

Nonetheless, significant future planning is needed to ensure ongoing support for the work of the ERRA Secretariat and funding for the continued participation of the member commissioners and staff. In addition, outside funding is needed for NARUC's U.S. members to continue to participate in ERRA activities.

In part, the solution to funding the ERRA Secretariat and member participation is to promote new approaches to funding the internal budget capabilities of ERRA member regulators. Relative to the funds that flow through the energy sector, the amount required to finance the regulators, including their participation in ERRA, is minimal. Funding for regulators should be removed from governments' general budgets, and, pursuant to legislation, governments should authorize commissions to collect regulatory fees from regulated entities and pass them on to consumers through rates.

At the same time, ERRA should continue to seek outside funding for its activities. It has made a good start with the Investment Conference for which it charges registration fees to non-members. Another possibility is opening training programs and access to non-confidential resources to non-members for a fee. As ERRA becomes increasingly prominent as a forum for the exchange of information and ideas, these sources of funding should grow.

Similarly, it would be prudent for NARUC, having assembled significant expertise and international contacts (and the interest of many commissioners) to seek worthwhile new activities and related funding sources. It is unlikely that the budgets of the U.S. commissions can provide funding for their participation in ERRA activities. The donation of time and experience is of great value to ERRA members and USAID. Without USAID funding, U.S. commission participation will likely diminish over time.

IX. FUTURE DIRECTION OF NARUC/ERRA

Seven ERRA members joined the EU in May 2004. Based on discussions with Presidium members, NARUC/ERRA staff, and these member commissions, ERRA currently expects most of these countries to maintain dual membership in both ERRA and CEER in the immediate future. Several of the new EU member regulators have stated that ERRA can more properly address some of their pressing needs and challenges as their markets and regulatory functions evolve. Commissioners from CEER (notably France and Austria) have emphasized the important role that ERRA can play as a bridge organization between regulators in the EU and those in Eurasia.

Beyond the next year or two, it can be expected that some ERRA members will leave the association and focus their efforts exclusively on CEER and the EU. At the same time, there are still a few new regulatory agencies being established in Southeast Europe. While the geographic focus of ERRA might shift to Southeast Europe and Eurasia, it is anticipated that ERRA's membership will remain substantial at approximately 18-20 regulators.

The ERRA Secretariat currently maintains a good working relationship with the CEER Secretariat and CEER's designated commissioner liaison to ERRA. CEER representatives have consistently participated in ERRA's EU Accession Working Group meetings as well as the Investment Conferences. In the past one to two years, CEER has also designated representatives to participate in the technical committee meetings. With the participation of both NARUC and CEER members, the ERRA committees have expanded their abilities to examine critical regulatory issues, especially those dealing with tariffs, market design, competition, and other hot topics.

The NARUC leadership has been committed to this program since its inception, with members of the executive committee attending ERRA's annual meetings, committee meetings, and hosting study tours and partnership activities. The chairmen of the NARUC Committee on International Relations have also served as a key liaison to the Presidium, participating in all meetings and assisting in the design and creation of ERRA. The NARUC chief financial officer and senior accountant work closely with the ERRA Secretariat to ensure that proper financial procedures and controls are in place. NARUC has created enduring linkages with ERRA, on the association-to-association level as well as the member-to-member and commission-to-commission levels. NARUC seems very likely to continue to expand its ties with ERRA, providing assistance and resources to the best of its ability.

APPENDIX A: QUESTIONNAIRE & NUMERICAL SCORES

Name of Organization: _____
ERRA Membership Status: ____ Full Member ____ Associate Member ____ Honorary Member
Country: _____
Name & Job Title: _____

1. Did you or any colleagues participate as observers in NARUC Program and ERRA activities prior to the creation of your regulatory agency? *(Example: Select ministry representatives from Croatia, Macedonia, and other countries participated in activities prior to the creation of the regulatory agency.)*
_____ Yes (what years?) _____ Not Applicable
2. What year did you join your organization as an employee? _____

Part 1: Impact in your country of participation in NARUC's Program and ERRA Activities.

1. Please indicate which NARUC and ERRA activities or programs have you personally regularly participated in? (List all years that apply)
_____ Annual ERRA Meetings
_____ Energy Regulation & Investment Conference
_____ Technical Committee Meetings (Tariff & Licensing)
_____ Regional Markets & Export-Import Working Groups
_____ Performance Standards & Monitoring Working Group
_____ EU Accession Working Group
_____ Southeast Europe Energy Regulatory Meetings (usually held after Annual Meetings)
_____ ERRA Training Programs (Summer School and Joint CEER Programs)
2. Please indicate on average how many times you refer to the following ERRA resources and publications each month.
_____ Energy Tariffdata (database of ERRA member electricity & gas tariffs)
_____ ERRA Newsletter
_____ ERRA Member Directory (publication listing of contact information)
_____ ERRA Member Profiles (publication of short descriptions of each regulatory body)
_____ ERRA Technical Committee (Tariff and Licensing) and Working Group Issue Papers and Reports
_____ ERRA Training Materials
3. ERRA website www.erranet.org
_____ Number of times each month you look at the ERRA website for information or documents about ERRA activities

_____ Number of times each month you look at the ERRA website for information or documents from other organizations (e.g., EU Directives, other regulatory agencies, etc.)?

What other types of information would you like to see included in the website?

4. What effect has your agency's participation in ERRA had on the knowledge and skills of your agency's commissioners and staff? Please illustrate the impact through examples. Address such issues as exposure to international practices, regulatory practices, agency management and organization. Note any changes to organizational, management, legal, financial, other status of energy regulatory agency. Please give specific examples of what you have done as a result of the exchange of information, experience and training.

5. What effect has your agency's participation in ERRA had on the quality of your agency's regulatory decision-making process and interaction with other governmental agencies (e.g., ministries), regulated entities and other energy sector stakeholders? Note, if applicable, its effect on your ability to encourage public participation in the regulatory process, and to change governmental procedures, energy laws, or secondary legislation. Please provide examples of such changes.

6. Has your participation in ERRA strengthened your agency's ability to influence your country's progress in reforming its energy sector, strengthening the legal framework necessary to establish market conditions, introducing competition in the energy market and privatizing energy sector entities. Please provide applicable examples.

7. How has your participation in ERRA affected your agency's ability to understand, participate in and influence regional (multi-national) developments in energy sector issues? Please provide relevant examples.

Part 2: Impacts of NARUC/ERRA Program

1. Please rate from 5 (large positive impact) to 1 (no impact) the value of participation in the following components of the NARUC/ERRA Program:
____ Participation in the technical committee meetings
____ Participation in working groups
____ Participation in the annual meetings,
____ Participation in the Energy Regulation & Investment Conference
____ Participation in training programs
2. Please rate from 5 (large positive impact) to 1 (no impact) the value the following components of the NARUC/ERRA Program:
____ Value of information provided by other ERRA member regulators.
____ Value of information provided by private sector participants at ERRA conferences
____ Value of information provided by representatives of CEER
____ Value of information provided by representatives of multi-lateral lending agencies.
____ Value of information provided by your US regulatory partners
____ Value of information provided by other US regulators participating in ERRA activities.
3. Please comment on which of the information sources listed in question 1 and 2 (immediately above) provide the most valuable insights on
 - a. Energy sector restructuring and other regulatory issues

 - b. Comparison of different approaches to regulatory and energy-sector reform efforts

 - c. Preparation for the EU membership/association

 - d. Regional developments in energy transactions and utility interaction

Part 3: Development of ERRA

1. Please rate from 5 (very effective) to 1 (not effective) the following components of ERRA as an association:
____ ERRA's leadership
____ Value and quality of ERRA Secretariat's service
____ Communication among ERRA members (e.g. frequency of chairman's letters, emails or telephone calls among staff members, etc.)
____ Internal regulatory information flow (from your agency's committee members and other program participants to his or her colleagues within your agency)
____ External information flow (from ERRA or the regulator to other stakeholders in the regulated sector in your country).

2. Please rate from 5 (very positive) to 1 (negative) your assessment of members' involvement:
 How comfortable your agency's representatives are in making suggestions, offering comments, or asking questions at ERRA meetings?
 Ability of ERRA members to cover increasing costs for participation in activities.
3. Please rate from 5 (very valuable) to 1 (not useful) your assessment of the value of the following ERRA documents/materials:
 newsletter
 tariff database
 website
 country specific reports
 other:
4. Please rate from 5 (very valuable) to 1 (not useful) your assessment of which of the following ERRA topics were most relevant for documents/materials
 tariffs and tariff making processes
 licenses
 cross-border trade and transit
 monitoring
 electricity
 gas
 district heating
 restructuring/unbundling
 market opening
 competition and privatization
 grid codes
 codes of ethics, internal regulatory rules and practices
 other:

Part 4: Opportunities to Improve NARUC and ERRA Programs and Activities

1. Please assess the frequency of different activities (committee meetings, working groups, conferences, training programs, newsletter, etc). Are there too many, too few, about right?

2. Please assess the length of activities.

3. What future activities do you recommend, including continuing any current activities or introducing new ones?

4. Please comment on information flow from Commissioners/Staff that participate in activities to their colleagues at your regulatory agency and note any ways it could be improved.

5. Please comment on the likelihood of your agency's future participation in ERRRA (increasing involvement, decreasing, status quo) and note which ERRRA activities would be affected by any change in your level of participation. If you expect your participation to decrease, please explain the reasons (e.g., financial constraints, increased agency workload).

Part 5: Achievement of Programmatic Goals of the NARUC Cooperative Agreement

Goal # 1: To assist and support the efforts of the energy regulators in the Central/Eastern Europe (CEE) and Eurasia to develop a stable, efficient, and competitive electric industry and to ease the transition into the privatization of utility industries through information exchange among the regulators of the region.

How effective has NARUC been in achieving Goal # 1? (Check one.)

☐ Excellent ☐ Good ☐ Average ☐ Fair ☐ Poor

Please comment:

Goal # 2: To support the CEE/Eurasia region's energy regulators in their exploration of formalizing their relationship and the formation of a voluntary association.

How effective has NARUC been in achieving Goal # 2?

☐ Excellent ☐ Good ☐ Average ☐ Fair ☐ Poor

Please comment:

Questionnaire - Numerical Scores

	Albania				Armenia		Croatia		Estonia		Hungary		Kazakh		Latvia		Lithuania		Moldova		Mongolia		Romania		Poland		Slovakia		Ukraine		Average	Median				
	1	2	3	4	1	2	3	1	2	3	1	2	3	1	2	3	4	1	2	3	1	2	3	4	1	2	3	4	1	2	3					
Use of Resources																																				
Energy Tariffdata	1	1.5	1	2	3	2	4	0.3	0.3	0.3	2	2.5	1	2	0	2	1	1	0	2	1	1	2	2	1	4	0	7.5	2	0	1	2	1.5	1.0		
Newsletter	1.5	1	3	5	1	1	0	0.3	0.3	0.3	2	1	1	1	1	1	1	1	1	1	1	0	1	1	2	4	1	0	1	5	1	2	1.3	1.0		
Member Directory	1.5	0.5	1	5	1	1	2	1.5	1	1.5	1	1	0	1	1	2	2	0.5	2	0	1	1	0	1	3	4	0	1	2	1	2	1.3	1.0			
Member Profiles	1	0.5	5	5	1	1	2	0.5	1.5	1.5	1	0	1	1	1	2	1	3	0.5	0	1	0	1	2	0	3	4	0	0	1	2	1	2	1.3	1.0	
Ctee & WG Reports	10	3	2	2	2	2	0	0.3	0.3	0.3	2	2.5	2	2	1	1	1	2	0.5	1.5	3.5	1	1	2	3	2	1	2	3.5	2.5	3.0	1.0	2	2.1	2.0	
Training Materials	2	3	5	5	1	1	3	0.1	0.1	0.1	1	0	0	1	1	1	3	2	1	2	1.0	4	0	1	1	2	4	0	2	3	4	1	2	1.7	1.0	
Website re ERRRA	12.5	3.5	6	10	3	1	4	2.5	1.5	2.5	1	1	2	1	2	4	5	3	2	1.2	2.5	2.5	1	1	2	3	13	2	10	1	10	2	3.8	2.5		
Website re others	12.5	1	3	5	3	1	4	2.5	4	2.5	1	1	1.5	2	4	6	3	2	1	0.5	0.5	4.5	1.5	1	1	2	1	10	5	10	2	4	1	2	3.2	2.0
Impacts																																				
Tech ctee meetings	5	5			5	5	5	5	4	3	5	5	5	5	5	5	4.5	5	1	5	5	5	5	5	4	4	5	5	5	5	5	4.6	5.0			
Working groups	5	5			5	5	5	1	n	1	4	4		5	5	5	5	4	5	5	5	5	4	4	5	4	2	3	4	4	5	4.1	4.5			
Annual Meetings	5	4			5	5	2	5	2	3	3	2	5	5	5	4	2	2	5	5	4	4	5	4	4	3	3	4	4	5	5	3.9	4.0			
Energy Reg & Inv Conf	4	3			5	4	3	3	3	3	4	3	5	5	5	4	4	4	5	3	4	5	5	5	2	2	5	5	5	5	5	4.1	4.0			
Training Programs	5	5	4	4	4	4	5	4	n	4	2	4	5	5	5	5	5	5	5	5	4	4	5	3	4	5	3	5	5	5	5	4.4	5.0			
ERRA Members	5	4	4	5	5	5	5	4	4	4	4	4	4	5	5	4	4	3	5	5	5	4	5	5	5	4	5	3	5	4	5	4.4	4.0			
Private Sector	5	1	3	4	5	5	5	2	4	2	4	3	2	5	5	3	3	4	5	5	3	5	4	4	1	1	4	4	4	4	3	3.5	4.0			
CEER	5	4	2	2	5	5	5	4	5	4	5	4	5	4	5	5	5	5	5	5	4	5	5	5	5	4	4	5	5	5	4.5	5.0				
MLA	3	2	3	5	5	5	5	3	3	3	3	3	4	4	4	3	3	3	4	5	5	3	4	4	4	3	2	1	4	3	3.4	3.0				
US Reg Partners	5	5	5	5	5	5	5	5	n	4	4	3	4	n	5	5	5	5	5	5	5	5	5	5	5	4	3	5	5	5	4.6	5.0				
Other US Reg	5	4	5	4	4	5	3	4	3	3	4	5	5	5	5	4	4	2	5	3	5	5	5	5	4	3	5	5	5	5	4	4.3	4.5			
ERRA																																				
Leadership	5	3	5	5	5	5	5	4	4	4	4	4	4	5	4	5	5	4	5	4	5	4	4	5	5	4	5	4	5	5	5	4.5	5.0			
Secretariat	5	5	5	5	5	5	5	5	4	5	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4.8	5.0			
ERRA info flow	4	4	5	5	5	4	3	2	3	4	4	3	3	3	3	5	5	4	5	5	5	4	4	3	4	3	4	3	4	3	5	3.9	4.0			
Agency info flow	4	3	5	4	4	4	2	2	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.8	4.0			
Ext info flow	3	4	3	4	4	4	2	1	2	3	3	3	3	5	4	3	3	3	3	5	3	3	3	4	2	2	3	3	4	5	3	3	3.0			
Member participation	5	4	5	5	5	5	3	4	3	3	4	5	5	4	5	4	4	5	5	4	5	3	5	4	4	4	4	4	4	5	5	4.3	4.0			
Cost	5	2	4	4	5	4	4	3	4	2	2	3	3	4	4	4	4	3	3	3	3	3	1	3	4	4	2	3	4	1	2	3.1	3.0			
Newsletter	5	3	5	5	5	5	5	3	3	3	4	3	4	3	4	5	4	3	4	5	5	4	4	4	5	3	4	4	5	5	4	4.0	4.0			
Tariff database	5	5	3	3	5	5	5	4	3	4	4	4	5	5	5	5	5	4	5	5	5	4	5	5	5	4	5	4	5	5	5	4.5	5.0			
Website	5	5	5	5	5	5	5	4	4	4	3	4	5	5	5	5	5	5	5	5	5	5	4	5	4	5	4	5	5	5	5	4.6	5.0			
Country reports	5	4	5	5	5	5	5	4	2	4	4	2	3	5	4	5	4	4	4	5	4	4	4	5	2	3	4	4	5	5	4.1	4.0				
Tariffs	5	5	5	5	5	5	5	5	3	5	4	4	4	5	4	5	4	5	4	5	4	4	5	5	5	4	4	5	5	5	5	4.7	5.0			
Licenses	5	5	5	5	5	5	5	5	3	5	4	2	4	5	4	4	3	3	5	5	5	4	3	5	5	4	3	4	5	5	5	4.4	5.0			
X-border trade	4	4	3	3	4	4	4	3	3	4	3	5	5	5	5	3	3	5	4	4	4	3	4	4	3	3	5	5	3	4	3.8	4.0				
Monitoring	5	4	4	5	5	5	5	4	4	4	4	3	5	4	4	4	3	4	5	5	4	5	4	5	4	4	5	4	4	4	4	4.2	4.0			
Electricity	5	5	4	4	5	5	5	5	4	5	5	4	5	5	5	4	3	5	5	5	5	5	4	4	5	4	5	5	5	5	5	4.6	5.0			
Gas	4	4	4	5	4	4	5	3	3	4	4	2	4	4	4	4	3	5	4	5	3	4	4	4	4	4	4	4	4	4	4	3.9	4.0			
District Heating	4	4	4	5	1	1	1	1	3	2	4	4	5	3	2	5	3	3	2	4	3	2	4	4	4	3	3	4	3	4	3.0	3.0				
Re-structuring	5	3	3	5	5	5	5	4	3	4	3	3	4	4	4	4	3	4	4	3	3	4	3	4	4	2	5	4	3	5	3.8	4.0				
Market opening	5	4	4	5	5	5	5	3	2	3	3	5	5	5	5	5	4	5	5	5	4	3	3	4	4	2	5	5	5	5	4	4.1	4.0			
Competition	5	4	4	5	5	5	5	3	2	3	4	3	5	4	4	4	3	5	5	5	5	4	4	3	5	4	3	5	5	5	5	4.0	4.0			
Grid Codes	5	3	4	4	4	4	5	2	3	2	4	3	3	5	4	4	3	3	3	3	3	1	4	4	5	4	2	1	4	5	5	3.8	4.0			
Rules, ethics	5	3	5	5	5	5	5	3	3	3	4	3	5	5	5	3	3	3	3	5	4	5	5	4	5	4	5	4	5	5	5	3.9	4.0			
Activities																																				
Meeting frequency	2F	OK	2F	2F	2F	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	2F	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK		
Activity length																																				

APPENDIX B:
ERRA TECHNICAL COMMITTEE AND WORKING GROUP
ISSUE PAPERS AVAILABLE ON THE ERRA WEBSITE

TARIFF/PRICING COMMITTEE

2003-04 Papers

- Issues in the Determination of Tariffs for Ancillary Services

2002 Papers

- Tariffs for System Services
- Two-part Tariffs for Electric Power Consumers
- Pricing Policy for Small Independent Generators

2001 Papers

- Differentiated Tariffs in Wholesale and Retail Electricity Markets
- Cost Allocation Between Heat and Electric Power in Combined Energy Production at Cogeneration Plants
- The Structure of the Power Sector and Rates Charged for Monopoly Services

2000 Papers

- Achieving Meaningful Public Involvement in Energy Regulation
- Low-Income Customers – Meeting Their Needs
- Designing Tariffs for an Efficient, Reliable, and Least Cost Energy Supply
- A Regulator's Role in the Development of Private Generation Projects
- Utility Asset Privatization and Competitive Supply Markets

1999 Papers

- Procedures for Tariff Reviews and Revisions
- Assessing and Incorporating Fixed Assets and Investment Programs into Tariffs
- Privatization and Regulatory Control: Integrating the Regulatory Agency into the Overall Regulatory Framework
- Technical Losses and Commercial Losses
- Cross-subsidies

LICENSING/COMPETITION COMMITTEE

2003-04 Papers

- Structural Comparison of ERRA Member Electricity Markets
- Statutory Licensing Process Regime
- Status of Third Party Access Guidelines in ERRA Member Countries
- Public Service Obligations Regarding Electricity Distribution Activity

2002 Papers

- Cross-border Capacity Allocation Methods

- Conditions for Power Pool Formation
- Dispute Resolution Process
- Leasing/Concession: Lessons Learned
- Elements of Regulation for Harmonization to Support Regional Trade
- Monitoring Working Group: Benchmarking and On-site Supervision Issues
- Regional Markets Working Group: Status and Creation of Sub-regional Energy Markets

2001 Papers

- Electricity Market Development and Market Contractual Agreements in the USA, in the EU Members, and in the Member Countries of ERRA (With Attention to the Role of the Regulator)
- Unbundling of Electric Sector Functions to Structurally Separate Monopoly and Competitive Activities
- Monitoring, Measuring and Assuring the Competitiveness of Energy Markets
- Monitoring Working Group: Mechanisms of Monitoring and Enforcement of the Conditions of Licensed Activities
- Regional Markets Working Group: Aspects Regarding the Development of Regional Electricity Markets

2000 Papers

- Measuring Electric and Natural Gas Supply/Service Quality and Providing Incentives for Improvement
- Development of Competition in Electricity and Natural Gas Wholesale and Retail Markets – The Changing Roles, Tasks, and Responsibilities of the Regulator
- Lessons Learned in Licensing/ Monitoring Practices in CEE/Eurasia
- Operational Models in CEE/Eurasia

1999 Papers

- The Most Important Legal/Statutory Elements for Regulation of the Energy Sector
- Amendments to Energy Licenses Initiated by the Regulator
- Regulatory Actions to Limit or Correct Abuse of Market Power
- Limits on the Scope of Issues Within the Authority of Energy Regulators

1998 Papers

- Financial Qualifications and Creditworthiness of License Holders for New and Existing Utilities
- Capacity Limits in Licenses and Licensing Periods
- License Enforcement
- Monitoring
- Elementary Elements of Licensing
- License to Generate Electricity

ERRA EU ACCESSION WORKING GROUP

2004 Paper

- Quality of Electricity Supply – Comparative Survey

2003 Paper

- Green Energy Regulation

ERRA LEGAL REGULATION WORKSHOP

2004 Paper

- Legal Regulation in ERRA Member Countries

APPENDIX C: INFORMATION TECHNOLOGY ASSESSMENT

Summary Statistics Information Technology Assessment Questionnaire Prepared by NARUC - September 2002

Chart 1. Computer and Internet Resources in ERA Countries as of September 2002.

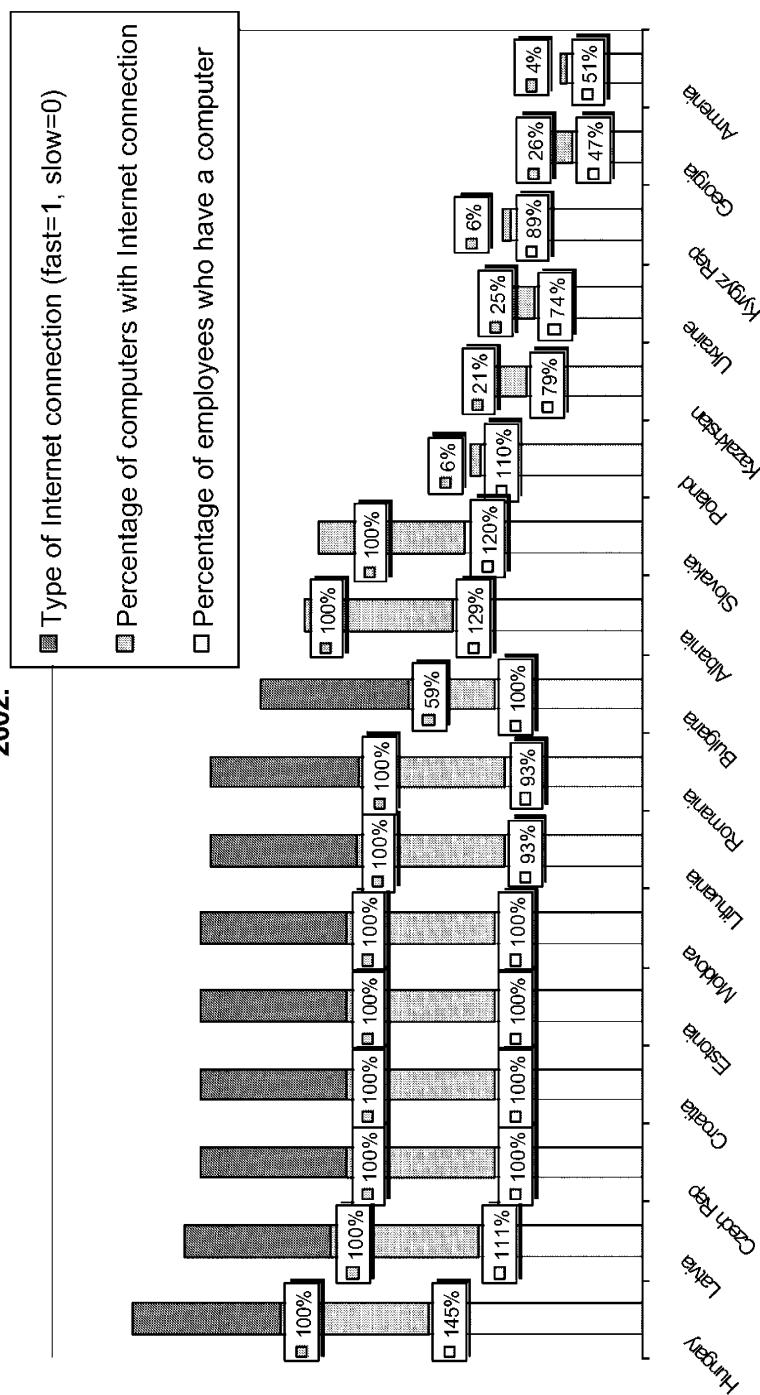


Table 1. Information Technology Resources in ERRA Member Organizations

	Albania	Armenia	Bulgaria	Croatia	Czech Rep	Estonia	Georgia	Hungary	Kazakhstan	Kyrgyz Rep	Latvia	Lithuania	Moldova	Poland	Romania	Russia	Slovakia	Ukraine
Number of staff	7	51	85	6	75	9	78	88	185	18	65	46	30	271	71	Did not respond		
Number of computers	9	20 PCs and 5 laptops and 1 network PC	85	6	75	9	31 PCs and 6 laptops	128	146	16	72	43	30	295 PCs and 31 laptops	63 PCs and 3 laptops	Did not respond		
Number of computers with Internet connection	9	1 (4%)	50 (59%)	6 (100%)	75 (100%)	9 (100%)	8 (26%)	128 (100%)	30 (21%)	1 (6%)	72 (100%)	43 (100%)	30 (100%)	18 (6%)	63 (100%)	Did not respond		
Is there an internal office network?		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	Did not respond		
Number of printers	10	10	30	6	40	4	12	84	73	7	42	30	3	123	22	Did not respond		
Type of Internet connection*	56 K modem		cable	cable	cable	cable	Modem 33.6 K	cable	128 K modem	56 K modem	cable	cable	cable	56 K modem	cable	Did not respond		

* Modem=slow connection, cable=fast connection

Table 2. Frequency of Internet Usage Among Regulatory Agency Employees

Chairman/President of the Commission		Albania	Armenia	Bulgaria	Croatia	Czech Rep	Estonia	Georgia ¹	Hungary	Kazakhstan	Kyrgyz Rep	Latvia	Lithuania	Moldova	Poland	Romania	Russia	Slovakia	Ukraine	
Do you have your own personal e-mail address?		no	no	v	v	v	v	no	no	no	no	v	v	v	no	v	Did not respond			
How often do you check your e-mail?	Several times a day	v	v	v	v	v	v		v		v	v	v		v	v		v		
	Several times a week													v						
	Monthly																			
	Very rarely						v			v										
How often do you access the World Wide Web?	Several times a day	v				v	v						v	v	v	v				
	Several times a week		v	v	v									v	v			v	v	
	Monthly																			
	Very rarely							v			v									
	Several times a day																			
	Several times a week																			
	Monthly																			
	Very rarely																			
How often do you access the EERRA website?	Several times a day	v	v	v			v									v				
	Several times a week																			
	Monthly				v	v					v		v	v				v		
	Very rarely																		v	

Chairman does not personally use the Internet

Table 3. Frequency of Internet Usage Among Regulatory Agency Employees

ERRA liaison person		Albania	Armenia	Bulgaria	Croatia	Czech Rep	Estonia	Georgia	Hungary	Kazakhstan	Kyrgyz Rep	Latvia	Lithuania	Moldova	Poland	Romania	Russia	Slovakia	Ukraine
Do you have your own personal e-mail address? How often do you check your e-mail?		v	no	v	v	v	v	v	v	v	no	v	v	v	no	v	Did not respond		
	Several times a day	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v
	Several times a week													v					
	Monthly																		
	Very rarely																		
How often do you access the World Wide Web?	Several times a day	v	v	v	v	v	v	v	v		v	v	v	v	v	v		v	v
	Several times a week																		
	Monthly																		
	Very rarely																		
	Several times a day																		
How often do you access the ERRA website?	Several times a week	v	v	v			v	v			v		v		v	v		v	
	Monthly				v														
	Very rarely																		

Table 4. Frequency of Internet Usage Among Regulatory Agency Employees

ERRA Tariff Committee Member	Do you have your own personal e-mail address?	How often do you check your e-mail?	How often do you access the World Wide Web?	How often do you access the ERRA website?
Albania	v	v	v	v
Armenia	no	v	v	v
Bulgaria	v	v	v	v
Croatia	v	v	v	v
Czech Rep	v	v	v	v
Estonia	v	v	v	v
Georgia	no		v	y
Hungary	v	v		v
Kazakhstan	v	v		y
Kyrgyz Rep	no	v		v
Latvia	v	v		y
Lithuania	v	v	v	v
Moldova	v	v	v	
Poland	v	v	v	v
Romania	v	v	v	v
Russia	Did not respond			
Slovakia	v	v	v	
Ukraine	v	v		y

Table 5. Frequency of Internet Usage Among Regulatory Agency Employees

ERRA Licensing Committee Member	Albania	Armenia	Bulgaria	Croatia	Czech Rep	Estonia	Georgia	Hungary	Kazakhstan	Kyrgyz Rep	Latvia	Lithuania	Moldova	Poland	Romania	Russia	Slovakia	Ukraine	
Do you have your own personal e-mail address?	v	no	v	v	v	v	v	v	no	no	v	v	v	v	v	Did not respond			v
How often do you check your e-mail?	v	v	v	v	v	v	v	v		v	v	v	v	v	v		v		
Several times a day									v									v	
Several times a week																			
Monthly																			
Very rarely																			
Several times a day	v				v	v				v	v	v	v	v	v		v		
Several times a week		v	v	v			v	v			v		v	v					
Monthly																			
Very rarely									v										
Several times a day																			
Several times a week	v	v	v			v	v			v	v		v	v	v		v		
Monthly				v															
Very rarely																			

