



ANNUAL PROGRAM PERFORMANCE REPORT

Coop. Agreement #: REE-A-00-07-00050-00
Program: Energy Regulatory & Security Program in Europe & Eurasia
(<http://www.erranet.org> or www.naruc.org)
Countries: Central/Eastern Europe & Eurasia (regional)
Time Period: **FY12 (October 2012 – September 2013)**
Implementer: National Association of Regulatory Utility Commissioners
(NARUC)
Contact: Erin Hammel, ehammel@naruc.org; Phone: (202) 898-2210

Contents

I. PROGRAM DESCRIPTION	2
II. MONITORING AND EVALUATION (M&E)	2
III. SUMMARY OF ACTIVITIES AND MAJOR ACCOMPLISHMENTS.....	2
Task 1. Regulatory Capacity & Association Institutional Development	2
1.A. Training/Capacity Development.....	2
1.B. Association Development	3
Task 3. Regional Regulatory Cooperation	5
3.A. Black Sea Regulatory Initiative (BSRI)	5
Task 4. Promotion of Energy Security	14
4.A. Regulatory Partnerships.....	14
i. Armenia.....	14
ii. Bosnia and Herzegovina	16
iii. Georgia	17
iv. Kosovo	20
v. Moldova	22
vi. Ukraine.....	26
IV. USAID PERFORMANCE INDICATORS	39
V. GENDER BALANCING	40

I. PROGRAM DESCRIPTION

Develop the Central/Eastern European and Eurasian regions' energy regulatory authorities and their networking opportunities; strengthen the regulators and their efforts to establish a stable, efficient, and competitive energy industry.

II. MONITORING AND EVALUATION (M&E)

At the request of USAID under a separate cooperative agreement, NARUC's International Programs Department undertook a review of its approaches to overall program management, and, more narrowly, to the monitoring of, and reporting on, the performance of all the international programs and projects it carries out. Based on this review, NARUC's International Programs Department decided to shift, at a measured pace, towards a more comprehensive, results-focused performance management system for capturing time-bound information about its programs overseas.

NARUC began to prospectively identify the intended results of the projects it administers as well as performance indicators that can be used to assess progress towards these results. NARUC examined the types of results on which its current programs implicitly focused and used those results to develop a logic model, called a Results Framework. This Results Framework shows, on a program-wide basis, the cause-and-effect hierarchy of results through which NARUC's activities are expected to foster important changes in the regulatory commissions and regional energy regulatory associations with which it works.

NARUC also developed appropriate indicators for measuring progress towards results for its international programs. NARUC uses two types of indicators for assessing performance in relation to the results concept "enhanced operations," which includes both technical and managerial approaches and procedures in energy regulatory commissions overseas. These indicators are complimentary, as described below.

- Scales rating a set of organizational commission operations developed by NARUC in-house
- Reported improvements in commission operations (narratives supporting scales ratings)

These scales can be systematically utilized to document changes on distinct aspects of the operations of energy regulatory commissions. NARUC has begun pilot testing of its new M&E Plan, including incorporation of the Regulatory Scaling Instrument into its activities in 2013.

III. SUMMARY OF ACTIVITIES AND MAJOR ACCOMPLISHMENTS

Task 1. Regulatory Capacity & Association Institutional Development

NARUC worked collaboratively with members of the Energy Regulators Regional Association (ERRA) to share U.S. experiences and examine lessons learned and "next" practices. NARUC member commissioners and staff voluntarily participated in ERRA technical training courses and professional development activities (committee meetings, conferences, etc). The NARUC member observational trip reports are available by request from NARUC staff.

1.A. Training/Capacity Development

ERRA Training	Chairman Todd Snitchler of the Ohio PUC served as an instructor at
----------------------	--

<p>Course: Principles of Natural Gas Regulation (Dec. 3-7, 2012; Budapest, Hungary)</p>	<p>ERRA’s December 3-7, 2012 training course on Principles of Natural Gas Regulation, in Budapest. The training was attended by more than 30 participants from 13 countries. The following issues were raised by the training participants:</p> <ul style="list-style-type: none"> • U.S. Federal & State Regulatory frameworks • Competitive nature of U.S. regulatory frameworks • Shale gas development, regulation & impact on U.S. and global gas markets • Regulatory finance and accounting for separate entities, Operating & Maintenance challenges • Single gas supply issues for EU • LNG – exports and pricing impact on global gas markets <p>http://www.erranet.org/Training/Intermediate_Advanced_Training/Gas_Reg_2012</p>
---	--

1.B. Association Development

ERRA Committee Meetings, Working Group Meetings, Conferences, Workshops

<p>ERRA’s 11th Energy Investment and Regulation Conference (Oct. 15-16, 2012) & Concurrent Committee Meetings (Oct. 17-18, 2012) (Izmir, Turkey)</p>	<p>Two U.S. commissioners served as speakers and participated in ERRA’s 11th Energy Investment and Regulation Conference (Oct. 15-16, 2012) and the four ERRA concurrent meetings (Oct. 17-18, 2012) in Izmir, Turkey. NARUC also directly supported the participation of two additional members of our Executive Committee to serve as speakers.</p> <p>http://www.erranet.org/InvestmentConferences/2012 http://www.erranet.org/Events/ERRA/2012/Chairmen_Izmir_October http://www.erranet.org/Events/ERRA/2012/Tariff_Izmir_October http://www.erranet.org/Events/ERRA/2012/Licensing_Izmir_October http://www.erranet.org/Events/ERRA/2012/Legal_Izmir_October</p>
<p>ERRA joint Tariff/Pricing and Licensing/Competition Committee Meetings (February 6-7, 2013, Abu Dhabi, UAE)</p>	<p>Ms. Jennifer Heintz (Chief of Counsel for External Litigation, Missouri Public Service Commission) and Mr. David Lynch (General Counsel, Iowa Utilities Board) both spoke at the Licensing/Competition Committee Meeting addressing issues of regulatory incentives for RES and energy efficiency.</p> <p>http://www.erranet.org/Events/ERRA/2013/Licensing_AbuDhabi_February</p> <p>Ms. Denise Parrish (Office of Consumer Advocate, Wyoming Public Service Commission) spoke at the Tariff/Pricing Committee Meeting addressing US experience of time of use tariffs and the impact of renewable energy schemes to the end user tariffs.</p> <p>http://www.erranet.org/Events/ERRA/2013/Tariff_Abu_Dhabi_February</p>

	The three NARUC representatives also delivered presentation on renewable support schemes in the U.S. at the Chairmen's session, along with a NARUC resolution honoring recently retired ERRA Chairman Dr. Gabor Szorenyi.
ERRA Legal Regulatory Working Group Meeting (March 18-19, 2013, Tallinn Estonia)	Ms. Sarah Thomas (Attorney, California Public Utilities Commission) spoke on the topic of legal and regulatory procedures for distributed generation, and price responsive regulatory programs, including demand response and dynamic pricing. http://www.erranet.org/Events/ERRA/2013/Legal_Tallinn_March
ERRA General Assembly Meeting (June 10-11, 2013; Budapest, Hungary)	Commissioner Speakes-Backman (Maryland Public Service Commission) spoke on two expert panel discussions: Energy Industry Outlook and Licensing/Competition Committee meeting with the focus on green certificates. http://www.erranet.org/news/2013/06/11/ERRA_General_Assembly
Tariff and Pricing Committee Meeting (June 10-11, 2013; Budapest, Hungary)	Ms. Denise Parrish (Office of Consumer Advocate, Wyoming Public Service Commission) presented on special treatment of construction costs in rates in order to encourage investment and on ring-fencing with examples from Wyoming on how protections can be put into place in order to protect a utility business from other business activities of a corporation. http://www.erranet.org/Events/ERRA/2013/Tariff_Budapest_June

Task 2. Regulatory Reporting, Monitoring & Transparency

Select issues related to regulatory reporting, monitoring and transparency were addressed through bilateral partnerships (Task 4).

Podcasts (video lectures)	<p>During the summer of 2013, NARUC and ERRA prepared video lectures (podcasts) that can be downloaded and more broadly disseminated in the Europe and Eurasia regulatory community. The lecturers were selected from among ERRA member regulatory commissions and faculty involved in ERRA's technical training courses. The podcasts were finalized and disseminated to ERRA members in early October 2013.</p> <ul style="list-style-type: none"> • Impediments of Building Competitive National/ Regional Energy Markets by dr. Gábor Szörényi, General Secretary of ERRA • Potential Regulatory Activities Supporting Climate Change Measures by Mr. Péter Kaderják, Director of the Regional Centre for Energy Policy Research • Regional Electricity Market Building with Case Studies on
----------------------------------	---

	<p>Successful Market Coupling by Mr. Anders Plejdrup Houmøller, CEO of Houmoller Consulting ApS by Mr. Martin Sik, Energy Regulatory Office of the Czech Republic</p> <ul style="list-style-type: none"> Potential Regulatory Incentives Supporting Network Development by Mr. Zoltán Lontay, Energy Engineer by Mr. Tore Langset, Head of the Economic Regulation Section of the Norwegian Water Resources and Energy Directorate <p>http://www.erranet.org/Training/Training_Podcasts (Please note the podcasts are password protected. USAID may contact NARUC or ERRA staff to request access.)</p>
--	--

Task 3. Regional Regulatory Cooperation

3.A. Black Sea Regulatory Initiative (BSRI)

www.naruc.org/USAID/BlackSea

THE BLACK SEA – OMS REGULATORY INITIATIVE (BSRI)	www.naruc.org/USAID/BlackSea			
Monitoring & Evaluation – Tracking Foreign Partner Progress and Results	<p>Throughout the reporting period, the regional group continued reviewing issues and began tracking Black Sea regulatory progress against the two project deliverables:</p> <ul style="list-style-type: none"> <i>Principles of Regulation to Support Development of Renewable Energy in the Black Sea Region</i> (2011-2012) http://www.naruc.org/International/RenewablePrinciples.pdf <i>Principles of Regulation on Cross-Border Trade and Market Integration</i> (2013 and ongoing) http://www.naruc.org/International/CBMarketIntegrationPrinciples.pdf <p>Benchmarking of RES Principles</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; background-color: #d9e1f2; vertical-align: top;"> Azerbaijan (ABEMDA) </td> <td> <ul style="list-style-type: none"> \$100M set aside for ABEMDA in 2013 (presumably includes funds for purchasing RE) No separate legal mandate for renewables, but included in general statutory authority. Hydro is key – 18% of energy in 2010. 1000 MW of capacity, with 62MW in the works. Interest in wind is growing. Potential of 5GW solar, 4.5GW wind, 1.5GW bioenergy <p><u>Questions from partners:</u></p> </td> </tr> </table>		Azerbaijan (ABEMDA)	<ul style="list-style-type: none"> \$100M set aside for ABEMDA in 2013 (presumably includes funds for purchasing RE) No separate legal mandate for renewables, but included in general statutory authority. Hydro is key – 18% of energy in 2010. 1000 MW of capacity, with 62MW in the works. Interest in wind is growing. Potential of 5GW solar, 4.5GW wind, 1.5GW bioenergy <p><u>Questions from partners:</u></p>
Azerbaijan (ABEMDA)	<ul style="list-style-type: none"> \$100M set aside for ABEMDA in 2013 (presumably includes funds for purchasing RE) No separate legal mandate for renewables, but included in general statutory authority. Hydro is key – 18% of energy in 2010. 1000 MW of capacity, with 62MW in the works. Interest in wind is growing. Potential of 5GW solar, 4.5GW wind, 1.5GW bioenergy <p><u>Questions from partners:</u></p>			

		<p>--Is there any room for private investment? -- There is some room for private investment with a wind tariff that promotes private investment. No tariff proposed yet for other RES sources.</p> <p>--Is there any discussion on the value of collocation of wind and solar? -- This was the intent of the experimental center "Polygon" located in Gobustan. Good resource synergies.</p>	
	<p>Armenia (PSRC)</p>	<ul style="list-style-type: none"> • The time period to issue a license has been significantly reduced to 25 days. • Feed-in tariffs are updated every year. No regulatory developments for solar. 	
	<p>Georgia (GNERC)</p>	<ul style="list-style-type: none"> • No feed-in tariffs • 39% of generation owned by state, rest by private sector • 3 transmission companies – 2 are 100% government-owned • State acts as a transmission operator • Distribution is all private • Much trade with Turkey; Russia is still the dominant trading partner. • Feasibility studies under way for building lines to Azerbaijan and Armenia. 	
	<p>Moldova (ANRE)</p>	<ul style="list-style-type: none"> • Draft RES Law currently under development. The original legislation was too general. ANRE proposed modifications based on BSRI Principles provisions. • Only 2 MWs of RES installed based on existing law • Target is 17% by 2020 • Single buyer model envisioned • Draft is now with the Ministry of Economy pending proposed ANRE modifications • MOE has drafted a National Renewable Energy Action Plan • Cross-border allocation exchanges (transmission) – not yet finalized, but not yet necessary because there is currently no congestion with Ukraine <p><u>Questions from partners:</u> --Are all these actions carried out because of EnC/EU obligations? --Yes, but there is a delay in implementation as ANRE awaits the adoption of the new law.</p>	

		<p>--How does a single buyer market work since it is not really competitive and this may violate the EU provisions?--A single buyer will buy at a feed in tariff rate, and then sell energy to utilities/suppliers.</p> <p>--What is the timeline for FIT v. a unit put in operation? Which one comes first and how does it work? --The tariff must cover all costs and give a higher reasonable return and is allocated before the resource is built.</p> <p>--What is the bidding process for renewables?-- Currently under development.</p>
	Turkey (EMRA)	<ul style="list-style-type: none"> • Goal is to increase % of renewables to 30%, increase installed capacity of wind to 20GW, utilizing other renewable resources such as solar and biomass. • Goal is to move away from gas dependency, make things cheaper for consumers, and promote technology development (some local component is being considered after a learned experience from NERC Ukraine via the BSRI platform). • Renewable incentives – licensing fee is 1% of standard licensing fee • Feed-in tariff – used to be 5.5 €cents, regardless of technology. Now differentiates, with hydro the lowest at 9.6 €cents and concentrating solar the highest at 22.5 €cents.
	Ukraine (NERC)	<ul style="list-style-type: none"> • An elaborate scheme for the presence of 'local component' in the domestic equipment requirement for green energy but this program is not popular with investors or regulators • Biomass – not much effort. • Soon to be at 11% renewable with existing mandate – concerned about cost. <p><u>Questions from partners:</u> --Is there state support for renewables? --Yes, through feed-in tariffs for non-hydro RES.</p>
Activity Summary & Objectives	<p>In the October 2012 – September 2013, NARUC organized three Black Sea regional meetings, one of which was implemented jointly with the Black Sea TSO group.</p>	

i. Regulatory Role in the Promotion and Implementation of Energy Efficiency,

October 2012

NARUC organized a Black Sea regional workshop on **Regulatory Role in the Promotion and Implementation of Energy Efficiency**, October 14, 2012, in Izmir, Turkey, in conjunction with the 11th ERRA Investment Conference. U.S. State regulators from Minnesota and Arkansas briefed the participants on their respective states' energy efficiency legislative targets, measures and related utility programs, adding to the U.S. State perspectives from Iowa and Wisconsin from earlier Black Sea project discussions (US Study Tour to Minnesota PUC, September 2012).

The activity outlined the following objectives:

- Exchange information on current status and approaches to energy efficiency in the US (select States) and the Energy Community
- Discuss and share best practices, current programs, institutional structures, implementation mechanisms and outcomes for energy efficiency programs managed by select U.S. States
- Examine necessary conditions and prospects for regulators to play a more active role in the promotion of energy efficiency and engage in drafting a "principles" document (similar in concept to the Renewables Principles) to inform and guide any future regulatory initiatives and utility-regulatory coordination in this area

ii. Regional Workshop on Renewable Energy Investment Framework and Development of Principles of Regulation

February 2013

On February 13-14, 2013, in Tbilisi, NARUC organized a successful set of meetings of its BSRI working group with the partners reviewing and approving the preliminary draft of the two new additions (Chapters) to the core "*Principles of Regulation to promote the development of Renewable Energy Sources (RES) in the Black Sea region*," prepared in 2011-12, and discussed key issues for further implementation.

The activity outlined the following objectives to advance the work on Regulatory Principles and Related Guidelines for the cross-border trade:

- Review and approve the preliminary draft of the two new additions (Chapters) to the "Principles of Regulation to promote the development of Renewable Energy Sources (RES) in the Black Sea region" and discuss key related issues
- Exchange applicable case studies and examples from the Black Sea countries, EU, and U.S. Midwest region on the roles of regulators in promoting RES market development, regional cooperation, and cross-border trade
- Identify policies, laws and regulations that support the regional market integration, including clean energy initiatives
- Examine necessary conditions and prospects for developing initial market mechanisms and related cross-border trade in the Black Sea region
- Provide input to the Black Sea transmission system operators

and planners in developing compatible grid code regulations to aid sustainable clean energy development in the Black Sea region

The Black Sea participants and their OMS partners exchanged applicable case studies and examples from the Black Sea countries (Turkey-Georgia), EU (Czech-Slovak-Hungarian trilateral coupling), and U.S. Midwest region on the roles of regulators in promoting cross-border development and harmonization of relevant rules, including the RES process and regional cooperation. The partners also identified critical regulatory approaches to supporting the regional market integration, including initial market mechanisms and energy exchanges that underpin a robust wholesale market. On February 15, in a joint session with USEA, the Black Sea regulatory group provided input to the Black Sea transmission system operators' current project on developing compatible grid code regulations to aid sustainable clean energy development in the Black Sea region and reviewed some initial findings from the group's optimum power flow (OPF) modeling analysis. The vision of the two projects is to prepare common frameworks for regulatory rules and technical protocols that could be utilized in future cross-border transactions.



Oleksii Orzhel from NERC/Ukraine describes changes in Ukraine's wholesale electricity market.

For the second joint coordination meeting of the BSRI and BSTP projects, the following objectives were outlined:

- Update Members of the Working Groups on Recent Accomplishments and Current Agendas of the BSRI & BSTP Programs
- Review Results of BSTP Optimal Power Flow Analyses & Discuss Implications for Clean Energy Cross Border Trade in the Black Sea Region
- Review BSRI Updates to the Regulatory Principles for Clean Energy Development and Cross Border Trade in the Black Sea Region
- Review Terms of Reference for Proposed BSTP Clean Energy Grid Code Guidelines and Discuss Draft Guidelines Annotated

iii. Regional Workshop on Current and Future Directions in Cross-Border Trade in the Black Sea Region

June 2013

Outline

- Identify Areas of Potential Cooperation between the BSRI and BSTP Working Groups

On June 3-5, 2013, in Istanbul, NARUC organized meetings of its 6-country BSRI working group, and jointly with USEA, the coordinating meeting of the BSRI (regulatory) and BSTP (transmission planning) initiatives. Ministerial representatives from Azerbaijan, Georgia, Moldova, and Turkey attended the joint discussions on June 4.



Commissioner David Boyd with the Minnesota PUC discusses financial transmission rights as a hedging tool with the Black Sea regulators during the regional workshops June 3-5, 2013, Istanbul

The new additions to the Core Principles were further elaborated from the February 2013 meeting, including

- *Chapter 10: Market Rules and Regulations to Support Harmonized Cross-border Trade*
- *Chapter 11: Market Monitoring for Cross-Border Trade*
- *Chapter 12: Promoting Regional and Sub-regional Market Integration and Regulatory Cooperation*

During the discussions, the regulators emphasized the need to add financial transmission rights (FTRs) and significantly expand the market monitoring of cross-border arrangements in their regional regulatory agenda. The two subject matters will undergo further expansion into the Principles document in mid-2013 and will be discussed at the next BSRI regional meeting in the fall of 2013, positioning the regulators to engage in more systematic oversight of the trading activities.

NARUC and USEA continued discussing common regional topics and the desire to collaborate on projects of mutual value that would inform the respective ongoing work. The system planners are preparing a regulatory document to provide a better understanding of their regional grid code and the NTC calculations.

Recent Turkish/ENTSO-E and Turkish/Georgian cross border capacity allocation schemes and experiences were discussed in detail. Regulators expressed interest in additional review and detailed

analysis of the Turkish capacity auction platform to understand fully how it is designed and organized. They were additionally interested in the specifics of the TEIAS-EMRA coordination on the capacity allocation process and oversight for the ENTSO-E interconnection.

The draft annotated cross-border regional Regulatory Guideline (RG) was extensively discussed and commented by the regulators. This is the BSRI project focus in 2013-2014 with future regional workshops focused on select issues to move the guideline to the implementation stage. The emerging trade opportunities in conventional and renewable energy are clearly focusing the regional regulatory project in this direction.

We also learned from the Georgian Deputy Minister Mariam Valishvili that the political decisions in Georgia have sped up the electricity sector reform process, with the new Energy Law giving the regulator expanded authorities over the establishment of the market rules and underlying regulations. Additionally, the Georgia Electricity Market Model (GEMM2015) is developing a trading mechanism for the commercialization of Georgian hydropower resources and related trade into the Turkish and regional electricity markets.



Senior Energy Advisor Robert Archer, with USAID's E&E Bureau, discusses price impacts of cross-border trading arrangements and the need for more transparent market monitoring in cross-border regimes during the Black Sea regional workshops, Istanbul, June 3-5, 2013.

The joint Black Sea Regulatory-TSO workshop increased the mutual understanding of the working group activities and also provided very useful input for the cross-border RG development process by the BSRI group. A meaningful agenda is now possible to set for the upcoming joint activities, including presentation of the finalized RG to the TSOs and the presentation of the optimum power flow models by TSOs to the regulators. The project outputs will be utilized by respective workgroups in TSO and regulatory activities. The TSOs called on the Regulators to develop policy relevant questions and

	<p>scenarios for analysis by the models developed by the system planners, namely the regional load-flow model and a related Optimal Power Flow model. The models will be further used to analyze electricity price impacts and evolving energy trade in the Black Sea region. The regulators will be involved in preparing relevant policy questions on the benefits of region-wide reserve sharing, energy security, cost-benefit analysis of regional electricity market integration, analysis of fuel mix policies (including RES-E development), and price impacts of cross-border transactions.</p>
<p>Key Issues</p>	<p>The Black Sea regulatory group expressed support for using the regional project platform to prepare a future Principles document examining the initial steps, key issues, and best practices in institutional, financial and delivery mechanisms for the regulatory agencies' support of end-consumer energy efficiency programs. In Izmir, the Energy Market Authority of Turkey (EMRA) representative Fatih Kolmek also proposed some ideas for consideration of the Black Sea regional project work in 2013, namely expanding the BSRI work into the sphere of developing compatible regulatory regimes and rules in support of the cross-border trade, market liberalization and integration.</p> <p>NARUC and USEA prepared a draft statement on the principles of regional collaboration between the two projects, BSRI (regulators) and BSTP (TSOs), respectively, to further the common regional agenda and the desire to collaborate on projects of mutual value. The two Black Sea project leaders continued discussing common regional topics that would inform the respective ongoing work in system planning and regulatory policy. The system planners are preparing the following documents for the regulatory group's review at its October 2013 meeting in Kiev, Ukraine:</p> <ol style="list-style-type: none"> 1) Summary of the Optimal Power Flow Model Development and Application (this is an explanatory note on how the model is constructed and used, some preliminary results, and a request for regulatory input). 2) PSS/E OPF Regional Model Construction Report 3) Renewable Energy Integration in the Black Sea Transmission Network 4) Renewable Energy Grid Code Guidelines <p>The regulators are interested in further discussions on the Black Sea TSOs' common regional grid model that can properly facilitate coordinated cross border (NTC, TRM, AAC) capacity calculations. NARUC and USEA are in discussions to facilitate further the joint dialogue and a presentation on the utilization of the models to inform the regulatory work.</p>
<p>Notable Quotes</p>	<p><i>"The cross-border issues, capacity allocation mechanisms and related regulatory work that we discussed at the workshop are among the priority topics discussed at the ECRB [Energy Community Regulatory Board]"</i></p>

	<p><i>meetings as they relate directly to the EU electricity target model development. As an institution at the beginning of this process, ANRE is very engaged in establishing cross-border capacity allocation rules in line with the EU regulations so I am very glad that we have had the opportunity to discuss these issues within the Black Sea Initiative, and inclusively with our US colleagues, who have a great experience with various stages of the regional electricity market formation.”</i></p> <p>Anatolie Boscaneanu, ANRE/Moldova, participant in the Black Sea regional workshop on Development of New Principles of Regulation, February 13-15, 2013, Tbilisi, Georgia.</p> <p><i>“The regulatory work on cross-border issues and capacity allocation mechanisms has steadily gained more relevance at ANRE. We need the experience and capacity in this area as ANRE will be responsible for approving the cross-border capacity allocation rules under the Energy Community compliance and the ENTSO-E network code development. In this regard, the TEIAS TCAT platform demonstration and related commentary by the Turkish regulator [EMRA] have offered significant insight into the sequential regulatory actions and deadlines in the various procedures. I have a better appreciation for how this process is organized and will use it for developing ANRE’s own regulations on access to cross-border capacities for Moldova, including organizational aspects of secondary market. I find the TCAT allocation tool a very instructional example of how the capacity auctioning platform can work to benefit the joint work of the Moldovan and Ukrainian TSOs underway.”</i></p> <p>Anatolie Boscaneanu, ANRE/Moldova, participant in the Black Sea regional workshop on ‘Current and Future Directions in Cross-Border Trade in the Black Sea region,’ and the ‘Third Joint Coordination Meeting of the BSTP and BSRI,’ June 3-5, 2013, Istanbul, Turkey.</p> <p><i>“We should utilize some opportunities toward joint regulatory-transmission activities in order to discuss physical and regulatory aspects of market interactions and to study joint management of renewable and trade flows for better utilization of the [Black Sea] region’s renewable potential.”</i></p> <p>Fatih Kolmek, EMRA/Turkey, participant in the Black Sea regional workshop on ‘Current and Future Directions in Cross-Border Trade in the Black Sea region,’ and the ‘Third Joint Coordination Meeting of the BSTP and BSRI,’ June 3-5, 2013, Istanbul, Turkey.</p>
<p>Notable Items</p>	<p>In the July-September 2013 timeframe during the planning stage, the participants in the 6-country Black Sea regional group worked to finalize and approve the following documents:</p> <ul style="list-style-type: none"> • <i>Principles of Regulation on Harmonized Rules for Cross-Border Trade and Regulatory Cooperation for Market Integration in the Black Sea</i> • <i>Regional Cross-Border Regulatory Guideline</i> <p>The regulators will be reviewing the four key BSTP documents at their</p>

	regional meeting in Kiev, Ukraine, October 1-4, 2013. The objective is to highlight areas of common interest and inform the regulatory process for approval of cross-border regulations and grid codes that are the responsibility of national TSOs. The analyses will further pave the way to discuss jointly the Black Sea TSOs' common regional grid model that can properly facilitate coordinated cross border (NTC, TRM, AAC) capacity calculations. NARUC and USEA are in discussions to facilitate further the joint dialogue and a presentation on the utilization of the models to inform the regulatory work.
Assumptions/ Constraints/ Considerations	None.

Task 4. Promotion of Energy Security

4.A. Regulatory Partnerships

i. Armenia

www.naruc.org/USAID/Armenia

ARMENIA	 <p>www.naruc.org/USAID/Armenia</p>
Monitoring & Evaluation – Tracking Foreign Partner Progress and Results	<p>The following practices have been or are in the process of being implemented at PSRC:</p> <ol style="list-style-type: none"> 1. Update to Network Connections for New Consumers (electricity and natural gas) The PSRC is continuing efforts to improve its procedures. 2. Penalties The system for automatic calculation of penalties was enacted on January 1, 2013. This system ensures that the company pays penalties, should it exceed the maximum length allowed for power interruption. According to this system, should the company exceed the maximum length allowed for power interruption, hence, violate consumers' rights, the company must pay a penalty. 3. Continued emphasis on hydro and work towards energy security PSRC's emphasis continues to be on small hydro installations since wind and solar appear to be relatively expensive. By 2016, the PSRC expects to see 17 percent of power produced by

<p>3)Armenia-Moldova Technical Exchange</p> <p><i>September 2013</i></p>	<ul style="list-style-type: none"> • Revision/reconsideration of subsidization and cross subsidization programs; • Expansion of the number of entities licensed to provide electric power distribution; • Service quality management for the electric power sector. <p>ANRE/Moldova participated in a one-week technical exchange with the PSRC on September 9-13, 2013 in Yerevan. The PSRC shared their best practices related to human resource management and dispute resolution (licensed activities and consumer issues).</p>
<p>Key Issues</p>	<p>NARUC continued to coordinate with the PSRC on a concept proposal to restructure the current regulatory partnership program to meet more effectively the agency’s current regulatory needs and coordinate more closely with the Mission’s energy strategy (energy security and regional integration). NARUC has proposed that future activities to evolve from the standard bilateral partnership format and focus on interactive problem-solving activity formats to support concrete progress on tariffs and supporting regulations for consumer connections.</p>
<p>Assumptions/ Constraints/ Considerations</p>	<p>Prolonged communication exchanges and difficulties in articulating its regulatory objectives and areas in need of further growth hindered some of the anticipated progress.</p>

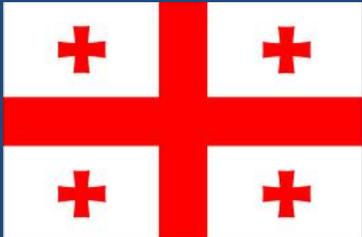
ii. Bosnia and Herzegovina

<p>BOSNIA AND HERZEGOVINA</p>	
<p>Program Planning</p>	<p>NARUC submitted a concept proposal and a corresponding budget to USAID/Washington for the Mission-funded energy regulatory partnership for Bosnia and Herzegovina, proposing to engage the state and two entity regulatory agencies in a flexible arrangement to enhance their respective regulatory frameworks. The Public Utilities Commission of Ohio (PUCO) agreed to serve as the lead state in the partnership.</p> <p>The Ohio PUC Chairman and a NARUC staff member met with representatives of the three regulatory agencies at the ERRA</p>

	<p>Investment Conference in mid-September 2013, Tallinn.</p> <p>NARUC prepared a formal work plan for the USAID Mission and began preliminary discussions with all parties regarding timing of the first activity.</p>
Assumptions/ Constraints/ Considerations	None.

iii. Georgia

www.naruc.org/USAID/Georgia

GEORGIA	 <p>www.naruc.org/USAID/Georgia</p>
Monitoring & Evaluation – Tracking Foreign Partner Progress and Results	<p>GNERC adopted:</p> <ul style="list-style-type: none"> • Rules for capacity allocation of the new cross-border transmission line adopted on May 30, 2013, #99 <p>GNERC drafted:</p> <ul style="list-style-type: none"> • Amendment to the Electricity Law (on implementation of Uniform System of Accounts) • Amendments/Changes to the Electricity Market Rules • Auction Rules for capacity of the new transmission line • Transmission Tariff Methodology • Transmission Grid Code • Incentive Tariff Methodology for distribution • Benchmarking Methodology (for monitoring and Quality of Service)
<p>Activity Summary & Objectives</p> <p>i. 7th Partnership Activity</p> <p><i>April 2013</i></p>	<p>On April 8-12, 2013, NARUC implemented the 7th Partnership activity at the Kentucky PSC and PUC Ohio. The Georgian delegation included a commissioner and three GNERC staff members, and also a representative from the Georgia State Electrosystem (GSE).</p> <p>The objectives were to:</p> <ul style="list-style-type: none"> • Elaborate proper regulatory environment for implementation of the new Georgian Electricity Market Model (GEMM 2015) • Establish the rules and procedures required to commence

<p>ii. Georgia-Moldova Technical Exchange</p> <p><i>September 2013</i></p>	<p>cross-border electricity trade with Turkey</p> <ul style="list-style-type: none"> • Exchange international best practices in conducting market monitoring functions • Introduce time-of-use tariffs and adopt the related methodology to create incentives to reduce energy consumption in lower load periods • Develop the quality of service control in water sector and related regulations • Identify technical parameters and needed software support for live streaming of the Commission’s public hearings • Prepare a software package to support the quality of service control of electricity consumers. <p>NARUC implemented a technical exchange of GNERC staff to ANRE Moldova Tariff Department on September 23-27, 2013 in Chisinau, Moldova. The goals of the GNERC staff were to:</p> <ul style="list-style-type: none"> • Revise the existing tariff methodology for electricity in order to include cost allocation, quality of service, WACC and X-Factor. • Develop new tariff methodologies under GEMM-2015 model, including the methodologies for calculation of transmission tariffs and for methodologies for calculation of tariffs for small power generators. • Develop performance indicators for the transmission tariffs. • Develop tariff incentives for renewable energy producers. • Analyze the status of Renewable Energy Regulations in Moldova and it’s applicability to Georgia. • Develop data requirements for Energy Market Monitoring. • Develop procedures for approval of the tariffs. • Develop Regulatory Accounting and Regulatory Reporting standards and regulations. • Calculate tariffs according to the internationally accepted practices in order to move to cost reflective tariffs.
<p>Key Issues</p> <p>i. 7th Partnership Activity</p> <p><i>April 2013</i></p>	<p>Discussions in Kentucky focused on:</p> <ul style="list-style-type: none"> • Time-of-use tariffs and related methodology to create incentives to reduce energy consumption in lower load periods. • Discussion with an electric utility (Duke Energy Kentucky) on generation, dispatch, transmission system control and pricing, transmission loss calculation, and power purchasing. • Market monitoring • Examining the working relationship in the U.S. between a regulatory commission and an equivalent of an Energy Ministry (In Kentucky called Energy and Environment Cabinet). • Monitoring and regulation of the quality of water service. <p>Potomac Economics Vice-President Bob Sinclair introduced the group to the market monitoring his company does for MISO, ERCOT, New York ISO, and ISO New England. He also talked about the market</p>

monitoring process his company developed with USAID funding for South East Europe.



GNERC at the Kentucky Public Service Commission, April 8-12, 2013

In Ohio, GNERC learned about:

- The primary elements of wholesale and retail markets in Ohio.
- PJM's operation of wholesale markets.
- The declining clock auction to acquire wholesale generation supply to serve retail "Standard Service Offer" load.
- Pricing elements necessary to calculate retail prices, given wholesale capacity and energy forward prices.
- Ohio's process for approving licenses (certificates) for Competitive Electricity and Natural Gas Retail Suppliers.
- Ohio's competitive retail electric suppliers and serving retail choice customers from the trader's perspective (KOREnergy presented the topic).

GNERC's IT Department Manager had a separate 5-day training program focused on identifying technical parameters and needed software support for live streaming of the Commission's public hearings and on familiarizing with Kentucky Commission's software and hardware backbone for e-filing, docket system, and complaint/outage reporting systems.

The technical exchange of GNERC staff in Moldova was focused on the structure of the regulated asset base (which assets are included in RAB); current and future utility investments in the regulated rate periods; calculation of WACC; calculation of recovery rates; adjustment of revenues by X-factor; and daily rates for residential, and commercial consumers.

The intern noted that the ANRE approaches and processes will be used to:

- Improve its approval process for utility investment plans taking into consideration allocated costs and other utility business expenses.
- Continue elaborating the electricity tariff methodology with the determination of X factor. Currently no such parameters exist in the Department of Statistics of Georgia but such measures are

**ii. Georgia-
Moldova
Technical
Exchange**

September 2013

	<p>mandatory for the purpose of determining the efficiency ratio. Likely GNERC would apply the benchmarking ratio as in Moldova which widely used throughout the international regulatory community.</p> <ul style="list-style-type: none"> • Revise WACC calculations to include different practices employed in Moldova. <p>As for allocation of expenses on natural gas pressure, ANRE is interested how to calculate salary related expenses individually for each distribution network according to norms of executed works set in advance, and general and administrative expenses are divided pro rata to consumed gas.</p>
Notable Quotes	<p><i>“The exchange of experience and information between regulatory commissions of different countries produced a very fruitful result, since the meetings were held right in the departments in an open dialogue mode. Comprehensive and relevant information was received that will be envisioned in the new tariff methodology the GNERC is currently elaborating.”</i></p> <p><i>Nato Japaridze, GNERC intern to ANRE Moldova, September 23-27, 2013</i></p>
Notable Items	<p>On September 17, 2013 the Prime Minister of Georgia appointed Irina Milorava, the former Director General of the Electricity System Commercial Operator, (ESCO, 2009-2013) as the Chairman of GNERC. Due to these leadership changes, which also include one Commissioner vacancy, NARUC postponed its planned August activity until early December in order to ensure that the senior members of the GNERC Board have a solid understanding of the issues and can actively engage in the partnership.</p> <p>As per new amendment to the Law on Electricity and Natural Gas of July 26, 2013, GNERC Chairman and Commissioner will be appointed by the Prime Minister of Georgia, instead of the President of Georgia.</p>
Assumptions/ Constraints/ Considerations	<p>The 8th partnership activity that had been planned for August 2013 was delayed due to leadership changes at GNERC.</p>

iv. Kosovo

www.naruc.org/USAID/Kosovo

<p>KOSOVO</p>	<div data-bbox="805 212 1157 443" data-label="Image"> </div> <p data-bbox="776 478 1203 510">www.naruc.org/USAID/Kosovo</p>
<p>Program Planning</p>	<p>NARUC and USAID Kosovo Mission representative Roxanne Suratgar met in mid-June 2013 to discuss NARUC’s regulatory capacity-building and distribution post-privatization support for ERO. NARUC prepared a formal letter of re-engagement to ERO to outline a recommended programmatic structure and a set of illustrative activities to support its regulatory agenda in 2013-14.</p> <p>A conference call among USAID Washington, USAID Prishtina, ERO, and NARUC was organized on August 7, 2013, to discuss the re-engagement process and a set of activities to assist ERO in its current regulatory tasks. Based on that conference, NARUC received more detailed information from USAID/Kosovo regarding future activities with ERO in late August 2013. The proposal outlined the current regulatory agenda of the main ERO departments and a range of projects where ERO would benefit from receiving NARUC member regulatory support. NARUC prepared a response outlining the recommended structure of programmatic activities and an implementation timeline. In early September, ERO also submitted a revised proposal (amending the one from March 2013) with their priorities for 2013-14, following the 2012 post-privatization period. NARUC and USAID discussed the ERO proposal.</p> <p>Following a U.S. State commission search, the Pennsylvania Commission confirmed to NARUC its intent to serve as a lead state to the ERO. The partnership arrangement will also include opportunities to request regulatory assistance from other U.S. States, per Pennsylvania’s suggestion, in order to broaden regulatory perspectives and approaches for ERO to consider. NARUC suggested to organize the first technical partnership visit to Prishtina on November 4-8, and focus it on a detail line-by-line review and analysis of ERO’s first multi-year tariff process which is in effect from 2013-2017. The partners began reviewing the suggested timing and substantive focus in late September.</p>
<p>Assumptions/ Constraints/ Considerations</p>	<p>Long period of program inactivity (June 2012 – November 2013) due to institutional transition of ERO and finalization of KEDS distribution privatization transaction. Most recent engagement with ERO was in June 2012 for the New Commissioner Training.</p>

v. Moldova

www.naruc.org/USAID/Moldova

<p>MOLDOVA</p>	 <p>www.naruc.org/USAID/Moldova</p>
<p>Monitoring & Evaluation – Tracking Foreign Partner Progress and Results</p>	<p>ANRE approved:</p> <ul style="list-style-type: none"> • ANRE Regulation on procedures of acquisition of goods, works and services used in the regulated activity of the regulated companies from the energy sector – approved by ANRE on November 16, 2012. At the elaboration of this Regulation ANRE has taken into consideration the Missouri principle of transparency during the acquisition of goods, works and services in order to avoid the inclusion of unjustified costs. • Committee for evaluation and evidence of gifts received by ANRE staff - established by the ANRE General Director’s Decision from July 25, 2013 <p>Laws and regulations pending for approval:</p> <ul style="list-style-type: none"> • Law on Renewable Energy <ol style="list-style-type: none"> i. A net-metering mechanism was proposed by ANRE in the Draft law that was developed according to practices and experience of Missouri PSC and other US states. ii. The support mechanism also includes a screening approach for the queue of RE projects: an auction procedure for all potential generators, followed by the obligation for eligible generators to fulfill certain conditions in order to maintain this right until it becomes firm. Following the general ideas and the concept behind the queue process (like the milestones approach), ANRE proposed this simplified mechanism, following the discussions during the last activities and taking into consideration local peculiarities, market dimensions and considering the chosen support scheme. • The Concept of the Informational Campaign for customer education purposes (ANRE took into consideration the Missouri PSC practice regarding the customer education) • Regulation on cross border capacity allocation and network congestion management mechanisms in the electricity sector.
<p>Activity Summary & Objectives</p>	

6th Partnership Exchange

November 2012

NARUC organized the 6th Moldova-Missouri exchange in Jefferson City, Missouri, on November 5-9, 2012. The ANRE delegation was represented by one Commissioner/Director, two Deputy Heads of Department, a legal consultant, and an IT manager.

The objectives were:

- Enhance the customer education and outreach by implementing the MO PSC practice regarding the customer education and conducting information campaign
- Explore further experience of net-metering, curtailment and compensations, and queue process for RES-E generators in order to setting up a more efficient and transparent procedure for connection cost allocation for RES-E plants
- Adjust the Electronic Filing and Information System (EFIS) to ANRE conditions to introduce new features.

7th Partnership Exchange

May 2013

NARUC organized the 7th Moldova-Missouri exchange on May 14-17, 2013, in Chisinau. The US delegation included representatives from Missouri, Rhode Island, and Ohio.

In this activity, ANRE's goals were to:

- Review specific areas of its ethical conduct to revise the internal Ethics Code and further elaborate a legal framework for its Ethics Committee
- Identify and transpose best practices in sanctioning for utility license violations
- Identify regulatory measures to guide transition to liberalized electricity and natural gas markets in Moldova.
- Review current market model for renewable energy in Moldova, and identify specific measures that could support its further development
- Define functions and obligations of distribution companies, suppliers and producers towards final customers as necessary elements of market rules (under development)
- Assess utility accounting methods for expenditures and costs and functional separation of accounts of the regulated companies in the energy sector.
- Review best practices to improve existing electricity grid interconnection rules.

Several other intra-regional (Black Sea) activities were implemented involving ANRE as observers or trainees to build further its capacities in market activities and commission management.

Ukraine Partnership

ANRE staff member participated in the Ukraine-NARUC Partnership

<p>Observation</p> <p><i>June 2013</i></p> <p>Internships</p> <p><i>July – September 2013</i></p>	<p>activity, June 17-21, 2013 in Kiev as an observer.</p> <ul style="list-style-type: none"> • An ANRE hosted a NERC Ukraine staff member for a one-week internship on July 1-5, 2013 • ANRE’s Tariff Department hosted a GNERC staff member for a weeklong internship, September 9-13, 2013 in Chisinau. • ANRE sent its staff member from Legal Department to the PSRC Armenia for a one-week internship, September 9-13, 2013 in Yerevan.
<p>Key Issues</p> <p>6th Partnership Exchange</p> <p><i>November 2012</i></p>	<p>The 6th Moldova-Missouri Partnership activity focused on the following issues:</p> <ol style="list-style-type: none"> 1. Guidelines for the development of RES base related to the grid access and integration, curtailment and compensations to RES-E generators, network reinforcements and interconnection cost allocation process, firm and non-firm transmission service, RES generator queue process, interactions between generators and transmission operators, and interconnection agreements. 2. Regulatory incentives for small-scale generation <ul style="list-style-type: none"> • Net-metering in restructured markets; interaction among distribution network operators, suppliers and customers. Impact of electricity flows from net metering units on the system. • The “avoided costs” approach in calculating specific rates for small scale producers. Alternatives to “avoided costs” in markets where generation is unbundled from other activities (transmission, distribution, supply). Examples of bills for net-metered customers. • Power purchase agreements 3. Communication in regulatory commissions <ul style="list-style-type: none"> • Strategies enhancing a regulator’s public image and communication strategies. • Customer-oriented communication, including rights and obligations. • Tools of incentivizing operators to inform/educate consumers 4. Regulatory role in energy efficiency 5. Progress in EFIS implementation: Assessment of the current situation and challenges <p>One ANRE IT staff spent an additional week at the Missouri PSC on implementation of the EFIS and its adaptation to ANRE’s regulatory regime, including a more detailed analysis of the information and case management systems.</p>

7th Partnership Exchange

May 2013

During the 7th Partnership exchange, NARUC organized a 2-day forum involving stakeholders on market liberalization issues during the May exchange that involved stakeholders from 11 organizations, including the Ministry of Economy, Moldelectrica, Moldovagaz, Gas Natural Fenosa, Termocom, CHPs, Energy Institute of the Academy of Science, Technical University.



At the Stakeholder Forum, Chisinau, May 14-17, 2013

In this activity, ANRE:

- Reviewed specific areas of its ethical conduct to prepare recommended revisions to the internal Ethics Code and further elaborate a legal framework for its Ethics Committee
- Identified best practices in sanctioning for utility license violations with an aim to transpose them in due course
- Identified regulatory measures to guide transition to liberalized electricity and natural gas markets in Moldova per relevant EU Second and Third Energy acqui.
- Reviewed current market model for renewable energy in Moldova, and identified specific measures that could support its further development
- Defined functions and obligations of distribution companies, suppliers and producers towards final customers as necessary elements of market rules (under development)
- Assessed utility accounting methods for expenditures and costs and functional separation of accounts of the regulated companies in the energy sector.
- Reviewed best practices to improve existing electricity grid interconnection rules.

The discussions with Ohio and Rhode Island regulators on market liberalization provided valuable input for ANRE for the finalization of the regulation on supplier switching by customers, and electricity and natural gas market rules, which contain the basic principles of market liberalization. To further elaborate on these issues with practical focus, ANRE would like to move away from bilateral exchanges of

	<p>information through simple presentations, to discussions on specific rules and regulations, which are developed by ANRE in order to ensure the timely transition to competitive market.</p> <p>In the context of market liberalization, ANRE continued focusing on the integration of RES into the energy market and promotion of competition in the sector (including balancing, network interconnection). In terms of balancing the production of energy from intermittent sources, ANRE realizes the importance of promoting market based solutions that will encourage generators to “self-balance”, instead of imposing penalties for the creation of imbalances. In terms of RES-E balancing, more discussions will need to be carried out, in order to identify what specific measures can be established to solve imbalances. ANRE is also tasked with developing clear rules for the RES auction procedures to introduce competition into the sector as long-term goal even if the support scheme is based on guaranteed long term contracts in the short term.</p>
<p>Notable Quotes</p>	<p><i>“... I think that such activities (intra-region) technical exchanges) are absolutely necessary, since only in the course of conducting such activities one can compare in full legislations and principles of regulations used in both countries and learn from positive experience of addressing these or those issues in the energy sphere. In countries with a common historical past and a similar level of development, the effectively applied regulatory mechanisms can be mutual easily borrowed and implemented.”</i></p> <p>Elena Breahna, intern from ANRE to Armenia PSRC, September 9-13, 2013</p>
<p>Notable Items</p>	<p>On January 16, 2013, the Government adopted the Energy Strategy of the Republic of Moldova 2030 and the National Action Plan for Energy Efficiency for 2013-2015.</p> <p>NARUC selected the Maine Public Utilities Commission to serve as a lead State in the energy regulatory partnership with ANRE/Moldova. After three years of excellent contributions from the Missouri Public Service Commission, the focal areas of ANRE had changed and Maine will be better positioned to provide critical information. The partnership arrangement will include opportunities for other States to participate to provide a range of regulatory models for consideration by ANRE.</p>
<p>Assumptions/ Constraints/ Considerations</p>	<p>Due to changes in ANRE leadership, the partnership activity planned for October 2013 was postponed.</p>

vi. Ukraine

www.naruc.org/USAID/Ukraine

UKRAINE



www.naruc.org/USAID/Ukraine

Monitoring & Evaluation – Tracking Foreign Partner Progress and Results

As a result of the Monitoring and Implementation Plan data collection, NARUC learned that NERC has undertaken reforms and issued new regulations utilizing the substantial experience gained in the framework of the Partnership Program. NERC spearheaded changes in the Law of Ukraine No. 5485-VI “On Amendments to the Law On Electricity,” which promotes generation of electricity from alternative energy sources. The Law was passed by the Parliament on November 20, 2012 and subsequently signed by President of Ukraine. The legislative measure envisions a reduction in the green tariff for those types of generation for which it was unreasonably overestimated. In addition, the Law introduces a system of verification of generation of electricity from RES. Another provision introduced by Law No. 5485-VI grants a “green” tariff for electricity from RES sources generated by household facilities and will come into effect on January 1, 2014.

1. NERC made updates to the legislative framework in the sphere of alternative energy as follows:

- Adopted the “Procedure for Determination of the Size of the Local Component for Electric Facilities including Commissioned Power Plant Construction Stages (start-up facilities) that Generate Power from Alternative Energy Sources (except for blast-furnace and close-burning gas).”
- Changes and two amendments made to the “Procedure for the Establishment, Revision and Termination of Green Tariffs for Economic Entities” related to parallel granting of an electricity generation license and a green rate.

2. NERC took measures to improve the quality of services provided to electricity and natural gas consumers as follows:

- Per NERC Decree No. 1070 of August 08, 2013 “On Ensuring the Functioning of Call Centers Operated by Economic Entities that Supply Electricity at Regulated Tariffs,” electricity suppliers that supply electricity at regulated tariffs and have more than 100,000 consumers are obliged to establish call centers in order to ensure information services for consumers, and approved call center organizational and technical requirements.
- Per NERC Order No. 642 of May 30, 2013 “On Improvement of

the Quality of Services Provided to Electricity Consumers,” electricity suppliers should provide to consumers information about the share of each energy source in the general energy mix through payment documents and via the company’s official web-site.

- Per NERC Order No. 709 of June 20, 2013 “On Improvement of the Quality of Services Provided to Natural Gas Consumers,” suppliers of last resort of natural gas are obliged to provide to consumers, through payment documents and the company’s official web-site, information on their rights, established prices for natural gas for certain consumer categories, as well as information on the volume of natural gas used in the current and last years.
- "On Amendments to the licensing conditions on supply of natural gas, gas (methane), coal deposits at the regulated tariff" from 18.07.2013 № 979.
- "On Amendments to the terms and conditions for the supply of electricity at regulated tariff" from 18.07.2013 № 980; (which provides for compulsory introduction of call centers for customer service).

3. NERC has adopted basic regulations for incentive regulation of electricity distribution companies:

- Procedure for determination of the regulator asset base for subjects of natural monopolies in the energy sector (#899, July 11, 2013)
- Procedure for determination of the required revenue obtained from electricity supply activity conducted at a regulated rate under incentive regulation (#899, July 11, 2013)
- Procedure for calculation of retail rates for electricity, power transmission rates for local power networks, electricity supply rates at a regulated rate under incentive regulation (#900, July 11, 2013)
- Procedure for setting tariffs for electricity supply licensees conducting their activity at a regulated rate and/or electricity transmission by local power networks under incentive regulation (#1030, July 26, 2013)
- Procedure for allocation of assets, expenses and revenue among activities of electricity supply licensees that operate at a regulated rate and/or power transmission by local power networks (#1031, July 26, 2013)
- Procedure for determination of the required revenue obtained from power transmission by local power networks under incentive regulation (#1032 from July 26, 2013)
- Decision on application of incentive regulation by local transmission power networks (#1029, July 26, 2013)
- Decision on the setting of long-term regulation parameters for the purpose of incentive regulation (#1099, July 23, 2013)
- Procedure for submission, determination and approval of

economic coefficients of standard technological electricity losses.

In particular, NERC used the following approaches from the NY PSC: the predicted values should be determined on a historical basis, the tariff structure consists of operating costs (annual costs for operation and maintenance costs, taxes, fuel costs, electricity for their own needs, administrative expenses) and capital (profit equity , depreciation), the application of corrections for the projected operating costs for inflation, the establishment of depreciation based on the revaluation of equipment (conducted by independent experts) and the regulatory life cycle, accrual earnings for working capital (in the formation of the necessary income for the activities for the supply of electricity at regulated tariff) and most importantly - the concept of " fair rate of return" for all companies on the same level.

4. Improvements in NERC Information system

NERC improved its information system and expanding its functionality based on knowledge it acquired during partnership discussions. Today the Commission's decision-making process is supported by information and technical resources. NERC also provides for mobility of staff (WI-FI) and modernization of the document archiving system.

NERC plans to establish the internet system, introduce video conferencing, the introduction of an information support system of customer service, and the introduction of a geographic information system.

The draft laws pending adoption:

- Draft Law on the Basics of Functioning of the Electricity Market
- Draft Law of State Energy Regulation

Draft regulations

For the purpose of regulatory settlement of the procedure of sale of electricity generated from solar radiation by energy facilities (generation facilities) of private households the following documents were developed:

- Procedure of Sale, Accounting and Settlement for Electricity Generated from Solar Radiation by Energy Facilities (Generation Facilities) of Private Households;
- Changes and amendments to the Rules for Electric Power Usage for the Population;
- Changes and amendments to the Terms and Rules for Entrepreneurial Activity Related to Power Supply at a Regulated Rate;
- Changes and amendments to the Procedure for Retail Rate-making for Power Supplied to Consumers (except for the population and localities) by Power Supply Licensees at a Regulated Rate.
- Procedure for the Connection Queue Management

regulatory and legal framework for carrying out regulated types of activities by energy companies, exercising control and conducting inspections of compliance with requirements set for regulated companies, and also responsibilities of companies in case of non-compliance.

The NYS PSC experts discussed and shared their observations about the conditions and rules of operation of regulated companies (how to obtain the Certificate of Public Convenience and Necessity (CPCN), what kind of documents are required, rules for commencing operations under CPCN, denial, revocation), verification of compliance with requirements by regulated companies and also about sanctions in the case of non-compliance with requirements.

Also the NY PSC experts provided information on utility inspection and testing, including statewide safety standards, utility testing and inspection programs and also the Commission staff monitoring efforts.

Also an overview of information services, information systems and also functions and tasks of the IT department was provided. The NY presenters emphasized that the Commission's web site and document management system (DMM) are two effective vehicles that allow the Commission's processes and proceedings to be readily accessible and transparent to utilities and the public, as well as a vital resource for Commission staff to manage the flow of information and monitor utility activities. Also they discussed about ensuring cyber security when operating IT systems and usage of a digital signature to sign electronic documents.



Ukrainian participants at the New York State Public Service Commission, October 2012

The presentations focused on the Ohio policies and programs on renewables, siting renewable energy facilities, queue management process of PJM, connection rules and screening tools for

interconnections, energy efficiency, and quality of service issues (Electric service reliability measurements, standards, reporting and recording interruptions), complaint handling process, call metrics, customer satisfaction and feedback.

Additional stakeholders, such as the utility company, AEP Ohio were brought into the discussion after questions outside of the scope of the PUCO were brought to attention. In Ohio, AEP Ohio focuses on providing reliable affordable energy to our customers in a safe, effective manner and is committed to environmental protection and improvement consistent with providing electricity at a competitive price. During information sessions, two AEP Ohio staff discussed line extension policy, distribution infrastructure policy and general ratemaking of which both delegations eagerly listened and voiced their country specific concerns.

In addition, the delegates explored issues of organization, operation, and technical infrastructure of utility call centers. They visited the Consumer Service Department of the NY PSC in New York City as well as the ConEdison Call center in Brooklyn, NY.

The following conclusions were made by NERC, based on the results of the meetings:

1. Information obtained as a result of conducted meetings is important for practical work of the division of information technologies of NERC of Ukraine. Obtained knowledge could be used for improvement of work of the information system of NERC and expansion of its functionality to ensure information transparency of work of NERC.
2. It is very important for regulatory agencies to be aware of pressing problems, needs and desires of consumers when making decisions, and that is why it is necessary to maintain by all means communication using all available methods (telephone, internet sites, Facebook, Twitter, etc).
3. As experience of the Commissions of the states of New York and Ohio demonstrated, service quality regulation is very significant in their activities. Studies were carried out of that issue, based on the results of which methods for evaluation of quality of provision of services were elaborated; work of field personnel of the Commissions was organized, and the automated disconnection management system was introduced. It demonstrates the high level of organization of work on improvement of quality of service provision.
4. Experience of the Commissions of the states of New York and Ohio in the part of regulating the sphere of renewable energy would help addressing pressing issues for NERC, in particular, to elaborate procedures for certification and audit of electricity generated from RES, to begin implementation of the process in the part of managing siting of new RES facilities, and would also allow carrying out efficient practice for managing the queue for

ii. 7th Partnership Exchange

June 2013

connection of RES facilities.

5. Studied experience in the part of carrying out the energy efficiency policy would allow NERC determining further steps in this area, and besides, already at the first steps of implementing such a policy to use the most appropriate solutions.

The activity in Kiev in June 2013 was organized in three parallel sessions of two Working Groups on Renewables and Tariff Connection fee issues, and also the Sub-group on Transparency and PR.

The WG A discussed the models of competitive market, integration of RES-E into these markets, promotion of RES-E (incentives, target indicators, restrictions, and forecasting methods). The topics in the WG B focused on connection fees for electricity and natural gas supply, low-income customer programs and energy efficiency, rate case and cost of service, smart grid and time-of-use rates. Discussions on transparency, public relations and information were conducted in the separate sub-group. The NARUC expert also led a case study discussion that prompted a lively debate about the trade-offs that occur when market forces collide with regulatory frameworks.

Ukraine stakeholders were represented by 14 organizations, including the Economic Reforms Coordination Center under the President of Ukraine, National Security and Defense Council of Ukraine, State Agency for EE, Ukrenergo, Energorynok, VS Energy International Ukraine, Ukrenergoconsulting, Transenergoconsulting, National JSC “Energy Company Ukraine”, Kyivoblenergo, JSC “Centrenergo”, National Commission for State Regulation of Public Services, DTEK (Donbass Fuel-Energy Company), IMEPOWER. In total, the activity was attended by 100 participants. The event was broadcast throughout the NERC office building via an audio feed.



NERC Ukraine, ANRE Moldova and NARUC participants, Kiev, June 17-21, 2013

Having reviewed the Ohio experience, NERC notes that the role of

regulatory bodies in the sphere of alternative energy promotion could be significant. The key issues to be tackled are setting the target indicators for alternative energy on the legislative level, implementation of the targets and savings verification schemes, preparing a correct promotional model (FIT) aimed at proactive development of the RES sphere. The experience also dictates that auctions could be carried out to decrease the FIT on the generating side and engaging a model of utility promotion of RES.

NERC was particularly interested in interconnection issues, both upstream with generation and downstream with new customer interconnectors for natural gas and electric utility services. The commonly repeated questions were, "Who pays for interconnection facilities?" "Who owns the interconnection facilities?" and "What fees are imposed by distribution utilities in connection with granting new service?" Ken Glick from DC PSC presented a case study using the California ISO's "fast track" process for small generator interconnections, under FERC's standardized interconnection agreement. On the downstream side, he discussed the connection fees and security deposits Pepco is allowed to charge new customers pursuant to the DC, MD and VA tariffs.

NERC envisions gradual harmonization of residential tariffs toward the justified level of costs associated with generation, transmission and supply of electricity, and gradual elimination of residential cross-subsidization. In this regard, it carries out work aimed at improving the existing regulatory and legal framework which governs design of residential electric tariffs for electricity. It is relevant to study U.S. experiences related to designing a residential tariff menu, implementing a deeper differentiation of tariffs, and identifying regulatory measures aimed at energy savings for industrial and residential consumers. To address the NERC needs, an Ohio presenter focused on low income programs (implementation, disconnection, payments), energy efficiency, smart grid programs, and price control processes, providing information that gave a broad perspective and analysis of all the issues.

Several topics were of particular interest to the NERC participants, especially in the context of how NERC might enhance its external communications, namely:

- The process of drafting, editing and reviewing news releases. The NERC process is the inverse of that used by the Kentucky PSC. At NERC, the first draft of a news release is produced by the commission experts on the topic. It is then edited by the communications office before being sent up to the next higher review level. The process is deficient and needs to be revamped.
- Webcasting of commission proceedings. NERC currently does not have the technology for video broadcasts but its proceedings are now transmitted throughout its building via an audio.
- NERC operates an online discussion forum accessible on its

v. Internship

July 2013

website, allowing anyone to request information. The forum is monitored and moderated by NERC staff. NERC inquired whether it would be better to supplement this forum with social media tools such as Twitter and to use a different venue for production of formal NERC responses.

- The most spirited discussion came on the subject of access to public documents. In contrast to US practice, in which documents filed by regulated entities are generally considered to be public records, NERC's position is that the definition of public documents extends only to official documents produced by NERC itself. There is a perception that regulated entities (licensees) would be resistant to disclosure and would not provide any information to NERC.

Closing the activity, NERC Commissioner Oleksandr Rogozin held a press-conference. <http://wnu-ukraine.com/news/economy-business/?id=3184>.

ANRE Moldova staff member participated in the 7th Partnership activity as an observer.

NERC internship at ANRE:

The goal of the internship was to study practical experience of the ANRE Moldova in the field of resolving conflict situations between consumers and energy supply companies, to get familiar with legal aspects of dispute resolution in the energy sector, to study methods and of applying sanctions to enterprises in the energy sector in case they violate License Terms and Conditions, studying the procedure for appealing decisions of the regulatory body, studying the procedure for designing tariffs for electricity and gas.

The following topics were reviewed in the course of the activity:

- Legal aspects of resolving questions in the energy sector
- The role of the regulatory body in resolving disputes between energy supply companies and consumers
- The legal status of the National Energy Regulatory Agency of the Republic of Moldova
- The procedure for appointing the Administrative Board of ANRE, and cases when Directors of ANRE could be forced to resign (dismissed)
- The procedure for setting tariffs for electricity and gas
- The procedure for changing tariffs for electricity and gas
- The procedure for issuance of licenses by ANRE
- The procedure for exercising control over activities of energy supply companies
- The procedure for applying sanctions to a license holder for violation of current regulatory-legal acts
- The procedure for appealing decisions of a regulatory body
- Comparison of experience and authorities of ANRE and NERC

	<p>with respect to resolution of contentious issues</p> <ul style="list-style-type: none"> • The procedure for handling complaints from physical persons and legal entities related to unlawful actions of gas and energy supply organizations • The procedure for functioning of the ANRE's "green line" • Specifics of workflow management in ANRE • The role of an engineer in verification whether a supplier observes consumers' rights. <p>Based on the results of the carried out activities the following conclusions were made by NERC intern:</p> <ul style="list-style-type: none"> • Legal acts of the Republic of Moldova clearly set the procedure for resolution of disputes that arise between consumers and suppliers. In Ukraine this issue is also regulated by the legislation and by legal acts. • A significant role in resolution of contentious questions between consumers and suppliers is played by the ANRE's "Green line", since consumers in the Republic of Moldova have a possibility to appeal by phone actions of a gas or electricity supplier in ANRE, and also to get answers to questions related to the procedure for provision of services related to gas and energy supply. In Ukraine, one of the main functions of the regulator is the function on protection of rights of electricity and gas consumers. In accordance with the Law of Ukraine On Appeals of Citizens, a consumer has the right to address NERC in writing or in a course of a person meeting with management of NERC informing about infringement of his/her rights by a gas or energy supply organization. • It seems to me that introduction of such a hot line for citizens of Ukraine would be very useful. • In the Republic of Moldova, a license holder has to comply with requirements of the current legal and regulatory acts of Moldova, but meanwhile, there is no any regulatory-legal act that would set conditions and rules for carrying out a licensed type of activity. In Ukraine, Conditions and Rules for carrying out types of activities that are licensed by NERC are approved by relevant decrees of the Commission. • Agreements on supply of electricity and gas are concluded on the basis of free expression of will of the parties, conclusion of the named agreements on the basis of a typical form is not envisioned in the current regulatory-legal acts of the Republic of Moldova. I believe that for the Moldovan side it would be interesting to learn the experience of Ukraine in the part of approval of Model Agreements on Supply of Natural Gas and Electricity, and also in the part of approval of license conditions.
Notable Quotes	<p><i>"I benefitted from information regarding the organization of utility call centers, evaluation of their staff and practical recommendations for the improvement of customer service. As NERC envisions instituting the</i></p>

	<p><i>need for regulations establishing customer call centers within power utilities [in Ukraine], the discussions we have had on this issue were very useful. My responsibility also includes monitoring of service quality and I greatly appreciate the related discussions in Ohio.”</i></p> <p>Mykhailo Verbytskyi, Senior Specialist, Department of Strategic Planning and Energy Market Development, NERC, participant during the October 2012 Partnership activity in NY and OH.</p>
<p>Notable Items</p>	<p>NARUC Consultant Jargalan Jambaldorj also met with Valerii Saratov, Chairman of the National Commission of the State Public Utilities Regulation in Kiev in June. The meeting was prompted by Mr. Saratov’s interest in establishing a partnership program with NARUC on water issues.</p>
<p>Assumptions/ Constraints/ Considerations</p>	<p>None</p>

IV. USAID PERFORMANCE INDICATORS

FY13 Indicators for EURASIA REGIONAL

	Armenia		Georgia		Moldova		Ukraine		Black Sea	
Number of people receiving USG supported training in energy related policy and regulatory practices	<i>men</i>	3	<i>men</i>	4	<i>men</i>	34	<i>men</i>	47	<i>men</i>	70
	<i>women</i>	3	<i>women</i>	1	<i>women</i>	13	<i>women</i>	58	<i>women</i>	5
	TOTAL	6	TOTAL	5	TOTAL	42	TOTAL	105	TOTAL	75
Number of people receiving USG supported training in technical energy fields	<i>men</i>	1	<i>men</i>		<i>men</i>		<i>men</i>	1	<i>men</i>	
	<i>women</i>		<i>women</i>	1	<i>women</i>	2	<i>women</i>	2	<i>women</i>	
	TOTAL	1	TOTAL	1	TOTAL	2	TOTAL	3	TOTAL	0
Person hours of training completed in technical energy fields supported by USG assistance	<i>men</i>		<i>men</i>		<i>men</i>		<i>men</i>	40	<i>men</i>	0
	<i>women</i>		<i>women</i>	40	<i>women</i>	80	<i>women</i>	80	<i>women</i>	0
	TOTAL		TOTAL	40	TOTAL	80	TOTAL	120	TOTAL	0
Number of people receiving USG supported training in climate change	<i>men</i>	3	<i>men</i>		<i>men</i>		<i>men</i>		<i>men</i>	
	<i>women</i>	3	<i>women</i>		<i>women</i>		<i>women</i>		<i>women</i>	
	TOTAL	6	TOTAL		TOTAL		TOTAL		TOTAL	
Person hours of training completed in climate change supported by USG assistance	<i>men</i>	120	<i>men</i>		<i>men</i>	440	<i>men</i>	528	<i>men</i>	2,710
	<i>women</i>	120	<i>women</i>		<i>women</i>	240	<i>women</i>	632	<i>women</i>	180
	TOTAL	240	TOTAL		TOTAL	680	TOTAL	1160	TOTAL	2,890
Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change (mitigation or adaptation) and. or biodiversity conservation officially proposed, adopted, or implemented as a result of USG assistance	TOTAL 1		TOTAL 0		TOTAL 0		TOTAL 1		TOTAL 3	

FY 13 Indicators for EUROPE REGIONAL

	Kosovo		Serbia	
Number of people receiving USG supported training in energy related policy and regulatory practices	<i>men</i>	0	<i>men</i>	0
	<i>women</i>	0	<i>women</i>	0
	TOTAL	0	TOTAL	0
Number of people receiving USG supported training in technical energy fields	<i>men</i>	0	<i>men</i>	
	<i>women</i>	0	<i>women</i>	
	TOTAL	0	TOTAL	0
Person hours of training completed in technical energy fields supported by USG assistance				
	TOTAL	0	TOTAL	0
Number of people receiving USG supported training in climate change	<i>men</i>	0	<i>men</i>	
	<i>women</i>	0	<i>women</i>	
	TOTAL	0	TOTAL	0
Person hours of training completed in climate change supported by USG assistance	<i>men</i>	0	<i>men</i>	0
	<i>women</i>	0	<i>women</i>	
	TOTAL	0	TOTAL	0
Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change (mitigation or adaptation) and. or biodiversity conservation officially proposed, adopted, or implemented as a result of USG assistance				
	TOTAL	0	TOTAL	0

V. GENDER BALANCING

The Black Sea activities reflect an existing gender imbalance due to retention of the key commission staff who have supported the regional project since its inception in 2010. Due to highly evolved issues, NARUC has requested that the commissions continue nominating staff who have had considerable engagement within the project to allow for continuity of issues. In all the commissions there are only two or three staff who have significant involvement in clean energy functions. Unfortunately, NARUC has not been able to identify any women at the regulators who are involved in clean energy issues.

GNERC of Georgia, ANRE of Moldova and PSRC of Armenia all reflect an existing gender diversity imbalance in high-ranking positions, except a recent nomination of a female Commissioner in Georgia. At all three commissions, heads of departments and leadership roles are mostly accounted for by men. Because NARUC activities focus on mid- to high-level staff, it is rare to find a female ranked staff to fill the necessary technical spots on partnership activities.

NERC of Ukraine, however, does have good gender balance; 25% off the commission's top jobs are filled by women.

###