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# FINAL REPORT

SERBIA REGULATORY PARTNERSHIP  
2007-2017



**MARCH 2017**

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# FINAL REPORT

## SERBIA REGULATORY PARTNERSHIP 2007-2017

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National  
Association of  
Regulatory  
Utility  
Commissioners

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Cover Photo: Serbian and Pennsylvania regulators in Harrisburg, Pennsylvania during the Sixth Partnership Exchange (October 2010).

Photo Credit: NARUC

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## AT A GLANCE

<b>Cooperative Agreement</b>	Energy Regulatory & Security Program in Europe & Eurasia
<b>CA Number</b>	REE-A-00-07-00050-00
<b>Project Title</b>	Serbia Regulatory Partnership
<b>Partners</b>	Energy Agency of the Republic of Serbia (AERS)
<b>Resource Experts</b>	National Association of Regulatory Utility Commissioners (NARUC) <ul style="list-style-type: none"><li>• Pennsylvania Public Utilities Commission (PA PUC)</li></ul>
<b>Focus Areas</b>	<ul style="list-style-type: none"><li>• Price regulation and tariff setting</li><li>• Electricity sector restructuring and network unbundling</li><li>• Regulatory and industry practices in reducing losses</li><li>• Accounting systems</li><li>• Harmonization of market monitoring/surveillance</li><li>• Service quality</li><li>• Natural gas</li></ul>
<b>Duration</b>	2007 – 2017

## EXECUTIVE SUMMARY

The Energy Agency of the Republic of Serbia (AERS) was established in 2005 as the independent regulatory institution overseeing the electricity, natural gas, oil, and CHP (combined heat and power) sectors of Serbia. With the funding support of the United States Agency for International Development (USAID), NARUC engaged in a bilateral partnership with AERS from 2007 to 2011, bolstering the efforts of the relatively young regulatory agency to become a strong, independent institution that has played a critical role in championing reforms aimed at liberalizing the Serbian energy sector and achieving compliance with requirements tied to the European Union's Third Energy Package.<sup>1</sup>

Over the course of 2007-2011, the partnership added significant value to AERS's performance and credibility by elevating the technical expertise of the regulatory agency and exposing staff to all operations of a single US state commission – the Pennsylvania Public Utility Commission (PUC). Through capacity built under the partnership, AERS adopted a wide range of regulatory changes to enhance its internal operations and strengthen its position as an expert institution with oversight of the energy sector. In collaboration with Pennsylvanian regulators, AERS reformed several regulations and practices related to the natural gas and electricity sectors and implemented reforms to offer myriad services and options to gas customers, stabilize markets, and broaden how AERS determines the rate of return for infrastructure. Concerning issues related to the smart grid, NARUC expert volunteers supported AERS officials in their efforts to improve the regulatory framework and operational practices around emerging technologies, with a focus on classifying outages and major grid events, monitoring distribution system reliability, and setting benchmarks and standards.

Among the partnership's achievements, special attention is drawn to the following:

- Price regulation amendments for electricity and natural gas went into force in 2011-2012 following AERS's public consultation process. Among these amendments, AERS's tariff methodology for captive consumers was altered to allow for changes in natural gas prices on a quarterly basis, following an annual approval process and corresponding cost analysis by the regulator. This practice, with slight adjustments, mirrors the Pennsylvania PUC's use of a purchased gas cost-rate mechanism.
- Over the course of the partnership, AERS initiated approval of its network codes and electricity market rules following intense preparation and consultation with all stakeholders. Both the network codes and market rules were examined as part of partnership activities. The electricity market rules were prepared by PE "Elektromreža Srbije," the Serbian market operator, and was subsequently reviewed by AERS, while both the transmission and distribution grid codes were approved by AERS in 2008 and 2009, respectively.
- AERS defined and implemented its natural gas transportation code, which entered into force in late 2013, following the submission of the proposal by the natural gas TSO (Srbijagas), consultations between AERS-Srbijagas, and public discussion. Partnership activities with the Pennsylvania PUC directly led to the incorporation of balancing arrangements, technical adjustments to the network code, and revisions covering congestion management and transparency of TSO operation.

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<sup>1</sup> The Government of Serbia ratified the Athens Energy Community Treaty in December 2006. As AERS is responsible for establishing and enforcing a regulatory framework for the Serbian energy sector—a framework that must be compliant and meet the obligations under the Energy Community Treaty and harmonization with the EU *acquis communautaire* on energy—it plays a critical role in implementing the Government's long-term strategy for an EU-oriented energy policy that is both environmentally sustainable and focused on transitioning toward a competitive regional energy market.

- Activities with the Pennsylvania PUC significantly contributed to the adoption and implementation of a variety of customer service quality indicators, as well as an evaluation of AERS's monitoring processes. Amendments to the information code were gradually incorporated in 2011, including requirements and provisions for the type and scale of the required data and the data publishing procedures.
- Upon the recommendation of the Pennsylvania PUC, AERS created a uniform system of information collection and analysis to conserve staff resources and make the data processes more efficient. Prior to the partnership activities, the amount of data requested and collected by AERS and the Pennsylvania PUC dramatically differed despite the use of similar regulatory principles.
- The pricing methodology for distribution use-of-system charges approved by AERS in 2012 incorporated elements examined in the course of partnership discussions.

## **INTRODUCTION/BACKGROUND**

From 2007 until 2011, AERS and the Pennsylvania PUC (PA PUC) engaged in an energy regulatory partnership organized by NARUC and made possible with generous funding and support provided by USAID. Over the course of the partnership, NARUC administered and actively guided the Serbian and U.S. State regulators to examine principles and best practices in electricity and natural gas regulation and to work on key deliverables that would assist AERS in championing reform efforts in Serbia to transition towards a more transparent, EU market-oriented energy sector.

In May 2011, in Belgrade, all participants in the program, including USAID, marked the formal conclusion of the successful four-year bilateral partnership, which began with the inaugural visit of Pennsylvania regulators to Serbia in September 2007. Even prior to completion, the partnership was lauded by all parties as a 'gold standard' of NARUC's international regulatory endeavors due to its exceptional achievements and commitment to improving regulatory processes and institutional arrangements. By expanding beyond information-sharing and focusing on concrete problem-solving, the partnership resulted in tangible regulatory improvements in the electricity and natural gas sectors of Serbia and strengthened AERS as an exceptionally qualified and capable regulatory agency that has played a leading role in the effort to reform the country's energy sector, a key component of Serbia's ultimate goal of integration within the European Union.

## **REGULATORY RESULTS FROM THE PROJECT**

### **RATEMAKING ELEMENTS AND TARIFF SYSTEMS FOR BOTH ELECTRICITY AND NATURAL GAS**

Several amendments to pricing regulation for electricity and natural gas were developed over the course of the partnership. The amendments were entered into force in 2011-2012, following the public consultation process and include:

- At the recommendation of Pennsylvania regulators, AERS modified its tariff methodology for distribution companies, enabling tariffs to stimulate natural gas consumption more accurately.
- The tariff methodology for the transmission system in Serbia was also modified to include additional services that are offered to Pennsylvania's consumers; specifically, interruptible transmission service prices were altered to reflect the probability of interruption, and monthly

charges were adopted as a solution for the use of system in summer months. AERS also made changes in the tariff system to allow for daily capacity-booking.

- AERS's tariff methodology for captive consumers was altered to allow for a change in natural gas prices on a quarterly basis, following an annual approval process and corresponding cost analysis by the regulator. This concept, with slight adjustments, mirrors the Pennsylvania PUC's practice of utilizing a purchased gas cost-rate mechanism.
- At the time of the partnership, asset base valuation and depreciation were a major concern to AERS due to their limited role in this process. Both are critical components in any rate of return determination, especially since fluctuations in the valuation can adversely affect investment. Drawing from discussions and activities with Pennsylvanian regulators, AERS worked with stakeholders to ensure that this function is optimized and allows the regulator to bring more stability to energy markets.
- In its treatment of losses, AERS at the recommendation of Pennsylvanian regulators, set annual non-technical loss targets and removing incentives for companies to retain additional revenue. The allocation of losses as a variable cost across voltage levels was also modified and improved based on discussions of partnership activities.
- Rate of return: AERS previously applied a single maximum rate of 7.5% for distribution companies, but based on the PA PUC's recommendation, it adjusted its rate of return to fit within a range, commonly used by U.S. regulatory commissions, in order to take into account construction and financial demands, effectively rewarding a company with a higher investment activity. Additionally, AERS modified its approach to include two methods – the discounted cash flow and the capital asset pricing model (CAPM) – in order to check and verify the accuracy of a single approach used in the past.
- The pricing methodology for distribution use-of-system charges approved by AERS in 2012 incorporated elements examined in the course of partnership discussions.

## **ENERGY MARKET RULES AND TRANSMISSION AND DISTRIBUTION GRID CODES**

Over the course of the partnership, AERS initiated approval of its network codes and electricity market rules following intense preparation and consultation with all stakeholders. Both the network codes and market rules were examined as part of partnership activities. The electricity market code was prepared by PE "Elektromreža Srbije," the market operator, and was subsequently reviewed by AERS, while both the transmission and distribution grid codes were approved by AERS in 2008 and 2009, respectively. Key contributions from the partnership led to:

- Modifications to technical aspects with regard to the interface between the electricity transmission/distribution systems and systems users, including technical conditions for connecting electricity generation, transmission, and distribution points to consumer premises,
- Third-party access rules, technical and other arrangements for safe and reliable system functioning, methods of specifying and implementing system services, emergency procedures, functional requirements for metering devices, and methods of metering electricity.

## **ADOPTED NATURAL GAS TRANSPORTATION CODES**

AERS defined and implemented its natural gas transportation code, which entered into force in late 2011, following the submission of the proposal by the natural gas TSO (Srbijagas), consultations between AERS-Srbijagas, and public discussion. Partnership activities with the Pennsylvania PUC directly led to the incorporation of balancing arrangements and technical adjustments in the network code and additions covering congestion management and transparency of TSO operation.



## **QUALITY OF SUPPLY INDICATORS FOR ELECTRICITY**

Activities with the Pennsylvania PUC significantly contributed to the adoption and implementation of a variety of customer service quality indicators, as well as an evaluation of AERS's monitoring processes. Amendments to the information code were gradually incorporated in 2011, including requirements and provisions for the type and scale of the required data and the data publishing procedures.

## **QUALITY OF INFORMATION SUBMITTED BY REGULATED UTILITIES**

Upon the recommendation of the Pennsylvania PUC, AERS created a uniform system of information collection and analysis to conserve staff resources and make the data processes more efficient. Prior to the partnership activities, the amount of data requested and collected by AERS and the Pennsylvania PUC dramatically differed despite the use of similar regulatory principles.

## **SERBIA'S PARTICIPATION IN THE SOUTHEAST EUROPE REGULATORY BRIDGE**

The Southeast Europe Regulatory Bridge (SEE Bridge) project provided technical assistance and support to the Southeast European and Black Sea national energy regulators: Albania, Bosnia-Herzegovina, Kosovo, Serbia, Macedonia, Armenia, Georgia, Moldova, and Ukraine from 2015-2016. The project aimed to strengthen their ability to supervise retail electricity markets and establish stable and transparent regimes for the regulation of unbundled electric distribution/supply services. The project sought to drive the adoption of common approaches during the initial stages of distribution network unbundling and create a sound regulatory environment for electric retail market competition.

Over the course of the project, the energy regulators contributed to the development of:

- Regional Electric Retail Competition Regulatory Implementation Guidelines (2017)
- Report on EU Data Sharing and Management (2016)
- Electric Retail Competition Primer (2015)

## **TOOLS FOR PARTNERSHIP ENGAGEMENT**

Over the course of the Partnership, NARUC utilized a variety of activities to provide support to AERS regulators. NARUC supported this regulatory work through a bi-lateral partnership between the AERS and the PA PUC as well as regionally through AERS's involvement in the Southeast Europe Regulatory Bridge. The regulatory partnership program between Serbia and Pennsylvania was launched as a vehicle for exchange of information and experience with the goal of improving regulatory performance and respective technical capacities. As the program evolved, and with Serbia's entry into the Energy Community for Southeast Europe in July 2006, NARUC's regulatory program quickly advanced to provide an organic testing ground for the changing and expanding mandate of the Serbian regulator as it embraced issues of structural changes in the electricity and natural gas sectors, climate change, deployment of smart grid technologies and retail competition, and institutional and technical growth. As partners gradually reviewed their respective regulatory roles and functions, the program shifted in its focus from informational and mostly presentation-style meetings and overviews of regulatory functions to a needs-driven, AERS-led issue-based approach whereby a designated multi-member AERS working



group developed detailed terms of reference prior to each exchange and was tasked with defining, analyzing, and resolving various issues in each technical area of regulation. The AERS staff continued to participate actively in the regulatory and energy policy forums and initiatives, particularly in Southeast Europe Regulatory Bridge, the Energy Community for Southeast Europe (ECSEE) and the Energy Regulators Regional Association (ERRA). For a full list of the activities used during the entirety of the NARUC AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership, please see Appendix I.

## **PERFORMANCE MONITORING AND REPORTING STRATEGY**

NARUC partnerships' monitoring and reporting strategy is designed to systematically gather, analyze, utilize, and share performance information with USAID and other stakeholders. At the foundation of NARUC's monitoring and reporting strategy is the Results Framework, which provides a tool to identify the results which are at the key to the success of our partnerships.

Performance for each partnership is then monitored against the Results Framework through the creation of a partnership performance monitoring plan. These plans contain several important features including a performance indicator table keyed to the results included in the Results Framework. This table includes a detailed definition of the performance indicators tracked by NARUC, the unit of analysis from which data will be collected, sources of data, data collection/analysis methods, identification of the person(s) responsible for data collection, and the frequency with which data on each indicator will be collected.

With the performance monitoring plan in place for the partnership, the next step in NARUC's monitoring and reporting strategy is the collection, storage, and analysis of performance data. The performance monitoring plan sets the data collection schedule for NARUC partnerships that shows the frequency with which specific indicators' data must be collected. The primary sources for performance data are outlined in the Tools for Partnership Engagement. Through both the formal workshops and the less structured, continuous communication between domestic and foreign partners, NARUC collects and stores performance data on our secure servers. Later, the data is analyzed to determine whether the result it measures is being achieved.

Finally, NARUC's monitoring and reporting strategy includes reporting of the partnership performance to USAID and the sharing of this information with stakeholders. In addition to the trip reports following partnership activities and the variety of reports required by funding organizations, NARUC has also developed user-friendly documents titled *Feature Stories* and *Regulatory Results* in order to report and share information with as many relevant stakeholders as possible.

### **Performance Targets and Activities**

The performance targets are developed on an annual basis with the foreign regulators and USAID to drive activity formats. It is important to note that the information sharing that takes place under NARUC's programs have a wide sphere of influence, often affecting other regulatory processes and/or energy sector stakeholders than the original targets. Therefore, NARUC also tracks and reports on secondary results related to enhancements in the regulatory agency's procedures or functions as well as overall energy sector progress. Both targeted results and secondary results can take place over multiple years, emphasized in the "if, then" causal relationship built into the Logical Framework.

### **Gender Balance**

Through coordination with partners, NARUC promotes gender-balanced participation in capacity building activities. Around the world, energy regulation is a field that has historically been dominated by

men. This may be due to the trends of men tending to earn more degrees in engineering, accounting and law than women that qualify them for work at a regulatory commission. Whenever possible, NARUC's programs support inclusivity by promoting the participation of women in partnership activities. As the partnership engages partners on various topics, the staffing of relevant departments determines if and to what extent participants are involved in activities. NARUC collects data on the organizational structure and men/women's employment in relevant departments of each partner regulator. Under this partnership, NARUC has worked to encourage the inclusion of women technical staff in relevant capacity building activities to capture these efforts, NARUC reports on a number of gender-disaggregated capacity building indicators.

### ***Indicator Reporting***

In order to provide for a thorough analysis of the data, indicators are reported through various methods. NARUC discloses this data through annual and quarterly reports to funding organizations (e.g., the Enhancing Sustainable Utility Regulation Annual and Quarterly Reports), quarterly indicator charts for each partnerships, portfolio reviews, data collection tools, and performance targets for the next fiscal year.

## APPENDIX I - ACTIVITY SUMMARY

### Serbia Regulatory Partnership

#### First AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership

*Belgrade, Serbia, October 29 – November 2, 2007*

During their inaugural exchange, the partnering agencies – AERS and the PA PUC - learned about their respective institutional frameworks and operations and developed a work plan in which they identified major areas of information-sharing and exchange of relevant regulatory experience. From the very beginning, the Serbian regulators expressed a strong desire to learn about advanced regulatory issues and share their experience in transitioning to market-based practices. The introductory exchange focused briefly on institutional issues, but quickly transitioned to feature more complex issues and challenges, including price regulation and tariff setting in the electricity and natural gas sectors, regional electricity markets, quality of supply, electricity sector restructuring and network unbundling, regulatory and industry practices in reducing losses, accounting systems, monitoring, and service quality. The Pennsylvania regulators were acquainted with the Southeast European regional institutional arrangements, and the Serbian partners discussed challenges including cross-border capacity issues, transmission network upgrades, and market monitoring.

#### NARUC Utility Rate School

*San Diego, CA, May 11-16, 2008*

Two AERS staff members participated in NARUC's Utility Rate School, which covers the fundamentals of utility ratemaking with faculty members from state public utility commissions, utility companies, and the legal, consulting, and academic communities. Key issues that are typically covered include the fundamentals of establishing revenue requirements and rate setting by working on mock utility rate cases.

#### Internship at the PA PUC-Pennsylvania

*Harrisburg, PA, May 19-23, 2008*

USAID/NARUC funded two AERS staff members to participate in a week-long internship at the PA PUC. The internship focused on price regulations for distribution companies, chart of accounts and also discussed rate case simulation for a distribution company.

#### Second AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership

*Harrisburg, PA, and Washington, DC, March 31 - April 4, 2008*

This partnership activity focused on commercial, technical, and monitoring considerations in cross-border trade; electricity market structure, development and services; market monitoring and mitigation; regional market development; transmission capacity allocation; supply quality, contracts and settlements procedures; transmission system adequacy; supplier of last resort, and other relevant issues. The AERS participants outlined various regulatory approaches to market monitoring in Serbia and the broader Southeast Europe region. Participants then debated practical approaches and constraints facing regulators in conducting transparent market monitoring. Participants met with the PJM representatives who spent considerable time discussing various aspects of the regional RTO process, including the market characteristics and performance; membership, governance and the stakeholder process; load forecasting; balancing market; ancillary services market; real-time and day-ahead market operations; settlements and transactions; and the interface with other markets, regulatory institutions, and reliability councils. They also met with the USAID and NARUC representatives and discussed recent energy sector and regulatory developments in Serbia and AERS, critical issues for implementation in compliance with the ECSEE Treaty provisions, and overall benefits of the NARUC Regulatory Partnership for improving AERS, as well as practices and understanding of market-based regulations.

#### Southeast Europe Uniform System of Accounts Workshop

*Bucharest, Romania, May 20-21, 2008*

This workshop was co-hosted by ANRE, the Romanian energy regulator and facilitated by Pierce Atwood. Regulators and/or utility representatives from Albania, Bosnia and Herzegovina, Croatia, Georgia, Hungary (as an observer), Kosovo, Macedonia, Romania, Serbia, and Ukraine participated. Substantive issues that were covered in the workshop included: asset valuation, treatment of O&M costs, allocation of costs between regulated and non-regulated activities, disallowances, new construction, and supply costs. Also, the workshop focused a great deal on benchmarking, and openly discussed opportunities for comparing methods and data among jurisdictions.

#### Third AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership

*Belgrade, Serbia, September 15-19, 2008*

This partnership activity focused mostly on the natural gas sector in Serbia, including gas storage, market development, price regulation, connections to the network, development of a transmission grid code, and a gas rate case. Additionally, presentations also addressed renewable energy, protecting vulnerable customers, and market monitoring. The activity accomplished the following:

- Consultative sessions began to address specific problems in a very direct manner
- Numerous documents were shared to assist AERS in the preparation of a technical code for the gas market
- Rate case discussions helped AERS in their preparation of natural gas tariff methodologies
- Discussion on vulnerable customer issues helped AERS participate in the Serbian working group to develop a social action plan

## **ERRA organized the Legal Regulation Working Group Meeting**

*Sofia, Bulgaria, November 6-7, 2008*

The Working Group Meeting was co-hosted by the State Energy and Water Regulatory Commission of Bulgaria (SEWRC). The following ERRA member countries sent representatives to the meeting: Abu Dhabi, Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Hungary, Italy, Kazakhstan, Latvia, Lithuania, Moldova, Montenegro, Poland, Serbia, Turkey, Ukraine, UNMIK, USA (NARUC, under funding from USAID).

## **ERRA Tariff/Pricing and Licensing/Competition Committees meetings**

*Bratislava, Slovakia, January 26-27, 2009*

ERRA organized the joint ERRA Tariff/Pricing and Licensing/Competition Committees meetings on in Bratislava, Slovakia. The meetings were co-hosted by the Regulated Office of Network Industries (RONI) and self-financed by ERRA and its members. ERRA Members from the following countries were present on the meetings: Albania; Bosnia & Herzegovina; Croatia; Estonia; Hungary; Latvia; Lithuania; Macedonia; Romania; Russia; Serbia; Slovakia; Turkey; Kosovo. Apart from the ERRA Member representatives there were delegates from Regional Centre for Energy Policy Research (REKK), Hungary; from the AEEG, Italy and from the Energy Center Bratislava, Slovakia.

## **Fourth AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership**

*Harrisburg, PA, and Washington, DC, on September 14-18, 2009*

The fourth partnership activity focused exclusively on natural gas sector development in Serbia, including discussions and analyses of issues in gas storage, market development, price regulations, connections to the network, technical codes, balancing provisions, and simulating a natural gas price review/rate case with quantitative outcomes. The AERS team prepared detailed terms of reference prior to the meetings with the expectation to revise their regulations and technical codes with the information acquired during the technical meetings.

## **Annual Western Utility Rate School**

*November 2009*

USAID/NARUC sponsored two staff members from the AERS in its Annual Western Utility Rate School. Participants worked in teams to learn the fundamentals of utility ratemaking through establishing revenue requirements and setting rates by working through a hypothetical “mock” water utility rate case. A working group within the Serbian agency, consisting of the partnership delegates, prepared a detailed report on the outputs for their initial terms of reference. The Serbian regulators were able to gather relevant information and experience to prepare for their third internal natural gas regulatory tariff review.

## **Fifth AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership**

*Belgrade, Serbia, August 30-September 3, 2010*

During the fifth partnership exchange, the partners discussed in detail AERS’s pricing regulations for the electric distribution sector and various improvements in AERS’ internal procedures to conduct effective price reviews. This work involved analyzing a mock rate case and reviewing the overall pricing regulatory framework to achieve desirable economic goals, as proposed in the terms of reference submitted to the Pennsylvania Public Utility Commission (PA PUC). Mr. Kirk House, Lead Counsel led the 5-member Pennsylvania delegation. This exchange had the format of an organizational assessment; the partners engaged in detailed discussions rather than using formal PPT presentations.

## **Sixth AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership**

*Harrisburg, PA, on October 25-29, 2010*

The sixth partnership exchange between the AERS and PA PUC covered service quality monitoring and regulation through specific issues, namely reliability data registration and indices, EDC inspection and maintenance standards, performance standards and benchmarking, financial incentives, and emergency procedures. The delegation had a site visit to Metropolitan Edison Company of the FirstEnergy Corporation where Reliability Standards & Reliability Performance, Reliability Improvement Initiatives, FirstEnergy Storm Restoration Process, York Smart Grid Project were addressed. Also, basics on smart grid, smart metering implementation, system technologies, actors and their responsibilities in smart metering, demand-side management and demand response issues were discussed. Representatives from utility companies PPL and PECO shared their experience on EDC activities in smart grid/metering deployment. In addition, the AERS team visited the PA PUC Bureau of consumer services and the call center.

## **NARUC Utility Rate School**

*Clearwater, Florida, November 1-5, 2010*

Two AERS staff members participated in NARUC’s Utility Rate School, which covers the fundamentals of utility ratemaking with faculty members from state public utility commissions, utility companies, and the legal, consulting, and academic communities. Key issues that are typically covered include the fundamentals of establishing revenue requirements and rate setting by working on mock utility rate cases.

## **Seventh AERS-Serbia/PA PUC-Pennsylvania Energy Regulatory Partnership**

*Belgrade, Serbia, May 4-6, 2011*

The activity focused on natural gas quality of supply issues. Partners also evaluated the established regulatory synergies between both agencies, transfer of experience, and the benefits of the NARUC partnership program to the Serbian agency.

## APPENDIX II – INDICATORS TABLE

	Total	FY12-FY17	FY11	FY10	FY09	FY08	FY07
	Partnership	Partnership	Partnership	Partnership	Partnership	Partnership	Partnership
Indicator 1a - Number of laws, policies, strategies, plans, agreements, or regulations, addressing climate change (mitigation or adaptation) and/or biodiversity conservation officially adopted or implemented as a result of USG assistance	1	0	1	0	0	0	0
Indicator 1b - Number of laws, policies, strategies, plans, agreements, or regulations, addressing climate change (mitigation or adaptation) and/or biodiversity conservation officially proposed as a result of USG assistance	0	0	0	0	0	0	0
Indicator 1 - 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	1	0	1	0	0	0	0
Indicator 2a - Number of climate mitigation tools, technologies and methodologies tested and/or adopted as a result of USG assistance (e.g., model updates, reports, analyses, software, principles documents, MRV questionnaires)	0	0	0	0	0	0	0
Indicator 2b - Number of climate mitigation tools, technologies and methodologies developed (or drafted) as a result of USG assistance (e.g., model updates, reports, analyses, software, principles documents, MRV questionnaires)	0	0	0	0	0	0	0
Indicator 2 - Number of climate mitigation tools, technologies and methodologies developed (or drafted), tested, and/or adopted as a result of USG assistance (e.g., model updates, reports, analyses, software, principles documents, MRV questionnaires)	0	0	0	0	0	0	0
Indicator 3 - Number of policy reforms/ regulations/ administrative procedures drafted and presented for public/stakeholder consultation to enhance energy sector governance and/or facilitate private sector participation and competitive markets as a result of USG assistance	2	0	2	0	0	0	0
Indicator 4 - Number of policy reforms/ regulations/ administrative procedures adopted or implemented to enhance energy sector governance and/or facilitate private sector participation and competitive markets as a result of USG assistance	18	2	14	0	0	1	1
Indicator 5 - Number of institutions with improved capacity to address climate change issues as a result of USG assistance (e.g., DSO's and TSO's, ministries and statistical agencies [including those participating in interministerial LEADS groups], regulat	1	0	1	0	0	1	0
Indicator 6 - Number of energy agencies, regulatory bodies, utilities and civil society organizations undertaking capacity strengthening as a result of USG assistance	1	0	1	1	1	1	1
Indicator 7 - Number of people receiving training in climate change supported by USG assistance	14	0	5	0	0	9	0
	10	4	0	0	4	1	0
	4	0	4	1	0	0	0
Indicator 8 - Number of person hours of training completed in climate change as a result of USG assistance	112	0	40	0	0	72	0
	80	32	0	0	32	8	0
	32	8	0	0	0	0	0
	48	24	0	0	0	0	0
Indicator 9 - Number of people receiving USG supported training in energy related policy and regulatory practices	92	0	21	17	4	27	0
	54	38	0	0	13	8	9
	8	9	8	2	2	18	9
	12	11					
Indicator 10 - Person hours of training completed in USG supported training in energy related policy and regulatory practices	2616	0	544	464	160	800	648
	1384	1232	0	0	368	176	200
	264	80	80	448	352	288	360
Indicator 11 - Number of people receiving training in technical energy fields supported by USG assistance	92	0	21	17	4	27	23
	54	38	0	0	13	8	9
	8	9	8	2	2	18	9
	12	11					
Indicator 12 - Person hours of training completed in technical energy fields supported by USG assistance	2616	0	544	464	160	800	648
	1384	1232	0	0	368	176	200
	264	80	80	448	352	288	360