



National
Association of
Regulatory
Utility
Commissioners



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National Association of Regulatory Utility Commissioners' Energy Regulatory Partnership Program

**The Energy Agency of the Republic of Serbia
and
The Pennsylvania Public Utility Commission**
www.narucpartnerships.org

Second Partnership Activity: “Building bridges from Serbia to Pennsylvania”

FINAL AGENDA
(March 18, 2008)

Sponsored by:
U.S. Agency for International Development (USAID) and
National Association of Regulatory Utility Commissioners (NARUC)

Pennsylvania Public Utility Commission (PA PUC)

And

Energy Agency of the Republic of Serbia (AERS)

March 31 – April 4, 2008
Harrisburg and Norristown, Pennsylvania
Washington, DC

List of Participants

Serbia

Energy Agency of the Republic of Serbia
<http://www.aers.org.yu> (Serbian and English)

<http://www.erranet.org/AboutUs/Members/Profiles/Serbia>

Mr. Nikola Radovanović, Senior Legal Expert
Mr. Nenad Stefanović, Senior Expert for Electricity
Ms. Dijana Unković, Senior Expert for Economics and Finance
Ms. Ivana Spasić, Legal expert
Ms. Jasmina Trhulj, Senior Expert for Electricity

United States

Pennsylvania Public Utility Commission
<http://www.puc.state.pa.us>

Honorable Wendell F. Holland, Chairman
Mr. John Levin, Assistant Counsel 4
Mr. Darren Gill, Utility Energy & Conservation Analyst Supervisor
Mr. Shane Rooney, Attorney 4, Energy Advisor to Commissioner Pizzigrilli
Mr. Kirk House, Attorney 4
Mr. Robert Young, Deputy Chief Counsel
Mr. Thomas Maher, Rate Case Review Specialist

Pennsylvania Office of Consumer Advocate

<http://www.oca.state.pa.us>

Mr. Irwin (Sonny) Popowsky, Consumer Advocate

Organization of PJM States, Inc.

<http://www.opsi.us>

Mr. Rajnish Barua, Executive Director

PPL Electric Utilities

<http://www.pplelectric.com>

Mr. Doug Myers, Supervisor of Transmission and Distribution Systems

PECO Electric

<http://www.exeloncorp.com>

Mr. John McCawley, Director of Energy Acquisition

Electric Power Generation Association

<http://www.epga.org>

Mr. Douglas L. Biden, President

PJM Interconnection, LLC

<http://www.pjm.com>

Mr. Greg Krajnik, Client Manager,
Members Relations

Mr. Kenneth Laughlin, PJM Consultant and
Former Vice President

Federal Energy Regulatory Commission

<http://www.ferc.gov>

Mr. Keith Collins, Electric Group Manager,
Energy Market Oversight Division

US Department of Energy

<http://www.doe.gov>

Mr. Anthony J. Como, Director, Permitting
and Siting, Office of Electricity
Delivery and Energy Reliability

**National Association of Regulatory Utility
Commissioners (NARUC)**

<http://www.naruc.org>

<http://www.narucpartnerships.org>

Ms. Martina Schwartz, Manager of International
Programs (Mobile: 1-571-275-0323)

Mr. Matt Gardner, Program Officer,
International Programs

Objective

This is the second exchange in a series of partnership activities designed as a vehicle for the exchange of experience and information between AERS and Pennsylvania PUC with the goal of improving regulatory practices, capacity-building measures, and fostering sustainable relationships between the two partnering institutions. The purpose of these synergies is to create a framework through which a specific U.S. public utility commission works with an individual energy regulatory authority in developing its institutional and technical capacities in market-based regulation. This partnership activity will focus 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.

AERS and PA PUC Partnership
March 31 – April 4, 2008
Harrisburg and Norristown, Pennsylvania
Washington, DC

Program Agenda

Saturday, March 29

19:30 AERS and NARUC Representatives arrive in Harrisburg, PA

Flight information: UA 9191 Belgrade – Frankfurt; 07:10 - 09:25
UA 9198 Frankfurt – Philadelphia; 13:05 – 17:05
Shuttle transfer from Philadelphia to Harrisburg by Unique Limousine

Transfer to hotel:
Crowne Plaza Hotel
23 S Second Street
Harrisburg, PA 17101
Tel: +1-717-234 5021
Fax: +1-717-234 6797
<http://www.ichotelsgroup.com/h/d/cp/1/en/hotel/MDTDT/at-a-glance>

Free evening

Sunday, March 30

Breakfast at hotel

Individual or group activities and acclimation
Group lunch

Free evening

Monday, March 31

Breakfast at hotel

**Sessions on cross-border trade mechanisms, commercial transactions, monitoring,
security of supply**

08:30 Participants depart hotel lobby, transfer to PA PUC
(400 North Street, Commonwealth Keystone Building, Tel: 717-787 5722)

09:00 **Welcome Remarks**
Chairman Wendell F. Holland, PA PUC
Mr. Nikola Radovanović, Senior Legal Expert, AERS

Introductions of AERS and PA PUC Commissioners and staff

09:30

Assessing network charges in cross-border trade

Mr. John Levin, Assistant Counsel 4, PA PUC

Mr. Rajnish Barua, Executive Director, OPSI

- Technical and commercial facilitation of cross-border (intra- and inter-PJM) electricity trade
- Stakeholder and governance process
- Benefits of cross-border trade for supply opportunities
- Practical rules for non-discriminatory and transparent access to the network
- Cost-reflectiveness of network charges
- System of tariffication
- Transmission network cost recovery
- Process for establishing regulatory charges, network charges and commercial transactions
- Extra costs (congestion, losses, investment) associated with CBT
- Schematics of inter-TSO/RTO payments (PJM, NY ISO, MISO)
- Methodology of calculating CBT costs and transmission capacity allocation
- Information exchange mechanisms

10:45

Coffee break

11:00

Southeast European internal market and approaches to cross-border trade

Mr. Nenad Stefanović, Senior Expert for Electricity, AERS

- Overview of SEE market development and competition
- Status of cross-border interconnections in SEE
- Process of cross-border trade harmonization
- Capacity expansion through competition v. historical contracts
- Information transparency and exchange mechanisms
- Capacity allocation and congestion management
- Cooperation among system operators
- Cross-border trade mechanism (EU 1228/2003)
 - Inter-TSO compensation fund
 - National grid tariffs
 - Harmonized methodology
 - Determination of stranded costs
- Challenges (governance, capacity, transparency, monitoring)

12:00

Group lunch

13:15

Monitoring cross-border transactions

Mr. Rajnish Barua, Executive Director, OPSI

- Objectives
- Data requirements, availability of technical and operational data

- Information disclosure and confidentiality
- Monitoring prices, volume and conduct of participants
- Practical approaches to effective monitoring process
- Challenges and lessons going forward

14:00 **Roundtable discussion on key monitoring issues and steps to strengthen regulatory enforcement capacity**

(Lead discussants from each Commission should think about a priority list of issues and approaches based on morning presentations)

14:30 **Security of supply I: Generation adequacy in Serbia and SEE**

Mr. Nenad Stefanović, Senior Expert for Electricity, AERS

Mr. Nikola Radovanović, Senior Legal Expert, AERS

- Objectives and overview of power system planning in Serbia and SEE
- Compliance with EU legislation
- Forecasting electricity demand (annual, varying, peak)
- Capacity mechanisms to stabilize the generation volumes
- Power production capacity reporting by generators, interface with the transmission grid
- Generation plant availability (scheduled maintenance, forced outages)
 - Basic modeling approaches
 - Special modeling for variable (wind) generation
 - Process of commissioning new generation capacity

15:15 Coffee break

15:30 **Security of supply I: Generation adequacy in Pennsylvania and PJM region**

Mr. Douglas L. Biden, President, Electric Power Generation Association

Mr. Darren Gill, Utility Energy & Conservation Analyst Supervisor, PA PUC

- Objectives and overview of power system planning in Pennsylvania and PJM
- Relevant federal and state legislation
- Capacity mechanisms to stabilize the generation volumes
- Power production capacity reporting by generators, interface with the transmission grid
- Loss of load expectation (LOLE) in PA and PJM markets
 - Methodology for calculating LOLE and accepted standards
- Generation plant availability (scheduled maintenance, forced outages)
 - Basic modeling approaches
 - Special modeling for variable (wind) generation
 - Process of commissioning new generation capacity
 - Incentivizing investment in new generation (capacity tickets)
- Demand forecasting (annual, varying, peak); reserve margins
- Conducting adequacy assessments
- Strategic measures to cover the forecasted demand

- Impact of locational pricing and environmental issues on generation adequacy

16:30 **Discussion on day themes**
Roundtable discussion

17:00 Adjourn

Welcoming dinner (Time and venue TBD)

Tuesday, April 1

Breakfast at hotel

Sessions on security and quality of supply (cont'd), universal service obligations, electricity market design and services

08:30 Participants depart hotel lobby, transfer to PA PUC

09:00 **Security of Supply II: Electric transmission system reliability**

Ms. Jasmina Trhulj, Senior Expert for Electricity, AERS

Ms. Ivana Spasić, Legal Expert, AERS

- Overview, characteristics and performance of the bulk transmission power system in Serbia
- Rules to ensure reliable power grid operation
- Reliability institutions
- Role of AERS in ensuring transmission system adequacy
- Compliance with reliability policies and standards
- Resolution of disputes
- Reliability system cost recovery and distribution
- Transmission system planning and siting (investment and research)

09:45 **Security of Supply II: Electric transmission system reliability**

Mr. John Levin, Assistant Counsel 4, PA PUC

Mr. Darren Gill, Utility Energy & Conservation Analyst Supervisor, PA PUC

Mr. Doug Myers, PPL, Supervisor of Transmission and Distribution Systems

- Overview, characteristics and performance of the bulk transmission power system in Pennsylvania and PJM
- Federal and state reliability legislation
- Authority for reliability oversight
- Rules to ensure reliable power grid operation
- Reliability Institutions
 - Reliability Councils
 - FERC
 - DOE
 - System operators (PJM)
- Role of PA PUC in ensuring transmission system adequacy

- Compliance with reliability policies and standards
- Resolution of disputes
- Reliability system cost recovery and distribution
- Transmission system planning and siting (investment and research)
- National Transmission Grid and Congestion Studies

10:45 Coffee break

11:00 **Supplier of last resort**

Mr. Shane Rooney, Attorney 4, Energy Advisor to Commissioner Pizingrilli, PA PUC

Mr. Kirk House, Attorney 4, PA PUC

Mr. Thomas Maher, Rate Case Review Specialist, PA PUC

- Statutory framework in Pennsylvania
- Understanding the functions of a default supplier
- Constructing an SOLR model
- Utility obligations to serve
- Competitive wholesale supply procurement methodology
- ‘Standard offer’ and other price determinations (reference price, allowed revenues, cost allocation, profit margins)
- Funding mechanisms (cross-subsidies, voluntary, etc.)
- Regulatory oversight of SOLR in vertically-bundled and deregulated markets
- Social policy considerations (price scrutiny v. price protection)
- Switching from default supplier to competitive supplier (contractual, financial and other considerations)
- Metering and billing
- SOLR case studies and lessons learned from Pennsylvania’s market restructuring (Commission settlement agreements regarding standard offer service)

12:00 **Universal energy service obligations in Serbia**

Ms. Dijana Unković, Senior Expert for Economics and Finance, AERS

Mr. Nikola Radovanović, Senior Legal Expert, AERS

- Implementation of public service obligations in Serbia’s and EU energy legislation
- The Electricity directive (2003/54/EC) and the provision of electricity
- Funding and compensation mechanisms
- Universal services under market opening
- Combining regulated and competitive prices with public service obligations
- ‘Standard offer’ and other price determinations (reference price, allowed revenues, cost allocation, profit margins)
- Other regulations and price policies to protect vulnerable customers

12:45 Group lunch

14:15 **Electricity market in Pennsylvania**

Mr. Shane Rooney, Attorney 4, Energy Advisor to Commissioner Pizingrilli, PA PUC

Mr. Kirk House, Attorney 4, PA PUC

Mr. Robert Young, Deputy Chief Counsel, PA PUC

- Electricity restructuring act and legal framework
- Market design outcome and structure
- Market participants and market facilitators
- System operations under competitive markets
- Market services and products
- Performance of retail competition programs
- Balancing market (rules, responsibilities, treatment of debalances)
- Ancillary services, contingency reserves (supplemental and spinning reserves)
- Reliability in monopoly v. competitive regime
- Sources of efficiency gains resulting from re-structuring

15:30 **Roundtable discussion on electricity market issues and challenges in designing a competitive market with affordable prices and reliable service**

- How regulators adapt to competitive markets

16:30 Adjourn

Free evening

Wednesday, April 2

Breakfast at hotel

Sessions on market monitoring, supply chain contracts and settlements

08:30 Participants depart hotel lobby, transfer to PA PUC

09:00 **Regulatory role and approaches to market monitoring in Serbia**

Ms. Jasmina Trhulj, Senior Expert for Electricity, AERS

Ms. Ivana Spasić, Legal Expert, AERS

- Legal framework and AERS authority
- Performing the monitoring function: agent, components, processes and outcomes
- Standard monitoring v. mitigation (market surveillance, deterrent actions to prevent market abuse)
- Reporting requirements (internal vs. external, software, data flow, contingency plans)
- Governance process among the regulatory agency and market participants
- Practical approaches and constraints facing AERS in conducting transparent market monitoring

10:15 Coffee break

10:30 **Monitoring competitive markets in Pennsylvania**

Mr. John Levin, Assistant Counsel 4, PA PUC

Mr. John Miller, Utility Energy & Conservation Analyst 3, PA PUC

Mr. Irwin (Sonny) Popowsky, Consumer Advocate, PA Office of Consumer Advocate

- Role of the State Commissions and FERC
- Technical and commercial considerations in conducting monitoring and mitigation processes
- Functions of the market monitor (market surveillance v. mitigation, efficiency improvements, market power abuse, periodic analyses of collected data)
- Real-time market monitoring (data, economic withholding through raised bids)
- Day-ahead market monitoring
- Market reports
- Complaint process and dispute resolution

12:00 Lunch break

13:30 **Contracts in supply chain and procedures for settlement**

Mr. John McCawley, Director of Energy Acquisition, Philadelphia Electric Company

- Integrated Electric Power Supply Chain and Fuel Market Network Framework
- Economic network transactions in energy supply chains
- Physical network transmission constraints in the electric power network
- The PJM electric power supply chain
- Procurement of energy, commercial flows

14:30 **Discussion of Partnership week, Work plan, Future activities and training opportunities**

15:30 Partnership meetings end in Harrisburg

Farewell dinner (Time and Venue TBD)

Thursday, April 3

Breakfast at hotel

Participants check out of hotel

07:30 Transfer to King of Prussia or Philadelphia, PA

Free time

11:15 Transfer to PJM, Norristown, PA
(955 Jefferson Ave., Valley Forge Corporate Center, Norristown, PA 19403)

Site visit and discussions at PJM Interconnections, LLC
(Coffee breaks and lunch will be provided)

12:00 **Pennsylvania-New Jersey-Maryland (PJM) Interconnection, LLC**

PJM Interconnection is a regional transmission organization (RTO) that plays a vital role in the U.S. electric system. PJM ensures the reliability of the largest centrally dispatched control area in North America by coordinating the movement of electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. PJM, acting neutrally and independently, operates the largest competitive wholesale electricity market in the world. PJM manages a sophisticated regional planning process for generation and transmission expansion to assure future electric reliability. PJM facilitates a collaborative stakeholder process. Stakeholders include participants that produce, buy, sell, move and regulate electricity.

<http://www.pjm.org>

Presenters: *Mr. Greg Krajnik, Client Manager, Members Relations*
Mr. Kenneth Laughlin, PJM Consultant and former Vice President

(Presentation packets available on site)

- Overview of the PJM Regional Electricity Market (Market profile: size, participants and facilitators, load, structure, products, services)
- Organization, Staffing, Functions
- Membership and Governance
- Market services and products
- Trading Rules and the Power Pool
- Load Forecasting
- Balancing market
- Transmission constraints control
- Ancillary services market
- Real-time market operations (dispatch, control, emergency)
- Day-ahead market
- Market settlements and transactions
- Transmission Pricing, Capacity allocation and Planning
 - Mechanism for capacity allocation
 - Physical and financial capacity rights
 - Price determination
 - Distribution of congestion revenues within RTO
 - Monitoring
- Contracting Issues
- Relationship between regulators and ISO; Relationship with FERC
- Reliability in Competitive Markets
- Security of Supply
- Operational planning
- Q&A; Discussion

15:30

Adjourn

16:00 Shuttle pick-up for travel to Washington, DC

Check-in at Residence Inn by Marriott

1199 Vermont Avenue, NW

Washington, DC 20005

Tel: 202-898 1100

<http://www.marriott.com/hotels/travel/wasdc-residence-inn-washington-dc-vermont-avenue/>

Free evening

Friday, April 4

Breakfast at hotel

Sessions on US federal regulatory framework and practices; market monitoring and oversight; US and Southeast European energy sector issues

08:00 Participants depart hotel lobby, transfer to the Federal Energy Regulatory Commission (FERC)

08:30 Meeting with Representatives of the Energy Market Oversight Division, FERC (888 First Street, N.E., 5th Floor, Washington, DC 20426; www.ferc.gov)

(Presentation packets available on site)

Escort: *Ms. Sarah McKinley, State Relations, Office of External Affairs*

Presenter: *Mr. Keith Collins, Electric Group Manager, Energy Market Oversight Division*

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects.

1. History of the agency
2. Objectives
3. Staffing at the agency

Energy Market Oversight Division

4. Oversight and authorities (data collection, auditing)
5. Daily activities
6. Reporting (frequency and content)
7. Tracking of regional electricity market activities
8. Market monitoring v. mitigation

10:30 Transfer to NARUC

Meet NARUC staff

12:00 Lunch and Discussions with Representatives of the National Association of Regulatory Utility Commissioners (NARUC) and the United States Agency for International Development (USAID)
NARUC representatives
USAID representatives (confirmed):
Robert Ichord, Chief, Energy & Infrastructure, Europe and Eurasia
Robert Archer, Deputy Chief, Energy & Infrastructure, Europe and Eurasia
Special guest: Branko Terzic, Energy and Resources Group Regulatory Policy Leader, Deloitte Services LP

Venue: NARUC offices
(1101 Vermont Avenue, NW, Suite 200, Washington, DC 20005; www.naruc.org)

- Recent energy sector and regulatory developments in Serbia and AERS
- Critical issues for implementation in compliance with the Energy Community Treaty provisions
- Regional issues
- Benefits of Regulatory Partnership for improving AERS' practices and understanding of market-based regulations
- Other issues of interest and importance

14:00 Coffee break

14:30 Discussions with US Department of Energy (www.energy.gov), Office of Electricity Delivery & Energy Reliability (Permitting, Siting and Analysis Division)

The US Department of Energy's overarching mission is to advance the national, economic, and energy security of the United States.

Venue: NARUC offices
Presenter: *Mr. Anthony J. Como, Director, Permitting and Siting, Office of Electricity Delivery and Energy Reliability*

Discussion topics:

- Role of OE in regional and state planning, identification of bottlenecks
- Authorization of international transmission facilities and exports of electricity
- Coordination of activities with national, regional, state and local organizations and utilities (FERC, PUCs, etc.)
- Activities on promoting competition in electric power sector

15:30 End of partnership meetings

Free afternoon and evening

Saturday, April 5

Breakfast at hotel

Check-out of hotel by 12:00 noon (luggage may be stored in hotel storage facility)

Free morning and afternoon (Cultural activities in Washington, DC)

15:00 Transfer to Dulles International Airport by organized shuttle from Residence Inn by Marriott

17:48 Departures of PA PUC to Belgrade
(United Airlines #902; Washington Dulles – Munich; 17:48 – 08:00 April 6)