EU-US Energy Regulators Roundtable



ERRA's Role in Regional Market Building

dr. Gábor Szörényi Chairman of ERRA

Athens, 5 December, 2007

<u>Agenda</u>



- I. ERRA objectives, members, activities
- II. Knowledge transfer (especially training)
- III. Market Integration aspects of ERRA members

I. ERRA objectives, members, activities What is ERRA:



Voluntary, not-for-profit organization of independent energy regulatory bodies of the Central Eastern Europe, South East Europe and the Commonwealth of Independent States. Growing interest from some emerging economies (Jordan, United Arab Emirates)

The different legal/regulatory framework of Members and the lack of common rules (directives) are major differences from other organisations, like CEER and NARUC (where the transmission and wholesale rules are common)

ERRA has NO common POLICY MAKING power.

I. ERRA objectives, members, activities Objectives:



- ➤ To improve national energy regulation in member countries and foster development of stable energy regulators with autonomy and authority → stable investment climate
- ➤ To improve cooperation among Energy Regulators and facilitate the exchange of information, research, training and experience among members and other regulators around the world → harmonized regulatory framework → more chance for regional market building

I. ERRA objectives, members, activities ERRA Members:



Currently23 Full Members:

Albania, Armenia, Azerbaijan, Bosnia & Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Mongolia, Montenegro, Poland, Romania, Russia, Serbia, Turkey, Ukraine

3 Associate Members:

National Regulatory Authority for Municipal Services (Romania), IAREC Russia, UNMIK Kosovo

3 Affiliate Members:

Electricity Regulatory Commission of Jordan, Committee of Competition Protection of Ministry of Industry and Trade of the Republic of Kazakhstan, NARUC (USA) ERRA Members - Map





Milestones in ERRA's history:

- 1998 Cooperative platform started by the participation of 12 "later" ERRA members
- 2000 Established in Bucharest by 15 members
- 2001 Legally registered in Budapest
- 10 new Full, 4 new Associate and 2 new Affiliate Members since 2000
- 2002 1st Energy Regulation and Investment Conference
- 2003 1st Training Program
- 2006 1st E-learning Training Program

I. ERRA objectives, members, activities Today's main activities:



- Presidium Meetings
- Standing Committees with detailed work plan and deliverables:
 - Licensing/Competition Committee
 - Tariff/Pricing Committee
 - Legal Regulation Working Group
- Deliverables: discussion papers, case studies, issue papers
- Annual Meeting, General Assembly sessions
- Energy Regulation & Investment Conference (since 2001)
- Technical Exchange Programs (22)
- Peer Reviews
- Website
- Tariff Database
- Newsletter
- Training programs

All activities are conducted in English and Russian languages.

II. Knowledge transferTraining – Introductory Courses



Introduction to Energy Regulation



www.ERRAnet.org

Training – tailor made courses

- General courses for young staff with matured modules
- Case studies introduce solution for newly established regulatory bodies and for regulating emerging energy markets
- Courses for new commissioners
- Courses for practicing regulators in special issues
- E-learning trainings in two languages
- On 28 training events the trained students in five years: 560 participants
 - 405 ERRA regulatory staff members
 - 27 Commissioners
 - 127 Non-ERRA participants (regulators, industry experts)





- Monitoring Activities of Energy Regulatory Commissions
- Price Regulation and Tariffs
- Regulatory Information and Public Participation
- Electricity Markets
- Gas Course (being developed)



Training- for New Commissioners

- This 3-day course allows <u>newly appointed</u> energy <u>regulatory executives</u> to engage in <u>discussions</u> and seek <u>guidance</u> on issues of energy sector regulation from the experienced peers as they assume their new regulatory functions.
- The program <u>combines</u> "classic" regulation under the vertically integrated industry structure with the up-to-date issue of regulation in developing a competitive industry environment. The course is only available to energy regulators.

Already 3 courses
Next Course: June 16-18, 2008
Budapest, Hungary

Programs to Non-Members and cooperation in training



- Trainings for non-members (non-regulators)
- EU Commission ordered and financed training program for government officials on energy regulation (INOGATE program) in Ukraine
- Energy Regulation and Investment Conference
- Website Library

Readiness to cooperate with FSR and ECRB on tailored training programs especially for experts of newly established regulatory bodies and those who regulate emerging markets



Our intangible achievements

- Strong commitment of member organizations
- Members' appreciation for ERRA's well-targeted activities
- Daily working relationship with:
 NARUC, CEER and individual CEER members
 (possibility to introduce different European and American regulatory practices comparing with daily practice of member organizations on all committee meetings)
- Occasional working relationship with other international organizations: Eurelectric, the World Bank, IEA, EFET, Euroheat, EBRD etc.

III. Market Integration - aspects of ERRA members Situation:



Some special <u>characteristics</u> of ERRA members energy markets:

- Wide variety of market size:
 - Very small markets (3-10 TWh/year) like: Baltic countries, some SEE countries, Armenia, Georgia, Moldova
 - Small markets (30-50 TWh/year) like: CEE countries, Kazakhstan
 - Medium markets (100-200 TWh/year) like: Poland, Ukraine, Turkey
 - Large market (400- TWh/year): Russia
- Market dominance by former state owned vertically integrated incumbent, no balanced market structure, no efficient, liquid wholesale market in most of the cases

III. Market Integration - aspects of ERRA members Situation:



Some special <u>characteristics</u> of ERRA members energy markets (cont.):

- Some elements of Good TPA Practice is missing in most of the cases:
 - Transparent, detailed TPA rules
 - Non-discriminatory rules on cross border trade
- Different market structures:
 - No indicative wholesale energy market price signals (hinder new generation investment)
 - Very limited liquid PXs
- Technical constraints:
 - Non-synchronous operation of different markets
 - Lack of cross border capacity at some borders

III. Market Integration - aspects of ERRA members Situation:



Some special <u>characteristics</u> of ERRA members energy markets (cont.):

- Security of Supply issues are more and more important on some markets:
 - Lack of adequate reserve capacity
 - Some existing capacities are not reliable
- Regulated end-user price in most cases:
 - Political pressure keeping the end-user price low
 - Regulated end-user price is a cap for the market
 - Administrative pricing (e.g. regulated generation price) in some cases



Some elements could occur simultaneously, like:

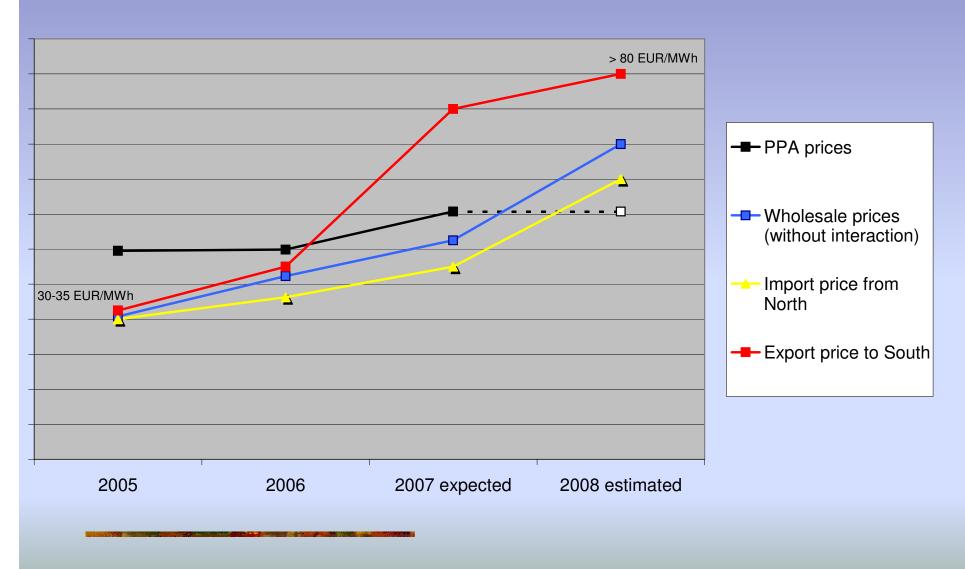
- Capacity shortage on national market
- Low regulated end-user price (much lower than regional free market price)
- No liquid wholesale market (national champion)

Potential <u>actions</u> and <u>reactions</u> in <u>short term</u>:

- Open borders → massive export → SoS problems
- No more regulated energy price →
 - → end-user price increase
 - → monopoly rent at dominant players

Average prices on the Hungarian wholesale market and at the borders







The <u>long term</u> solutions are clear:

- Open borders with transparent allocation rules → increase SoS level on national markets as well as on regional one
- Market based prices (no regulated wholesale and end-user prices deviated from market)
- Stable market conditions (predictable legal, regulatory framework)
- Reduced entry barriers
- New cross border capacities (supported by NRAs)



What to do in between?;

- Very fragile small markets (dry years, strong demand increasing, controlled export)
- Gradual development of market conditions on internal market (step by step approach - as Russia)
- Harmonised licensing, monitoring conditions
- Demand side approach
- Support scheme for new generation
- New cross border capacities (supported by NRAs)



Open questions:

- The EU Directives are very good frameworks for mature market conditions, → but do not give guidance for capacity shortage situation
- The rules of EU Directives (e.g.: unbundling at distribution level, market based /not regulated/ energy prices) obligated for very small national markets (3-5 TWh/years) as well, → but very small national markets can not accommodate more players on wholesale level, competing to each other → dominant player without price control (?)
- The US/FERC regulatory practice (market based pricing instead of regulated price: after passing the competition test) could be good solution for emerging market conditions

III. Market Integration as a solution Important messages:



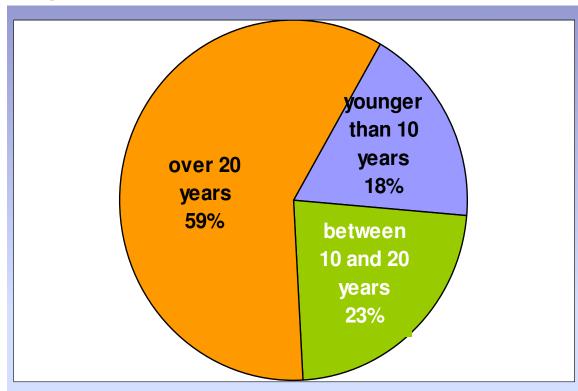
Some results of ERRA Security of Supply study:

- Aged generators → need new investment + stable regulatory framework
- Import dependency → need new generation and cross border investment + stable regulatory framework
- Market concentration on national markets → larger market (regional market building)
- Demand side option could be the short term solution

 → regulatory competence is necessary
- Average generation price (regulated wholesale price) level can not accommodate new generation → less regulation



Age of Generators (2002)



- > Since the capacities are old, neither their availability is good enough.
- Question on breakdowns: too few and incomparable data

Power plants are old in the ERRA countries in general.

Romania, Turkey and Mongolia are the countries where there are more generating capacity younger than 20 years than ones over 20 years. In most of the countries the ratio of the younger capacities compared to total capacities is very low.

Results, conclusions of SoS measurement in 2003



	Market concentration	Reserve margin in 2007	Age of power plants	Investment in generation	DSM	Electricity producer price
Albania	\odot	<u> </u>	(C)		\odot	\odot
Armenia	☺	<u> </u>	②	©	(3)	(3)
Bulgaria	☺		\odot		<u> </u>	
Croatia			<u>;</u>	(*)	<u> </u>	<u> </u>
Czech Republic	:					\odot
Estonia	⊜	©	<u>©</u>			⊜
Georgia						\odot
Hungary	☺	⊘	(()	©	©	\odot
Kazakhstan						\odot
Kyrgyz Republic						\otimes
Latvia	\odot	(2)	(:)		(2)	
Lithuania	☺	©	(:)	©	©	\otimes
Moldova				©	8	\odot
Mongolia	⊜	©	(<u>;</u>)	②	©	\odot
Poland	☺					☺
Romania	☺	<u> </u>	©	©	<u> </u>	<u> </u>
Russia		(*)			©	$_{\odot}$
Slovakia	$\overline{\otimes}$	(3)	②		©	☺
Turkey	:		©		©	☺
Ukraine						$\overline{\otimes}$

ERRA's Role in Regional Market Building

Thank you for your attention!