



Impediments of Building Competitive National/Regional Energy Markets

Regulatory Support to Market Integration

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Agenda and general aspects of introduction


- Specific wholesale market structures and conditions in the market building process – relevant in most of the ERRA countries
- Special effects of the financial and economic crisis in the transient period of market building
- Foreseen international tendencies in wholesale market conditions
- Some result from the ERRA wholesale market monitoring system
- Potential Regulatory actions supporting the national and regional market building



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Market Structure and Market Condition problems hindering efficient market operation

Problems identified

- ERRA market structure analysis
- ERRA wholesale market monitoring system
- European Commission „Report on progress in creating the internal gas and electricity market” SEC(2010)251-Brussels, 11.3.2010


Key Problems


- Concentrated markets
- Lack of investment
- Security of Supply
- Supporting legislative framework
- Market integration
- Price trends, price regulation
- Independence of network operators
- Regulatory power
- Customers' willingness to choose supplier and customer protection



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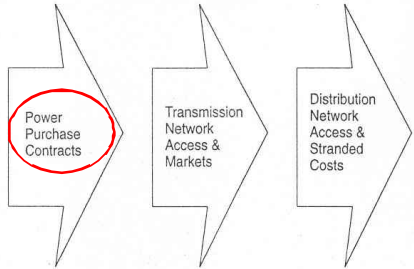


Market Structure and Market Condition problems hindering efficient market operation


Competition and Choice in Electricity

MODEL 1 Monopoly	MODEL 2 Purchasing agent Competition in generation	MODEL 3 Wholesale competition	MODEL 4 Retail competition
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- Government ownership
- Commercialisation
- Corporatisation
- Public corporation
- Privatisation
- Private corporation




The features of transition: competition dimension



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Concentrated Markets

Concentrated (national) markets; less chance for effective wholesale and retail competition
→ solution: creation of regional markets (mitigation of market power), EU internal market

Degree of concentration

Concentration of Electricity Markets
Generation 2007-2008

	Electricity (generation)
Very highly concentrated [HHI above 5000]	BE, FR, EL, LV, LU, SK, CY
Highly concentrated [HHI 1800-5000]	CZ, DE, LT, PT, SI, RO, HU, DK, NO
Moderately concentrated [HHI 750-1800]	FI, PL, UK, ES, IT, NL, AT

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Potential regulatory measures on concentrated developing markets

What to do, when the competition is not efficient enough controlling the wholesale and retail prices?

- US – FERC practice: Competition test
- EU Telecom practice: Significant Market Power (SMP) concept
 - Ex Ante (compared to the Ex Post interaction of Competition Authorities)
 - Market analysis of the different markets (identification of players with significant market power on the relevant markets)
 - Impose Ex Ante obligations (gas release, auctioning capacity, cost based pricing [instead of market based], more transparency)
 - Hungarian SMP procedures as examples in the energy industry


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Lack of investment


Special circumstances which slow down or hinder new investments:


- during the long lasting market building process the regulatory risk and merchant risk is relatively high (no liquid wholesale market with indicative and predictable prices; the financial institutions ask for risk sharing and risk mitigation, which could freeze the market structure),
- the (affordability led) regulated end-user prices could have an effect on wholesale and generation prices, which do not „allow” adequate return on new investment,
- the RAB and the RoR calculated by the Regulator do not always cover the cost of network development (relatively high risk elements and high cost of financing),
- lack of harmonized capacity allocations rules and harmonized regulatory frameworks in most cases (hindering cross border network investments)



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Lack of investment; especially during financial crises


Present position of financial institutions in most „ERRA regions”:


- Limited latitude (freedom) of local private commercial banks (affiliates) – limited availability of funding
- Long Term Debt market has shrunk
- Higher risk sensitivity of banks;
 - Country/political risk of transient economies
 - Regulatory risk of emerging energy markets (market building process)
 - General energy industry related risk elements (CO₂ regulation, fuel prices, SoS, regional market tendencies)
 - Default-risk (long term PPAs with state owned national champions)



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 **Special Effects of Financial and Economic Crisis
in Transient Period of Market Building**

Consequences of new position of financial institutions in most „ERRA regions“:



- Anxious hesitation → Investment programs postponed (newly calculated financial conditions)
- Limited availability of funding → Only the „best“ projects will attract financing
- „Best projects“ mean in financial language;
 - Limited country/political risk: countries with transient economy → higher risk premium
 - Limited regulatory risk: transient period of market building → continuous changes → higher risk
- Shorter lending period + lower leverage → higher equity requirements → strong strategic investors + incumbents could build new projects


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 **Potential regulatory incentives
assisting infrastructure development**

- Financial incentive is key (License conditions based Regulatory „pressure“ for network development is not enough)
- Potential regulatory tools:
 - „Real“ evaluation of network asset (→ depreciation and cost of capital could increase among network costs → network charge ↑)
 - Shorter amortisation period of network elements
 - Network charge adjustment during pricing period (activated new investment elements could be accepted)
 - The accepted return could be adjusted to new economic situation (Returns on Government bonds + risk premium)
- Cross border (inter-TSO) network → higher risk;
 - Harmonized network development plan + CBA + cost allocation
 - Higher accepted rate of return for new investment
 - Exemption from general TPA rules
- Negotiated tariff for gas storage facilities (in competitive environment)


 

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Potential regulatory incentives assisting generation investment


- Simplified licensing conditions (harmonized license/permit application requirements and procedures with other relevant authorities, and time limit for the licensing period)
- Ensure possibility for investors to have indicative market price signals from the relevant market (Power Exchange, published cost elements necessary for wholesale market price calculation)
- Transparency (require frequent, updated publication):
 - TSO' network availability (both for connecting new capacities + operation/maintenance and development plans/schedules)
 - Non-discriminative cross-border capacity allocation
- Allow medium/long term contracts if the market conditions are not matured enough (risk mitigation)
- General reduction of market entry barriers for foreign investors as well as locals (clear rules for market players and „cheap” procedures)



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Security of Supply problems


- High dependency on one gas supplier of some markets (gas import dependency). Potential governmental and regulatory measures;
 - new initiatives on diversifying gas supply (e.g. TAP),
 - supporting new supply routes and new cross-border capacity development,
 - energy efficiency incentives to reduce the winter peak gas demand (reduction of gas import dependency)
- During the transient period of market building process and financial crises the net export position of certain national markets of the CEE and SEE region is diminishing and turning into net import position



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Security of Supply (2)

If there is a threat of electricity capacity shortage and/or gas security of supply problem politicians may become concerned and often interact in a way, which does not support competition and regional market building (just opposite: support national champion, give priority at borders, introduce artificial barriers at borders)


→ **Challenge: How to avoid maintaining or re-creating isolated, relatively small national markets instead of establishing regional market conditions.**


The lack of regional market and the national administrative measures discourage new private investments, especially large scale new generation and cross-border network investment!



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Lack of supportive legislative framework in some ERRA member countries


- Lack of statutory power of Regulators;
 - enforcing legal rules,
 - license conditions and
 - authorization supporting competition
- Lack of secondary legislation with detailed implementation rules
- The detailed market rules and Third Party Access rules are missing in some markets (Network/Grid Codes)
- The harmonization of regulatory framework is missing:
 - cross border capacity allocation rules,
 - market coupling rules,
 - cost sharing methods (cross-border network development)



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 **Slow process in market integration**

The potential advantages of integrating national markets – seem to be – evident for most of the players (Governments, Regulators, TSOs, suppliers/traders and end-users) but there are barriers, which need time to pull down;


- political (mis)understanding of protecting national interest (regarding SoS issues and open borders [generation adequacy], and market price tendencies),
- the time-consuming, very detailed work among TSOs and Regulators has not reached the necessary level in some regions,
- lack of adequate cross border capacities in some


 **cases**
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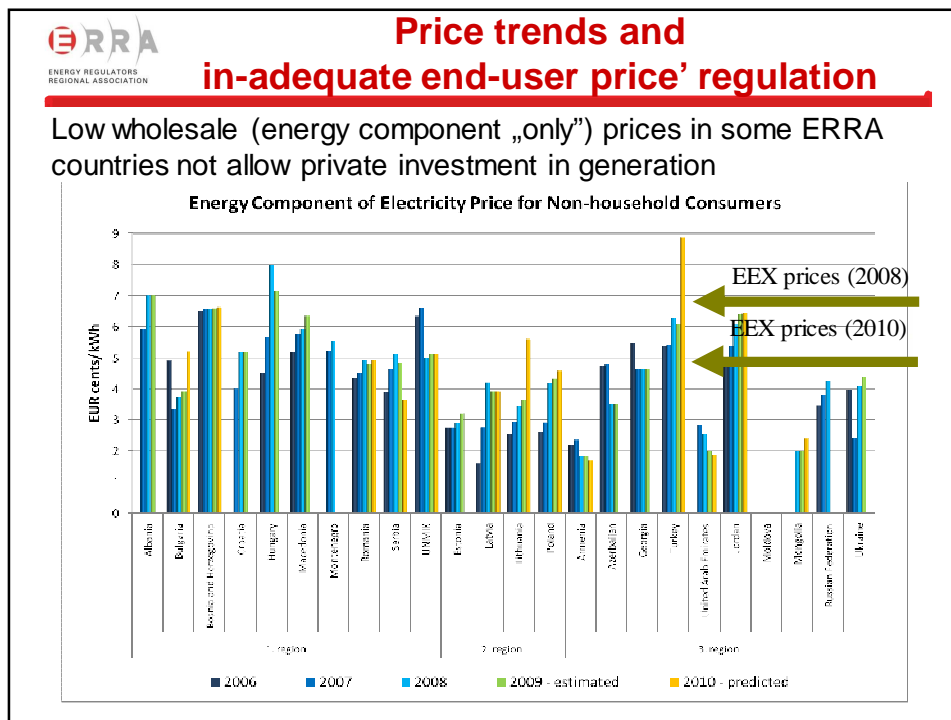
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 **Price trends and in-adequate end-user price' regulation**

- The fall in oil prices and in energy demand was not entirely reflected in end-user gas and electricity prices at the second half-year 2008 – first half-year 2009, when the economic crises started (imperfect markets + learning process of end-users in risk management)
- Hybrid model in several ERRA markets (regulated end-user price in major part of retail market → indirect cap for the free market as well)
- Regulated end-user prices (if not cost covering or market based) acting as a market distortion, especially for industrial users
- During these years of cutting (reducing) social safety-net World-wide the households are very sensitive to end-user energy prices → social welfare should be maintained, but without sacrificing network reliability and future network development!

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Potential Consequences of the disturbances in price regulation

- Price cap on end-user prices (not covering accepted cost elements and/or not market based);
 - Expenditures on operation, maintenance and development of networks fail (reduced)
 - Poor service quality
 - Re-scheduled introduction of climate change measures (smart grid, smart meter rollout, energy efficiency assistance)
 - Lack of adequate renewable support schemes → slowed down investment
- Financial support for end-users (outside of vulnerable consumer circle);
 - Lack of energy saving incentives
 - Cross subsidy (less competitive industry)
 - Hindered competitiveness of the industry (large end-users)
- Reduced competences of regulators;
 - Political/regulatory risk premium
 - Slowed down new investments (generation, network)

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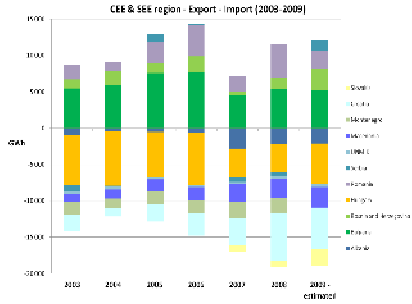
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Price trends

- Wholesale market price (if not regulated, but market based) → reflect to the regional supply-demand balance; not to the generation cost (!!)
- The market price effect of the supply-demand should be analyzed with regional aspects of capacity balance
- Other elements, which could influence the market price:
 - Risk elements and risk premium
 - Potential abuse of market power
 - Capacity withholding







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Lack of real independence of network operators


- Decision making practice of network operators in network access independently from trading interest is essential for functioning markets
- Without clear separation of activities and with „indirect”, sometimes not identified, but possible commercial influence of holding companies (owning TSOs and DSOs) could result in;
 - discrimination,
 - lack of level playing field,
 - entry barrier for new entrants,
 - lack of transparent and predictable congestion management
- » » Discovering the discriminative technical/commercial decisions of the TSOs and DSOs is not easy!




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 **Limited regulatory power and regulatory incentives**

National Regulatory Authorities (NRAs) should be authorized (empowered) – among others;

- to make independent (autonomous), transparent decisions,
- to promote competitive, secure and environmentally sustainable energy market,
- to fix (set) or approve tariff or tariff-methodology for access to and use of transmission and distribution networks,
- to ensure compliance of network operators with network access (TPA) rules (especially cross-border)
- to enforce consumer protection measures



 

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 **Limited regulatory power and regulatory incentives (2)**

ERRA members have wide variety of regulatory competencies;

- Fewer duties on promotion of competition,
- Less power on enforce non-discriminative TSO/DSO operation (unbundling, TPA, congestion management)
- Voluntary harmonization of cross-border and licensing issues
- Those countries targeting implementation of EU Directives (Energy Community Treaty : Contracting Parties and Treaty Observer countries) has common legal basis and should have adequate regulatory power



 

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 **Lack of interest on end-users' side**

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- There is some market opening for wholesale and retail customers underway in ERRA countries, but very limited cases of functioning and liquid retail markets → lack of attractive offers
- Existence of dominant incumbents especially in household customer- markets in some cases reduces the chance of customer choices
- Learning curve at consumer side require some years to understand market rules and to create adequate risk management
- Demand for easier supplier switching → room for regulatory intervention!
- Politicians often force template bills and recommendation for good practice in billing



 

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 **Some additional circumstances can hinder efficient wholesale competition**

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- Renewable with increasing ratio could be exempted from wholesale competition (feed-in tariff system)
- CHP generators (under the new energy efficiency regulation) could be preferred (must run)
- New nuclear units (if any) foreseen to be invested under long term PPAs
- Part of flexible gas fired units taking part in system regulation (compensating weather dependent renewable generation) contracted by system operators
- Possible new Capacity Remuneration Mechanism (CRM)
 - Shrinking wholesale (day-ahead) markets (?)
 - Newly invented Central Purchasing Agent (SB) (?)
 - New Market Design (?) (*instead of the „commodity only” market*)


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Some result from the ERRA wholesale market monitoring system


Why did we start the common wholesale market monitoring?


- Price signals (+~10EUR/MWh spread to the EEX prices – risk premium?)
- Capacity shortage in SEE
- Increasing cross border flow to South
- Security of Supply/ Generation Adequacy questions
- The increasing cross border trade highlighted the interdependence of neighboring markets (in capacity, system operation and market price issues) → TSOs and NRAs should think region-wide
- Wholesale market monitoring network was created



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Capacity Balance in the CEE-SEE ERRA region

Capacity mix in the South East European region

Net import position of the South-East Europe region


Net consumption in the South-East European region

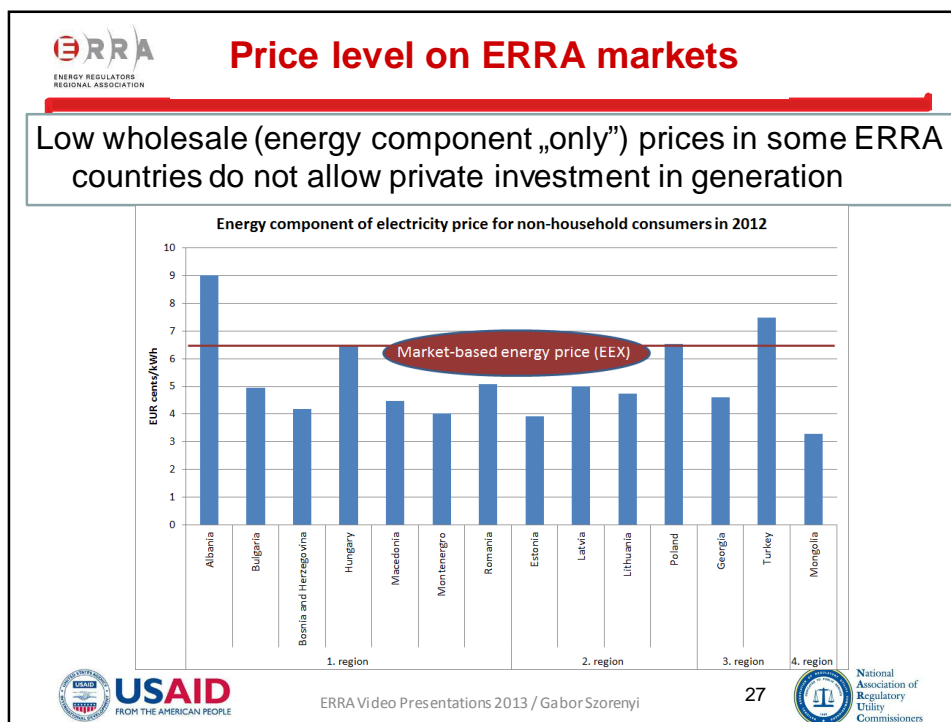
- Increasing regional cross border trade
- Turning to serious net import position
- New generation investment is needed



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Potential Regulatory actions supporting the national and regional market building


- Gas- and Capacity release program for increasing market liquidity
- Cost covering and/or market based end-user pricing
- Ex-ante promotion of competition
- Mitigating market power with:
 - Gas- and Capacity release
 - Regional market building (increasing the size of the relevant market)
- Simplified licensing conditions
- Reduced market entry barriers
- Simplified switching process (selecting suppliers)

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National Association of Regulatory Utility Commissioners

 **Potential Regulatory actions supporting the national and regional market building**

- Empowerment of consumers (targeted information, supporting end-users' learning process on selection of suppliers and on risk management)
- Supporting active Demand Respond
- Supporting network investment (incentive network tariff)
- Transparent TPA rules and general Transparency requirements
- Unbundling requirements and enforcement
- Clear cross border capacity allocation rules
- Harmonization of network planning and market rules with neighbors

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 **Regulatory Support to Market Integration**

Thank you for your attention!

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