



DEVELOPMENT OF THE  
ENERGY MARKET  
MONITORING PROCESS IN  
ERRA COUNTRIES

ERRA LICENSING/COMPETITION  
COMMITTEE

2005

# **Development of the Energy Market Monitoring Process in ERRA Countries**

**Final paper**

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**ERRA Licensing-Competition Committee**

**2005**

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This publication was made possible through support provided by the Energy and Infrastructure Division of the Bureau of Europe and Eurasia under the terms of its Cooperative Agreement with the National Association of Regulatory Utility Commissioners, No. EE-N-00-99-00001-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development or National Association of Regulatory Utility Commissioners.

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## **1. The Aim of Market Monitoring**

Market monitoring is necessary to assess the effectiveness and competitiveness of the market and to ensure that all market participants are complying with the market rules and other requirements. The aim of monitoring is to identify:

- whether the market operates effectively and efficiently according to the market rules;
- any inappropriate market conduct, including abuses of market power and gaming;
- any faults in the market rules design, in the market operator's procedures and in the overall structure of the markets.

Usually, market monitoring actions can be achieved by the regulator or by an independent market monitor entity.

From the point of view of this paper, market monitoring can be referred to for the following types of markets: day-ahead, ancillary services, balancing, etc.

## **2. Monitoring Processes**

### **2.1. The steps of the monitoring process are:**

- Main market participants provide routine reports to the regulator within a pre-defined time period, or submit data to the market monitor;
- The regulator/market monitor reviews the reports for completeness within a pre-defined time period. The regulator may impose penalties for delay and incomplete reports;
- The regulator/market monitor reviews the report to check for compliance with market rules. The regulation should require market participants to notify the regulator of any incidents of non-compliance.

If the review gives the regulator grounds for suspicion of non-compliance, the regulator may initiate a special investigation. Alternately, the regulator may initiate a special investigation based on a specific complaint.

### **2.2. During a special investigation process, the regulator shall:**

- Notify affected parties of the subject of the special investigation, the grounds and timetable for the special investigation;
- Request any supplementary data;
- Receive such supplementary data from the parties, within a pre-defined time period;
- Prepare a preliminary report including its findings and any proposed actions within a pre-defined time period and send it to the affected parties.
- Regulator receives responses to this preliminary report from affected parties, within a pre-defined time period;
- Prepare its final report taking which can include any penalties to be imposed for breaches of market rules and recommendations on appropriate action, to external authorities, particularly the Competition Authority;
- Instruct the system operator and/or market operator to change their market rules;

In the case of regulatory investigations, the affected parties may appeal to the courts.

### **3. Reporting Frequency and Confidentiality**

**3.1.** Concerning the **frequency of monitoring** and reporting, there should be a range of reports with daily, weekly or monthly and annual requirements.

- The international practice is for the market operator to publish a prompt daily report in a standard format on the activities, prices and volumes of trading in its market (usually on its web site). Any delay in publishing the daily market report reduces participants' confidence in the efficiency and transparency of the market.

If the market operator does not exist and if it is not independent, the regulator analyses the corresponding activities and publishes at least a monthly report.

- The frequency with which other reports are produced and published, and their content, should be a matter for regulator to decide

**3.2.** Concerning **confidentiality**, all reports should be public documents, but some non-routine reports may have to be confidential and for the regulator only, for at least some time:

- Routine reports should not be confidential as such reports should be public if agents are to retain confidence in the market;
- Some non-routine reports or investigations, particularly those where a rapid response is required, may need to be confidential. In such cases, one possibility is to require the respondent to prepare a confidential report on a tight timetable and to prepare a summary public document at a later date, incorporating any necessary amendments and protecting the respondent's commercial interests.

### **4. Reporting Requirements**

The requirements for regulatory reporting vary with the maturity of the market and have two phases:

- Implementation and initial operation – when reporting focuses on implementation milestones and identification of design faults. The regulator has to require a series of development reports describing the market's progress toward its steady state;
- On-going operation - when reporting examines whether the market is operating effectively and whether there is any inappropriate market conduct.

#### **4.1. Implementation and initial operation monitoring**

The reports should aim to answer key questions about the development and initial operation of the market, such as the following:

- Has a comprehensive set of market rules been agreed upon between the market participants and market operator?
- Has a comprehensive financial settlement process been agreed upon between the market operator and all market participants?
- Has the market governance structure been agreed upon and implemented, including the market committee and its key advisory committees (such as the proposed operating, development, disputes, metering and audit committees)?
- Does a comprehensive “road map” exist for all market rules, procedures, processes and systems that have been agreed upon between the market operator and the market participants?

- Have the road map and the market operator’s procedures been audited by independent experts?
- Has the “amendment and of market rules” control process for making changes from the road map been audited by independent experts?
- Is there an audit trail proving that the change control procedures have been strictly adhered to since the road map was established?
- Have the market operator’s central systems<sup>1</sup> been tested both on their own, and in conjunction with the trading systems of market participants?
- Has a pre-implementation audit of the market rules, processes and systems been undertaken immediately prior to launch of the market?
- What is the growth in the number of participants trades/notified contracts?
- How have actual trading prices varied? How and why has the marginal cost changed since the last report?

## 4.2 Market is effectively operating

The main issues which the regulator needs to monitor are as follows:

### i. Financial

- Has the market operator stayed within its agreed budget?
- What are the reasons for variances?

### ii. Market operations: Has the market operator

- Applied the market rules thoroughly?
- Applied the settlements procedures according to the market rules?
- Managed all changes to the market rules systematically, applying the agreed change processes rigorously?
- Met any service obligations specified in the market rules?
- Applied the dispute procedure properly?
- Produced accurate and timely market (day-ahead, ancillary services, balancing, cross-border capacities, etc.) prices, settlement volumes and settlement amounts using the agreed market rules for every trading period?
- Monitored market participants’ credit positions against their financial guarantees, warned market participants of any breaches of the guaranteed credit limits, and taken all subsequent actions required under the rules? Provided complete and timely reports to the regulator or other regulatory bodies?

### iii. Market Trends:

- What are the reasons for any changes in Marginal Cost-based prices since the previous report?

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<sup>1</sup> For example, the software of the market monitor to calculate least-cost despatch

**technical:** these apply more to TSO than MO, but should include

- Summaries of generation, reserve and demand;
- Summaries of transmission constraints and losses
- Summaries of major system incidents;
- Trends in transmission and interconnector losses
- Trends in interconnection flows (by source and demand)
- Congestion management

- Is the volume of trades rising according to expectations?
- How many active market players exist in the market?

#### **iv. Disputes:**

- Has the Disputes Committee implemented and applied the agreed disputes procedures to every dispute brought before it?
- Has the Disputes Committee reached conclusions on most cases raised in the previous reporting period? What are the numbers of cases outstanding, cases resolved since last time, cases taken to external arbitration etc?
- Have any allegations been raised that the Disputes Committee is failing in its central tasks?

## **5. The Way Forward**

After the market is effectively operating, regulators should also consider the following issues:

- ensure that the regulator have all the statutory powers needed to enable them to monitor the market. This entails checking:
  - all existing and draft legislation to ensure that sufficient powers are vested in the regulator;
  - all licences to ensure that all market participants and market, system or asset operators are obliged to provide the regulator with all the data it deems necessary to undertake its regulatory responsibilities and otherwise co-operate with the regulator in any investigations it may undertake.
- ensure that the regulator in particular will have the financial and human resources to enable it not only to monitor the market operationally, but also to enforce any actions that could arise from specific investigations into market practices or procedures;
- publish the definitive monitoring plan which should include:
  - the roles and responsibilities of each party for reporting during market implementation and thereafter;
  - the broad contents of the development reports, including key milestones, and the timings of such reports;
  - the broad contents of each party's reports (daily, weekly or monthly and annual report) and the timings of such reports; and
- define the suggested procedures, roles and responsibilities for special investigations and special reports.

## **6. The Monitoring Process of Energy Markets in the United States**

### **6.1. Monitoring responsibilities**

The competitiveness of the United States Energy Markets is continuously evaluated through four separate approaches:

- i. by the **Independent System Operator (ISO)** through implementation of its market monitoring plan<sup>2</sup> approved by FERC and filed as a schedule to its transmission tariff.
- ii. by the **Federal Energy Regulatory Commission (FERC)** by granting of market based rate authority in lieu of requiring market participants to charge cost of service based rates in wholesale markets, in the absence of market power and sufficient market competitiveness;
- iii. by **State regulators** who typically require the performance of market power or competitiveness studies prior to authorizing full retail competition and who monitor and raise complaints as needed with ISOs and/or FERC respecting the sufficiency of market competition; and
- iv. by **FERC** in exercising its statutory authority to approve the merger or sales of assets involving regulated electric service providers. In addition, market determined prices may be reviewed after merging/selling and re-founded if such prices are unjust and unreasonable, and where notice has been previously given;

## 6.2. System Operator Market Monitoring Plan Design and Implementation

The details of the market monitoring plans and the authority of ISO's to mitigate or penalize non-competitive or improper market conduct have a core set of functions:

- (1) monitoring and reporting on issues relating to the operation of the market, including the determination of transmission congestion costs or the potential of any market participant(s) to exercise market power;
- (2) evaluation the operation of both pool and bilateral markets to detect either design flaws in the market or structural problems in the market that may need to be addressed in future;
- (3) evaluation any proposed enforcement mechanisms that are necessary to assure compliance with pool rules; and
- (4) assurance that the monitoring program will be conducted in an independent and objective manner.

Each ISO adopts and implements such a plan after consultation with an appropriate committee of its market participants, and after that the plan is reviewed and approved by FERC. Specific quantitative standards of what constitute physical or economic withholding and uneconomic production of a generating unit or transmission is specified in the plan, and was required by FERC as a condition of approval. These requirements provide clear signals to market participants of what is improper conduct and can be penalised. Some ISOs are authorized to and have imposed hard price caps upon their registered big prices on energy / ancillary service markets, in order to prevent unreasonable prices resulting from market power exercise.

In most states, where retail competition has been authorized, interim rate caps are imposed by State regulators for a several year period to protect retail consumers while market structures are developing and competitive suppliers are establishing their ability to function in the market.

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<sup>2</sup> In many cases, it is appointed a distinct entity to survey the market: the Market Monitor.

## **7. The Monitoring Process of Energy Markets in the European Union Countries**

Electricity market competition requirements in the European Union are generally similar to those of the United States. Basic principles of competition law applicable to the electric sector and to business in the community are set in the treaty through which the European Community was formed. The principles enunciated in the treaty are similar to those of antitrust law in the United States and prohibit unfair competition, anti-competitive conduct and agreements, abuse of a dominant position, undue market concentration from mergers and similar matters.

Regulators exist throughout the community and enforce third party access and monitor the operation and competitiveness of developing national markets. Most European countries also have competition agencies, similar to United States antitrust authorities, which analyze the competitive effect of mergers, asset sales and various forms of long-term agreements, and proscribe them if improperly harmful to competition.

The Directive 2003/54/EC of the European Union also provides specific functions for regulators, regarding market monitoring, as follow:

### **Article 23**

*Member States shall, through the application of this Article, at least be responsible for ensuring non-discrimination, effective competition and the efficient functioning of the market, monitoring in particular:*

- *the level of transparency and competition. The authorities established pursuant to this Article shall publish an annual report on the outcome of their monitoring activities;*
- *the rules on the management and allocation of interconnection capacity, in conjunction with the regulatory authority or authorities of those Member States with which interconnection exists;*
- *any mechanisms to deal with congested capacity within the national electricity system;*
- *until 2010, the relevant authorities of the Member States shall provide, by 31 July of each year, in conformity with competition law, the Commission with a report on market dominance, predatory and anti competitive behavior. This report shall, in addition, review the changing ownership patterns and any practical measures taken at national level to ensure a sufficient variety of market actors or practical measures taken to enhance interconnection and competition. From 2010 onwards, the relevant authorities shall provide such a report every two years.*

### **Article 28**

- *The report shall cover the experience gained and progress made in creating a complete and fully operational internal market in electricity and the obstacles that remain in this respect, including aspects of market dominance, concentration in the market, predatory or anti-competitive behavior and the effect of this in terms of market distortion.*

## **8. The Development of Energy Markets Monitoring Process in ERRA Countries (based on ERRA market monitoring questionnaire answers)**

## 8.1. Market Opening

### 8.1.1. Role of the Regulator

- The market opening degree is established, in general, by the energy law.
- In some countries, the regulatory body in coordination with the government is appointed to establish the degree of market opening.

### 8.1.2. Degree of market opening - potential opening degree

- 11 countries have a market opening degree greater than 30%.
- 6 countries have not yet opened their markets.
- The biggest degree of market opening is in Romania (80%), followed by Hungary with 70% and the Czech Republic with 50%.

#### - real free market

- in Hungary, 35%.
- in Romania, 30%

## 8.2. Structure of the market

### 8.2.1. Wholesale market

- The type of wholesale market is bilateral contract:
  - with DAM in 2 countries - Czech Rep., Lithuania, Turkey (foreseen);
  - with BM in 3 countries - Bulgaria, Macedonia, Turkey;
  - with DAM and BM in Romania;
  - Hybrid market: public utility supply segment operates in parallel with free market segment in Hungary;
  - Ukraine has mandatory pool type market;
  - Mongolia has single buyer type market;
  - 3 states do not have real time markets.

- TSO role on Wholesale Market

Depending on the market type and the level of market development, the TSO role in different countries is:

- Bulgaria - administers electricity transactions and organizes Balancing Market;
- Czech Rep. – organizes contract payment including clearance of deviation;
- Hungary - administers electricity transactions and organizes Balancing Market;
- Romania – administers Balancing Market;
- Turkey, Georgia and Ukraine – market operator (pool operator);
- Macedonia - responsible with balancing regulation.

Six countries did not reply on this question and two countries do not have TSO legal unbundling.

- Responsibility for settlement

- ❖ In most countries the TSO is responsible for settlements (serves as administrator).

In four countries, the TSO is also the market operator: – Romania (market operator is legal entity, subsidiary of the transmission and system operator, Transelectrica), Macedonia, Turkey and Ukraine.

- Allocation of interconnection capacity
  - ❖ Only six countries have rules for allocation – Czech Republic, Hungary, Macedonia, Romania, Slovakia and Turkey.
- Internal congestions management
  - ❖ Five countries do not have network congestion – Bulgaria, Estonia, Latvia, Lithuania and Mongolia.
  - ❖ In some countries the congestions management rules are not yet issued – Georgia and Turkey.
  - ❖ Congestions management rules by re-dispatching are used in three countries – Hungary, Macedonia and Slovakia.
  - ❖ Congestions management rules by the balancing market and/or directly bilateral contracts for fast and slow tertiary reserves are used in Romania.

### **8.2.2. Ancillary Service Market and Balancing Market**

#### **Balancing Market**

- ❖ Only six countries have balancing markets – Estonia, Hungary, Lithuania, Macedonia, Romania and Turkey. Only four countries have AS markets – Hungary, Lithuania, Macedonia and Romania. In some countries these markets are not effective operating.
- ❖ Arrangements to offer and call balancing /regulating electricity are based on auctioning process.
- ❖ Pricing mechanism for balancing /regulating electricity varies from state to state as follow:
  - administered price (calculated from wholesale price on regulated market segment) – Hungary;
  - cost based price – Estonia;
  - indexed to DAM price – Lithuania;
  - marginal cost for capacity and/or electricity increment and marginal cost for electricity decrement - Macedonia;
  - for dispatchable units, the lowest prices from the daily offer will be considered for downward regulation and all others for upward regulation. For dispatchable loads, the lowest prices from the daily offer will be considered for upward regulation and all others for downward regulation – Romania.

#### **Ancillary services market**

- ❖ Most countries have the same type of ancillary services.
- ❖ In most countries, the TSO is responsible for system services acquisition.
- ❖ Ancillary services are procured and priced through the auction process in Lithuania, Macedonia and Romania.

For Romania, the secondary reserve is paid at the marginal price and tertiary reserves are paid the price from offer.
- ❖ The TSOs (ISOs) are responsible for settlements for the balancing market and ancillary services in Bosnia & Herzegovina, Bulgaria, Estonia, Hungary,

Mongolia, Slovakia, Turkey. The market operator is responsible in a few countries – Czech Rep., Lithuania and Romania.

#### **The regulator's role on setting rules for balancing services**

- ❖ The regulator approves the methodology used to calculate condition for balancing services in most countries and sets the methodology in some countries – Croatia, Estonia and Czech Rep.  
Regulators from some countries are not involved in setting methodology - Slovakia.

### **8.2.3. Retail market**

- ❖ Concerning the number of eligible customers that already change the supplier on the free retail market, only 4 countries answered to this question – Hungary (1357 customers changed supplier) , Lithuania, Romania and Ukraine.

## **8.3. Monitoring of the Market**

### **8.3.1. Competition**

- ❖ The regulator is responsible for ensuring effective market competition in most countries.
- ❖ In a few countries, the commission (agency) for protection of competition monitors competition – Bulgaria and Croatia.
- ❖ According to the energy law, the regulator monitors accounting unbundling of different activities. In most countries, legal unbundling among transmission, generation and distribution there is already in force. A few countries have accounting unbundling among distribution and supply.
- ❖ The regulator establishes market rules and grid codes in most countries. In three countries, the regulator approves market rules and grid codes. In Bosnia & Herzegovina, the TSO establishes them and in Estonia, the ministry approves them.

### **8.3.2. Market monitoring**

- ❖ The appointment of a market monitor is established in the framework of regulators in Armenia, Bulgaria, Georgia, Kyrgyz, Romania, and Slovakia or in the framework of market operators in Czech Rep., Kosovo, Macedonia, Hungary.
- ❖ The type of prices on wholesale market is administered in most countries.  
In Bulgaria there are non-administered prices.  
In Czech Rep. are hourly fixed prices and in Ukraine there are hourly non-fixed prices.
- ❖ In most countries, the market monitoring team has some staff within the regulator and monthly collects data directly from the market participants and receives daily/monthly data from the MO and TSO.
- ❖ The regulator and competition authority are both responsible with customers complaints and market power abuse. Only a few countries have a special rule sharing responsibilities between the two bodies – Czech Rep., Kyrgyz, Hungary and Romania.
- ❖ The frequency of the market monitoring report is yearly in six countries ( Armenia, Kyrgyz, Latvia, Lithuania, Macedonia and Slovakia), monthly in four4 countries

(Bulgaria, Hungary, Moldavia and Romania), and quarterly in two countries (Georgia and Mongolia).

- ❖ No answers were provided to the question concerning market monitor control and potential generation capacity withholding.

#### **8.4. Congestion management**

- ❖ The regulator is authorized to approve rules for congestion management in eight countries: Estonia, Hungary, Latvia, Lithuania, Montenegro, Romania, Slovakia, Turkey.
- ❖ The TSO is responsible with the establishment of the congestion management rules in six countries: Czech Rep., Georgia, Hungary, Macedonia, Romania, Turkey.

#### **8.5. Dispute resolution regarding market issues**

- ❖ The regulator (and/or court) resolves disputes regarding market issues and applies penalties and tariffs revision, suspension or revoking license in most countries. In Romania, the Arbitration Committee resolves disputes and the regulator, based on regulation for the identification, notification and penalization of the electricity sector regulation violations, applies penalties, tariffs revision and suspension or revoking license.

The attached appendix includes the detailed questionnaire answers.

## Appendix: Development of the Market Monitoring Process in ERRA Countries

### Answers to the questionnaire

#### A. Market Opening

Country	Regulator's role on market opening degree (MOD)	Currently market opening percentage (% of demand)	Currently eligible customers (nr.)	Currently market opening percentage (annual consumption higher than X GWh)
<b>Albania</b>	Regulator operates based on the law and market model for eligible customers	0,5	2	NA
<b>Armenia</b>	Regulator operates based on the energy law until March 2006	0 (a sole supplier)	NA	No open market until march 2006
<b>Bosnia &amp; Herzegovina</b>	Regulator decides the criteria for eligible customers	25 (potential)	27 (potential)	No open market yet 10 (potential)
<b>Bulgaria</b>	Regulator SEWRC approves access rules to T&D networks including stage and share of market opening	20	63 (potential)	20

<b>Croatia</b>	Regulator operates based on the energy law – no regulator’s role	20 (potential)	40 (potential)	20 (potential)
<b>Czech Republic</b>	Regulator monitors keeping the competition condition	50	All non-household customers	NA
<b>Estonia</b>	Electricity Market Act establishes opening degree. Regulator has no role.	12 (35 / 100 in 2009 /2013)	11	40
<b>Georgia</b>	Not open market.	All consumers are captive	All consumers are captive	All consumers are captive
<b>Hungary</b>	Market environment determines MOD.  Regulator approves market rules and grid codes.	30% of energy is traded on free (not regulated)market	All non-household customers	NA
<b>Kyrgyz Republic</b>	Regulator collaborate in carrying out electricity market law	No market yet	No market yet	No market yet
<b>Kosovo</b>	Regulator - ERO yearly publishes rules for eligible customers according to criteria issued by Ministry of Energy and Mining	No open market yet	No open market yet	No open market yet

<b>Latvia</b>	Regulator – Public Utilities Commission	78 (potential)	All non-household customers	No open market yet
<b>Lithuania</b>	NA	74 (potential)	All non-household customers	NA
<b>Macedonia</b>	Energy law establishes opening degree.  Regulator (ERC) establishes terms and conditions for eligibility	26 (potential)	8 (potential)	20
<b>Moldova</b>	Regulator in coordination with Government.  Regulator (National Energy Regulatory Agency) approves market rules.	10	NA	NA
<b>Mongolia</b>	Regulator decides the criteria for eligible customers.	90 (potential)  No open market yet	11 (potential)	10 (potential)
<b>Montenegro</b>	Regulator approves market rules.	No open market yet	No open market yet	No open market yet
<b>Romania</b>	Regulator proposes to the Government the market opening degree and the threshold of consumption.	80	All non-household customers	-

<b>Slovakia</b>	NA	All non-household customers	All non-household customers	NA
<b>Turkey</b>	Regulator has the sole responsibility in determining the pace of market opening by law.	N/A	2.559 As of August 2005.	30
<b>Ukraine</b>	NA	All non-household customers	All non-household customers	NA

**B. Structure of the Market**

**1. Wholesale market (WM)**

<b>Country</b>	<b>-WM type - TSO role on WM -settlement responsible</b>	<b>Rules to allocate interconnection capacity for import-I, export-E, transit-T</b>	<b>Congestions management (CM) method</b>	<b>Generators as market participants (nr.)</b>	<b>Market share of the first 5 generators (%)</b>
Albania	-bilateral contract between generation and distribution  - NA  - NA	NA	NA	NA	NA
Armenia	- bilateral contract between generation and distribution  - No TSO  -Financial Settlement Center for WM	NA	NA	NA	NA

Bosnia & Herzegovina	No WM	NA	NA	NA	NA
Bulgaria	<ul style="list-style-type: none"> <li>- bilateral contract with BM without DAM</li> <li>- TSO administers electricity transactions and organizes BM</li> <li>-TSO as market operator is Settlement Administrator</li> </ul>	Allocation rules-NEK exclusive right	No network congestion	7	12 (of consumption)
Croatia	<ul style="list-style-type: none"> <li>- bilateral contract</li> <li>- NA</li> <li>- Market operator = Settlement administrator (no market rules yet)</li> </ul>	No allocation rules yet.	NA	1	100
Czech Republic	<ul style="list-style-type: none"> <li>-bilateral contract with DAM</li> <li>-TSO organizes contract payment including clearance of deviation</li> <li>-Trade Operator = Settlement Administrator</li> </ul>	Allocation of interconnection capacity by TSO (CEPS)	NA	NA	NA

Estonia	-bilateral contract, but no real power market  - NA  - NA	No allocation rules yet	No network congestion	1	NA
Georgia	- bilateral contract approved by regulator  - TSO and ISO are market operators  - NA	No allocation rules yet.  I&E needs licenses issued by regulator	No congestion management rules yet	46	NA
Hungary	- Hybrid market: public utility supply segment operates in parallel with free market segment (new El. Law)  - TSO (owned by MVM, as public utility wholesaler) collects metering data of balance circles for settlement purposes	SO allocates interconnection capacity according to 1228/2003EC Regulation through explicit auctioning method (most cases)	Through re-dispatching and in a balanced way	13 (PPAs with MVM)	70 (of consumption)
Kyrgyz Republic	Not yet market	No market yet	No market yet	No market yet	Nomarket yet

Kosovo	<ul style="list-style-type: none"> <li>- No WM; Electricity sector-vertically integrated</li> <li>- TSO expected at the end of 2005</li> <li>- TSO = settlement responsibility(end of 2005)</li> </ul>	ERO approves cross-border supply contracts and may prohibit them if PS stability is threatened	NA	NA	NA
Latvia	<ul style="list-style-type: none"> <li>- bilateral contract</li> <li>- NA</li> <li>- NA</li> </ul>	Allocation of interconnection capacity by TSO	No network congestion	3	95 (of consumption)
Lithuania	<ul style="list-style-type: none"> <li>-bilateral contract and auction with DAM / PX</li> <li>- TSO is responsible for trading PSO</li> <li>- Market Operator organizes electricity trading according to the Electricity Trading Rules and is responsible for balancing and settlement.</li> </ul>	I&E needs permits issued by Government	No network congestion	4	91.5 (of capacity) (market share of the first 3 generators)

Macedonia	- bilateral contract and simple Balancing mechanism based on merit order  -TSO - responsible with balancing regulation  -MO = Settlement administrator	According to UCTE rules	First come - first served allocation rule  Re-dispatching and counter-trading	NA	NA
Moldova	-bilateral contract  -NA  -NA	Not yet allocation rules	NA	NA	NA
Mongolia	- bilateral contract, single buyer model  - TSO = Settlement administrator	Pro-rata among generators	No network congestion	5	20÷100
Montenegro	-bilateral contract  - NA  - NA	NA	NA	NA	NA

Romania	<ul style="list-style-type: none"> <li>- bilateral contract with DAM and BM, administrated by Market Operator</li> <li>- TSO administers BM</li> <li>-MO = Settlement administrator</li> </ul>	<ul style="list-style-type: none"> <li>I-implicit auctions</li> <li>E-by the neighbour countries authorities</li> <li>T-before/after imports allocation for transit based on reciprocity conventions between states</li> </ul>	<ul style="list-style-type: none"> <li>through the BM;</li> <li>or/and directly bilateral contracts for fast and slow tertiary reserves</li> </ul>	22	75
Slovakia	<ul style="list-style-type: none"> <li>- bilateral contract</li> <li>-TSO (SEPS) = Settlement administrator</li> </ul>	Auctioning method	Re-dispatching	1	NA
Turkey	<ul style="list-style-type: none"> <li>-bilateral contract with BM without DAM, but DAM is foreseen</li> <li>-TSO = Market operator and settlement administrator</li> </ul>	Allocation of interconnection capacity by TSO. From Sept. 2005 to Sept. 2006, the auctioning method will be applied by TSO	Concrete rules do not exist yet. But Regulator has the role indirectly via approval of investment plans & tariffs	140 as of August 2005	66.7 (total generation)
Ukraine	<ul style="list-style-type: none"> <li>- mandatory pool</li> <li>- TSO = Pool operator</li> <li>- MO = Settlement administrator</li> </ul>	NA	NA	1 4	53 30 (about 7.5 for each)

**B. Structure of the Market**

**2. Ancillary Service (AS) Markets and Balancing Market (BM)**

**3. Retail market (RM)**

<b>Country</b>	<b>-AS type</b> <b>-TSO role for system services (SS) assurance</b>	<b>Arrangements to offer and call balancing /regulating electricity</b>	<b>Pricing mechanism for balancing /regulating electricity</b>	<b>- Procurement and pricing of AS</b> <b>- Settlement responsible for BM and AS</b> <b>- Regulator role</b>	<b>Nr. and share of the customers changing the supplier on RM</b> <b>(nr.) (%)</b>
<b>Albania</b>	- AS type according to grid code  - TSO manage, develop and maintain ancillary assets	NA	Regulator (ERE) is studying the pricing mechanism	- AS agreement is approved by ERE  - Regulator establishes terms and conditions for BM  - Regulator approves terms and conditions for balancing services	NA

<b>Armenia</b>	<ul style="list-style-type: none"> <li>- No AS / BM market</li> <li>- TSO keeps records and monitors power reserves</li> </ul>	AS are not object of sale and are not priced	Cost of AS is included in generation / transmission expenses	No AS and BM market	No free RM
<b>Bosnia &amp; Herzegovina</b>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; tertiary (TR) reserves, reactive power for voltage control and black start and balancing</li> <li>- NA</li> </ul>	NA	NA	<ul style="list-style-type: none"> <li>- ISO administers AS contracts</li> <li>- ISO = settlement responsible</li> <li>- Regulator (SERC) approves terms and conditions for AS</li> </ul>	No free RM
<b>Bulgaria</b>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; tertiary (TR) reserves, reactive power for voltage control, spinning reserves, start –up capacity</li> <li>- TSO as MO ensures AS</li> </ul>	Agreements	Pricing of BM is according to Rules for Trading Electricity	<ul style="list-style-type: none"> <li>- Procurement and pricing of AS is according to Rules for Trading Electricity</li> <li>- Market operator as TSO unit is settlement responsible</li> <li>- Regulator approves terms and conditions for BM</li> </ul>	No free RM

<b>Croatia</b>	<ul style="list-style-type: none"> <li>- Not defined yet</li> <li>- TSO ensures AS</li> </ul>	NA	NA	<ul style="list-style-type: none"> <li>- Not yet defined</li> <li>- Market operator is settlement responsible for BM and AS</li> <li>- Regulator sets methodology for balancing services and approves market rules</li> </ul>	No free RM
<b>Czech Republic</b>	<ul style="list-style-type: none"> <li>- Spinning and cold reserves, steam-gas and cogeneration systems</li> <li>- TSO ensures AS</li> </ul>	NA	Price sets by trade operator	<ul style="list-style-type: none"> <li>- Negotiations between trader and trade operator</li> <li>- trade operator is settlement responsible for BM and AS</li> <li>- Regulator and trade operator set methodology for balancing services and approves market rules</li> </ul>	NA

<b>Estonia</b>	<ul style="list-style-type: none"> <li>- Fast, spinning and cold reserves, reactive power, voltage control</li> <li>- TSO ensure AS</li> </ul>	<p>Offer process;</p> <p>TSO-responsible for balancing entire electricity (BE) and calculates &amp; publishes BE prices</p>	<p>–costs based price, controlled by regulator - EMI,</p>	<p>– NA</p> <ul style="list-style-type: none"> <li>- TSO is settlement responsible for BM and AS</li> <li>Costs, controlled by regulator</li> <li>- EMI issues regulatory price methodology published by TSO</li> </ul>	NA
<b>Georgia</b>	AS market is not organized	Not yet BM and AS market organized	Not yet AS and BM market	Not yet AS and BM market	No free RM
<b>Hungary</b>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; tertiary (TR) reserves, reactive power, voltage control and balancing, connection</li> <li>- TSO (MAVIR) ensures AS</li> </ul>	MVM – only one market participant offering balancing electricity (BE)	<p>Administered prices by MVM;</p> <p>Not yet real market based solution for BE</p>	<p>- NA</p> <ul style="list-style-type: none"> <li>- MAVIR is settlement responsible</li> <li>- Regulator establishes terms and conditions for BM according to Commercial Code</li> </ul>	NA
<b>Kyrgyz Republic</b>	Not yet market	Not yet market	Not yet market	Not yet market	Not yet market

<b>Kosovo</b>	<ul style="list-style-type: none"> <li>- Reactive power for voltage control, spinning and cold reserves</li> <li>- TSO will ensure AS (after unbundling)</li> </ul>	No arrangements	Contracted fixed prices	<ul style="list-style-type: none"> <li>- AS are procured from neighboring countries</li> <li>- TSO (after unbundling) will be responsible for AS and BM</li> <li>- NA</li> </ul>	Not yet market
<b>Latvia</b>	<ul style="list-style-type: none"> <li>- Reactive power for voltage control, spinning and cold reserves</li> <li>- TSO and DSO ensure AS</li> </ul>	Agreements	Price is set by system operator	<ul style="list-style-type: none"> <li>- Grid code establishes terms and conditions for balancing services</li> <li>- NA</li> <li>- Regulator approves grid code where terms and conditions for balancing services are set</li> </ul>	NA

<p><b>Lithuania</b></p>	<ul style="list-style-type: none"> <li>- Voltage control, spinning, cold reserves and black start</li> <li>- TSO sets the reserve level and provides SS</li> </ul>	<p>Auction process</p> <ul style="list-style-type: none"> <li>-hourly/monthly prices of regulating electricity for generators/suppliers or consumers</li> </ul>	<p>Indexed DAM price</p>	<ul style="list-style-type: none"> <li>- AS is a separate component of transmission price (reserve).</li> <li>- BM is procured and priced through the auction process</li> <li>- Market operator is responsible for BM settlement.</li> <li>- Transmission operator is responsible for AS settlement.</li> <li>- Regulator approves the methodology for calculation of balancing prices</li> </ul>	<p>6</p>	<p>15</p>
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<b>Macedonia</b>	<ul style="list-style-type: none"> <li>- Voltage control, reactive power, fast, spinning and cold reserves and black start</li> <li>- TSO ensures AS</li> </ul>	Bids and offers submitted by market participants for increment (inc.) or decrement (dec.)	<p>Regulated producers from (inc.)/ (dec.) merit order list are paid at the marginal cost:</p> <ul style="list-style-type: none"> <li>-- for capacity and/or electricity (increment)</li> <li>-- for electricity (decrement)</li> </ul>	<ul style="list-style-type: none"> <li>- AS are procured and priced through the competitive bidding process</li> <li>- (draft) market code establishes terms and conditions for balancing services</li> <li>- Regulator approves methodology and price for regulated merit order</li> </ul>	NA
<b>Moldova</b>	<ul style="list-style-type: none"> <li>- Voltage control, reactive power, fast, spinning and cold reserves and black start</li> <li>- NA</li> </ul>	No AS/BM market	SS costs are included in the gen. and supply tariffs	No AS/BM market	NA

<b>Mongolia</b>	<ul style="list-style-type: none"> <li>- Voltage control, reactive power, fast, spinning and cold reserves and Balancing power</li> <li>- ISO ensures AS</li> </ul>	Bilateral contracts and Grid Code	No separate pricing mechanism for balancing,	<ul style="list-style-type: none"> <li>- Grid code establishes terms and conditions for balancing services, no separate pricing mechanism for AS</li> <li>- NDC = settlement responsible</li> <li>- Regulator approves methodology and price</li> </ul>	No free RM
<b>Montenegro</b>	<ul style="list-style-type: none"> <li>- Frequency and capacity control, voltage control, reactive power, spinning reserves and balancing energy</li> <li>- ISO ensures AS</li> </ul>	NA	NA	NA	NA

<p><b>Romania</b></p>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; tertiary (TR) reserves, reactive power for voltage control and network losses</li> <li>- TSO buys AS from qualified producers</li> </ul>	<p>Offers from dispatchable units (DU) (mandatory) &amp; loads (DL)</p> <ul style="list-style-type: none"> <li>- Daily offers valid for the following day:</li> <li>*downward regulation for all quantities &lt; scheduled production</li> <li>*upward regulation for all quantities &gt; scheduled production</li> </ul>	<ul style="list-style-type: none"> <li>- for DU, the lowest prices from daily offer will be considered for downward regulation and all others for upward regulation;</li> <li>- for DL, the lowest prices from daily offer will be considered for upward regulation and all others for downward regulation;</li> </ul>	<ul style="list-style-type: none"> <li>- AS are procured and priced through the auction process;</li> <li>SR is paid at the marginal price;</li> <li>TR are paid at the price from offer;</li> <li>- MO = settlement responsible</li> <li>- Regulator approves methodologies to establish terms and conditions for BM</li> </ul>	<p>35</p>	<p>24</p>
<p><b>Slovakia</b></p>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; tertiary (TR) reserves, reactive power for voltage control and black start</li> <li>- TSO = AS responsible</li> </ul>	<p>Government Ordinance lays down rules for operation of electricity market</p>	<p>Minimum costs under transparent and non-discriminatory condition</p>	<ul style="list-style-type: none"> <li>- Regulated prices sated by regulator</li> <li>- TSO is settlement responsible</li> <li>- Regulator does not establish terms and conditions for BM</li> </ul>	<p>NA</p>	

<p><b>Turkey</b></p>	<ul style="list-style-type: none"> <li>- Mandatory AS and Commercial AS</li> <li>- Currently only state owned plants participate since there are no agreements &amp; pricing mechanisms applied yet.</li> <li>- TSO = AS responsible</li> </ul>	<p>Regulated monthly bid &amp; offer prices are employed as a transitional arrangement, which will be replaced by active BM where market participants will bid and offer. Currently only state owned generation plants participate in the balancing.</p>	<p>Currently fixed administrative pricing mechanism. It is foreseen hourly marginal prices.</p>	<ul style="list-style-type: none"> <li>- Currently no separate price for AS but TSO drafted the principles for AS payment</li> <li>- TSO is responsible for BM and AS</li> <li>- Regulator establishes terms and conditions for BM</li> </ul>	<p>2.069      5.4% as of August 2005</p>
<p><b>Ukraine</b></p>	<ul style="list-style-type: none"> <li>- Primary, secondary (SR) &amp; warm &amp; hot, fast start reserves, reactive power for voltage control and black start</li> <li>- NA</li> </ul>	<p>NA</p>	<p>NA</p>	<ul style="list-style-type: none"> <li>- AS prices are included in the generation price from bids</li> <li>- NA</li> <li>- NA</li> </ul>	<p>NA                      5</p>

### C. Monitoring of the Market

Country	<ul style="list-style-type: none"> <li>- Level of competition</li> <li>- Unbundling level</li> <li>- Existing of market rules and grid code</li> </ul>	<ul style="list-style-type: none"> <li>- Appointment of Market Monitor (MM) by Regulator</li> <li>- Prices on WM</li> </ul>	Receiving market related data by BM	<ul style="list-style-type: none"> <li>- Market Monitor control on generation</li> <li>- How many people of MM team?</li> <li>- Sharing of MM responsibilities</li> </ul>	Frequency of the market monitoring report
<b>Albania</b>	<ul style="list-style-type: none"> <li>- Regulator (ERE) has full competence to develop competition</li> <li>- Unbundling in process</li> <li>- Market rules and grid code are established by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- No MM</li> <li>- NA</li> </ul>	Regulator receives data from licensed market players	<ul style="list-style-type: none"> <li>- NA</li> <li>- NA</li> <li>- Regulator has no responsibilities for MM</li> </ul>	yearly
<b>Armenia</b>	<ul style="list-style-type: none"> <li>- No competition</li> <li>- Unbundling among network and trading</li> <li>- Market rules and grid code are established by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator = market monitor</li> <li>- Administered prices</li> </ul>	Regulator receives data from licensed market players	NA	NA

<b>Bosnia &amp; Herzegovina</b>	<ul style="list-style-type: none"> <li>- Regulator has to ensure competition</li> <li>- Unbundling not yet done</li> <li>- Market rules and grid code are in progress by ISO</li> </ul>	<ul style="list-style-type: none"> <li>- NO MM</li> <li>- NA</li> </ul>	NA	NA	NA
<b>Bulgaria</b>	<ul style="list-style-type: none"> <li>- Commission for Protection of Competition monitors competition</li> <li>- Legal unbundling among generation, supply, trade and transmission, distribution will be no later becoming full EU member</li> <li>- Market rules and grid code are established</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator monitors the electricity market</li> <li>- Fixed prices in bilateral contracts</li> </ul>	No MM is conducted	<ul style="list-style-type: none"> <li>- No MM is conducted</li> <li>- No MM team</li> <li>- No special rule sharing responsibilities between regulator and competition authority</li> </ul>	monthly
<b>Croatia</b>	<ul style="list-style-type: none"> <li>- Agency for market protection</li> <li>- Legal unbundling among generation, transmission, distribution and supply (not effective unbundling for trade)</li> <li>- Codes under development by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- Not yet MM</li> <li>- NA</li> </ul>	Not yet developed information exchange system	NA	NA

<b>Czech Republic</b>	NA	<ul style="list-style-type: none"> <li>- Trade operator = MM</li> <li>- Hourly fixed prices</li> </ul>	<p>Energy Regulatory Office receives data from license players;</p> <p>Trade operator receive data from TSO and players</p>	<ul style="list-style-type: none"> <li>- NA</li> <li>- NA</li> <li>- Regulator and Competition Authority-responsible with customers complaints and market power abuse</li> </ul>	NA
<b>Estonia</b>	<ul style="list-style-type: none"> <li>- No real power market</li> <li>- Legal unbundling among generation, transmission, distribution (over 100000 customers) and supply</li> <li>- Ministry Economic Affaires establishes market rules &amp; codes</li> </ul>	<ul style="list-style-type: none"> <li>- Not yet MM</li> <li>- Not WM prices</li> </ul>	Data received from TSO	<ul style="list-style-type: none"> <li>- NA</li> <li>- Not special team (4 people)</li> <li>- Regulator is responsible with customers complaints and Competition Authority is responsible with market power abuse</li> </ul>	No report

<b>Georgia</b>	<ul style="list-style-type: none"> <li>- Regulator develops legal basis for competition promotion</li> <li>- Legal unbundling among generation, transmission, distribution (supply) and dispatch</li> <li>- Regulator approves market rules and grid codes proposed by WM Executive Board</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator monitors the electricity markets</li> <li>- NA</li> </ul>	Regulator receives data from licensed market players	NA	Quarterly
<b>Hungary</b>	<ul style="list-style-type: none"> <li>- Regulator will be MM (after Sept. 2005)</li> <li>- Legal and functional unbundling between generation, trade and transmission;</li> <li>Functional unbundling between distribution supply and trading</li> <li>- Commercial Code and Grid Code approved by regulator (HEO)</li> </ul>	<ul style="list-style-type: none"> <li>- Not yet appointment of Market Monitor (after Sept. 2005 detailed rules for MM)</li> <li>- WM administrated prices for captive consumers and fixed in contracts for eligible customers</li> </ul>	Regulator receives monthly data from licensed market players	<ul style="list-style-type: none"> <li>- No generation market</li> <li>- No special team in the frame of regulator</li> <li>- Regulator and Competition Authority will share responsibilities with customers complains and market power abuse (after Sept. 2005)</li> </ul>	monthly

<p><b>Kyrgyz Republic</b></p>	<ul style="list-style-type: none"> <li>- State Energy Agency as a regulatory and antimonopoly body is responsible for ensuring effective competition and MM</li> <li>- Unbundling among generation, transmission and distribution</li> <li>- Application of National Electricity Network is in force</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator is appointed as Market Monitor</li> <li>- WM prices administrated and fixed in contracts</li> </ul>	<p>Monthly data are received by regulator from licensed market players</p>	<ul style="list-style-type: none"> <li>- No control</li> <li>- No special team in the frame of regulator</li> <li>- There is a rule of sharing MM responsibilities</li> </ul>	<p>yearly</p>
<p><b>Kosovo</b></p>	<ul style="list-style-type: none"> <li>- Regulator develops legal basis for competition promotion</li> <li>- Not yet unbundling</li> <li>- Regulator establishes market rules and grid code</li> </ul>	<ul style="list-style-type: none"> <li>- Market operator it is foreseen to monitor the electricity markets</li> <li>- No WM prices</li> </ul>	<p>Daily and monthly data are received from integrated vertically company</p>	<ul style="list-style-type: none"> <li>- No control</li> <li>- No special team</li> <li>- No rule for sharing responsibilities</li> </ul>	<p>No monitoring</p>

<p><b>Latvia</b></p>	<ul style="list-style-type: none"> <li>- Regulator develops legal basis for competition promotion according to legal acts</li> <li>- Transmission legal unbundling.</li> <li>Accounting and managing unbundling among generation, distribution and supply</li> <li>- Regulator accepts grid code</li> </ul>	<ul style="list-style-type: none"> <li>- Not yet appointment of market monitor</li> <li>- Fixed prices in bilateral agreement</li> </ul>	<p>Regulator yearly receives data from licensed market players</p>	<ul style="list-style-type: none"> <li>- Regulator yearly receives data from licensed market players</li> <li>- Not special term (3 people)</li> <li>- Regulator and Competition Authority- separate institutions</li> </ul>	<p>yearly</p>
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<p><b>Lithuania</b></p>	<ul style="list-style-type: none"> <li>- Regulator solves disputes between market participants</li> <li>- Legal unbundling among transmission and generation/distribution</li> <li>Accounting and managing unbundling among distribution and supply</li> <li>- Electricity Trading Rules and Grid Code are established by the Ministry of Economy</li> </ul>	<ul style="list-style-type: none"> <li>- NA</li> <li>- Type of prices: <ul style="list-style-type: none"> <li>* negotiated contract electricity price</li> <li>* regulated PSO prices</li> <li>* auction prices are based on market conditions</li> </ul> </li> </ul>	<p>Monthly, directly from TSO (MO)</p>	<ul style="list-style-type: none"> <li>- NA</li> <li>- No special team</li> <li>- Regulator and Competition Authority are separate institutions</li> </ul>	<p>yearly</p>
<p><b>Macedonia</b></p>	<ul style="list-style-type: none"> <li>- Regulatory Commission is responsible for ensuring effective competition</li> <li>- Legal unbundling among generation, transmission, distribution and supply (after Sept. 2005)</li> <li>- Market rules and grid code (after Sept. 2005) by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- Market Operator monitors the electricity markets for prevention of noncompetitive behavior</li> <li>- Regulated prices</li> </ul>	<p>Market Operator collects data according to Market Code</p>	<ul style="list-style-type: none"> <li>- NA</li> <li>- No special team</li> <li>- Regulator collaborates with Commission for Protection Competition (separate institutions)</li> </ul>	<p>yearly</p>

<b>Moldova</b>	<ul style="list-style-type: none"> <li>- Regulator issued 5 licenses with regulated tariff and 20 licenses with non-regulated tariff</li> <li>- Legal unbundling among transmission and distribution (supply)</li> <li>- Transmission and distribution grid codes, measurement code and Electricity market rules are established by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- Not yet appointment of Market Monitor</li> <li>- No WM</li> </ul>	Regulator receives data from SO	<ul style="list-style-type: none"> <li>- NA</li> <li>- No special team</li> <li>- There is no Competition Authority</li> </ul>	monthly
<b>Mongolia</b>	<ul style="list-style-type: none"> <li>- Regulator approves Market Rule including level of competition</li> <li>- Legal unbundling among transmission, generation and distribution (supply)</li> <li>- Not yet market rules, grid codes is established</li> </ul>	<ul style="list-style-type: none"> <li>- No MM</li> <li>- WM prices administrated and fixed</li> </ul>	Regulator receives monthly data from TSO	<ul style="list-style-type: none"> <li>- Based on NDC information</li> <li>- 7 people included in tariff dept.</li> <li>- No special rule sharing responsibilities between regulator and competition authority</li> </ul>	quarterly

<b>Montenegro</b>	<ul style="list-style-type: none"> <li>- Regulator (ERA) develops legal basis for competition promotion</li> <li>- Functionally unbundling among generation, transmission, distribution and supply</li> <li>- Not yet grid codes and market rules</li> </ul>	NA	NA	NA	NA
<b>Romania</b>	<ul style="list-style-type: none"> <li>- Regulator is responsible for ensuring effective competition, transparency and the efficient operation of the market</li> <li>- Legal unbundling among generation, transmission, distribution and supply</li> <li>- Commercial Code is established by Regulator, Transmission and Distribution Codes are approved by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>-Regulator monitors the electricity markets together with the Market Operator (MO) and TSO</li> <li>- Type of prices: <ul style="list-style-type: none"> <li>* regulated prices corresponding to regulated contracts</li> <li>* negotiated prices corresponding to negotiated contracts</li> <li>* market prices corresponding to centralized market</li> </ul> </li> </ul>	Market monitoring Office (MMO) from Regulator, monthly collects data directly from the market participants and receives daily/monthly data from the MO and TSO	<ul style="list-style-type: none"> <li>- MMU from TSO</li> <li>- Regulator and MO - 4 people each for MM</li> <li>- Regulator informs Competition Council (special rule shares responsibilities)</li> </ul>	monthly

<p><b>Slovakia</b></p>	<ul style="list-style-type: none"> <li>- Regulator is responsible for ensuring competition level</li> <li>- Legal unbundling of transmission</li> <li>Accounting unbundling of distribution</li> <li>- Government Ordinance for operation of electricity market and grid code-approved by regulator</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator monitors market transparency and economic competition</li> <li>- Fixed prices on contracts</li> </ul>	<p>Entities send information to Ministry of Economy</p>	<ul style="list-style-type: none"> <li>- NA</li> <li>- No special team</li> <li>- Regulator and Competition Authority-are responsible with customers complaints and market power abuse (special rule shares responsibilities)</li> </ul>	<p>yearly</p>
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<p><b>Turkey</b></p>	<ul style="list-style-type: none"> <li>- Regulator is responsible for ensuring competition in the market. Almost 17% of wholesale market is open to competition</li> <li>- Legal unbundling among generation, transmission and distribution.</li> <li>Accounting unbundling between distribution and retail</li> <li>- Grid Code and market rules are established by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- No MM appointed other than Regulator. Regulator monitors the electricity market in collaboration with the TSO.</li> <li>- Administrated prices for state-owned wholesale company. Others are open to competition.</li> </ul>	<p>Regulator receives data from TSO and DSO. BM monitors electricity generation programs and realized generation figures of all generation companies.</p>	<ul style="list-style-type: none"> <li>- According to data submitted by licensees</li> <li>- 4 people</li> <li>- Regulation in collaboration with the TSO. With regard to competition issue, there are two laws and two authorities, the Energy Regulator and the Competition Authority.</li> </ul> <p>Both Electricity Market Law and Competition Law include provisions about customer complaints and market power abuse.</p>	<p>The followings are the reports, which are submitted to the Regulator and give signals to the market.</p> <p>For the monitoring purposes of security of supply, generation companies are required to submit progress reports concerning their activities till to the facility completion date to the Regulator in every January, May and September.</p> <p>On the other hand, every year a capacity projection report for a minimum period of ten years based on demand forecast prepared by distribution companies and finalized by TEİAŞ (the transmission company &amp; market operator) is approved by the Board of Regulator.</p>
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<b>Ukraine</b>	<ul style="list-style-type: none"> <li>- Regulator is responsible for ensuring competition level</li> <li>- Legal unbundling of generation, transmission and supply</li> <li>Accounting unbundling of distribution</li> <li>- Grid Code is planned in 2006 and market rules are approved by Regulator</li> </ul>	<ul style="list-style-type: none"> <li>- No MM</li> <li>- Hourly non-fixed prices</li> </ul>	Regulator receives data from all licensees	<ul style="list-style-type: none"> <li>- NA</li> <li>- 6 people</li> <li>- No special rule to share responsibilities between regulator and Competition Authority</li> </ul>	yearly
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**D. Congestion Management (CM)**

**E. Dispute Resolution Regarding Market Issues**

<b>Country</b>	<b>Regulator role on congestion issues</b>	<b>- TSO role on congestion issues  - Publication of interconnection capacity value</b>	<b>- Who resolves disputes regarding market issues?  - Enforcement mechanism</b>	<b>Terms, condition, tariffs for new connection to the network</b>
<b>Albania</b>	ERE has the competence to set prices including cost of investments	NA	- Regulator  - There are penalties and tariffs revision	NA
<b>Armenia</b>	NA	NA	- Regulator  - NA	NA
<b>Bosnia &amp; Herzegovina</b>	NA	NA	- Regulator  - There are penalties and tariffs revision	Regulator sets these conditions according to tariff methodology

<b>Bulgaria</b>	Regulator has not role on CM	- No CM rules - No published data	- Regulator - There are penalties and tariffs revision	Energy Act sets these conditions
<b>Croatia</b>	Regulator monitors the rules implementation	NA	- Regulator - NA	Conditions not approved yet
<b>Czech Republic</b>	NA	- TSO manages allocation of interconnection capacity - NA	- Regulator, antimonopoly authority or court - There are tariffs revision	Regulator sets these conditions
<b>Estonia</b>	Regulator is empowered to address congestion rules, but there are not congestions	Not congestion	- Regulator and court. - There are penalties	90 / 30 days for Transmission/Distribution network  Standard contract conditions, ex-ante calculation of connection fee, published by regulator
<b>Georgia</b>	Regulator is not authorized to deal with CM	- System Operator deals with CM - Not yet published	- Regulator - NA	Transmission license contains these conditions

<b>Hungary</b>	Regulator approves codes, determining congestion management rules	<ul style="list-style-type: none"> <li>- SO (MAVIR) calculates NTC on the interconnection lines</li> <li>- SO publishes NTC</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator and court.</li> <li>- There are fines or suspension of license</li> </ul>	According to Commercial Code
<b>Kyrgyz Republic</b>	NA	NA	<ul style="list-style-type: none"> <li>- State Energy Agency;</li> <li>- There are penalties and tariffs revision</li> </ul>	NA
<b>Kosovo</b>	Regulator is authorized to deal with CM	<ul style="list-style-type: none"> <li>- TSO is responsible for transmission capacities</li> <li>- No publication</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- NA</li> </ul>	Not yet estimation
<b>Latvia</b>	Regulator is authorized to deal with CM	<ul style="list-style-type: none"> <li>- No congestion</li> <li>- Yearly publication</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator and court.</li> <li>- There are fines or suspension and possibility to revise tariffs</li> </ul>	<p>Tariffs are set by Regulator;</p> <p>Terms for new connection are set by regulator</p>
<b>Lithuania</b>	Regulator is authorized to deal with CM	<ul style="list-style-type: none"> <li>- No congestion</li> <li>- TSO report once per year</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- Penalties, suspension or revoking of license</li> </ul>	<p>Terms and conditions for new connection are set by the Ministry of Economy.</p> <p>Regulator defines the connection fee which covers 40 percent of operator's costs.</p>

<b>Macedonia</b>	Regulator is not authorized to deal with CM	<ul style="list-style-type: none"> <li>- SO addresses congestion issues</li> <li>- NA</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator and court</li> <li>- There are tariffs revision, suspension or revoking license</li> </ul>	These conditions are setting in accordance to Energy Law, Grid Code, Connection Agreement
<b>Moldova</b>	Regulator is not authorized to deal with CM	<ul style="list-style-type: none"> <li>- Agreement on parallel operation with PS of Ukraine</li> <li>- Ukraine sends forecasted transfer capacity</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- There are tariffs revision, suspension or revoking license, penalties</li> </ul>	Special regulations are developed
<b>Mongolia</b>	Regulator is not authorized to deal with CM	<ul style="list-style-type: none"> <li>- Allocation rules are included in Business rule among license holders</li> <li>- Information is monthly distributed to licensees</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator and court</li> <li>- There are penalties</li> </ul>	3 days-24 hours for consumers
<b>Montenegro</b>	Regulator is authorized to deal with CM	<ul style="list-style-type: none"> <li>- Allocation rules are included in Grid Code</li> <li>- NA</li> </ul>	NA	NA

<b>Romania</b>	Regulator establishes the main rules for the congestion management and approves terms and conditions for balancing services	<ul style="list-style-type: none"> <li>- TSO administrates Balancing Market for Congestion Management according to the Commercial Code</li> <li>- TSO publishes NTC</li> </ul>	<ul style="list-style-type: none"> <li>- The Arbitration Committee</li> <li>- Regulator, based on Regulation for the identification, notification and penalization of the electricity sector regulation violations, applies penalties, tariffs revision and suspension or revoking license</li> </ul>	These conditions are setting according to the Regulation on connection to the network of new users
<b>Slovakia</b>	Regulator is authorized to deal with CM	<ul style="list-style-type: none"> <li>- According to EC Regulation 1228/2003</li> <li>- NA</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- There are penalties and tariffs revision</li> </ul>	These conditions are setting according to Energy Act and Regulation Act
<b>Turkey</b>	Regulator sets the rules	<ul style="list-style-type: none"> <li>- TSO is responsible with CM</li> <li>- TSO publishes NTC</li> </ul>	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- There are penalties, fines and tariffs revision</li> </ul>	Regulator sets the rules about them through secondary legislation. The cost (which is a fixed amount) of connection assets are paid by consumers.
<b>Ukraine</b>	NA	NA	<ul style="list-style-type: none"> <li>- Regulator</li> <li>- There were 117 cancellation of license and 12 fines</li> </ul>	NA