Republic of Croatia

Croatian Energy Regulatory Agency

REPORT
On the work of the Croatian Energy Regulatory Agency
For the year 2005

Zagreb, July 2006

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A. REPORT ON THE WORK OF THE CROATIAN ENERGY REGULATORY AGENCY IN THE YEAR 2005

1. *LEGISLATIVE FRAMEWORK FOR THE ENERGY SECTOR AND ENERGY ACTIVITIES (STATUS ON DECEMBER 31, 2005)*

Creation of the appropriate legislative and institutional framework for the regulation of the energy sector in the Republic of Croatia and its harmonization with the EU legislation is an important precondition for the future membership in the European Union. The following documents represent the legal sources for that framework:

I. International agreements for energy sector signed and ratified by the Republic of Croatia

- Energy Treaty ("Official Gazette" – MU, No. 15/97),
- The Law on Confirmation of Amendments of Trade Regulations of the Energy Treaty ("Official Gazette" – MU, No. 6/03)
- The Ruling on Confirmation of the Energy Treaty Protocol on Energy Efficiency and Related Environmental Issues ("Official Gazette" – MU, No. 7/98)
- The General Agreement on Institutional Framework for Establishment of Interstate Systems for Transportation of Oil and Gas ("Official Gazette" – MU, No. 14/00)
- Stabilisation and Association Agreement between the Republic of Croatia and the European Union and its member states, created in Luxembourg on October 29, 2001 ("Official Gazette" - MU, No. 14/01).

II. Legislation relevant for the energy field:

- The Law on Energy ("Official Gazette", No. 177/04)
- The Law on Regulation of Energy Activities ("Official Gazette", No. 177/04)
- The Law on Electricity Market ("Official Gazette", No. 177/04)
- The Law on Gas Market ("Official Gazette", No. 68/01 and 87/05)
- The Law on Production, Distribution and Provision of Heat Energy ("Official Gazette", No. 42/05)
- The Law on Oil and Oil Derivatives Market ("Official Gazette", No. 68/01)

III. Secondary legislation and other relevant regulations based on the above listed laws:

- Strategy of the Energy Sector Development of the Republic of Croatia ("Official Gazette", No. 38/02)
- The Decision on the Appointment of President, Deputy President and Members of the Steering Committee of the Croatian Energy Regulatory Agency ("Official Gazette", No. 66/05)
- The Decision on the Consent to the Statute of the Croatian Energy Regulatory Agency ("Official Gazette", No. 85/05)
- The Ruling on the Validity Period for Licenses for Carrying Out of Energy Activities ("Official Gazette", No. 116/02 and 71/05)
- The Ruling on Granting Status of Eligible Customers for Gas ("Official Gazette", No. 101/04
- The Decision on Tariff Items for Gas Transportation for 2005 ("The Gazette of the Croatian Energy Regulatory Council" 3/2004 – December 2004)
- The Ruling on Obligatory Reserves of Oil and Oil Derivatives ("Official Gazette", No. 27/03)
- The Decision on the Amounts of Compensations for Carrying Out Energy Regulatory Activities ("Official Gazette", No. 73/05)
- Tariff Systems for Services of Electric Energy Activities Carried Out as Public Services ("Official Gazette", No. 101/02, 120/02, 129/02 and 98/05)

- Tariff System for Natural Gas Supply for Tariff Customers ("Official Gazette", No. 99/02)
- The Ordinance on the Conditions for Carrying Out Energy Activities ("Official Gazette", 6/03 and 94/05)
- The on the Data Energy Operators are Obliged to Send to the Energy Regulatory Council ("Official Gazette", No. 97/03)
- The Ordinance on Energy Balance ("Official Gazette", No. 33/03)
- The Ordinance on Methods and Criteria for Determining Rates for Usage of Transmission and Distribution Network ("Official Gazette", No. 109/03)
- The Decision on the Rate for Usage of Transmission and Distribution Network ("The Gazette of the Energy Regulatory Council", No. 3-4, December 2003)
- The Rules for Functioning of the Electricity Market ("Official Gazette", No. 193/03 and 198/03)
- The Ordinance on Gas Distribution ("Official Gazette", No. 104/02 and 97/03)
- Grid Code for Access to the Transport System of Gas Pipelines (Official Gazette", No. 126/03)
- The Ordinance on Determining of Prices of Oil Derivatives ("Official Gazette", No. 59/05)
- The Ordinance on General Conditions and Tariff for Storage of Obligatory Reserves of Oil and Oil Derivatives ("Official Gazette", No. 68/03)
- The Statute of the Croatian Energy Regulatory Agency ("Official Gazette", No. 86/05)

2. *ACTIVITIES OF THE CROATIAN ENERGY REGULATORY AGENCY*

Based on the above listed regulations, the scope of work of the Croatian Energy Regulatory Agency includes the following:

1. Issuing and Revoking (temporarily and permanently) of Licenses for Carrying out of Energy Activities.

2. Regulation of Energy Prices:

- Development and adoption of methodology for tariff systems without the amount of tariff items, for generation of electricity with the exception of production for eligible customers, transmission of electricity, distribution of electricity, provision of electricity with the exception of eligible customers, supply of natural gas with the exception of eligible customers, distribution of natural gas, transportation of natural gas, storage of natural gas, provision of natural gas with the exception of eligible customers, production of heat energy with the exception of eligible customers, heat energy distribution, heat energy provision with the exception of eligible customers, after obtaining opinion of the relevant energy operator and the Ministry with competence in the energy sector,
- Development and adoption of methodology for determining rates for connection to the transmission and distribution network and for increase in connected load
- Development and Adoption of methodology for providing service of balancing the electric energy system
- Development and adoption of methodology for providing service of balancing gas pipeline system and access to the storage of natural gas, the quantity of gas in gas pipelines and other ancillary services in the gas pipeline system
- Providing expert opinion to the Government of the Republic of Croatia on draft proposal of rates for connection to the network and for increase in connected load
- Providing expert opinion to the Ministry on the tariff system for production of electric energy from renewable energy sources and cogeneration, on compensation for providing incentives for renewable sources and cogeneration and on compensation for stranded costs

- Providing expert opinion to the Ministry on the proposed amount of tariff items
- Providing expert opinion to the Ministry on the proposed amount compensation for organization of the electric energy market
- Supervision of application of all tariff systems and prescribed compensations
- Adoption of tariff system for transportation of oil through oil pipelines and transportation of oil derivatives through product pipelines.

3. Activities related to the construction of new energy facilities

- Providing expert opinion to the Ministry on the procedures and criteria for approval and construction of generating facilities for electricity
- Taking decisions on inviting for tenders and selecting the most advantageous bidder for construction of production facilities up to 50 MW (electricity)
- Taking decisions on the construction of new electricity generating facilities up to 50 MW
- Giving proposals to the Government of the Republic of Croatia on inviting for tenders and selecting the most advantageous bidder for construction of production facilities up to 50 MW (electricity) and higher
- Organization and implementation of tendering procedure for the construction of generating facilities (electricity)
- Issuing permits for building of an energy facility for production of heat energy for tariff customers
- Approving plans of development and construction of transmission networks, created by transmission system operator and distribution system operator
- Assessing legitimacy of conditions of granting concessions for gas distribution based on documentation provided by state administration offices within counties
- Giving consent to an energy operator for construction of a direct line

4. Settling disputes in carrying out regulated activities[1]:

- Over rejection of connection to the transmission network/transportation system
- Over rejection of access to gas transportation system, or in case of objections regarding conditions of access
- Over determined compensation for connection to and usage of transmission network/transportation system
- Over client's objection to the work of transmission system operator and the work of distribution system as well as the decision on methodologies
- Over withholding of consent by an energy operator carrying out the energy activity of heat energy distribution to the contract between the energy operator for heat energy production and heat energy eligible customer
- Over withholding of consent by an energy operator for heat energy distribution to a heat energy tariff customer on joint heat energy meter that wishes to opt out of the heat system, providing technical conditions allow that and tariff customer has obtained the consent of all tariff customers on joint heat energy meter
- Over withholding of consent by an energy operator for heat energy distribution to owners of those parts of a building, which represent a separate entity within a building built before The Law on Heat Energy Production, Distribution and Provision came into effect, who wish to install devices for local separation of delivered heat energy, devices for regulation of heat increase and devices for metering of heat energy consumption

[1] The Agency's decisions are final and they can be subject of an administrative dispute

5. Participation in the procedure of creation and adoption of documents, especially the following:

- Adoption of regulation in the energy sector for which the Agency is authorized, as well as giving consent to and expert opinion on rules and regulations in the energy sector
- Providing expert opinion to central bodies of the state administration on draft proposals and regulations related to carrying out of energy activities
- Providing expert opinion to the Ministry with authority over energy issues on General Conditions for Energy Provision, prescribed by the Government of the Republic of Croatia
- Providing expert opinion to the Ministry with authority over energy issues on procedures and criteria for approval and construction of generating facilities
- Providing expert opinion to the Minister with authority over energy issues on draft proposal for Grid Code of the electric energy system
- Giving consent to the rules for functioning of the electric energy market developed by the operator of the electric energy market
- Giving consent to technical conditions for access of legal and natural persons to gas transportation facilities
- Giving consent to technical conditions for access to facilities for transportation of oil through oil pipelines
- Ensuring publishing of basic market conditions for access to transportation system of gas pipelines, established by gas transportation operator
- Giving consent to the Grid Code for access to transportation system of gas pipelines to the Minister with authority over energy issues
- Providing expert opinion to the Ministry with authority over energy issues on the proposal of compensation amount for stranded costs, adopted by the Government of the Republic of Croatia

6. Supervision over energy operators' business operations and especially the following:

- Monitoring energy operators, pursuant to the Energy Law and other laws regulating carrying out of specific energy activities,
- Monitoring energy operators' quality of service,
- Collecting and analyzing data related to energy operators' activities,
- Submitting requests for administrative dispute procedures,
- Monitoring the implementation of transmission system operators' and distribution, system operators' financial plans and programs,
- Having insight into gas supply contracts,
- Giving consent to gas providers for signing new contracts of the type "ship or pay" (SOP) and "take or pay"(TOP),
- Giving consent for access and usage of the natural gas production system,
- Determining of *force majeure* as the reason for termination of contract on the concession for gas distribution,
- Giving consent to a gas distributor on concession transfer to a legal entity established by the gas distributor for the purpose of carrying out the gas distribution activity, under the condition the gas distributor entered the means of the gas distribution system into the property of the new entity,
- Determining the validity of legal foundation for carrying out the gas distribution activity by gas distributors without the concession,
- Giving consent to contracts on carrying out the activity of heat energy distribution

7. Consumer protection-related activities

- Implementation of customer protection measures through the advisory bodies with representatives of customer associations,
- Participation in the development and monitoring of the National Customer Protection Program for 2005 and 2006 through the Customer Protection Council, established upon the decision of the Government of the Republic of Croatia ("Official Gazette", No. 68/04 and 154/04) as the advisory body to the Minister.

8. Implementation of the rules and the system of measures for the protection of market competition on issues under the sole competence of the Agency, monitoring especially the following:

- The rules on management and distribution of capacities of the interconnection lines, in cooperation with regulatory bodies of neighboring countries to which there are electric and gas system connections,
- The system of settling congestions within the national transmission network/system,
- Deadlines within which the transmission system operator or the distribution system operator eliminates breakdowns and provides connections,
- Publishing of the relevant information sent by the transmission system operator and the distribution system operator to the interested parties on connections, the transmission network/system and the distribution network and the distribution of transmission power of the interconnection lines, taking into consideration the confidentiality of particular information,
- Separation of accounting system, as it is prescribed by the Energy Act and other laws regulating particular energy activities, in order to prevent subsidizing between production, transmission, distribution and supplying activities.

9. Apart from the above listed activities, the Agency does the following:

- Participates in the energy policy design,
- Collaborates with ministries and relevant inspectorates in line with particular legislation,
- Collects and processes data related to the energy operators' activities,
- Publishes information and data on energy efficiency and the usage of energy,
- Issues rulings on granting the status of eligible producer of electricity and eligible producer of heat energy in line with conditions prescribed by the competent Minister,
- Reports at least once a year to the Croatian Parliament on observations relevant for the development of the energy market and public services in the energy sector, on the analysis of the energy sector and the realization of the Agency's budget for the previous year,
- Responds to written requests of energy operators on issues related to the regulation of their activities,
- Passes individual acts in carrying out public authorities, published in the Agency's newsletter,
- Adopts budget for the next year with previously obtained approval of the Government of the Republic of Croatia,
- Proposes amounts of charges for regulation of energy activities prescribed by the Government of the Republic of Croatia with previously obtained opinion by the Ministry with authority over energy issues,
- Collaborates with international institutions that deal with monitoring and regulation of energy markets,
- Undertakes other measures and performs other duties prescribed by the legislation and other acts relevant for the energy sector, as well as by the general acts of the Agency.

2.1. ISSUING AND REVOKING LICENSES FOR CARRYING OUT ENERGY ACTIVITIES

In the course of 2005 the Agency has continued managing the procedures for issuing licenses for carrying out energy activities, based on the following legislation and secondary legislation:

- The Energy Act ("Official Gazette", No. 68/01 and 177/2004),
- The Act on Regulation of Energy Activities ("Official Gazette", No. 177/04),
- The Book of Rules on Conditions for Carrying Out Energy Activities ("Official Gazette", No. 6/03 and 94/05),
- The Ordinance on the Period of Time for which a License for Carrying Out of Energy Activities is Issued ("Official Gazette", No. 116/02 and 71/05)
- The Decision on the Amounts of Charges for Regulation of Energy Activities ("Official Gazette", No. 73/05),
- The Book of Rules on Gas Distribution ("Official Gazette", No. 104/02 and 97/03).

The material and process legal preconditions for issuing licenses are regulated by the above listed acts and regulations, as well as by other related secondary legislation; issues not covered by the Energy Act shall be dealt with pursuant to the Act on the General Administrative Procedure ("Official Gazette", No. 53/91 and 103/96).

Pursuant to the Article 16 of the Energy Act the Agency issues licenses for carrying out energy activities, which is the precondition for engaging in carrying out these activities. The license is issued upon the energy operator's submitted request. Each particular case – license for carrying out energy activities - is dealt with according to the rules of the administrative procedure. The energy operator submits, along with the request for issuing a license, sufficient evidence – private and public documents, showing its technical and financial qualifications, as well as professional skills for carrying out the energy activity the licenses is requested for. Once the Agency has evaluated all the submitted written documentation, the Agency's representatives perform an on-the-spot inquiry of the energy operator by visiting its premises – its buildings, its installations, the network and the equipment, as well as the personnel records and other documentation, the purpose of which is to determine whether the energy operator really fulfills the prescribed conditions and to settle potential unclear issues that might have appeared while the proceedings were in progress and were related to particular pieces of evidence, their credibility, the need for submitting additional documentation etc. After the entire process is completed, including the evaluation of every piece of evidence individually and as a whole and including the on-the-spot inquiry, the Agency's expert services submit the case together with the review of evidence and their opinion on fulfillment of conditions for issuing of the license, the opinion for which time period the license should be issued and the proposed ruling on issuing of the license to the Agency's Steering Committee, which in its sessions decides on issuing licenses for carrying out energy activities or based on the documentation takes another legal decision (to reject the request, to dismiss the request, to suspend the proceedings).

According to the Article 15 of the Energy Act, the energy activities are the following:

1. Production of electricity,
2. Transmission of electricity,
3. Distribution of electricity,
4. Provision of electricity,
5. Organizing of electricity market,
6. Natural gas supply,
7. Storage of natural gas,
8. Transportation of natural gas,
9. Distribution of natural gas,
10. Provision of natural gas,

11. Production of oil derivatives,
12. Production of biofuel,
13. Oil transportation through oil pipelines and other non-mentioned means of transportation from the Paragraph 15 of this Article,
14. Transportation of oil derivatives through product pipelines,
15. Transportation of oil, oil derivatives and biofuel by road transportation,
16. Wholesale trade of oil derivatives,
17. Retail trade of oil derivatives,
18. Storage of oil and oil derivatives,
19. Production of heat energy,
20. Distribution of heat energy,
21. Provision of heat energy,
22. Trading, mediating and representation at the energy market,
23. Transportation and storage of liquefied natural gas (LNG),
24. Wholesale and retail trade of liquefied petroleum gas (LPG),
25. Wholesale of liquefied natural gas, for carrying out of which it is necessary to obtain a license. The exception is, according to the Article 16 of the same Act, the license is not necessary for the following activities:
    1. Production of electricity exclusively for one's own needs or production in the facilities of up to 1 MW,
    2. Production of biofuel exclusively for one's own needs or the produced energy does not succeed 1 TJ/year,
    3. Retail trade of oil derivatives,
    4. Storage of oil and oil derivatives stored exclusively for one's own needs,
    5. Production of heat energy exclusively for one's own needs or production in the facilities of up to 0.5 MW.

Based on the aforementioned, the obligation to apply for licenses, in the course of 2005 the Agency received the total of 78 requests for licenses for carrying out energy activities, the 33 of which were granted licenses. The rest of 45 requests, mainly submitted in the last quarter of 2005, will come into effect partly in the beginning of 2006 or will continue to be dealt with in the course of 2006, depending on how complete is the accompanying documentation submitted.

Amendments to the Energy Act ("Official Gazette", No. 177/04) determine the obligation of the natural persons – craftsmen to request licenses for carrying out the following energy activities:

- Transportation of oil, oil derivatives and biofuel by means of road transportation,
- Production of biofuel and
- Trading, mediation and representation on the energy market.

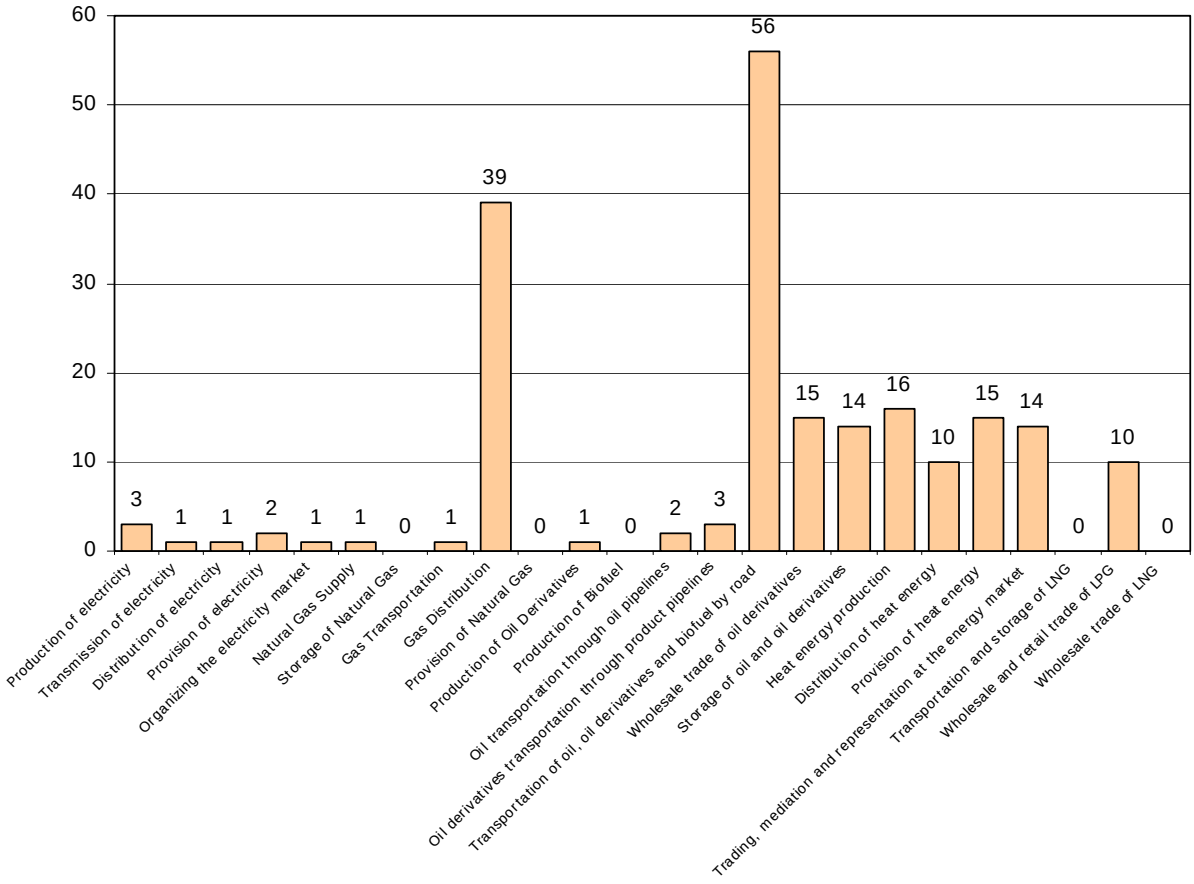
In the course of 2005 the number of requests for licenses for carrying out the energy activity of oil, oil derivatives and biofuel transportation by means of road transportation has increased significantly, especially by natural persons – craftsmen, so out of the total of 78 submitted requests for licenses, 60 are from natural persons – craftsmen.

The Agency's rulings on granting the license for carrying out of energy activities upon the request of energy operators are final. Therefore a dissatisfied party can file an administrative suit against Agency's rulings at the Administrative Court of the Republic of Croatia, which has not happened so far. The Table 1 shows a review of all issued licenses for carrying out energy activities by energy activities, with the status on December 31, 2005, graphically displayed in the Picture 1.

Table 1. Licenses issued for carrying out energy activities (by activities)

Energy Activities	**Issued Licenses – the status on Dec. 31, 2005 (No.)**
Production of electricity	3
Transmission of electricity	1
Distribution of electricity	1
Provision of electricity	2
Organizing the electricity market	1
Natural gas wholesale supply	1
Storage of natural gas	0
Natural gas transmission	1
Gas distribution	39
Natural gas enduser supply	0
Production of oil derivatives	1
Production of biofuels	0
Oil transportation through oil pipelines and other non-mentioned means of transportation	2
Oil derivatives transportation through product pipelines and other non-mentioned means of transportation	3
Transport of oil, oil derivatives and biofuel by road	56
Wholesale trade of oil derivatives	15
Storage of oil and oil derivatives	14
Heat energy production	16
Distribution of heat energy	10
Provision of heat energy	15
Trading, mediation and representation at the energy market	14
Transportation and storage of liquefied natural gas (LNG)	0
Wholesale and retail trade of liquefied petroleum gas (LPG)	10
Wholesale trade of liquefied natural gas (LNG)	0
Total	**205**

Picture 1 Review of issued licenses for carrying out energy activities (by activities, the status on December 31, 2005)



Within the Registry of Licenses the Agency keeps the Consolidated Review with the following data:

- The registry number of the license,
- Data of entry into the Registry of Licenses,
- Full name of the legal/natural person (company name) to which the license was issued,
- The seat and address of the legal/natural person (company name) to which the license was issued,
- Identification number of the energy operator/company or the legal/natural person to which the license was issued,
- Name of the energy activity,
- Time period for which the license was issued,
- Date of issuing the Agency's Ruling on Revoking of the License,
- Date of issuing the Ruling on the permission to carry out energy activities pursuant to the Article 18, Paragraph 2 of the Energy Act.

The access to the Consolidated Review of the Registry of Licenses of the Croatian Energy Regulatory Agency has been provided to the public on the following web site: www.hera.hr

Finally, it can be stated that after a three-year period in which the energy operators' submitted requests for issuing licenses have been intensively processed, the majority of energy operators have been granted licenses. Since the first licenses have been issued for a period of three years, the "new round" of requests' submitting and processing is expected to start after that three-year period.

2.2. REGULATION OF PRICES

Based on the Article 28 of the Energy Act, the Agency has the authority to pass methodologies or tariff systems without the amounts of tariff items, after the previously obtained opinion of the energy operators for carrying out of whose energy activities the tariff system is passed, as well as the opinion of the Ministry of Economy, Labor and Entrepreneurship. Also, pursuant to the Paragraph 2 of the same Article, the Agency issues its expert opinion to the Ministry of Economy, Labor and Entrepreneurship on the amount of tariff items, which at the proposal of the Ministry of Economy, Labor and Entrepreneurship are regulated by the Government of the Republic of Croatia. Within the Agency's authority is also the supervision of the tariff systems' implementation.

The implementation of tariff systems means determining the prices of the following energy activities:

Electricity:

- Production of electricity, with the exception of production for eligible customers,
- Transmission of electricity,
- Distribution of electricity,
- Provision of electricity with the exception of tariff customers.

Gas:

- Natural gas wholesale supply, with the exception of eligible customers,
- Transport of natural gas,
- Distribution of natural gas,
- Storage of natural gas,
- Natural gas enduser supply, with the exception of eligible customers.

Heat energy:

- Production of heat energy, with the exception of eligible customers,
- Distribution of heat energy,
- Provision of heat energy, with the exception of eligible customers.

Apart from the energy activities for which the price is determined based on the tariff systems, pursuant to the Act on the Regulation of Energy Activities, the Agency passes the tariff system for oil transportation through oil pipelines and the transportation of oil derivatives through product pipelines.

2.2.1. The Supervision over Tariff System for Electricity Services in the Public Sector

In the August of 2005, the Government of the Republic of Croatia changed the amounts of tariff items in the Tariff Systems for Electricity Services in the Public Sector ("Official Gazette", No. 101/02, 121/02, 129/02 and 98/05), which determines the electricity price for customers on:

1. High voltage (110 kV),
2. Medium voltage (35 and 10 kV),
3. Low voltage (households, entrepreneurs and public lighting).

The electricity price formulated in this way includes costs of all electricity related activities (production, transmission, distribution, provision of electricity, management of the electricity system and organizing of the electricity markets). Average price movement of electricity for particular categories of customers in the period from the year 2001 to 2005 is displayed in the Table 2.

Table 2. Average price movement of electricity for the period from the year 2001 to 2005

Customer Type	2001	2002	2003	2004	2005
	kn/kWh				
110 kV	0.2336	0.2401	0.2713	0.2831	0.3067
35 kV	0.3094	0.401	0.4151	0.4179	0.4333
10 kV	0.4440				
Households	0.5095	0.5143	0.5486	0.5489	0.5568
Entrepreneurs	0.5748	0.5653	0.5682	0.5678	0.5750
Public Lighting	0.4700	0.4696	0.4685	0.4676	0.4745

Source: Hrvatska elektroprivreda d.d.

According to the Act on Amendments of the Energy Act passed in 2004, the implementation of the tariff systems determines the following prices:

1. electricity production, with the exception of production for eligible customers,
2. transmission of electricity,
3. distribution of electricity,
4. supply of electricity, with the exception of eligible customers.

The role of the Agency is to pass methodologies for determining the amounts of tariff items of tariff systems for the above listed energy activities and the amounts are determined by the Government of the Republic of Croatia.

2.2.2. Supervision of tariff systems in the natural gas sector

In 2005 the Croatian Energy Regulatory Agency, within the framework of its authorities in supervision of the implementation of tariff systems for natural gas related activities, passed the following regulations:

A. Energy activity of natural gas supply:

- The opinion on the natural gas selling price for legal and natural persons that are engaged in natural gas supply or trading for the I quarter of 2005 (http://www.hera.hr/hrvatski/dokumenti/pdf/m1s142004h.pdf)
- The opinion on the natural gas selling price for legal and natural persons that are engaged in natural gas supply or trading for the II quarter of 2005 (http://www.hera.hr/hrvatski/dokumenti/pdf/m1s172005h.pdf)
- The opinion on the natural gas selling price for legal and natural persons that are engaged in natural gas supply or trading for the III quarter of 2005 (http://www.hera.hr/hrvatski/dokumenti/hera/pdf/m1s42005h.pdf)
- The opinion on the natural gas selling price for legal and natural persons that are engaged in natural gas supply or trading for the IV quarter of 2005 (http://www.hera.hr/hrvatski/dokumenti/hera//pdf/m1s102005h%20.pdf)
- Declaration on the Final Statement of Accounts for Gas Transportation for the year 2005 (http://www.hera.hr/hrvatski/dokumenti/hera/pdf/oc1-s222006.pdf).

B. Energy activity of natural gas transportation:

- The opinion on tariff amounts for gas transportation for the year 2006 (http://www.hera.hr/hrvatski/dokumenti/hera/pdf/m1-s192005.pdf).

2.2.2.1. The supervision of the implementation of the Tariff System for Natural Gas Supply for Tariff Customers

The selling price of natural gas for legal and natural persons that are engaged in the natural gas supply or trading (natural gas supply price) is determined by the Tariff System for Natural Gas Supply for Tariff Customers ("Official Gazette", No. 99/02).

According to the Energy Act ("Official Gazette", No. 68/01 and 177/04), the Methodology or in other words tariff systems without the amounts of tariff items for natural gas supply with the exception of eligible customers are passed by the Agency, after previously obtained opinion of the energy operator (in this case INA d.d.) and the relevant Ministry.

Since by the end of the year 2005 the new Methodology for Natural Gas Supply has not been passed, the Tariff System for Natural Gas Supply for Tariff Customers is applied until the new Methodology is passed.

As far as the price movement of natural gas is concerned, the Agency has not approved further price increase in the I, II, III and IV quarter of 2005 and the I quarter of 2006. In the course of 2005, the selling price of natural gas for tariff customers was 1.07 kn/m^3 / 33,338.35 kJ.

In its explanation of the Opinion on the Calculation of Natural Gas Selling Price for Tariff Customers the Agency stated that the price of imported natural gas is determined according to the contracts signed with deliverers and the way of determining the price of domestic natural gas has not been prescribed by the provisions of the Tariff System for this energy activity, nor by any other general piece of regulation. Further, since this is about determining the price only for tariff customers, the Agency's opinion is that the allocation of imported amounts and the domestic production between tariff and eligible customers has not been determined either.

With regard to the above described, when new methodology is developed, it is necessary to pay attention to the way of determining the price of domestically produced natural gas, the way it is implemented and the mechanism of allocation of the amounts of imported natural gas and domestic natural gas between tariff and eligible customers.

2.2.2.2. Supervision of the Implementation of the Tariff System for Natural Gas Transportation

Supervising the implementation of the Tariff System for Gas Transportation for Gas Suppliers and Eligible Gas Customers ("Official Gazette", No. 99/02 and 135/03) the Agency issued the Opinion on Tariff Amounts for Transportation of Natural Gas for the Year 2006 (T_{peak}, T_{medium}, T_{basic}) in December 2005. The Government of the Republic of Croatia, based on the proposal of the relevant Ministry and with the previously obtained Agency's opinion, passed the Decision on Tariff Amounts for Gas Transportation for the year 2006. The determined tariffs refer to the highest daily load of the transportation system in particular period of transportation (Kn/max. m^3 per day) as follows:

1. Months of peak load (January, February, November and December):

   T_{peak} = 3.463 kn/m^3 per day;

2. Months of medium load (March, April, May, June, September and October):

   T_{medium}= 2.886 kn/m^3 per day;

3. Months of basic load (July and August):

   T_{basic}= 1.731 kn/m^3 per day;

Table 3 shows the tariff amounts for natural gas transportation for years 2004, 2005 and 2006, as well as their implementation. In line with the determined tariffs T_{peak}, T_{medium}, T_{basic} and planned maximum requested daily loads, the fixed cost of natural gas transportation for the year

2006 is charged to each user of the transportation system (eligible customer, direct customer and natural gas distributors).

Table 3. Tariff amounts for natural gas transportation review for years 2004, 2005 and 2006

Tariff	2004	2005	2006	Index 2006/2005
T_{peak}	4.163 Kn/m3 per day	3.610 kn/m3 per day	3.463 kn/m3 per day	96
T_{medium}	3.469 Kn/m3 per day	3.008 kn/m3 per day	2.886 kn/m3 per day	96
T_{basic}	2.082 Kn/m3 per day	1.805 kn/m3 per day	1.731 kn/m3 per day	96

At the end of the settlement period or according to the determined in reality measured items the final settlement of accounts of gas transportation costs for each individual transportation system user is carried out, in line with the Tariff System provisions.

Table 4. Review of realized prices of natural gas transportation for the period 2003 to 2005 and planned prices for the year 2006 (in kn/m^3)

Customers	2003	2004	2005	2006 (Plan)
Gas distributors	0.182	0.183	0.161	0.148
Direct customers	0.122	0.160	0.136	0.110
Eligible customers	0.122	0.124-0.128	0.117-0.181	0.107-0.143

Table 4 shows the price movement of natural gas transportation for the period of 2003 to 2005, or after the adoption of Tariff System for Gas Transportation for Gas Suppliers and Eligible Gas Customers. At the beginning of its implementation (September 1, 2002) the price of gas transportation for gas distributors was 0.182 kn/m^3 and for eligible and direct customers 0.122 kn/m^3. The said price was used during the transitional period of 16 months, until December 31 2003. From January 1, 2004 the tariffs determined by the Regulatory Council (legal predecessor to the Agency) were in effect based on the Tariff System for Gas Transportation for Gas Suppliers and Eligible Gas Customers. They remained in effect until January 1, 2005, when the Regulatory Council's Decision on Tariff Amounts for Gas Transportation for 2005 started to be implemented. The tariffs for 2006 were determined by the Government of the Republic of Croatia, based on the Agency's opinion.

2.3. PARTICIPATION IN THE PROCESS OF WRITING AND ADOPTING OF LEGAL ACTS

In line with its legal requirements of providing relevant expert opinion to the Ministry with authority over energy issues, providing opinions or approvals of rules and regulations in the energy sector, passing regulations in the energy sector for which it is authorized based on the Act on the Regulation of Energy Activities and other acts regulating particular energy activities and participating in the defining of the energy policy, in the course of 2005 the Agency has prepared, analyzed, provided opinions and proposals to a number of different pieces of legislation, including acts, rules and regulations, which regulate relations in the energy sector, conditions of connections for producers and customers, conditions of supply and other issues related to the energy sector and the market. The highest level of activity and cooperation in defining and adopting legal acts has been carried out towards the Ministry of Economy, Labor and Entrepreneurship.

2.4. PROVIDING OPINIONS, CONSENTS, APPROVALS, ISSUING DECISIONS AND RULINGS

In the course of 2005 the Croatian Energy Regulatory Agency has within the framework of its regular authorities issued the Decision on Tariff Amounts for Oil Transportation through Oil Pipelines for the year 2006, the Opinion on the Selling Price of Natural Gas for Legal and Natural Persons Involved in Supply or Trading with Natural Gas for II quarter of 2005, the Opinion on Calculation of the Selling Price of Natural Gas for Tariff Customers for III quarter of 2005, the Opinion on the Calculation of the Selling Price for Tariff Customers for IV quarter of 2005, the Opinion on Tariff Amounts for Gas Transportation for the year 2006, the Opinion on the Request for Increase of Tariff Items in the Tariff System for Electricity Services in the Public Sector, as well as the Statement regarding Final Settlement of Accounts for Gas Transportation for the Year 2004.

2.5. DISPUTE SETTLEMENT

With the purpose of avoiding conflicts between energy operators and the conflicts between energy operators and customers, the Agency makes every effort to inform all participants on recent trends on energy markets and establish mutual communication. In that way, with the participation of all involved parties and application of specific knowledge from the energy field, the possible disputes are efficiently prevented and settled, the parties' costs are reduced and long-lasting court proceedings are avoided. Namely, according to the Article 4 of the Act on the Regulation of Energy Activities one of the basic goals of regulation of energy activities is the protection of energy customers and energy operators.

2.6. CONSUMER PROTECTION

In the Republic of Croatia the set of issues related to the consumer protection is regulated by the Act on Consumer Protection ("Official Gazette", No. 96/03) as the basic legal act, which marked the beginning of the process of implementation of the European Union's directives on consumer protection, and taking over of the European standards of market behavior as far as providing information and consumer protection is concerned. Therefore it can be stated that the adoption of the Act on Consumer Protection in the Republic of Croatia provides foundation for further development of standards related to protection of consumers' rights and interests that already exist in the European Union.

Apart from the legal requirement of protection of energy consumers and energy operators, the Agency is also obliged to implement measures for protection of basic consumers' rights by setting up advisory bodies with representatives of consumers' associations within the framework of implementation of the system of energy activities regulation in the public sector, in line with particular pieces of legislation. The Agency also has very specific obligations pursuant to the Act on the Regulation of Energy Activities, the Act on the Electricity Market, the Act on the Gas Market and the Act on the Production, Distribution and Provision of Heat Energy.

Those specific obligations are derived from the authority to settle disputes over rejection of connection to the transmission network/transportation system, over determined connection charges and charges for usage of transmission network/transportation system, over consumers' complaints about the work of the transmission system operator and the work of distribution system operator, over withdrawal of consent of an energy operator dealing with the energy activity of heat energy distribution to the contract between an energy operator for production of heat energy and an eligible customer of heat energy, over withdrawal of consent of an energy operator for distribution of heat energy to the tariff customer of heat energy on joint heat energy

meter who wants to leave the heat system, under the condition technical conditions allow that and if tariff customer obtains consent from all tariff customers on the joint heat energy meter, over withdrawal of consent of an energy operator for heat energy distribution to owners of particular parts of buildings that represent an independent unity in terms of occupancy in a building built before the Act on Production, Distribution and Provision of Heat Energy, who want to install devices for local division of delivered heat energy, devices for measuring the heat energy consumption etc.

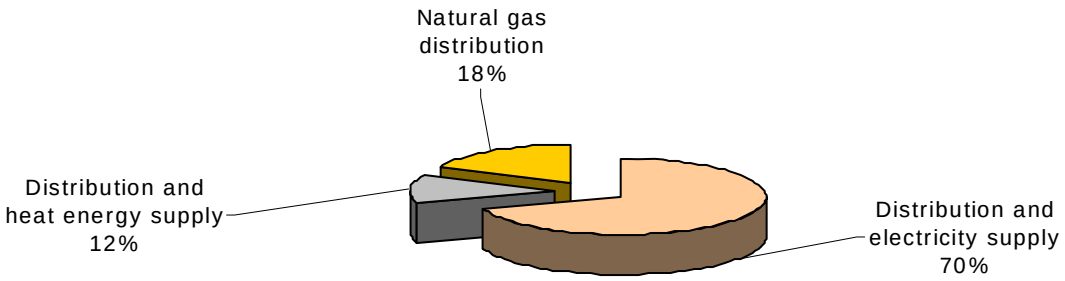
Within its authorities the Agency acts upon the requests of the Competition Agency, consumer protection associations, the Ministry of Economy, Labor and Entrepreneurship, as well as upon individual consumers' requests.

In order to be more efficient in fulfilling its obligations and to assist the Competition Agency to perform duties within the framework of its competence, an Agreement on Cooperation on Protection of Market Competition in the Energy Field was signed with that Agency on March 25, 2004.

2.6.1. Consumers' Complaints on the Work of Energy operators in the Year 2005 Submitted to the Consumer Protection Commissions

In total, the most complaints and consumers' objections submitted to commissions for consumer protection in the course of 2005 referred to electricity distribution and provision – 70%, natural gas distribution – 18% and heat energy distribution and provision – 12% (Picture 2).

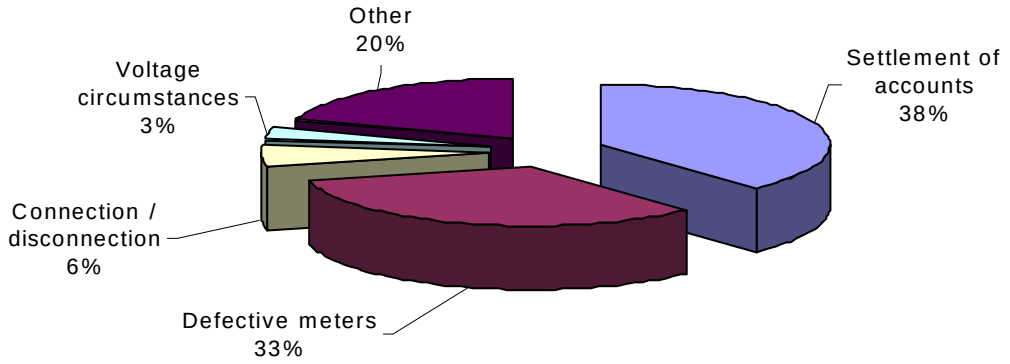
Picture 2. Share of consumers' complaints and objections by energy activities submitted to consumer protection commissions within energy operators



Energy operators for provision of electricity have redressed 45% of consumers' complaints and objections, energy operators for distribution and provision of heat energy have redressed 20% of consumers' complaints and objections and energy operators for distribution and provision of natural gas have redressed 20% of consumers' complaints and objections submitted to consumer protection committees within energy operators.

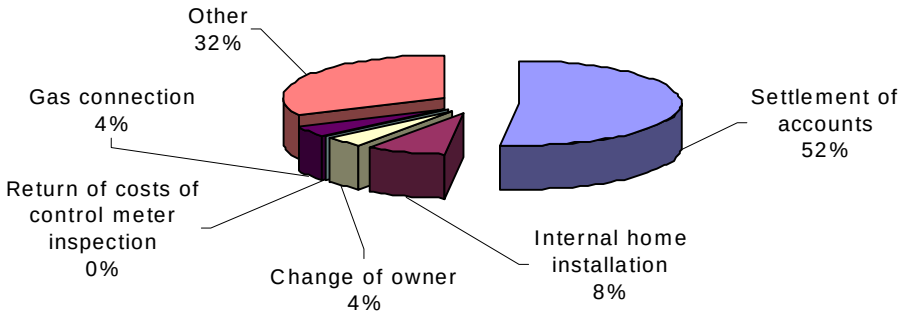
The structure of consumers' complaints and objections submitted to energy operators for distribution and provision of electricity is displayed at the Picture 3. Consumers mostly complained to consumer protection committees within energy operators about the settlement of accounts for electricity consumption (38%) and defective meters (33%).

Picture 3. The structure of consumers' complaints and objections submitted to consumer protection commissions within energy operators for distribution and provision of electricity



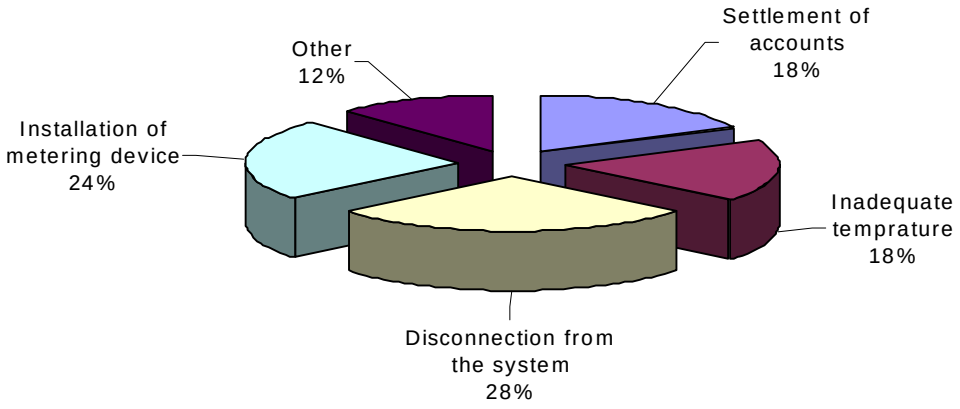
The structure of consumers' complaints and objections submitted to energy operators for distribution of natural gas is displayed in the Picture 4. Consumers mostly complained to consumer protection committees within energy operators for distribution of natural gas about settlement of accounts for gas consumption (52%).

Picture 4. The structure of consumers' complaints and objections submitted to consumer protection commissions within energy operators for distribution of natural gas



The structure of consumers' complaints and objections submitted to consumer protection commissions within energy operators for distribution of and provision of heat energy is displayed in the Picture 5. Consumers mostly complained to consumer protection committees about disconnections from the heating system (28%), installation of the heat energy meters (24%), settlement of accounts for heat energy consumption (18%) and inadequate temperature of heated space (18%).

Picture 5. The structure of consumers' complaints and objections submitted to consumer protection commissions within energy operators for distribution of and provision of heat energy



2.7. INTERNATIONAL COOPERATION

In the course of 2005 the Agency has continued with its activities in the international arena, which are described below.

2.7.1. ERRA – Regional association of energy regulatory bodies

Croatian Energy Regulatory Agency is a member of the Regional association of energy regulatory bodies – ERRA (Energy Regulators' Regional Association). In the course of 2005 the representatives of the Agency participated in the regular Annual General Assembly Meeting, as well as in the work of ERRA Committee for Prices/Tariffs and the Licensing Committee. Also, Agency representatives participated in several workshops and seminars organized by ERRA throughout the year. Seminars and workshops are organized on particular issues and problems dealing with the regulation of the energy sector, organization and functioning of the energy market, competition, tariff systems and energy prices, providing information and publicity of work of regulatory bodies, integrative processes etc.

2.7.2. Energy Community

The European Community on the one hand and the following contracting parties on the other hand: The Republic of Albania, the Republic of Bulgaria, Bosnia and Herzegovina, the Republic of Croatia, Former Yugoslav Republic of Macedonia, the Republic of Montenegro, Romania, the Republic of Serbia and the Temporary Administration of the United Nations for Kosovo, in line with the Decision No. 1244 of the UN Security Council signed in Athens on October 25, 2005 the Agreement on the Energy Community. The purpose of the agreement is the establishment of the united energy market of the electricity and gas, for the time being, in the region and its integration in the EU market. Based on the Agreement, the Energy Community is established, customs duties are abolished and the stable legal framework is created, which provides the possibility for electricity and gas trading within the regional market and also towards the internal EU market.

2.7.3. Participation in the Work of the European Fora for Electricity and Gas

The first meeting of the Gas Regulatory Group (GRG) within the ECSEE (Energy Community of South East Europe) process was held in Zagreb, on September 30, 2005. At the meeting, as the priority was stressed the work on development and adoption of the Guidelines for New Gas Infrastructure Investment Regulation in the Energy Community of South East Europe (GGIIR ECSEE). That document provides a regulatory contribution to the way of achieving goals defined in the Agreement on the Energy Sector, which are the following: efficient competition which brings advantage to gas consumers throughout the energy sector, stable regulatory framework which provides the possibility of efficient investment level, ensures supply and the possibility of choice and gas suppliers capable of selling their services to all consumers throughout the energy sector, by implementing the relevant legislation and by taking other measures. As the second priority it was stressed the need for writing of a market development strategy for natural gas in the South East Europe.

2.7.4. Cooperation with other regulatory bodies

Apart from the cooperation and meetings held through the Energy Regulators' Regional Association, participation in other seminars and conferences, in the course of 2005 the Agency had a number of bilateral and multilateral meetings, as well as experts' exchanges with regulatory agencies from several countries. The exchanges of visits, trainings and information were carried out with the New York State Department of Public Service, within the framework of the Partnership Cooperation Program that has been active for several years, as well as with the representatives and members of regulatory bodies from Austria, France, Hungary, Macedonia and Slovenia.

2.8. OTHER ACTIVITIES

Other activities of the Agency have been carried out by participation in expert meetings, conferences, seminars and round tables in form of expert presentations and lectures. The Agency's Steering Committee's members and experts have submitted their presentations and papers to a number of local and international conferences and have chaired experts' meetings and working bodies' sessions of these conferences.

2.9. ORGANIZATION OF THE AGENCY

2.9.1. Publicity of Work of the Agency

The work of the Agency is made public by opening the sessions to the public and the media and the Agency's web site: www.hera.hr

2.9.2. Agency's Advisory Bodies

Pursuant to the Statute on Establishment and Work of the Councils at the Croatian Energy Regulatory Agency, the Agency founded advisory and professional bodies (councils), which participate in particular activities and fields the Agency deals with.

There are two Councils that work within the framework of CERA:

- Council for Regulatory Affairs
- Council for Consumer Protection

The way the Councils operate, the conditions and the procedure for election of the Council members and other issues related to the work of Councils are regulated by the above listed Statute on Establishment and Work of the Councils at the Croatian Energy Regulatory Agency from November 14, 2005.

Consequently, the Croatian Energy Regulatory Agency's Steering Committee issued Decisions on February 27, 2006, according to which the Regulatory Affairs Council and the Consumer Protection Council were founded.

2.10.FINANCING OF THE AGENCY

As an autonomous, independent and non-profit public institution, the Agency has its own budget and its income comes from fees for carrying out the regulation of energy activities.

On June 9, 2005 the Government of the Republic of Croatia issued the Decision on the Amount of Fees for Carrying Out the Regulation of Energy Activities[1] ("Official Gazette", No. 73/05), it also determined the amounts and the sources of those fees and based on the Decision, the financing of the Agency is ensured from the following sources:

- The fee in the amount of 0.06% of the total annual income from sales of goods and/or services realized in the previous year by energy operators involved in energy activities based on the license for carrying out of energy activities issued by the Agency,
- The fee from Agency's activities carried out upon requests of interested parties, according to the Review of Fees for the Work of the Agency, which is a part of the above listed Decision.

Based on the decision of the Ministry of Finance, the energy operator does not pay value added tax on the fee of 0.6% of the energy operator's income.

[1] On the same day the Government of the Republic of Croatia passed the Decree on the Expiring of the Term of Validity of the Decree on Financing of the Work of the Energy Regulatory Council ("Official Gazette", No. 73/05).

B. REMARKS IMPORTANT FOR THE DEVELOPMENT OF THE ENERGY MARKET AND PUBLIC SERVICES

3. REMARKS REGARDING LEGISLATIVE FRAMEWORK

In the course of 2005 the following acts relevant for the energy sector were passed: The Act on Production, Distribution and Provision of Heat Energy ("Official Gazette", No. 42/05), The Ordinance on Determination of Prices of Oil Derivatives ("Official Gazette", No. 59/05), The Ordinance on Labeling of Energy Efficiency and Household Appliances ("Official Gazette", No. 133/05 – in effect from May 1, 2006) and the Decision on the Fee Amount for Carrying Out the Regulation of Energy Activities ("Official Gazette", No. 73/05). Changes have been made in the existing following regulation: The Act on the Gas Market ("Official Gazette", No. 68/01 and 87/05), the Ordinance on the Period for which a License for Carrying Out Energy Activities is Issued ("Official Gazette", No. 116/02 and 71/05), Tariff System for Electricity Services in the Public Sector ("Official Gazette", No. 101/02, 120/02, 129/02 and 98/05) and the Ordinance on the Conditions for Carrying Out Energy Activities ("Official Gazette", No. 6/03 and 94/05).

Passing of the Act on Production, Distribution and Provision of Heat Energy and the amendments to the existing Act on the Gas Market were in the package of legislative measures to be adopted in the course of 2005, according to the Appendix A of "The National Programme for the Integration of the Republic of Croatia into the European Union – 2004"[1], passed by the Government of the Republic of Croatia. "The National Programme for the Integration of the Republic of Croatia into the European Union – 2005"[2] foresees writing of the new Act on the Oil and Oil Derivatives Market and the adoption of the corresponding secondary legislation, but in the course of 2005 the above mentioned Act did not enter the legislative procedure.

Its adoption shall mark the completion of the legislative framework for the energy sector, with the remark that the complete and efficient implementation of those acts requires adoption of all planned implementary regulations.

4. REMARKS REGARDING THE DEVELOPMENT OF THE ELECTRICITY MARKET AND PUBLIC SERVICES

4.1. REMARKS REGARDING ELECTRICITY SECTOR

Pursuant to the Act on the Electricity Market, on January 1, 2005 the electricity market for customers whose annual consumption exceeds 20 GWh, the total number of which in Croatia today is 39, which makes about 15 % of the total annual electricity consumption, was opened. Even though the market is formally open, all customers (both eligible and tariff) are still supplied by the HEP Group.

In the course of 2005 the secondary legislation foreseen by the Energy Act and the Act on the Energy Market was not passed, which is one of the reason for a more slowly opening of the electricity market in the Republic of Croatia.

[1] "National Programme for the Integration of the Republic of Croatia into the European Union – 2004", Publisher: Republic of Croatia, Ministry of European Integration, Zagreb, March 2004.
[2] National Programme for the Integration of the Republic of Croatia into the European Union – 2005, Publisher: Republic of Croatia, Ministry of European Integration, Zagreb, February 2005.

According to the Act on the Privatization of Hrvatska elektroprivreda d.d.(HEP), HEP is obliged to keep the exclusive ownership over dependant companies involved in the transmission and distribution of electricity, until the Republic of Croatia becomes member of the European Union. In line with the same Act, HEP shall be privatized based on the model of corporate privatization, meaning the Republic of Croatia shall keep the 51 % of HEP shares and interested individual investors can buy up to 10% each.

The establishment of the Transmission System Operator and the Distribution System Operator was carried out as a phase within the process of restructuring of HEP, in line with the requests of the European Union Directives and the national legislation. According to the provisions of the Act on the Electricity Market, in the course of 2005 HEP founded the Croatian Operator of the Energy Market (HROTE d.o.o.), which carries out the regulated activity of organizing of the energy market as a public service. On the day of the foundation, the business shares of HROTE become ownership of the Republic of Croatia.

The main characteristic of the business year 2005 for HEP was the rise of the electricity price for tariff customers, the application of which started on September 1 (6 % for the industry and 5% for households and other low-voltage costumers).

As a successful company HEP's credit rating is BBB, which makes it possible for the company to be granted credits under favorable conditions.

4.2. REMARKS REGARDING GAS SECTOR

The amendments to the Act on the Gas Market ("Official Gazette", No. 87/05) define in details granting of concessions for gas distribution, as well as the ways of determining the minimum size distribution area.

The Agency has developed draft methodology, or the Tariff System without the Amount of Tariff Items for Natural Gas Transportation. Apart from that, in the course of 2006 the Agency is obliged to develop the Tariff System without the Amounts of Tariff Items for the following energy activities: natural gas supply, with the exception of eligible customers, provision of natural gas, with the exception of eligible customers, natural gas distribution and the storage of natural gas. Further, in the course of 2006 the Agency has the obligation to develop the following methodologies or tariff systems without the amounts of tariff items: for determination of the fee for connection to the transmission and distribution network and the increase in connected load, for providing service of balancing of natural gas in the gas pipeline system, as well as for the access to the natural gas storage, the quantity of gas in the gas pipeline and other ancillary services in the gas pipeline system.

4.3. REMARKS REGARDING HEAT ENERGY SECTOR

Services of heating and preparation of consumer warm water for households and businesses are provided in Croatia today by Karlovac, Osijek, Rijeka, Samobor, Sisak, Slavonski Brod, Split, Varaždin, Velika Gorica, Vinkovci, Vukovar, Zagreb and Zaprešić. These services in Croatia are used by 140,000 consumers, out of which 134,000 households, which makes up almost 30% of the total number of households in these cities.

The main problem of the heat energy business is in the relation between the input price of fuel which is determined by the market and the selling price of heat energy which, in most cities, does not cover the input costs.

Carrying out of energy activities of production, distribution and provision of heat energy is regulated by the Act on Production, Distribution and Provision of Heat Energy ("Official Gazette", No. 42/05) which creates the legal framework for a comprehensive and organized work

of the heat energy sector. Very important is that this Act prescribes the obligation of connection of all objects built after this Act came in effect (March 2005) to an energy object for distribution of heat energy in a way that each particular part of the object which represents an independent entity has an independent device for regulation of heat energy flow and an independent device for metering of heat energy consumption. That provides incentives for measuring and rational usage of energy and makes it possible for consumers to regulate their own heat energy consumption by themselves.

In the course of 2005 within the Energy Association of the Industry Sector in the Croatian Chamber of Commerce a Group for Heat Energy Sector was founded, with the purpose of promoting and protecting interests of heat energy business subjects in Croatia.

4.4. REMARKS REGARDING RENEWABLE ENERGY SOURCES AND COGENERATION

In February of 2005 the first Croatian wind farm Ravne 1 on the island of Pag was put in operation, built by the German-Croatian company Adria Wind Power, of the nominal power 5.6 MW, provided by seven wind generators of 850 KW.

C. THE ANALYSIS OF THE ENERGY SECTOR

5. ELECTRICITY MARKET

5.1. REVIEW OF THE ELECTRICITY MARKET IN THE REPUBLIC OF CROATIA

The Croatian electric power system consists of production facilities and the transmission and distribution network in the Republic of Croatia. In order to ensure reliable and good provision of electricity to consumers and for the purpose of electricity exchange, the Croatian electric power system is connected with the electric power systems of other countries and other systems of the UCTE (Union for the Co-ordination of Transmission of Electricity) members, which together create a synchronous UCTE network. The customers in Croatia are provided with electricity from power plants in Croatia, from power plants built in the neighboring countries for the needs of Croatian customers and with electricity imported from abroad.

Hrvatska elektroprivreda (Croatian Power Utility) was founded in 1990 as a public company and in 1994 it was transformed into a joint stock company Hrvatska elektroprivreda d.d. (HEP d.d.). The Republic of Croatia has kept the ownership of the entire HEP d.d. and in 2002 the Act on the Privatization of HEP was adopted.

Since July 1, 2002 HEP d.d. has been functioning as a group of interconnected dependant businesses (HEP Group) with the leading company HEP d.d. and since 2005 the HEP Group consists of Hrvatska elektroprivreda d.d. as the parent company and the subsidiary companies. Each company from the HEP Group operates on its own and they are interconnected on the principle of a holding company. The property of HEP d.d. was not subject to restructuring and remained the property of HEP d.d. as the parent company.

In the present phase of restructuring, for the purpose of determining exactly the property necessary for the operation of the parent company and the subsidiary companies and the obligation of dividing the activities, the model of property lease was implemented, where subsidiary companies lease the property for its operations from the parent company.

For the beginning of electricity market opening in the Republic of Croatia, the model of bilateral market was chosen, which is based on the electricity trading through bilateral agreements. The contracting parties in the bilateral agreement for electricity supply are the eligible customer and the supplier. Bilateral agreements on buying and selling of electricity are signed between the supplier, trader or the producer. Apart from the agreement on provision of electricity, in other words the agreement on buying and selling of electricity, the eligible customer and the producer must sign the agreement on network usage with the TSO or the DSO, depending on which voltage level they are connected. The eligible customer's supplier must sign the agreement with the TSO on electricity balancing.

In the electricity market model in the Republic of Croatia there are two systems:

- The system of provision of electricity as public service to tariff customers and
- Electricity market.

Tariff customer that has acquired the status of eligible customer is obliged to sign the provision agreement with the selected supplier and the agreement on usage of network with the TSO or the DSO depending on whether it is connected to the transmission or the distribution network, within six months from the day it acquired the status of eligible customer.

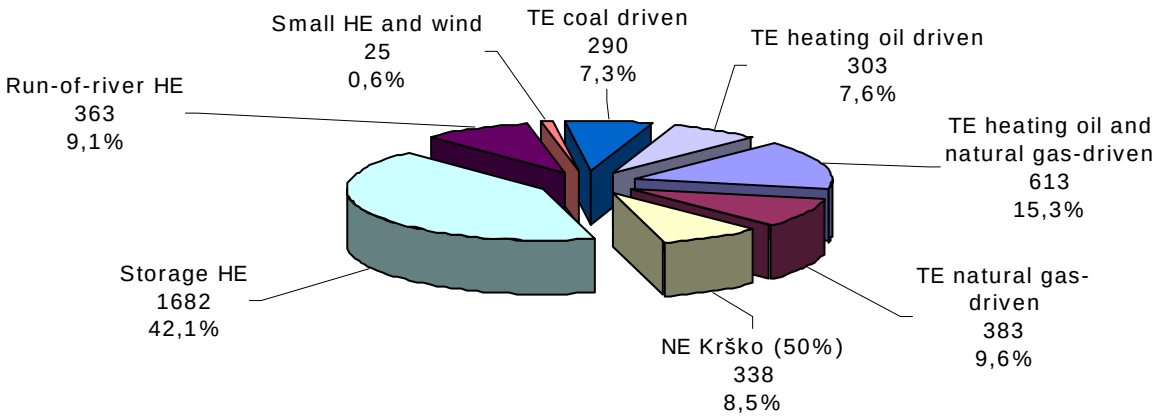
5.1.1. Electricity Production

The total installed power at the power plants' threshold in the Republic of Croatia is 3695 MW (including the thermo-electric power plant Plomin d.o.o., without the nuclear power plant Krško d.o.o.). Out of that 1631 MW is in thermo-electric power plants (including the thermo-electric power plant Plomin d.o.o., without the nuclear power plant Krško d.o.o.), and 2064 MW is in hydro-electric power plants. Most thermo-electric power plants use liquid fuels (heating oil and extra light oil) and a few are coal-driven or use natural gas. Several thermo-electric power plants produce heat energy together with electricity, so they provide heat energy to customers in big cities. The hydro-electric power plants are mostly of the storage type and are located close to the Croatian coast and there are several run-of-river type of power plants in North West Croatia.

The majority owner of production capacities in the Republic of Croatia is Hrvatska elektroprivreda within which there is the daughter company HEP Proizvodnja d.o.o. (HEP Production) which carries out the activity of electricity and heat energy production. The facilities that are not entirely owned by HEP d.d. are the following:

- Nuclear Power Plant (NE) Krško d.o.o. – mixed ownership HEP d.d. (50%) and the Slovenian partner ELES GEN d.o.o. (50%),
- Thermo-electric Power Plant (TE) Plomin d.o.o. (mixed ownership HEP d.d. (50%) and the German partner RWE Power (50%). HEP Proizvodnja (Production) d.o.o. has a contract on the management and maintenance of production facilities with the TE Plomin d.o.o.,
- Hydro-electric Power Plant (HE) Roški Slap – the owner is the private company HIDROWATT,
- The Wind Farm Ravna 1 on the island of Pag – the owner is a private Croatian-German company Adria Wind Power.

Picture 6. Capacity structure for electricity production in the Republic of Croatia



The calculated power does not contain (for the time being) non-available production capacities in other countries from which the electric power system of the Republic of Croatia has the right of electricity delivery based either on the lease of power and energy or participation in ownership. Those capacities include the following: 100 MW power plant TE Gacko (Bosnia and Herzegovina, where the Republic of Croatia participates in the ownership) and TE Obrenovac (Serbia), power 300 MW (capacity based on the loan with the leasing right for power and energy). The status of TE Tuzla and TE Kakanj has been regulated by a long-term agreement on purchasing of electricity from Bosnia and Herzegovina (2003-2008).

The main characteristics of thermo-electric power plants run by HEP Proizvodnja (Production) d.o.o. is the fact that they are old (the average age of a thermo-electric power plant is 38 years), low energy efficiency of production facilities and great installed power of production facilities driven by heating oil (TE Rijeka and TE Sisak). In spite of the average advanced age, the availability of production units is high, due to the regular maintenance.

In the next 15 years it is expected that thermo-electric power plants of the total power of 1100 MW will stop operating because of the expiring of their useful life time. For that reason and taking into account the constant consumption increase, in the course of 2005 the decision was made to start building two new production facilities – HE Lešće and Block L in the TE-TO (thermo-electric power plant and district heating plant) Zagreb.

In spite of the average age of 37 years, the hydro-electric power plants operate with high availability. All hydro-electric power plants in the Republic of Croatia have been granted certificates on electricity production from renewable energy sources, in other words the certificates proving the harmonization of production with principles of environmental protection and environmental acceptability. In the course of 2005 all necessary preparatory activities were carried out in order for the Thermo-electric power plant and district heating plant Zagreb to be granted the international standard ISO 14001:2004, which proves the international standard on environment management has been implemented.

5.1.2. Electricity Transmission

5.1.2.1. Basic Transmission Network Indicators

The transmission network is part of the Croatian electric power system consisting of transformer substations, unfoldable portable devices and air lines and cables. Electricity is transmitted through the network, the voltage levels of 400, 220 and 110 kV.

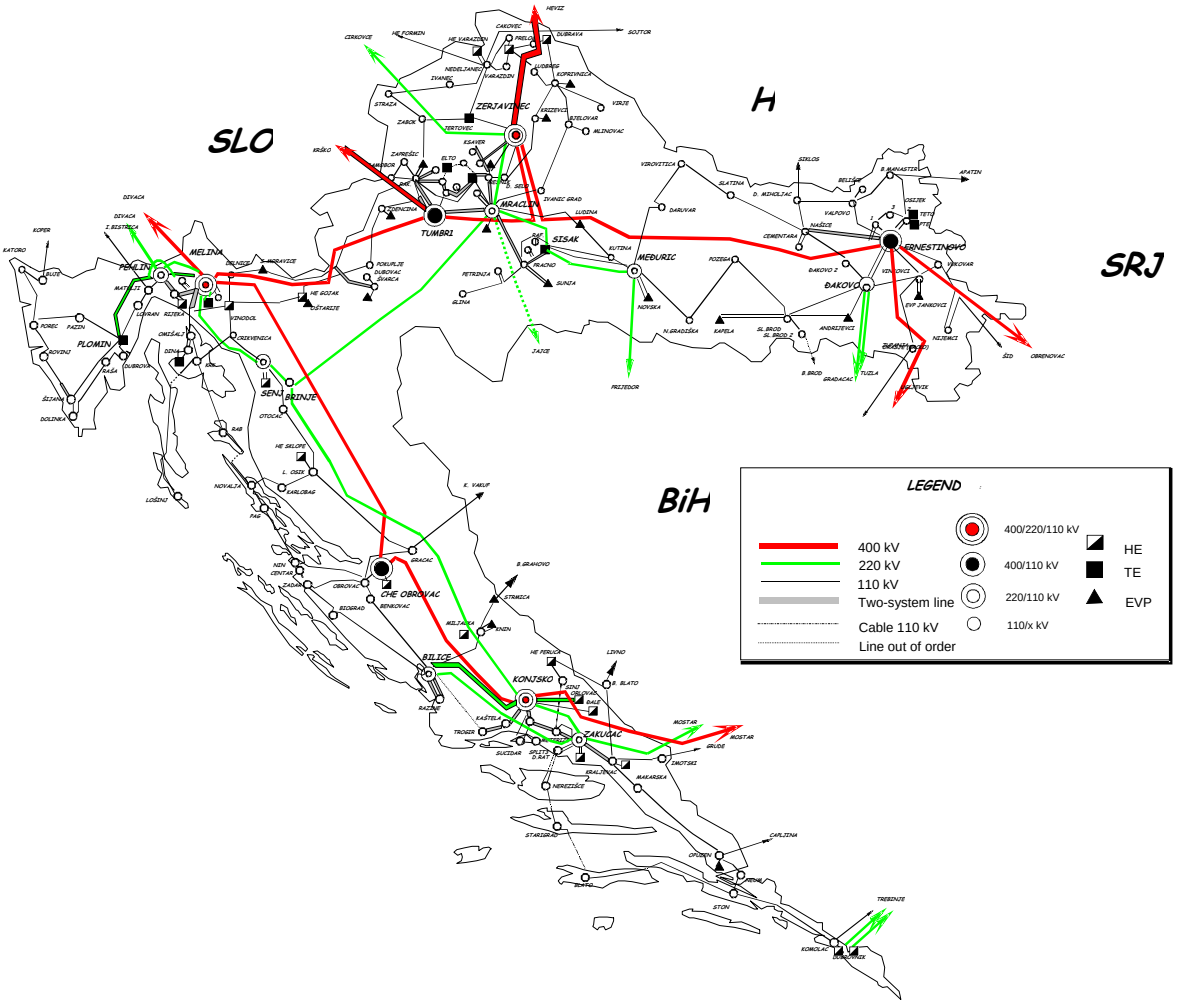
By placing into operation the newly built transformer substation (TS), the voltage levels of 400/220/110/ kV Žerjavinec and the renovated TS 400/110 kV Ernestinovo the energy power and reliability of operation of the Croatian electric power system has been increased significantly, especially in its North Western and Eastern part.

The renovated and improved transmission network is connected with the neighboring electric power systems of Bosnia and Herzegovina and Serbia and Montenegro by power-transmission lines of the voltage level of 400 kV, which facilitates synchronous operation of the entire UCTE network.

The transmission system is strong enough to make significant exchanges possible (primarily import) with the neighboring electric power systems. The electricity is imported from the NE Krško with the satisfactory security, also from the electricity system of Bosnia and Herzegovina and from Hungary. Because of the existing transmission network configuration and electricity transit for Italia, in the transmission system of the Republic of Croatia there is a set of problems related to loop flows. Because of loop flows and transit, energy losses are increased and cannot be financially compensated entirely by those parties that cause them (primarily Italy). An aggravating circumstance is an undefined status of the HEP Transmission System Operator in the international organizations ETSO and SEETSO. In addition to the listed above, a significant technical problem in the transmission network is related to the weak possibility of voltage and reactive power regulation primarily in the 400 kV network (the result of which are occasional too high voltages in the networks of all three voltage levels in Dalmatia, which causes quick wearing out of the equipment).

Aggravating factors in the development of the transmission network are the problems with providing of new corridors for lines, a complicated and long-lasting procedure of obtaining building permits and the absence of financial means needed for revitalization and necessary network development.

Picture 7. Transmission network in the Republic of Croatia (status in 2005)



5.1.2.2. Organization of Transmission Activity

In the Republic of Croatia the transmission activity is organized within the HEP Transmission System Operator (HEP-OPS d.o.o.) as a dependant company within the HEP Group. The obligations of the HEP TSO are laid down in the Act on the Electricity Market ("Official Gazette", No. 177/04).

HEP-OPS d.o.o. is responsible with regards to the entire electric power system for the following: (i) Safe and efficient management of the electric power system, affecting the nature as little as possible, delivering electricity of guaranteed quality, (ii) Providing network access to third parties on the regulated basis, in line with the international regulations, except in the case of limited technical or operating possibilities of the network, (iii) Verification of technical feasibility of the Market Plan submitted by the market operator and the development and implementation of the System Working Plan, according to the Rules on Electricity Market Operations, (iv) Suspension of transmission, taking over or sudden increase/decrease of the power plant output power or significant deviation from the agreed amount of delivery/taking over, in cases when the safety of electric power system is jeopardized.

The responsibility of HEP-OPS d.o.o. with regards to the development and building of transmission network includes the following: (i) stimulation of the economical system development, taking into consideration the realized maximum load and production, as well as transmission network users' requests, within the framework of the transmission network development plan, (ii) preparation and supervision of building process of transmission network facilities and (iii) harmonization of development plans with the distribution system operator.

Network Access

HEP-OPS d.o.o. provides network access to the users on the regulated basis, in line with the legislation and secondary legislation of the Republic of Croatia, the EU Directives, the UCTE Manual and other documents by the UCTE and the ETSO.

HEP-OPS d.o.o. is obliged to provide access to and the usage of the network to users if technical conditions allow that. In case of inadequate transmission capacity, network congestion or force majeure, HEP-OPS d.o.o. can either limit or withhold the consent to the network access. The users to whom the network access was denied shall be informed about the reasons for network access denial in a written form. The users to whom the access to the network was denied or are dissatisfied with the conditions for the network access can appeal to the Agency.

The transmission network user pays a fee for using the transmission network in line with the Rulebook on Methods and Criteria for Determining the Fee for Transmission and Distribution Network Usage.

Connection to the Network

Electricity consumers in the role of buyers and electricity producers that wish to take over or deliver electricity into the transmission network must be connected to the network.

A new producer or a buyer has the right to connect his/her building, in other words his/her electric power facility and the installation with the network and those that are already connected have the right to increase the connected load according to the prescribed conditions.

Network users submit their requests for new connections or the increase of the connected load of the existing connection to the HEP-OPS d.o.o. HEP-OPS d.o.o. analyses technical possibilities for a connection, it approves the connection and charges the connection fee pursuant to the Rulebook on Electric Power Network Connection and Increased Load Fee.

In the process of connection to the network or increase in the connected load, the producer or the buyer sign the agreement on connection with HEP-OPS d.o.o. according to the prescribed conditions from the electric power sector, the provisions of the General Conditions on Electricity Supply, the Grid Code of the Electric Power System and the Rulebook on Electric Power Network Connection and Increased Load Fee.

The connection fee is intended for financing of construction of connections and development of technical conditions for transmission of electricity within the network.

The fee amount for connection to the network or for the increase in connected load depends on the connection voltage level and the connection power.

5.1.3. Electricity Distribution

5.1.3.1. Basic Indicators of the Distribution Network

In the course of the year 2005 the distribution activity was carried out by HEP Distribucija d.o.o. According to the provisions of the Act on the Electricity Market the distribution system operator shall continue carrying out the activities of electricity distribution and electricity supply until July 1, 2007.

The largest amount of electricity sales is on the low voltage level (71%) and only 7% of electricity is sold directly from the transmission network. Since 1999 there has been a decreasing trend of electricity losses in the distribution network.

5.1.3.2. Organization of Distribution Activity

In the course of 2005 the distribution activity as public service was carried out by HEP Distribucija d.o.o. based on the license for carrying out energy activity in line with its authorities which include the following:

- Development planning and building of new distribution network facilities,
- Maintenance, replacements and reconstructions of existing distribution network facilities,
- Care for reliable consumer supply,
- Measuring of electricity consumption.

HEP Distribucija d.o.o. has its territorial network of 21 distribution locations, which mostly overlap with county territorial structure. In the existing organizational company structure there are great differences between distribution locations in their economic, technical and organizational capacities, in the activity structure, the work content in the same activity, which are the consequence of inherited problems and are the only obstacle for progress in the company's business development.

5.1.4. Electricity Supply

In the course of 2005 the activity of electricity supply was carried out by HEP Distribucija d.o.o., which in 2005 did the supply, sales, settlement of accounts and billing of electricity for all customers. In December of 2005 HEP Opskrba (Supply) d.o.o. was established, which started supplying eligible customers.

Since December 21 2005 the company named Korlea d.o.o. has the license to carry out the activity of supply too, but in the course of 2005 that company did not have any buyers.

5.1.5. Croatian Energy Market Operator

Croatian Energy Market Operator (Hrvatski operator tržišta energije d.o.o. – HROTE) was founded on March 23, 2005 pursuant to the Article 40, Paragraph 1 of the Act on the Electricity Market and it started functioning on April 4, 2005, with a current staff of 12 people.[1] The basic legal foundation for the work of HROTE is provided by the following legislation:

- The Energy Act ("Official Gazette", No. 68/01 and 177/04)
- The Act on the Electricity Market ("Official Gazette", No. 177/04)
- The Act on the Regulation of Energy Activities ("Official Gazette", No. 177/04).

HROTE carries out the activity of electricity market organizing as public service. With its activities and operations it provides incentives for the development of the electricity market and its work is monitored by the Agency. Pursuant to the Article 30, Paragraph 1 of the Act on the Electricity Market, it is responsible for the following activities:

- Keeping records of all contractual obligations between players on the electricity market,
- Settlement of accounts for the balancing energy according to the contracted quantities based on the data provided by the transmission system operator,
- Harmonization of market plans because of technical limitations and exceptional circumstances in the transmission or distribution network based on the information provided by the transmission system operator and the distribution system operator,
- Keeping record of eligible customers on the market until complete opening of the electricity market,
- Keeping record of eligible producers,

[1] www.hrote.hr

- Keeping record of suppliers,
- Concluding contracts with suppliers for the purpose of ensuring the minimum percentage of electricity produced from the renewable energy sources and cogeneration,
- Collecting fees for inciting renewable energy sources and cogeneration from tariff and eligible customers' suppliers,
- Concluding contracts with eligible producers that have the right to incentivized prices,
- Settlement of accounts, collecting and dividing of resources collected from fees intended for inciting the renewable energy sources and cogeneration for producers of electricity from renewable energy sources and cogeneration based on the concluded contracts
- Analyzing market operations and proposing measures for its furthering.

HROTE passes The Rules on Electricity Market Operations which define relations and activities on the electricity market and establish obligations and responsibilities of market participants in electricity trading. The rules are binding for all participants on the electricity market.[1]

HROTE is responsible for keeping registers of eligible producers and collecting fees for inciting electricity generation from renewable energy sources and cogeneration from eligible and tariff customers' suppliers. Based on the concluded contracts and data related to settlement of accounts provided by the transmission system operator and the distribution system operator, HROTE calculates and distributes the collected resources to eligible producers.

5.1.6. The Dynamics of the Electricity Market Opening in the Republic of Croatia

Pursuant to the Act on the Electricity Market the eligibility threshold is 20 GWh. The consumption based on which the status of eligible customer is granted refers to all metering points. The eligible customer status is granted on the basis of annual electricity consumption or with the direct connection to the transmission network.

The dynamics of further market opening is as follows:

- July 2006 for all customers with consumption greater than 9 GWh
- July 2007 for all customers in the category of entrepreneurs,
- July 2008 for all customers.

At the end of 2005 the status of eligible customer had a total of 39 customers with annual consumption of about 700 GWh, which represents 5% of the total annual electricity consumption in Croatia for that year. Among these customers there are great differences in the number of metering points, ways of consumption and voltage levels.

5.2. INTERNATIONAL ELECTRICITY MARKET

5.2.1. Review of current situation and characteristics

The level of opening and conditions for obtaining the eligibility status in the EU Member States, Accession States (Romania, Bulgaria) and Candidate States (Turkey) show that in ten countries the markets are completely open, meaning all consumers have the freedom to choose their supplier. In twelve countries the market opening is greater than 50%.

[1] HROTE was obliged to pass the Rules on Market Operations within 6 months from its establishment. The Rules have not been passed yet, so pursuant to the Article 40, Paragraph 5, the Rules on Electricity Market Operations ("Official Gazette", No. 193/03) are still in effect.

Table 5. The Electricity Market Opening in the European Countries at the End of the Year 2005

Country	Market Opening	Eligible Customers
Austria	100%	all
Belgium	82.4%	since 1/2003: > 10 GWh since 7/2004: regions Wallon and Brussels-Capital, all business customers on the distribution system since 7/2003: all in Flanders from 1/2007: all households in the Wallon region
Czech Republic	74%	all except households
Denmark	100%	since 1/2003: all
Estonia	2005: 12% 2009: 35% 2013: 100%	40 GWh
Finland	100%	all
France	since 2/2003: 34.5% since 7/2004: >66%	since 2/2003: 7 GWh since 7/2004: all except households
Germany	100%	all customers and distributions
Greece	since 7/2004: 70% from 1/2007: all	since 7/2004: all except households
Hungary	66%	since 7/2004: all except households
Ireland	since 2/2004: 56% since 2/2005: 100%	2002: > 1 GWh 2004: > 0.1 GWh 2005: all
Italy	since 7/2004: 80% from 7/2007: all	2001: > 20 GWh 2002: > 9 GWh since 5/2003: > 0.1 GWh since 7/2004: all except households from 7/2007: all
Latvia	since 7/2004: 76% from 7/2007: 100%	since 7/2004: all except households from 7/2007: all
Lithuania	74%	since 7/2004: all except households from 7/2007: all
Luxembourg	84%	since 7/2004: all except households from 7/2007: all
Netherlands	100%	2000: > 2 MW 2002: > 3x80 A since 7/2004: all
Poland	80%	since 7/2004: all except households from 7/2007: all
Portugal	100%	since 1/2004: all business customers since 1/2004: all on medium and high voltage since 7/2004: all
Slovakia	since 1/2004: 40% since 1/2005: 79% from 7/2007: 100%	since 1/2004: > 20 GWh since 1/2005: all except households from 7/2007: all
Slovenia	2005: 77% 2007: 100%	since 7/2004: all except households from 7/2007: all
Spain	100%	since 2003: all
Sweden	100%	all
Great Britain	100%	all
Candidate Countries		
Bulgaria	22%	since 7/2004: > 40 GWh
Romania	40%	20 GWh
Turkey	30%	> 7.7 GWh

Source: EU Energy, Platts, No. 122-123, December 2005

In Croatia since January 1, 2005 the electricity market has been open for all customers with the annual consumption above 20 GWh, the total of which in Croatia today is 39, which makes 14% of the total annual electricity consumption in Croatia.

5.2.2. The Effects of the Electricity Market Liberalization in Croatia

One of the indicators of the market development is the level of customers' activity, in other words the percentage of customers who change their supplier. Of course it is not expected that customers change their suppliers frequently, since with a market opening a large number of customers has been given a chance to redefine their contracts and more favorable conditions and prices with the existing supplier, so there was no need to change the supplier. Apart from that, the length of the period since opening of the market for different customers' categories has to be considered (for example, for big customers the market has been open for several years already, whereas small customers have been offered the possibility to change their supplier only recently or haven't been offered that possibility yet).

The percentage of consumers in the electricity consumption who have changed their supplier since market opening (Table 6) shows that the electricity market for big customers is already very well developed in many EU Member States. The same is even in some of the new Members (for example Hungary). On the other hand, the countries that have not been able to implement the EU Directives on internal electricity market have a very low percentage of supplier change (Greece for example). It can be concluded that customers are more active in those systems where network access is equal for all suppliers and where there is already a greater number of competing suppliers who can in such situation offer a real variety of choice.

Table 6. The percentage of consumers in the electricity consumption who have changed their supplier – cumulative since market opening until 2005.

Country	Big industrial customers	Medium industrial and business customers	Small business customers and households
Austria	29%	29%	4%
Belgium[1]	20%	10%	
Denmark	>50%	c. 15%	
Finland	>50%	82%	30%
France	15%		0%
Germany	41%	7%	5%
Greece	2%	0%	0%
Ireland[2]	56%	15%	9%
Italy[3]		60%	–
Luxembourg	25%	3%	0%
Netherlands	–	–	11%
Portugal	16%		
Spain[3]	25%	22%	19%
Sweden	>50%	–	29%
Great Britain	>50%	>50%	48%
Norway	>50%	>50%	44%
Estonia	0%	0%	0%
Latvia	0%	0%	0%
Lithuania	15%	0%	0%
Poland	19%	0%	0%
Czech Republic	5%	1%	0%
Slovakia	–	0%	0%
Hungary	32%		0%
Slovenia	8%	2%	0%
Cyprus	0%	0%	0%
Malta	0%	0%	0%

Remarks:
[1] The data for Belgium refer to the Flemish area only (the customers that have abandoned the regulated tariffs' system: 40% industry; 53% small businesses and households)
[2] The data for Ireland include switching to ESB

[3] The data for Spain and Italy include all customers, also the ones that have abandoned the system of regulated tariffs by recontracting

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, SEC(2005) XXXX, COMMISSION STAFF WORKING DOCUMENT, Report on Progress in Creating the Internal Gas and Electricity Market, Technical Annex to the Report from the Commission to the Council and the European Parliament

Although in Croatia the electricity market is formally open all customers (both eligible and tariff) are still supplied by the companies within HEP Group.

The dynamics of unbundling the transmission system operator from other activities (Table 7) shows that a roughly equal number of operators has carried out legal (11) and unbundling of ownership (10).

Table 7. The dynamics of unbundling of transmission system operator from other activities in the period 2001 – 2005

Country	Unbundling of transmission system operator				
	2001	2002	2003	2004	2005***
Austria	Legal	Legal	Legal	Legal	Legal
Belgium	Legal	Legal	Legal	Legal	Legal
Denmark	Legal	Legal	Legal	Legal	Ownership
Finland	Ownership	Ownership	Ownership	Ownership	Ownership
France	Management*	Management*	Management*	Legal	Legal
Greece	Management	Legal / Management	Legal / Management	Legal	Legal
Ireland	Legal	Legal / Management	Legal / Management	Legal / Management	Legal
Italy	Legal	Ownership / Legal	Ownership / Legal	Ownership	Legal
Netherlands	Legal	Ownership	Ownership	Ownership	Ownership
Germany	Management**	Legal**	Legal	Legal	Legal
Portugal	Legal	Legal	Ownership	Ownership	
Spain	Legal	Ownership	Ownership	Ownership	Ownership
Sweden	Ownership	Ownership	Ownership	Ownership	Ownership
Great Britain	Ownership	Ownership	Ownership	Ownership	Ownership
Estonia		Management	Accounts	Legal	Legal
Latvia		Legal	Legal	Legal	Legal
Lithuania		Legal	Legal	Legal	Ownership
Poland		Legal	Management	Legal	Legal
Czech Rep.		Legal	Legal	Legal	Ownership
Slovakia		Legal	Legal	Legal	Legal
Hungary		Legal	Ownership	Ownership	Ownership
Slovenia		Legal	Legal	Legal	Ownership
Candidate Countries					
Bulgaria		Accounts	Accounts	Accounts	
Romania		Legal	Legal	Legal	
Turkey		Legal	Legal	Legal	

Remarks:
* TSO (Transmission System Operator) publishes and submits its own annual report to the regulatory body, and not EDF
** There are several transmission system operators. Although unbundling of activities is not legally prescribed, two largest operators have unbundled their activities voluntarily.
*** COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT Report on progress in creating the internal gas and electricity market, Brussels, 15-11-2005

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, First, Second, Third and Fourth Annual Report on the Implementation of the Gas and Electricity Internal Market; 2001-2005

In Croatia in the course of 2005 HEP Transmission System Operator d.o.o. (HEP OPS d.o.o.) was separated as a subsidiary company within the HEP Group.

The evaluation of the transmission system operator's organization in 2005 according to established indicators on unbundling from other activities (Table 8) shows good fulfillment of conditions of legal and functional unbundling of the system operator from other activities on the electricity markets in the EU countries. In the course of the last year several EU countries have carried out ownership unbundling as well, although in some countries the Government still owns the transmission system operator, as well as the generation and supplying companies. In some other countries, for example in Ireland and Hungary there are cases where the transmission system operator is a separate company, but the equipment has remained within what used to be vertically integrated company. Such system requires precise monitoring of network maintenance and development. Similarly, some unbundled transmission system operators do not have independent managements necessary for functional unbundling.

Table 8. The evaluation of transmission system operators' organization in 2005

Country	**Legal unbundling?**	**Separate HQ?**	**Separate corporate presentation?**	**Unbundled regulatory accounts with guidelines?**	**Audit of unbundled accounts?**	**Publication of unbundled accounts?**	**Separate board of Directors without Directors from other group companies?**	**TOTAL RATING (Out of 6)**
Austria	YES	Partly	YES	NO	YES	YES	YES	5
Belgium	YES	YES	YES	YES	YES	YES	NO	5
Denmark	YES	YES	YES	YES	YES	YES	YES	6
Finland	YES	YES	YES	YES	YES	YES	YES	6
France	YES	YES	YES	YES	YES	YES	YES	6
Greece[1]	YES	YES	YES	NO	YES	NO	NO	3
Ireland	YES	YES	YES	YES	YES	YES	YES	6
Italy	YES	YES	YES	YES	YES	YES	YES	6
Luxembourg	YES	NO	Partly	NO	YES	YES	NO	3
Netherlands	YES	YES	YES	YES	YES	YES	YES	6
Germany	YES	NO	NO	YES	YES	NO	YES	3
Portugal	YES	YES	YES	YES	YES	YES	YES	6
Spain[3]	YES	NO	YES	YES	YES	NO	NO	3
Sweden	YES	YES	YES	YES	YES	YES	YES	6
Great Britain[2]	YES	YES	YES	YES	YES	YES	YES	6
Norway	YES	YES	YES	YES	YES	YES	YES	6
Estonia	YES	YES	YES	YES	YES	YES	YES	6
Latvia	YES	YES	YES	YES	YES	YES	NO	5
Lithuania	YES	YES	YES	YES	YES	YES	YES	6
Poland	YES	YES	YES	NO	YES	YES	YES	5
Czech Republic	YES	YES	NO	YES	NO	NO	NO	2
Slovakia	YES	NO	YES	NO	NO	NO	NO	1
Hungary	YES	NO	NO	NO	YES	YES	NO	2
Slovenia	YES	YES	YES	YES	YES	YES	YES	6
Cyprus	NO	YES	NO	YES	NO	NO	NO	1
Malta	–	–	–	–	–	–	–	
Total Compliance (Out of 26)	**24**	**20**	**21**	**19**	**22**	**19**	**16**	

Remarks:
[1] Greece: Accounts for the transmission system operator available for 2002 and 2003
[2] G. Britain: Network ownership in Scotland remains integrated with Scottish Power and SSE
[3] Spain: TSO is partly involved in the cross border sale of electricity

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, SEC(2005) XXXX, COMMISSION STAFF WORKING DOCUMENT, Report on Progress in Creating the Internal Gas and Electricity Market, Technical Annex to the Report from the Commission to the Council and the European Parliament

Table 9. The evaluation of transmission system operator's organization in 2005

Country	Legal unbundling?	Separate HQ?	Separate corporate presentation?	Unbundled regulatory accounts with guidelines?	Audit of unbundled accounts?	Publication of unbundled accounts?	Separate board of Directors without Directors from other group companies?	TOTAL RATING (Out of 6)
Croatia	YES	YES	NO	YES	YES	YES	YES	5

Regarding the organization of the distribution system operator in 2005 according to the determined indicators on unbundling from other activities (Table 10) it can be stated that in spite of the legal unbundling requirement for the distribution system operator which comes into effect in 2007, in the course of 2005 less than half of the EU countries have fulfilled the basic requirements concerning management and accounting unbundling.

Table 10. Evaluation of distribution system operators' organization in 2005

Country	Legal unbundling?	Separate HQ?	Separate corporate presentation?	Unbundled regulatory accounts with guidelines?	Audit of unbundled accounts?	Publication of unbundled accounts?	Separate board of Directors without Directors from other group companies?	TOTAL RATING (Out of 6)
Austria	NO	NO	partly	NO	YES	YES	partly	3
Belgium	YES	YES	YES	YES	YES	YES	NO	5
Denmark	YES	partly	partly	YES	YES	YES	partly	4
Finland	YES	NO	NO	YES	YES	YES	NO	3
France	NO	NO	NO	NO	NO	NO	NO	0
Greece	NO	NO	NO	NO	YES	NO	NO	1
Ireland	NO	NO	YES	YES	YES	YES	NO	4
Italy	see remark	NO	NO	YES	YES	NO	NO	2
Luxembourg	NO	NO	NO	NO	partly	partly	NO	1
Netherlands	YES	NO	YES	YES	YES	YES	NO	4
Germany	NO	NO	NO	YES	YES	NO	YES	3
Portugal	see remark	YES	NO	YES	YES	YES	NO	3
Spain	see remark	NO	YES	NO	NO	NO	NO	1
Sweden	YES	NO	NO	YES	YES	YES	NO	3
Great Britain	YES	partly	partly	YES	YES	YES	partly	5
Norway	YES	NO	partly	YES	YES	YES	NO	4
Estonia	YES	YES	YES	YES	YES	YES	YES	6
Latvia	NO	NO	NO	YES	YES	NO	NO	2
Lithuania	YES	YES	YES	YES	YES	YES	YES	6
Poland	NO	NO	NO	NO	NO	NO	NO	0
Czech Republic	NO	NO	NO	YES	NO	NO	NO	1
Slovakia	NO	YES	YES	NO	NO	NO	NO	2
Hungary	see remark	NO	NO	NO	YES	YES	NO	2
Slovenia	NO	NO	NO	YES	YES	YES	NO	3
Cyprus	NO	NO	NO	YES	NO	NO	NO	1
Malta	NO	NO	NO	in progress	NO	NO	NO	1
Total Compliance (Out of 26)	**9**	**7**	**11**	**17**	**19**	**15**	**6**	

Remark:
In Spain, Italy, Portugal and Hungary the distribution company is also the default supplier. However, suppliers to non-regulated customers must be legally unbundled.

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, SEC(2005) XXXX, COMMISSION STAFF WORKING DOCUMENT, Report on Progress in Creating the Internal Gas and Electricity Market, Technical Annex to the Report from the Commission to the Council and the European Parliament

Table 11. Evaluation of distribution system operators' organization in 2005

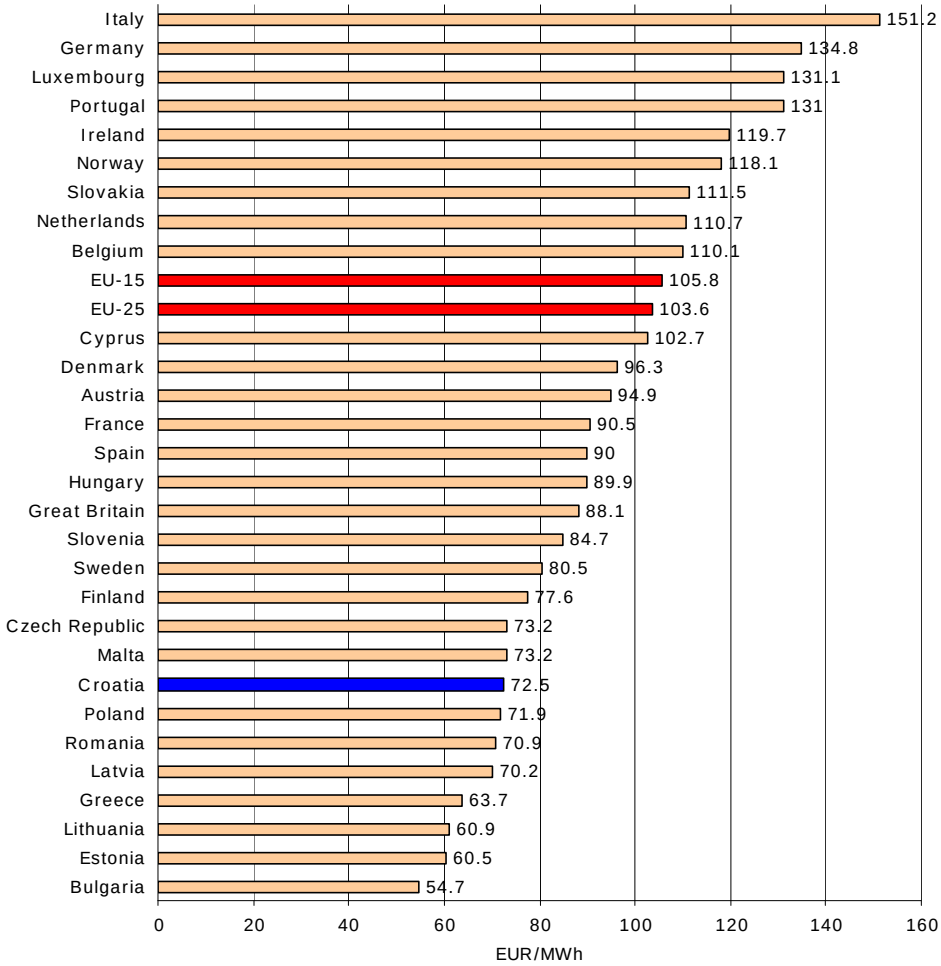
Country	Legal unbundling?	Separate HQ?	Separate corporate presentation?	Unbundled regulatory accounts with guidelines?	Audit of unbundled accounts?	Publication of unbundled accounts?	Separate board of Directors without Directors from other group companies?	TOTAL RATING (Out of 6)
Croatia	YES	YES	NO	YES	YES	YES	YES	5

5.2.3. Electricity Prices

There are two characteristic groups of customers to which the electricity prices are applied:

- Households with consumption of 3,500 kWh/year and
- Industry with consumption of 24 GWh/year.

Picture 8. Electricity prices without taxes for households with consumption of 3,500 kWh/year – July, 2005



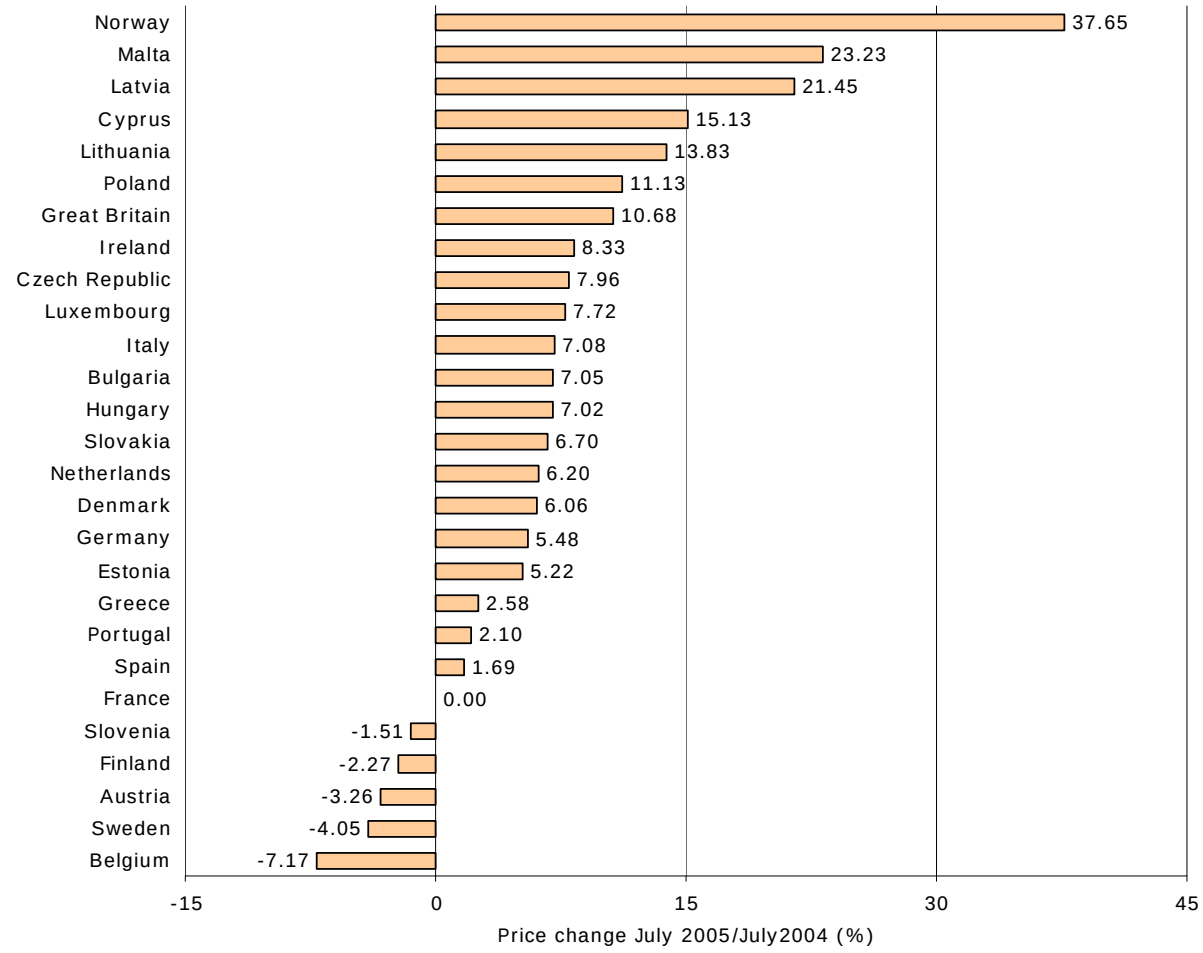
Source: ELECTRICITY PRICES FOR HOUSEHOLDS AND INDUSTRY ON JULY 1, 2005, Eurostat, ISSN 1562-3106, European Communities, 2006

It is easy to note the relatively large price range for electricity for the category of households with consumption of 3,500 kWh/year in individual European countries, from 54.7 EUR/MWh (Bulgaria) to 151.2 EUR/MWh (Italy), which is almost three times as much.

For the first time the aggregated Eurostat report "Electricity Prices for Households and Industry" included the data from Croatia, with the average electricity price of 72.5 EUR/MWh.

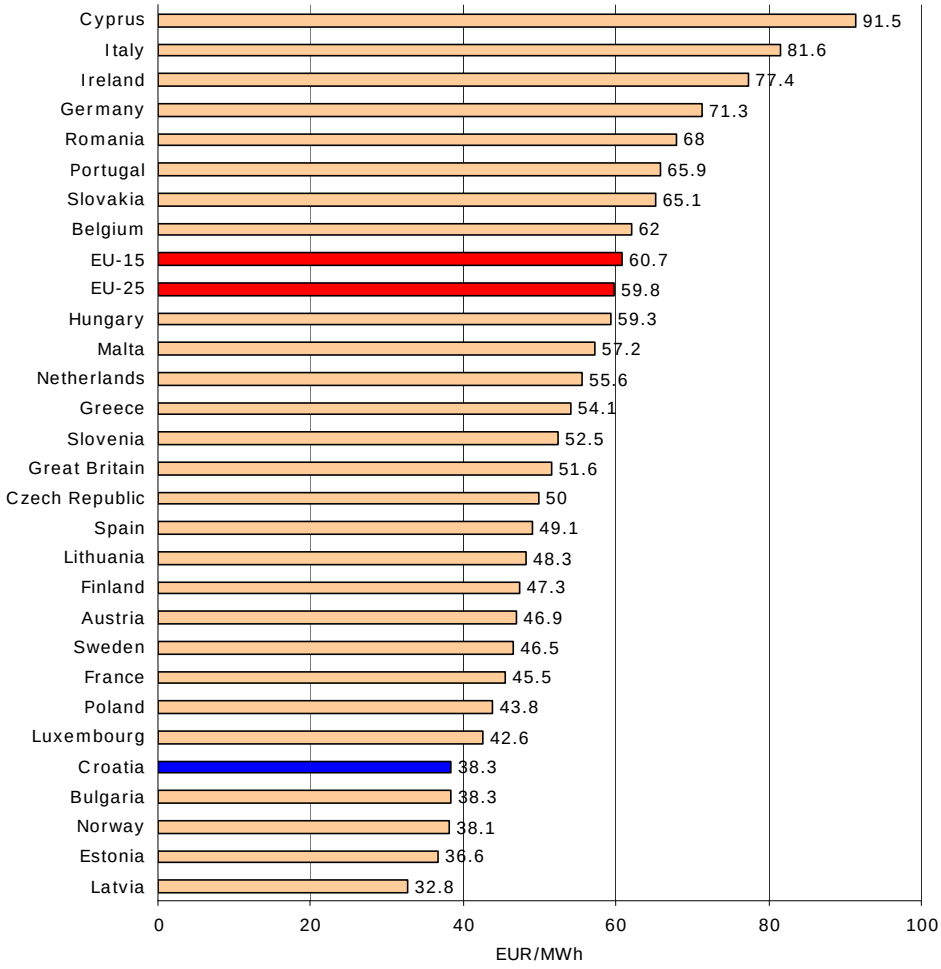
The average price for that consumption category within EU-15 is 105.8 EUR/MWh, while the average price for EU-25 is somewhat lower (103.6 EUR/MWh).

Picture 9. Change of electricity price before tax for households with consumption of 3,500 kWh/year for the period July 2004 – July 2005.



Source: ELECTRICITY PRICES FOR HOUSEHOLDS AND INDUSTRY ON JULY 1, 2005, Eurostat, ISSN 1562-3106, European Communities, 2006; ELECTRICITY PRICES FOR HOUSEHOLDS ON JULY 1, 2004, Eurostat, ISSN 1562-3106, European Communities, 2005;

Picture 10. Electricity price (without tax) for industry with consumption from 24 GWh/year – July 2005



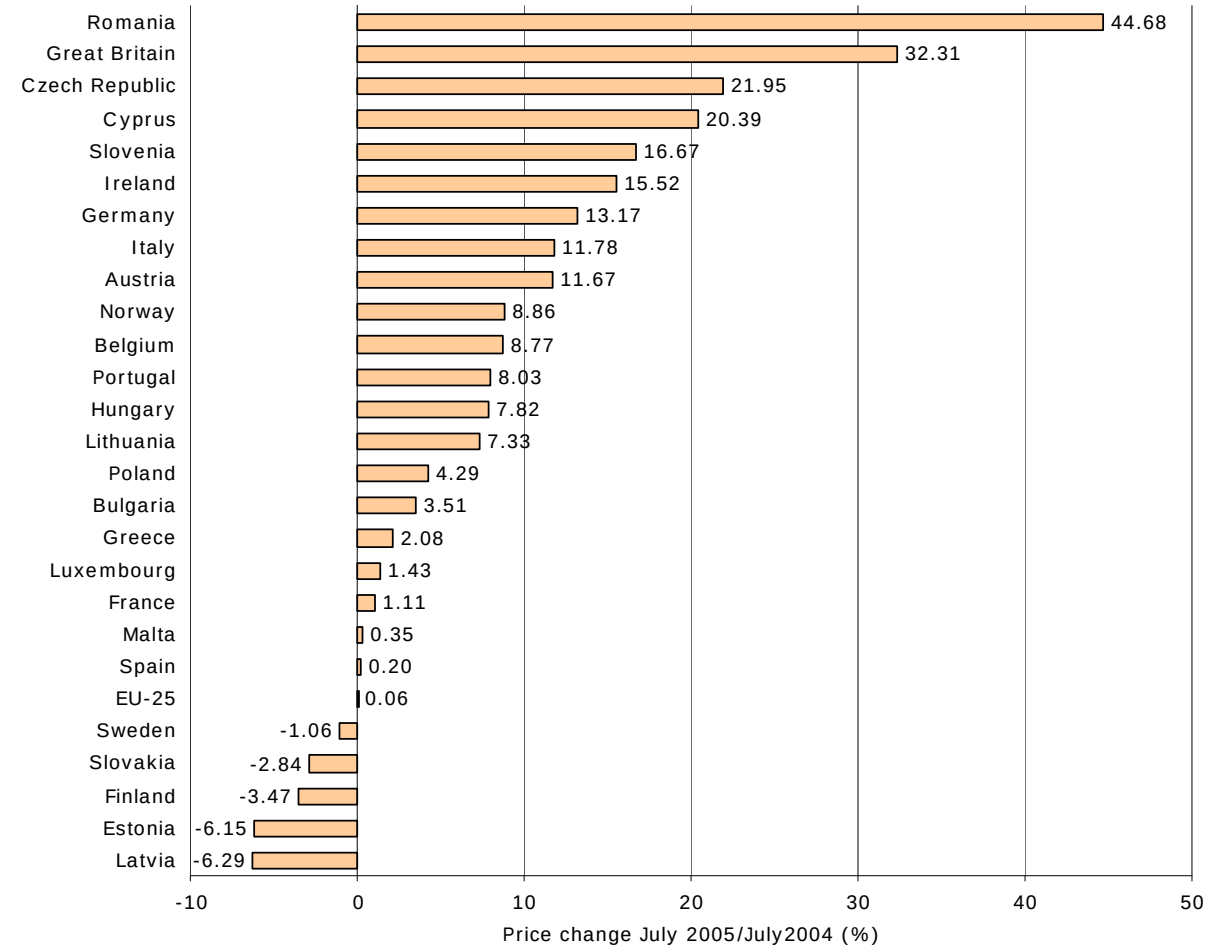
Source: ELECTRICITY PRICES FOR HOUSEHOLDS AND INDUSTRY ON JULY 1, 2005, Eurostat, ISSN 1562-3106, European Communities, 2006

Just like households, the industrial consumers category with consumption of 24 GWh/year is also characterized by a relatively great range of electricity prices in European countries from 32.8 EUR/MWh (Latvia) to 91.5 EUR/MWh (Cyprus).

The data for Croatia have also been analyzed and the average price is 38.3 EUR/MWh.

The average price for this consumption category within EU-15 is 60.7 EUR/MWh and within EU-25 it is 59.8 EUR/MWh.

Picture 11 Change of electricity price (without tax) for industry with consumption of 24 GWh/year – in the period 2004 - 2005



Source: ELECTRICITY PRICES FOR HOUSEHOLDS AND INDUSTRY ON JULY 1, 2005, Eurostat, ISSN 1562-3106, European Communities, 2006; ELECTRICITY PRICES FOR AND INDUSTRY ON JULY 1, 2004, Eurostat, ISSN 1562-3106, European Communities, 2005

Also in the category of industrial consumers with annual consumption of 24 GWh in the period July 2004 – July 2005 in the most EU countries the electricity prices have been increased. The highest price increase was recorded in Romania (44.7%) and the largest average price fall in Lithuania (-6.3%).

In Croatia the electricity price increase of 6% for industry has been in effect since September 1, 2005.

6. NATURAL GAS MARKET

6.1. THE REVIEW OF THE GAS MARKET IN THE REPUBLIC OF CROATIA

In the Republic of Croatia INA d.d. is the only supplier of natural gas (for both tariff and eligible customers). Even though the level of market opening in Croatia is about 50% declaratively, analyzing the eligible customers' consumption with respect to the total consumption in Croatia, it is obvious that customers who have been granted the status of eligible customers based on legal provisions, have not changed their supplier. The status of eligible

customer, pursuant to the Act on the Gas Market, is granted to customers who buy gas for the following activities: electricity generation regardless of annual consumption amounts, for synchronous generation of electricity and thermal energy regardless of annual consumption amounts, and to customers who buy gas for their own needs exclusively with annual consumption of more than 100 million m^3 of gas. Pursuant to the Decree on Acquiring the Status of Eligible Gas Customers ("Official Gazette", No. 101/04) the same status is given to customers that carry out the activity of production of crude cast iron, steel and ferroalloy, with yearly production of the minimum of 50,000 tons of crude steel.

In order for the open gas market to really function, in other words in order to create the possibility to choose the supplier, it is necessary to activate new gas suppliers, but also open new supplying gas routes. The plan is to build the gas transportation system Pula-Karlovac with the capacity of up to 1.5 billion m^3/year and adjusted to the possibilities of gas production from North Adriatic gas fields. It is also planned to build the gas transportation system of central and Eastern Croatia (Kutina – Slavonski Brod, Lučko – Ivanja Reka and Ivanja Reka – Kutina).

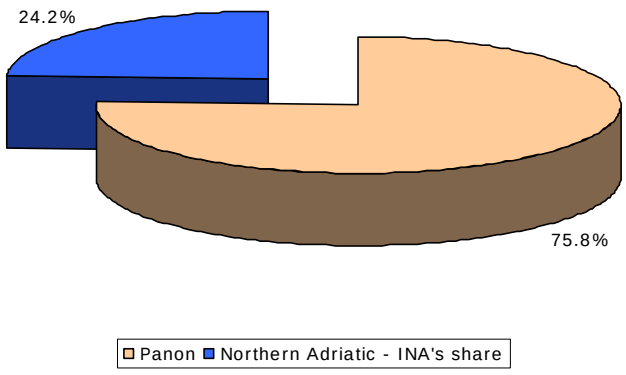
The main characteristic of the natural gas distribution in the Republic of Croatia is its fragmentation. In 2005 there have been 37 natural gas distributors in Croatia, which can be divided in following categories, according to the company profile:

- Companies that carry out the activity of gas distribution along with other municipal services (garbage collection, waste disposal, drainage, cemetery maintenance, outdoor markets' maintenance etc.)
- Companies that carry out the activity of gas distribution along with other activities (distribution of electricity, civil engineering, installation etc.) and
- Companies that carry out only gas-related activities based on a concession or some other act or a document.

6.1.1. Provision and consumption of natural gas in the Republic of Croatia

The domestic production in 2005 for the needs of the internal market of the Republic of Croatia has come to 1.837 billion m^3 (the same as in 2004), out of which 1.392 billion m^3 was produced in Panon and 0.445 billion m^3 in the Northern Adriatic (the production share that belongs to INA).

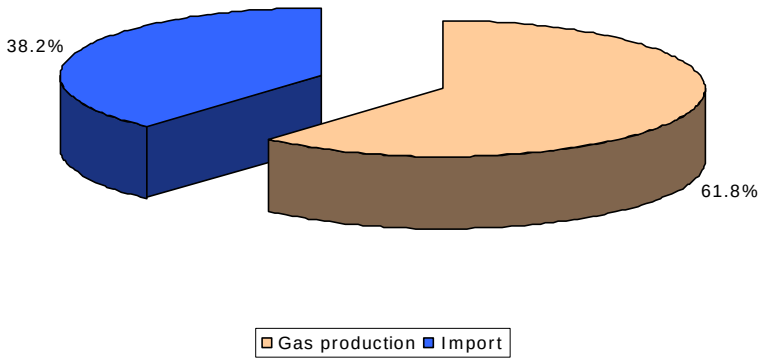
Picture 12. The structure of domestic production of natural gas in 2005



Source: INA Naftaplin

The natural gas import in 2005 from the Russian Gazprom has come to 1.134 billion m^3 (7.6% more than in 2004). The share of import in the total of provided gas quantities was 38%.

Picture 13. The relation between domestic production and import in 2005



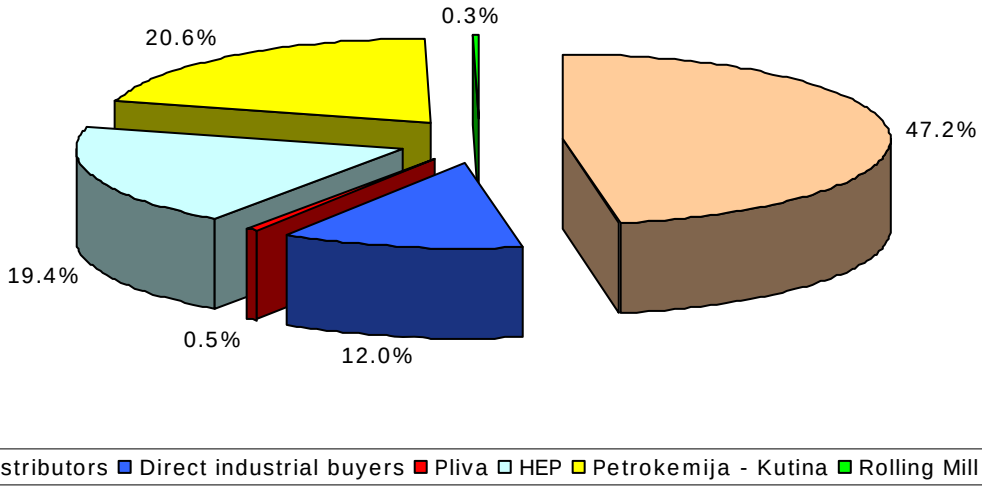
Source: INA Naftaplin

The total of delivered gas quantities to the market of the Republic of Croatia in 2005 has come to 2.691 billion m^3, which is 3.9% less than in 2004.

The structure of consumption in 2005 was the following: gas distribution companies received 1.271 billion m^3, which is 7.6% more than in 2004, Petrokemija from Kutina received 0.553 billion m^3, which is approximately 5% less than in 2004, while HEP d.d. received 0.522 billion m^3. At the same time, direct industrial buyers received 0.322 billion m^3, which is 3.5% more than the previous year.

Among eligible customers, apart from HEP and Petrokemija from Kutina, the cogeneration plant within Pliva in Novi Marof is also treated separately and its consumption in 2005 has come to 0.015 billion m^3, which is 5% more than the previous year and there is also the Rolling Mill in Sisak, the consumption of which in 2005 was 0.007 billion m^3.

Picture 14. The delivered quantities of natural gas in 2005 by categories



Source: INA-Naftaplin

6.1.2. The reliability of natural gas provision in the Republic of Croatia

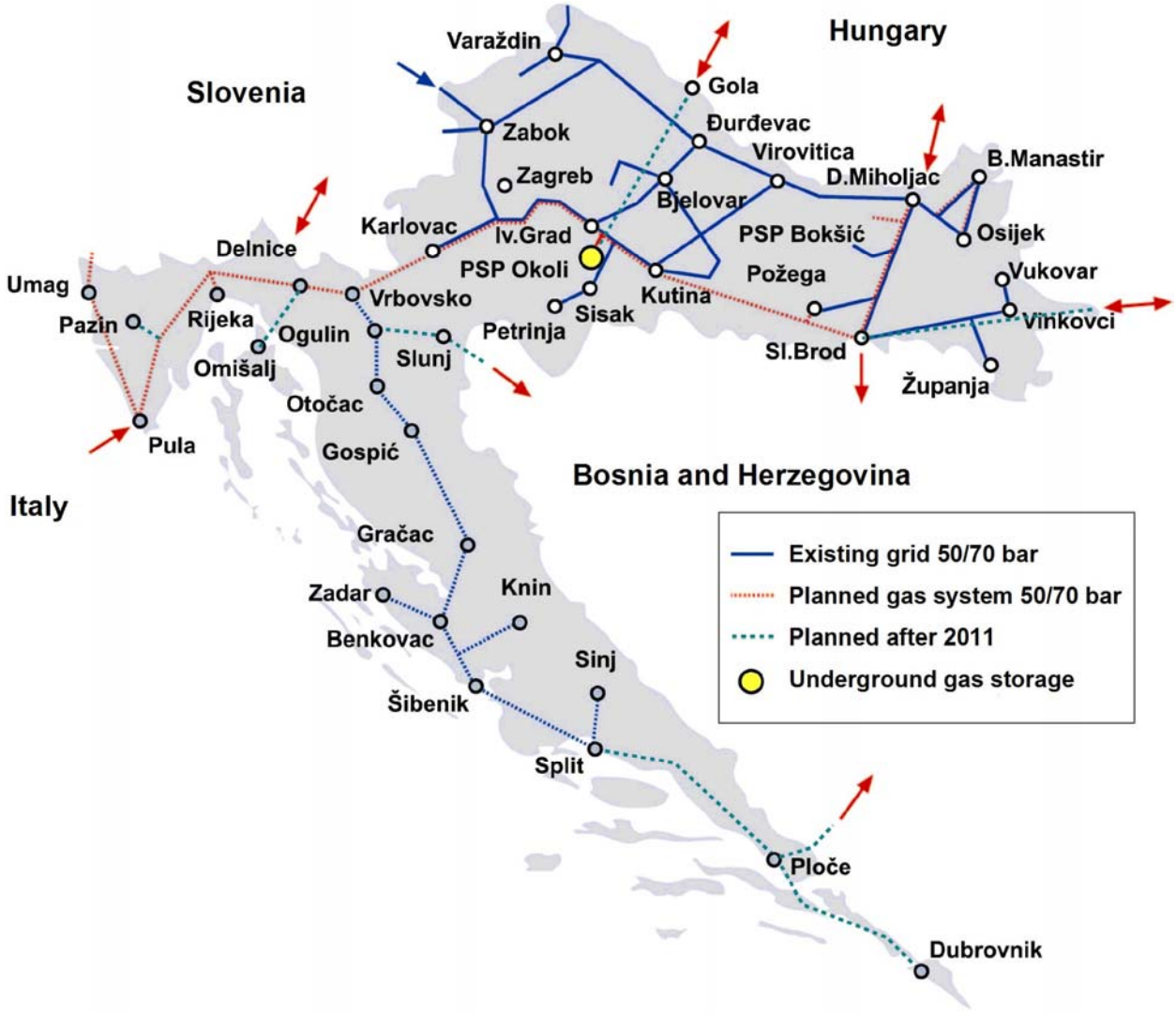
The existing gas transportation system, with present sources of gas supply and the existing capacities of underground natural gas storage (PSP Okoli) has insufficient capacities for

provision to customers during the coldest winter period or in case of a particularly long period of low temperatures.

With the purpose of ensuring uninterrupted provision of gas, the Petrokemija Company from Kutina according to the contract with its supplier has agreed to halt the gas consumption, in other words it's facilities are out of commission from December 1 until January 15.

In order to provide a permanent solution to the issue of sufficiency, stability and reliability of gas provision it is necessary to implement the plan on building the gas transportation system (with new supplying routes) as well as building of new underground gas storage.

Picture 15. The existing gas system in the Republic of Croatia and the plan for the new one



6.1.3. The dynamics of the gas market opening in the Republic of Croatia

The status of eligible gas customer in 2005 was granted to the following companies: HEP d.d., Petrokemija – Kutina and Pliva d.d. (the cogeneration plant in Novi Marof). According to the Decree on Acquiring the Status of Eligible Gas Customers ("Official Gazette", No. 101/04) the status of eligible customers was also granted to customers who carry out the activity of production of crude cast iron, steel and ferroalloy, with annual production of the minimum of 50,000 tons of crude steel (meaning the Sisak Ironworks and the Rolling Mill in Sisak have also acquired the eligible customer status).

6.2. THE INTERNATIONAL MARKET OF NATURAL GAS

6.2.1. The level of opening of the gas market

The level of opening of the gas market and the conditions for acquiring the eligibility status for natural gas buyers in the EU countries, in the accession countries (Romania and Bulgaria) and in the candidate countries (Turkey) shows that in seven countries the market is completely open, which means all customers are free to choose their supplier. In thirteen countries the market opening is greater than 50%.

Table 12. The indicators of the gas market opening

Country	Market opening (%)[1]	The size of open market (billion m^3)[2]	Eligibility criteria/threshold[1]	Unbundling transportation[3]	Unbundling distribution[3]
Austria	2001: 49% 2002: 100%	7	Since 10/2002: all	legal	legal
Belgium	2001: 59% 2004: 91.5%	11	Since 07/2004: Region Wallon and Brussels – all industrial customers connected to the distribution network From 01/2007: Brussels and Wallon region – all customers	legal	legal
Czech Rep.	2005: 28% 2007: 100%	0	From 2005: >15 mil. m^3	not implemented	not implemented
Denmark	2000: 30% 2007: 100%	5	Since 01/2004: all customers	ownership	legal
Estonia	95%	1	all except households	not implemented	accounts
Finland	90%	–	Since 2000: > 5 mil. m^3	–	–
France	2001: 20% 2004: 70%	28	Since 2000: > 22 mil. m^3 Since 2003: > 7.5 mil. m^3	legal	accounts
Greece	0%	–	Derogation from rules voted until November 2006, From 07/2005: electricity production and cogeneration > 25 mil. m^3	–	–
Ireland	2002: 80% 2003: 82% 2004: 85%	3	Since 04/2002: >2 mil. m^3 Since 01/2003: >0.5 mil m^3 Since 20.07.2004: all except households	not implemented	management
Italy	100%	62	Since 01/2003: all customers	legal	legal
Latvia	0%	0	no implementation of the Directive	not implemented	accounts
Lithuania	90%	2	>1 mil m^3	not implemented	accounts
Luxembourg	2005: >80%	1	Since 2000: >15 mil m^3 Since 07/2004: all except households From 07/2007: all customers	not implemented	management
Hungary	2004: 67%	8	Since 01/2004: all except households	legal	accounts
Netherlands	2000: 45% 2002: 51% 2004: 100%	38	Since 2002: >1 mil m^3 Since 07/2004: all customers	ownership	legal
Norway	–	–	–	–	–
Germany	100%	82	All customers, subject acc. to foreign reciprocity	accounts	accounts

Country	Market opening (%)[1]	The size of open market (billion m^3)[2]	Eligibility criteria/threshold[1]	Unbundling transportation[3]	Unbundling distribution[3]
Poland	72%	4	Since 07/2000: 25 mil m^3 Since 07/2004: all commercial customers From 07/2007: all customers	not implemented	accounts
Portugal	0%	-	Directive implementation postponed until 2007	-	-
Slovakia	01/2004: 33% 01/2005: 72% 07/2007: 100%	2	Since01/2004: >5 mil m^3 Since 01/2005: all except households From 07/2007: all customers	not implemented	management
Slovenia	2004: 90.4% 2007: 100%	1	Since 07/2004: all except households From 07/2007: all customers	not implemented	accounts
Spain	100%	20	Since 01/2003: all customers	legal	legal
Sweden	2000: 47% 2005: 95% 2007: 100%	1	Since 07/2005: all except households 07/2007: all customers	ownership	accounts
Great Britain	100%	95	Since 1998: all except Northern Ireland	ownership	ownership
Candidate Countries					
Romania	01/2002: 25% 01/2005: 50% 01/2006: 75% 01/2007: all except households 07/2007: 100%	5	>1.24 mil. m^3	legal	accounts
Bulgaria	83%	2	20 mil. m^3	accounts	accounts
Turkey	80%	12	1 mil. m^3	legal	legal

Source:

[1] EU Energy, Platts, Number 122-123, December 2005.

[2] COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, 5.1.2005, SEC(2004) 1720, COMMISSION STAFF WORKING DOCUMENT, Technical Annexes to the Report from the Commission on the Implementation of the Gas and Electricity Internal Market

[3] COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels 15.11.2005, COM(2005) 568 final, COMMUNICATION FROM THE COMMISSION TO THE COUNCIL AND THE EUROPEAN PARLIAMENT, Report on progress in creating the internal gas and electricity market

Table 13. The indicators of the gas market opening in Croatia

Country	Market opening (%)	The size of open market (billion m^3)	Eligibility criteria/threshold	Unbundling transportation	Unbundling distribution
Croatia	40.8%	1.097	–	ownership	accounts

Pursuant to the eligibility criteria, in the Republic of Croatia in 2005 40.8% of the market has been opened (with HEP d.d. share of 19.4%, Petrokemija from Kutina 20.6%. Pliva 0.5% and the Sisak Rolling Mill 0.3%).

The company PLINACRO d.o.o. is the operator of the national transportation gas system in the Republic of Croatia. The company was established in 2001 as a member of INA-Group and is owned 100% by INA. In the course of 2002 the ownership of the company was transformed into Government ownership of 100%. In that way the ownership unbundling of gas transportation from other activities was carried out.

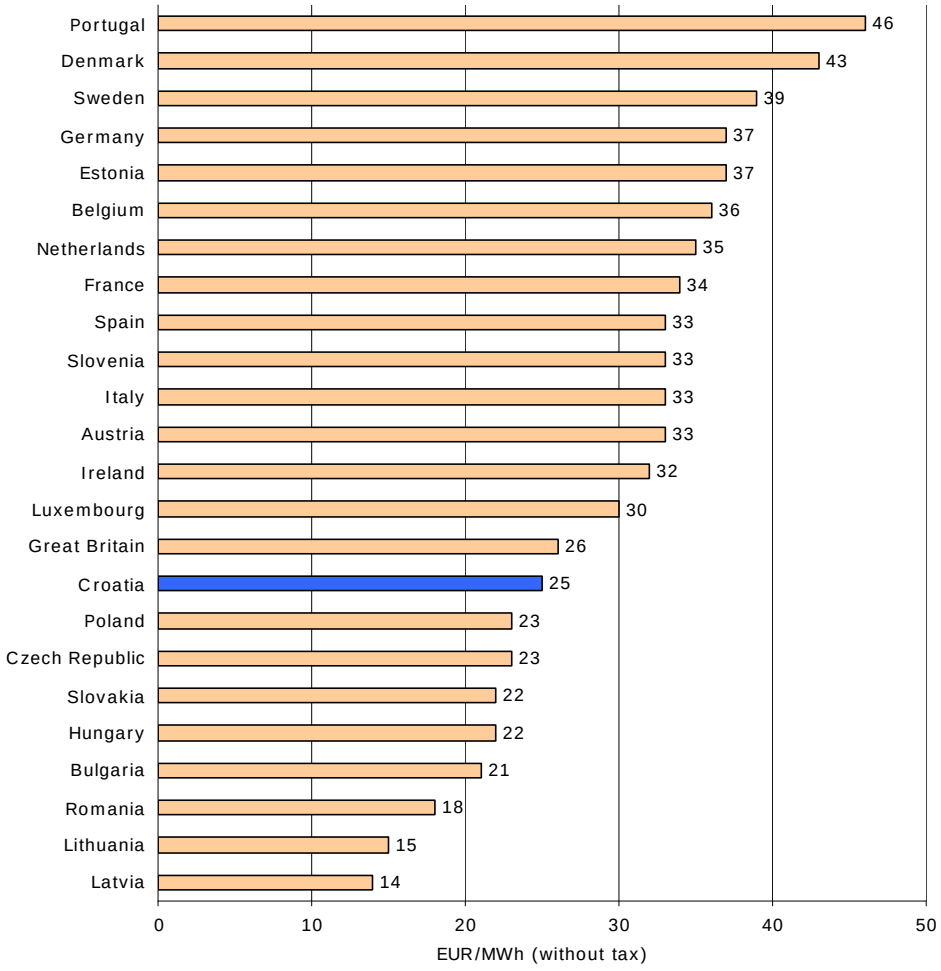
The gas distribution is carried out in most cases along with other municipal and other services (electricity distribution, civil engineering and installation works etc.). The unbundling of accounts of gas distribution activity is defined by the Energy Act provisions, according to which an energy operator that carries out two or more energy activities or along with an energy activity carries out another activity is obliged to keep business accounts and write financial reports for each activity separately, in line with the rules on bookkeeping for entrepreneurs.

6.2.2. The effects of the natural gas market liberalization in the EU

6.2.3. Natural gas prices

The natural gas prices are still under the influence of the international oil prices, since the price of natural gas in the contracts between countries that produce natural gas and the importers is defined by a price formula, which is based on the prices for crude oil and oil derivatives.

Picture 16. Retail prices of natural gas for households for July 1, 2005

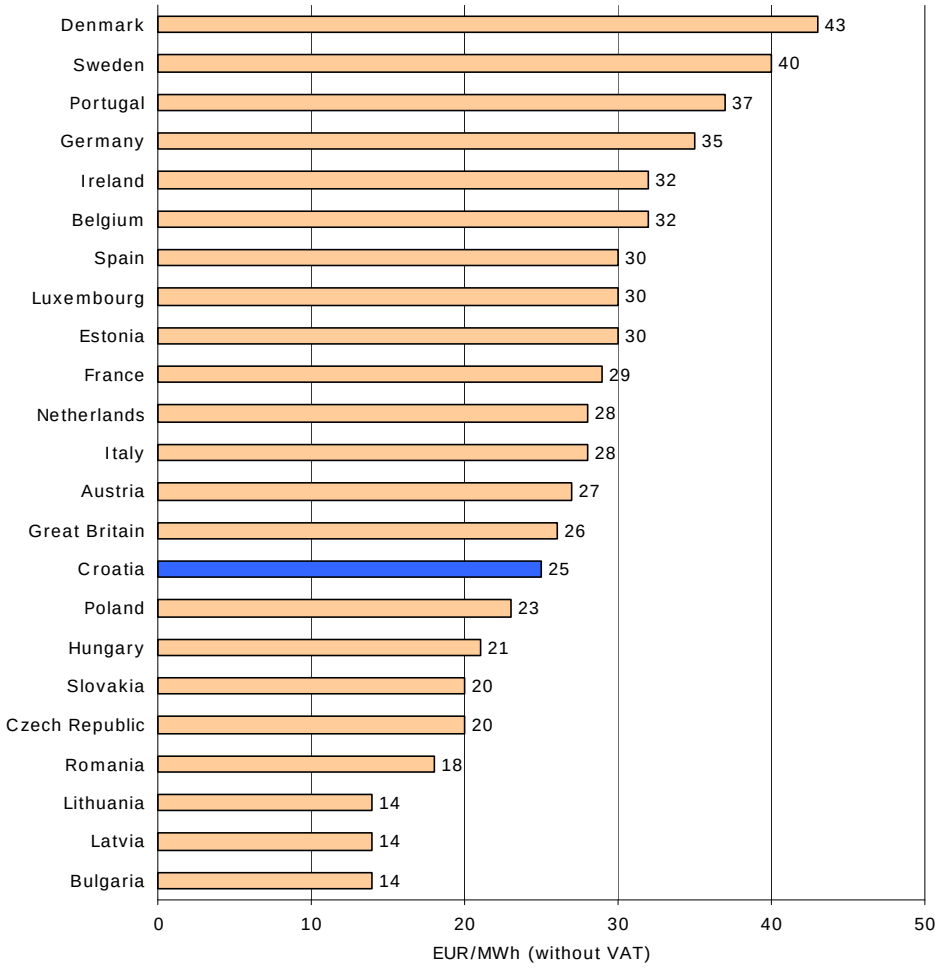


Source: EUROSTAT, ENVIRONMENT AND ENERGY, ENERGY 1/2006, Catalogue number: KS-NQ-06-001-EN-N, Johaness Goerten, & Emmanuel Clement, Gas prices for households and industry on 1st July 2005

Retail prices of natural gas for households (without VAT) in EU member states fall within the range of 14 EUR/MWh in Latvia to 46 EUR/MWh in Portugal.

The average retail price of natural gas for households in the Republic of Croatia in 2005[1] was 1.705 kn/m^3 without VAT or 2.08 kn/m^3 with VAT, which with the guaranteed heating gas value of 33.34 MJ/ m^3 comes up to 24.96 EUR/MWh without VAT or 30.45 EUR/MWh with VAT.

Picture 17. Retail prices of natural gas for industrial customers (supply through the distribution system) for July, 2005



Source: EUROSTAT, ENVIRONMENT AND ENERGY, ENERGY 1/2006, Catalogue number: KS-NQ-06-001-EN-N, Johaness Goerten, & Emmanuel Clement, Gas prices for households and industry on 1st July 2005

Retail prices of natural gas for industrial customers (without VAT) in EU member states fall within the range of 14 EUR/MWh in Latvia to 43 EUR/MWh in Denmark.

The average retail price of natural gas for industrial customers, supplied through the distribution system, in the Republic of Croatia in 2005[2] was 1.697 kn/m^3 without VAT or 2.07 kn/m^3 with VAT, which with the guaranteed heating gas value of 33.34 MJ/ m^3 comes up to 24.84 EUR/MWh without VAT or 30.31 EUR/MWh with VAT.

[1] Average for all distribution companies – source: "Data on natural gas deliveries in 2005".
[2] Average for all distribution companies – source: "Data on natural gas deliveries in 2005".

6.2.4. Prices for usage of gas transportation system

Table 14. Implemented tariff model and prices of gas transportation system usage in 2005

Country	Number of transportation companies		Tariff structure	Transportation tariff (average) (EUR/MWh)		
				Industry Eurostat: category I4 (ca. 12.5 million m^3/year)	Business Eurostat: category I1 (ca. 12.5 thousand m^3/year)	Households Eurostat: category D3 (ca. 2.5 thousand m^3/year)
Austria	3	4	entry-exit	No data	8.0	12.0
Belgium	1	0	entry-exit	2.0	6	12.0
Denmark	1	0	entry-exit	4.0	13	13
France	3	0	entry-exit	5.0	9.0	14.0
Ireland	1	0	entry-exit	–	19.0	20.0
Italy	2	0	entry-exit	2.0	9.0	12.0
Luxembourg	1	0	post stamp principle	1.0	6.0	7.0
Netherlands	1	0	entry-exit	–	–	5.0
Germany	15	20	mixed	–	–	–
Spain	3	6	post stamp principle	3.0	12.0	23.0
Sweden	1	2	post stamp principle	–	–	–
Great Britain	1	0	entry-exit	2.0	5.0	6.0
Latvia	1	0	post stamp principle	–	–	–
Lithuania	1	0	post stamp principle	4.0	6.0	6.0
Poland	1	6	post stamp principle	5.0	11.0	11.0
Slovakia				–	–	–
Hungary	1	0	post stamp principle	3.0	4.0	7.0
Slovenia	1	0	post stamp principle	2.0	–	–
Candidate Countries						
Romania	1	0	post stamp principle	2.5	2.5	2.5
Bulgaria	1	0	post stamp principle	1.1	7.0	12.5
Turkey	1	0	post stamp principle	2.5	4.5	4.5

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, SEC(2005), COMMISSION STAFF WORKING DOCUMENT, Report on Progress in Creating the Internal Gas and Electricity Market, Technical Annexes to the Report from the Commission to the Council and the European Parliament

The average gas transportation price in Croatia in 2005 for distribution companies was 0.148 kn/m^3 (approximately 2.17 EUR/MWh[1]) or 0.116 kn/m^3 for direct gas customers (approximately 1.70 EUR/MWh[2]).

[1] According to Eurostat, that would be categories I1 and D3
[2] According to Eurostat, that would be category I4

6.2.5. Selection of supplier

Development of a single gas market requests greater system interconnection and supply diversification. The highest competition level has been achieved on the gas markets of Great Britain, Ireland and Spain, where larger customers have had freedom of selection in the last couple of years. Other countries with diversified sources of supply are Belgium, Denmark, Netherlands and Italy, where in the course of 2005 33% of large customers have changed their supplier.

New EU members are struggling with a series of open issues that slow down the competition development (most often, it results in the dependence on only one supplier).

Gas storage and gas balancing are important and sensitive issues related to the market opening. There is still no agreement on the minimum of standard requirements related to the access to gas storages.

6.2.6. Development of interconnection structures

The Directive 55/2003/EZ on common rules for internal gas market does not deal with measures related to the development of the interconnection infrastructure. The current gas infrastructure in Europe is based on the current demand and supplying routes. Some member states are still not connected to the European gas network (Finland, Baltic countries, Greece). So, for example, Spain that is not connected to the European gas network is supplied from the Magreb region through the gas pipeline or from the LNG [1]terminal. Finland and the Baltic states will be connected to the European gas network if that is economically viable. Greece is also not connected to the European gas network.

Some of the currently planned projects related to the gas supply:

- Gas pipeline from Algeria to Spain, Medgaz,
- Gas pipeline Nabucco, connecting Caspian and Iranian gas sources with the European market,
- Gas pipeline through the Baltic Sea to Russia and Germany,
- Large number of LNG projects in Great Britain, Spain, Italy and France.

The capacities on some pipelines between member states have already been increased or new pipelines have been built. Among them is the pipeline connecting Great Britain and Belgium and the capacities of the BBL gas pipeline between Great Britain and Netherlands have been increased.

6.2.7. Security of gas supply

The Directive 2004/67/EZ[2] on security of gas supply has created the framework as far as the security of gas supply to small customers is concerned in the liberalized and competition oriented environment, in which all members must define the rules for cases of supply disruptions and ensure gas supply for the minimum of eight weeks.

The security of supply can be discussed from a short-term and a long-term perspective. In the short run, the security of gas supply refers to the operative security which means the supplier can supply its customers under any conditions. In the long run, the security of gas supply is related to the long-term business plans and requires investments in research projects, production and transportation of gas to the market, which includes transportation of gas through gas pipelines and LNG terminal.

[1] LNG – Liquefied Natural Gas

[2] Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply; the implementation deadline is April 26, 2006.

6.2.8. Gas storage

In March 2005 the European Regulators' Group for Electricity and Gas (ERGEG) proposed the document entitled "Guidelines for Good Third Party's Access Practice to Storage Capacities", intended for storage operators. Although these guidelines are not legally binding, they have been accepted by the storage operators and their implementation was agreed to start on April 1, 2005. On that occasion, the European Commission has asked ERGEG to monitor the implementation of these Guidelines and to report back on the situation regards storage access, which ERGEG has done (Table 15).

Table 15. Regulation of storage access in the member states

Conditions of regulated access	Conditions of partly regulated access	Conditions of negotiated access
Belgium, Italy, Spain	Czech Rep., Great Britain, Hungary, Latvia, Poland	Austria, Denmark, France, Germany, Netherlands

Source: COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, SEC(2005), COMMISSION STAFF WORKING DOCUMENT, Report on Progress in Creating the Internal Gas and Electricity Market, Technical Annexes to the Report from the Commission to the Council and the European Parliament

ERGEG considers gas storage an important factor of the competitive market. The impartial and non-discriminatory access to storage is an important precondition for the establishment of an efficient European gas market.

The access to storage often creates problems on the level of distribution system operator, where prices (tariffs) are not adequately defined. Storage users emphasize the need for impartial access to storage, which would facilitate the flexibility of new operators and prevent the dominance of the existing ones. Furthermore, their position is that in cases where there is competition the access to storage should be negotiated, otherwise it should be regulated. They think the above listed Guidelines should become legally binding.

7. PRODUCTION, DISTRIBUTION AND SUPPLY OF HEAT ENERGY

7.1. REVIEW OF THE CURRENT SITUATION IN THE REPUBLIC OF CROATIA

Today the heat sector provides services of district heating and preparation of sanitary hot water for households and business subjects and in most cases there is no technically and economically justified alternative to the heating through heating systems in already developed urban areas.

There are large district heating systems in Karlovac, Osijek, Rijeka, Samobor, Slavonski Brod, Split, Varaždin, Vinkovci, Vukovar, Zagreb and Zaprešić, whereby one third of the Croatian population lives in these cities.

7.1.1. Production capacities and networks

The city of Zagreb, i.e. the HEP Toplinarstvo Company (the municipal district heating provider) is by far the largest company providing heat energy services in the Republic of Croatia. In the following table as possible parameters for comparison there are the following categories: the total of delivered heat energy, the length of the heat energy network (distribution) and the number of employees.

Table 16. Delivered heat energy, network length, and number of employees (Data from the year 2004)

Company and its Headquarters	Delivered Heat Energy [GWh]	Total Length of Distribution Network [km]	Number of Employees
Vinkovački vodovod i kanalizacija d.o.o.	16.3	1.6	12
Tehnostan d.o.o., Vukovar	19.1	7.0	18
Termoplin d.d., Varaždin	40.5	2.1	17
Toplina d.o.o., Slavonski Brod	58.5	9.7	60
Toplinarstvo Sisak d.o.o., Sisak	59.8	8.3	3
Energo d.o.o., Rijeka	87.9	16.0	34
Toplana d.o.o., Karlovac	102.8	21.0	82
Hvidra d.o.o.,Split	16.7	4.0	No data
HEP Toplinarstvo d.o.o. (total)	1,828.3	232.2	327

The heat sector facilities and their equipment are in most cases in worn-out condition and are on average more than 20 years old, which leads to lower system efficiency. The heat sector activity that is carried out through special block heating plants connected into larger or smaller networks (systems) is different from heat sector activity carried out in large systems with cogeneration process (simultaneous generation of both electrical and thermal power in a single process).

In the Republic of Croatia only in the cities of Zagreb and Osijek there are cogeneration facilities for production of heat energy. Heat energy is mostly produced in several locations, i.e. public heating plants and is distributed to end consumers through the distribution network.

7.1.2. Organization

The above mentioned companies dealing with production, distribution and supply of heat energy are mostly owned by the state or local communities (Table 17).

Table 17. Review of ownership and activities of heat sector companies in Croatia

Company / Headquarters	Ownership	Activities
Energo d.o.o., Rijeka	mixed, majority municipal	Production, distribution and supply of heat energy and gas
HEP Toplinarstvo d.o.o., Zagreb	state (HEP Group)	Production, distribution and supply of heat energy
Tehnostan d.o.o., Vukovar	municipal	Production, distribution and supply of heat energy chimney-sweeping craft, apartment building management
Termoplin d.d., Varaždin	shareholders	Production and supply of heat energy, distribution and trade with gas fuels through the distribution network
Toplana d.o.o., Karlovac	municipal	Production, distribution and supply of heat energy
Toplina d.o.o., Slavonski Brod	municipal	Production, distribution and supply of heat energy
Toplinarstvo Sisak d.o.o., Sisak	state (HEP Group)	Production, distribution and supply of heat energy
Hvidra d.o.o., Split	municipal	Production, distribution and supply of heat energy
Vinkovački vodovod i kanalizacija d.o.o., Vinkovci	municipal	Production, distribution and supply of heat energy, collection, purification and distribution of water, drainage, building of water-supply and sewage network, cemetery

7.1.3. Heat energy prices

The main problem of heat energy business activity is in the relation between the fuel price (as *input* for production of heat energy) which is deregulated and the selling price of heat energy (*output*), which does not follow the price change for input costs. Therefore the selling price of

heat energy in most cities does not cover production costs. An additional problem is the collection of payments. As a result, most heat sector companies have losses and there is no possibilities for investments in maintenance, let alone development.

Table 18. Heat energy prices in kn/MWh (without VAT)

Company name	Energo d.o.o.	Termo-plin d.d.	Toplana d.o.o.	Toplina d.o.o.	Vinkov. vodovod i kanalizac. d.o.o.	Hvidra d.o.o., Split	Tehnostan d.o.o.	Toplinarstvo Sisak d.o.o.	HEP-Toplinarstvo d.o.o.	
									CTS	PT
Head-quarters	Rijeka	Varaždin	Karlovac	Sl. Brod	Vinkovci	Split	Vukovar	Sisak	Zagreb Osijek	V. Gorica Zaprešić Samobor Zagreb
2000	382	254	298	no data	no data	no data	408	370	176	306
2001	415	218	329	no data	no data	no data	370	278	177	258
2002	434	229	345	no data	293	no data	381	252	202	321
2003	433	269	326	264	263	no data	310	258	209	310
2004	441	283	no data	no data	305	no data	388	no data	217	336

According to the Energy Act the price of heat energy production with the exception of eligible customers, the price of heat energy distribution and the price of heat energy supply with the exception of eligible customers is determined by the implementation of the Tariff System. The Tariff System is based on justified business costs, costs of maintenance, repair, construction or reconstruction of facilities and environment protection, including reasonable rate of return of investments in energy facilities and networks, i.e. systems and it must be impartial and transparent. Further, the Tariff System has to provide incentives for improvement of energy efficiency and consumption management, including increased usage of renewable energy sources. The Tariff System consists of the prescribe methodology for determining tariff items with the amounts of tariff items. The amounts of tariff items may differ depending on the user category, the time of delivery and seasonal or daily dynamics of delivery.

The Methodology, i.e. the Tariff System without the amount of tariff items is passed by CERA. The amounts of particular tariff items in tariff systems are determined by the Government of the Republic of Croatia upon the proposal of the Ministry of Economy, Labor and Entrepreneurship. The energy operator that carries out activities for which the Tariff System is applied submits its proposal of the tariff items' amounts to the Ministry, which obtains the opinion from CERA. CERA also monitors the implementation of tariff systems.

7.2. INTERNATIONAL HEAT ENERGY MARKET

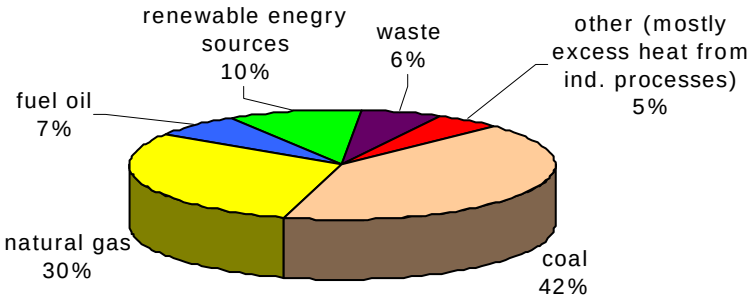
If we take a look at the heat sector in the European Union, we can say that today more than 64 million people use district heating systems. After the year 2004 and with the accession of new members to the EU, the district heating sector of Europe has been strengthened significantly. With annual turnover between 18 and 19 billion EUR within EU-28[1], the heat sector represents a significant portion of the European energy sector.

The rising trend has been kept in only a few member countries (Austria, Italy and Netherlands), while the development of district cooling has been recorded in Northern and Southern EU members. In the Central and Eastern European countries district heating and cogeneration systems represent about 40% of the households' heat supply market and are the main component of the energy sector in that part of Europe.

[1] District Heating and Cooling, Country by country/2005 Survey, EuroHeat Power, p.11

The type of fuel that is used for heat energy production in Europe and their shares show the highest representation of coal (42%) and natural gas (30%), while renewable sources, waste and industrial waste all come up to 22%.

Picture 18. Type of fuel used for heat energy production in Europe



Taking into consideration the ownership, most companies are municipally owned or are in private hands. So for example in Estonia and the Czech Republic 70% of heat sector companies are privately owned.

In Slovakia the heat sector companies are owned by the state as the majority owner, while in Bulgaria and Latvia the state owns a minority portion of shares in such companies. Lithuania applies the model of leasing, in order to provide incentives for investments in the heat sector.

The heat energy prices (without VAT) fall within the range between 19 EUR/MWh (Romania) and 54.8 EUR/MWh (Germany).

Table 19. Heat energy prices (without VAT)

EUR/MWh (without VAT)	
Austria	53.84
Czech Republic	25-75
Denmark	40-50
Estonia	30
Finland	42.2
Croatia	**14-24**
Latvia	19-33
Lithuania	32.75
Hungary	25-50
Netherlands	53.45
Norway	51
Germany	54.8
Poland	36
Slovakia	<47.4
Sweden	48
Accession Countries	
Bulgaria	22
Romania	19

Source: District Heating and Cooling, Country by country/2005 Survey, EuroHeat & Power

Regarding the tax system in the European Union, the VAT rates are between 5% (Estonia) to 25% (Denmark). In the *new* member states (Czech Republic, Hungary, Latvia, Lithuania, Poland, Slovakia) in line with the EU Directive on Taxation, a transition period has been introduced that can be extended to 2014 at the most. *Old* EU members use taxes to promote heat energy production in cogeneration.

The expectations of the future development of the centralized heat supply share vary significantly from country to country. So in some European countries district heating is expected to grow further thanks to the EU energy strategy that emphasizes the need for increased usage of cogeneration, for the expansion of which it is necessary to have the adequate heat load. New technologies and technical improvements are bound to make district heating system more efficient. On the other hand, specific consumption of apartment buildings can be significantly improved by introducing energy efficiency measures in the apartment building management, which would reduce the total heat demand and at the same time increase the profitability of CTS in some areas.

8. OIL AND OIL DERIVATIVES MARKET

8.1. THE REVIEW OF THE SITUATION IN THE REPUBLIC OF CROATIA

8.1.1. Transport System JANAF d.d.

The System of JANAF d.d. was built as an international crude oil transportation system from the Port and Terminal of Omišalj on the island of Krk to both local and foreign refineries in Eastern and Central Europe. The designed capacity of the pipeline amounts to 34 million tons of oil annually (MTA), which can be transported on the section between Omišalj and Sisak. Certain parts of the system have been built for the final capacity (for example pipelines), while the capacity of those parts that can be added on to (tanker berths, storage tank farms, pumping stations etc.) is 20 MTA. Submarine oil pipeline Omišalj-Urinj, the capacity of which is 7 million tons of oil transport, was built in 1995. Tankers can load and unload oil 24 hours a day, 365 days a year.

The projected route of oil transportation is from the Terminal in Omišalj to the Terminal in Sisak (and to the Sisak Refinery). The Sisak terminal has storage capacities of 100,000 m^3. There are two short oil pipelines leading from the Sisak Terminal. One section runs North to the Terminal Virje (with storage capacities of 40,000 m^3) and Gola (Croatian-Hungarian border). From the Hungarian border oil can be transported through the pipeline Adria to the refinery Szazhalombatta, where pipelines Adria and Družba connect, so the provision of oil from Hungary, Slovakia and the Czech Republic is possible through JANAF from the Mediterranean. On this section the oil is transported also in the contrary direction (from the Russian Federation), Gola-Sisak. The other section of the pipeline runs from the Sisak terminal eastwards to the Terminal in Slavonski Brod (under construction). There are two section leading from the Slavonski Brod Terminal. One runs to Bosanski Brod in Bosnia and Herzegovina and the other to Sotin (Croatian-Serbian & Montenegrin border) and further to the refineries in Pančevo and Novi Sad. Oil metering is carried out at metering stations in Omišalj, Virje and Sotin and at storage tanks at the Terminals Omišalj and Sisak.

Table 20. Length of JANAF d.d.'s sections

Section	Length
Omišalj – Sisak	179 km
Sisak – Slavonski Brod	156 km
Slavonski Brod – Sotin	84 km
Slavonski Brod – Bosanski Brod	13 km (6 to the border of RH)
Sisak – Gola	108 km
Virje – Lendava	73 km (69 to the border of RH)
Omišalj – Urinj	7 km

Source: JANAF d.d.

8.1.2. Access to the system of oil transport through oil pipelines

According to the Article 4 of the Act on Oil and Oil Derivatives Market ("Official Gazette", No. 68/01), energy operators licensed for carrying out the activity of oil transport through oil pipelines have the obligation to provide access in an impartial and transparent way to all legal and natural persons that submit a request for access to transportation systems, based on the principle of negotiated access for the third party, provided they fulfill technical requirements for access and connection according to specific regulations. Energy operators can deny access to a third party in the following case: if there are technical or safety limitations or if the pipeline capacities are full or if a party requesting access comes from a country that is not a Contracting Party of the Energy Treaty.

Picture 19. Map of the System of JANAF d.d.

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11. APPENDIX – FINANCIAL REPORT OF THE CROATIAN ENERGY REGULATORY AGENCY FOR THE YEAR 2005

A. BALANCE SHEET AS PER DECEMBER, 31 2005

- in Kuna -

No.	Position	Status 12/31/2005	Status 12/31/2004	Index
1	2	3	4	5 (3/4)
	ASSETS			
A.	LONG-TERM ASSETS	1,686,442	1,256,554	*134*
I.	INTANGIBLE ASSETS			
1.	Expenditures for research and development			
2.	Patents, licenses, concessions and other similar rights			
3.	Other intangible fixed assets			
4.	Value adjustment of intangible fixed assets			
II.	TANGIBLE ASSETS	1,686,442	1,256,554	*134*
1.	Land and forest			
2.	Buildings			
3.	Equipment and machinery	1,970,172	1,373,110	*143*
4.	Residential buildings and apartments			
5.	Other tangible assets	401,286	224,898	*178*
6.	Value adjustment of tangible assets	685,016	341,454	*201*
III.	FINANCIAL ASSETS			
1.	Long-term investments			
2.	Long-term loans			
3.	Long-term credits, deposits and sureties			
4.	Other long-term investments			
5.	Value adjustment of financial assets			
IV.	RECEIVABLES			
1.	Receivables for advance payments			
2.	Other receivables			
3.	Value adjustment of receivables			
B.	SHORT-TERM ASSETS	17,599,438	10,368,995	*170*
I.	INVENTORIES			
1.	Consumables			
2.	Stockpiles of small inventory			
3.	Other inventories			
II.	RECEIVABLES	2,720,410	2,593,439	*105*
1.	Receivables from customers and for advance payments	2,670,079	2,501,493	*107*
2.	Receivables from employees	2,212		
3.	Receivables from the Government and other institutions		45,780	
4.	Other receivables	48,119	46,166	*104*
5.	Value adjustment of receivables			
III.	FINANCIAL ASSETS			
1.	Short-term deposits and sureties			
2.	Securities			
3.	Credits			
4.	Other short-term investments			
5.	Value adjustment of financial assets			
IV.	CASH AT BANKS AND IN HAND	14,879,028	7,775,556	*191*
C.	PREPAYMENTS			
D.	TOTAL ASSETS	19,285,880	11,625,549	*166*
E.	OFF-BALANCE SHEET ITEMS	1,245,491	390,110	*319*

- in Kuna -

No.	Position	Status 12/31/2005	Status 12/31/2004	Index
1	2	3	4	5 (3/4)
	LIABILITIES			
A.	LIABILITIES	1,015,525	1,159,469	*88*
I.	LONG-TERM LIABILITIES			
1.	Payables relating to loans			
2.	Payables relating to long-term credits			
3.	Payables relating to securities			
4.	Other long-term liabilities			
II.	SHORT-TERM LIABILITIES	1,015,525	1,159,469	*88*
1.	Payables relating to loans			
2.	Payables relating to short-term credits			
3.	Payables relating to advance payments	242,977	46,742	*520*
4.	Accounts payables	454,114	937,801	*48*
5.	Payables relating to securities			
6.	Payables to employees	163,114	92,288	*177*
7.	Payables relating to taxes, contributions, and other charges	155,320	82,638	*188*
8.	Other short-term liabilities			
B.	DEFERRED INCOME			
C.	SOURCES OF FINANCES	18,270,356	10,466,080	*175*
I.	SOURCES OF FINANCES FROM THE FOUNDER	10,626,343	986,929	*1,077*
1.	Sources of finances from the budget			
2.	Sources of finances from the fund			
3.	Sources of finances from membership fees, grants etc.			
4.	Other sources of finances from the founder	10,626,343	986,929	
II.	SOURCES OF FINANCES FROM OWN ACTIVITIES			
III.	OTHER SOURCES OF FINANCES	269,625	269,625	*100*
IV.	FUND BALANCE	7,374,388	9,209,526	*80*
D.	TOTAL LIABILITIES	19,285,881	11,625,549	*166*
E.	OFF-BALANCE SHEET ITEMS	1,245,491	390,110	*319*

B. PROFIT AND LOSS STATEMENT FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2005

- in Kuna -

No.	Position	Current	Previous period	Index 2004/2003
1	2	3	4	5 (3/4)
A.	REVENUES	16,986,131	19,614,010	*87*
1.	Revenues from the budget			
2.	Revenues from contributions	16,284,929	17,641,162	*92*
3.	Revenues from membership fees and other charges			
4.	Revenues from transfer			
5.	Revenues from own activities	625,480	1,865,900	*34*
6.	Other revenues	75,722	106,948	*71*
B.	EXPENSES	9,611,743	10,404,484	*92*
1.	Operating charges and depreciation	5,258,163	7,192,583	*73*
1.1.	Materials	174,737	76,491	*228*
1.2.	Energy	95,206	15,732	*605*
1.3.	Services	4,988,220	7,100,360	*70*
1.4.	Depreciation			
1.5.	Other costs			
2.	Labor costs	2,980,932	1,928,065	*155*
2.1.	Salaries and compensations	2,915,929	1,903,627	*153*
2.2.	Other costs	65,003	24,438	*266*
3.	Non-material costs	599,078	502,796	*119*
4.	Transfers			
5.	Expenses relating to investments	773,450	780,778	*99*
6.	Other expenses	120	262	*46*
C.	SURPLUS OF REVENUES	7,374,388	9,209,526	*80*
D.	DEFICIT OF REVENUES			