

ENERGY

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I. THE ENERGY SECTOR IN GENERAL

1. Please provide the latest statistical information using a Eurostat compatible methodology on energy supply, energy use, energy prices and energy balances (past, present and if available forecasts). Please use a structure concerning sectors and fuels similar to the one published in the Energy and Transport DG's Annual Energy Reviews or in the publication "Europe Energy and Transport - Trends to 2030" of the Energy and Transport DG. For this purpose, statistical data should be provided by filling in the summary template attached (Annex).

Summary Questionnaire on the energy situation: Republic of Macedonia – energy production ¹							
	Statistics			000 toe			
	1995	2000	2002 ²	2005	2010	2020	2030
Primary Production	1671	1595	1577	1704	2012	2167	2128
Solids	1414	1273	1356	1405	1697	1750	1584
Oil	0	0	0	0	0	0	0
Natural gas	0	0	0	0	0	0	0
Nuclear	0	0	0	0	0	0	0
Hydro and wind	69	101	65	132	153	261	390
Geothermal	15	16	13	12	13	17	25
Other renewable energy sources	174	206	143	155	149	138	128

Source: State Statistical Office, Ministry of Economy

SUMMARY ENERGY BALANCES AND INDICATORS OF THE REPUBLIC OF MACEDONIA							
	in 000 toe						
	Statistics ¹⁾			Forecasts ²⁾³⁾			
	1995	2000	2002	2005	2010	2020	2030
Primary Production	1671	1595	1577	1704	2012	2167	2128
Solids	1414	1273	1356	1405	1697	1750	1584
Oil	0	0	0	0	0	0	0
Natural gas	0	0	0	0	0	0	0
Nuclear	0	0	0	0	0	0	0
Renewable energy sources	258	322	221	298	316	417	543
- Hydro	69	101	65	132	153	261	390
- Biomass	174	206	143	155	149	138	128
- Waste	0	0	0	0	0	0	0
- Wind	0	0	0	0	0	0	0
- Solar and others	0	0	0	0	0	0	0
- Geothermal	15	16	13	12	13	17	25
Net imports ⁴⁾	1104	1104	1486	1549	1775	2969	3976
Solids	101	93	70	153	164	179	192
Oil	993	940	1272	1316	1278	1673	2253
- Crude oil and Feedstocks	160	811	560	1068	1221	1628	2238
- Oil products	833	129	712	248	57	45	15
Natural gas	0	53	74	80	334	1084	1100
Electricity	10	10	68	0	0	33	431
Gross Inland Consumption (GIC)	2694	2765	2892	3253	3788	5135	6103
Solids	1513	1406	1352	1558	1861	1929	1776
Oil	914	967	1173	1316	1278	1673	2253
Natural gas	0	54	74	80	334	1084	1100

¹ Changes in time series should be indicated and explained if occurring.

² Latest year available

Nuclear	0	0	0	0	0	0	0
Electricity	10	10	68	0	0	33	431
Renewable energy forms	258	329	225	298	316	417	543
as% in Gross inland Consumption							
Solids	56,2	50,8	46,8	47,9	49,1	37,6	29,1
Oil	33,9	35,0	40,6	40,5	33,7	32,6	36,9
Natural gas	0,0	1,9	2,6	2,5	8,8	21,1	18,0
Nuclear	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Renewable energy forms	9,6	11,9	7,8	9,2	8,3	8,1	8,9
Electricity Generation in TWhe	6,132	6,811	6,090	8,196	9,506	14,262	15,294
Nuclear	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Hydro & wind	0,801	1,170	0,757	1,531	1,785	3,041	4,538
Thermal (incl. biomass)	5,331	5,641	5,333	6,664	7,721	11,221	10,756
Fuel Inputs for Thermal Power Generation	1396	1409	1337	1748	1925	2702	2547
Solids	1361	1281	1271	1401	1694	1748	1593
Oil	35	120	61	343	15	16	15
Gas	0	8	4	4	216	938	938
Biomass-Waste	0	0	0	0	0	0	0
Geothermal heat	0	0	0	0	0	0	0
Hydrogen-Methanol	0	0	0	0	0	0	0
Fuel Input in other transformation proc.	299	1004	709	1254	1393	1824	2452
Refineries	119	814	545	1068	1221	1628	2238
District heating	180	190	164	186	172	197	214
Biofuels and hydrogen production	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0
Energy Branch Consumption	57	73	71	85	101	128	131
Non-Energy Uses	38	5	11	6	6	6	7
Final Energy Demand (FED)	1572	1606	1780	1825	2282	3076	4093
by sector							
Industry	543	535	438	660	813	1027	1343
Residential	435	485	452	474	571	820	1063
Tertiary	209	217	513	272	360	527	738
Transport	385	368	376	419	539	703	948
by fuel							
Solids	130	108	73	149	158	171	176
Oil	677	671	958	795	1095	1451	1986
Gas	0	7	32	34	75	101	117
Electricity	427	448	428	536	621	1007	1459
Heat (from CHP and District Heating)	154	153	136	153	180	200	210
Other	184	219	153	157	153	146	145
CO₂ Emissions (Mt of CO₂) ⁵⁾	9,0	8,8	9,3	10,6	12,3	15,5	16,6
Electricity and Steam production	6,3	6,3	6,0	7,5	8,1	10,1	9,5
Energy Branch	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Industry	0,9	1,1	0,9	1,3	1,7	2,1	2,6
Residential	0,1	0,1	0,1	0,1	0,2	0,3	0,4
Tertiary	0,5	0,3	1,2	0,5	0,7	0,9	1,3
Transport	1,1	1,1	1,1	1,2	1,6	2,1	2,8
CO₂ Emissions Index (1995=100)	100,0	97,8	103,1	117,8	136,4	171,9	184,2
Main Energy System indicators							
Population (Million)	1,966	2,026	2,020	2,013	2,024	2,022	-
GDP (in 000 MEuro '00) ⁶⁾	3,345	3,893	3,748	-	-	-	-
GIC/GDP (toe/MEuro '00)	805,4	710,2	771,6	-	-	-	-
GIC/Capita (toe/inhabitant)	1,37	1,36	1,43	1,62	1,87	2,54	-
Electricity Generated/Capita (kWh/inhabitant)	3119	3361	3015	4071	4697	7053	-
Carbon intensity (t of CO ₂ /toe of GIC)	3,35	3,20	3,22	3,27	3,25	3,02	2,73
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	4,60	4,36	4,61	5,29	6,09	7,68	-
CO ₂ Emissions to GDP (t of CO ₂ /MEuro '00)	2701,5	2270,2	2486,2	-	-	-	-
Import Dependency (%)	41,0	39,9	51,4	47,6	46,9	57,8	65,1
Energy intensity indicators (1995=100) ⁷⁾							
Industry (Energy on Value added)	100,0	84,8	82,6	-	-	-	-
Residential (Energy on Private income)	-	-	-	-	-	-	-
Tertiary (Energy on Value added)	100,0	101,2	237,8	-	-	-	-
Transport (Energy on GDP)	100,0	56,1	63,2	-	-	-	-

Carbon intensity indicators							
Electricity and Steam production (t of CO ₂ /MWh)	1,04	0,92	0,98	0,91	0,85	0,71	0,62
Final energy demand (t of CO ₂ /toe)	1,71	1,58	1,88	1,73	1,85	1,77	1,75
Industry	1,72	2,00	1,99	2,01	2,13	2,08	1,96
Residential	0,25	0,25	0,29	0,27	0,41	0,38	0,38
Tertiary	2,49	1,24	2,42	1,77	1,91	1,77	1,79
Transport	2,92	2,92	2,93	2,92	2,93	2,93	2,93
Electricity and Steam generation							
Generation Capacity in GWe	1,441	1,444	1,444	1,534	1,839	3,053	3,377
Nuclear	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Hydro (pumping excluded)	0,431	0,434	0,434	0,529	0,644	1,388	1,832
Wind and solar	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Thermal	1,010	1,010	1,010	1,005	1,195	1,665	1,545
of which cogeneration units	0,000	0,000	0,000	0,000	0,190	0,190	0,190
Open cycle (incl. biomass-waste)	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Supercritical Polyvalent/Clean Coal and Lignite	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Gas Turbines Combined Cycle	0,000	0,000	0,000	0,000	0,000	0,470	0,470
Small Gas Turbines	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Fuel Cells	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Geothermal heat	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Indicators							
Efficiency for thermal electricity production (%)	32,8	34,4	34,3	32,8	34,5	35,7	36,3
Load factor for gross electric capacities (%)	61,3	59,6	55,4	59,4	60,1	62,9	63,3
CHP indicator (% of electricity from CHP)	0,0	0,0	0,0	0,0	0,1	0,1	0,2
Non fossil fuels in electricity generation (%)	0,0	0,0	0,0	0,0	0,0	0,0	0,0
nuclear	0,0	0,0	0,0	0,0	0,0	0,0	0,0
renewable energy forms	0,0	0,0	0,0	0,0	0,0	0,0	0,0
of which waste	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Transport sector							
Passenger transport activity (Gpkm)	-	-	-	-	-	-	-
public road transport ⁸⁾	1,48	1,13	1,35	-	-	-	-
private cars and motorcycles	-	-	-	-	-	-	-
rail	0,06	0,18	0,10	0,11	0,13	0,17	0,21
aviation ⁹⁾	0,68	1,10	0,63	0,61	0,78	1,17	1,59
inland navigation	0,00	0,00	0,00	-	-	-	-
travel per person (km per capita)	-	-	-	-	-	-	-
Freight transport activity (Gtkm)	1,34	1,30	3,03	-	-	-	-
trucks ¹⁰⁾	1,17	0,78	2,69	-	-	-	-
rail	0,17	0,53	0,33	0,40	0,45	0,56	0,65
inland navigation	0,00	0,00	0,00	-	-	-	-
freight activity per unit of GDP (tkm/000 Euro '00)	347	335	808	-	-	-	-
Energy demand in transport (000toe)	385	368	376	419	539	703	948
public road transport ¹¹⁾	31	31	37	-	-	-	-
private cars and motorcycles ¹¹⁾	169	125	152	-	-	-	-
trucks ¹¹⁾	157	176	133	-	-	-	-
rail	5	6	4	6	8	12	17
aviation	23	30	50	23	25	23	26
inland navigation	0	0	0	-	-	-	-
Efficiency indicator (activity related)							
passenger transport (toe/Mpkm)	-	-	-	-	-	-	-
freight transport (toe/Mtkm)	117,4	137,0	44,6	-	-	-	-

- 1) Source: State Statistical Office
- 2) Source: Ministry of Economy
- 3) Calculated: State Statistical Office
- 4) Biomass is included
- 5) CO₂ Emissions from fuel combustion only, Emissions are calculated using Energy balances of the Republic of Macedonia and the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories: Workbook
- 6) PARE method-2000 as base
- 7) Estimated data for 1995
- 8) Sum of Bus and Urban passenger transport
- 9) Source: Ministry of Transport and Communications; Airport-Skopje (According to Scott Wilson's Airport Skopje Modernisation Project study)
- 10) The data for year 1995 and 2000 show only tonne kilometres produced by enterprises whose main activity is road transport of goods and included small part of private enterprises. The data for year 2002 is prepared according to methodology EU Regulation 1172/98.
- 11) Estimated data

legend:

" - " data not available

"0 " value is zero

2. Please provide a short description highlighting the current energy situation including the organisation of the sector. Do current energy prices reflect the costs (electricity, gas, heat, coal, oil)? Please give an overview of main energy prices and compare them with their costs. How has the privatisation process developed in the sector and what are the perspectives (please provide information per sub-sector)? Is the organisation of collection of (energy) statistics satisfactory in order to reply to reporting requirements of the EU in the energy (sub)sectors?

Energy Situation

The energy balance of the Republic of Macedonia includes electricity, natural gas, liquid fuels, solid fuels and geothermal energy.

The average total consumption of energy in the Republic of Macedonia on an annual level is around 120.000 TJ. Within the primary energy consumption, crude oil participates with 30%, coal with 51,6%, natural gas with 3%, and the remaining around 15% are hydro energy, fire-wood and geothermal energy. The total consumption of energy is provided by around 60% of domestic production and 40% from import.

The basic energy infrastructure in the Republic of Macedonia includes the following: electricity power system, coal mines, gas pipeline system, an oil refinery, oil pipeline, thermal and geothermal systems.

The total installed capacity for electricity production is 1.485 MW, with annual production of around 6 billion kWh, 1.000 MW of which are from thermal power plants with annual production of 5 billion kWh (excluding TEP "Negotino"), and 480 MW are from hydro power plants with annual production of around 1 billion kWh.

In the Republic of Macedonia there are no oil deposits. All crude oil originates from import and is transported from Thessaloniki (Greece) to the refinery in Skopje (Macedonia) through an oil pipeline with capacity of 2,5 billion tonnes per year. The average annual consumption of oil derivatives is approximately 800.000 tonnes.

Coal used in the Republic of Macedonia is lignite (heating value of 6.500-8.000 kJ/kg, with 0,5-1,5% contents of sulphur and 8-25% of ashes). The largest coal mines are part of thermo electricity plants and that coal is used for electricity production (around 7 million tonnes per year), and around 200.000 tonnes per year of coal from other smaller mines is used for satisfying the needs of industrial consumers and households.

Gas pipeline system of the Republic of Macedonia has capacity of 800 million m³ per year. The main transmission gas pipeline is around 98 km long, stretching from the border with the Republic of Bulgaria to Skopje. So far, the main gas pipeline branches to the cities have been built with length of 26 km and the distribution gas network with length of 31,5 km.

Currently, in the Republic of Macedonia five district heating systems are operational with total capacity of 600 MW, powered by heavy oil, natural gas and lignite. Currently, around 50.000 households are connected to these heating systems.

The geothermal energy participates with about 0,3% in the total consumption of energy.

Activities and organisation

Pursuant to the Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), the following activities are related to this area: (1) production, transmission and distribution of electricity, (2) production and processing of coal, (3) production, processing and transport of oil and oil derivatives, (4) production, processing and distribution of natural gas, (5) production, transport and distribution of thermal and geothermal energy, (6) production of other types of energy, (7) transit of energy and energy sources and (8) trade of energy and energy sources. In the context of sub point (6), exploitation of solar energy, wind power and energy obtained from biomass is considered as production and exploitation of other types of energy. Supply of energy and energy sources is defined as delivery or sale of energy or energy sources to the consumers.

These activities can be performed by domestic and foreign legal and natural entities, based on a licence issued by the Energy Regulatory Commission, in a procedure which is to be regulated with a special regulation in the first quarter of 2005. Activities referred to in sub points (1), (4) and (5) above are activities of public interest and for these activities public enterprises may be established. Public enterprises under (1) and (2) are founded by the Government of the Republic of Macedonia, and public enterprises for production, transport and distribution of thermal and geothermal energy may also be founded by municipalities or the city of Skopje.

According to the Law on State Administrative Bodies Organization and Performance ("Official Gazette of RM" No 58/00 and 44/02), energy field related issues are performed by the Ministry of Economy. In that context, as a corresponding public administration body from the energy field, a Sector for Energy and Mineral Raw Materials is established in the Ministry, with a Unit for Electricity Power System and Investments, and a Unit for Fossil Fuels and Energy Efficiency. Bodies within the Ministry of Economy, as Bureau for Metrology, State Inspectorate for Technical Inspection, and State Market Inspectorate, as well as independent ones, as Standardization Institute and Accreditation Institute, have corresponding competencies in the energy field.

The Sector for Energy and Mineral Raw Materials, within the Ministry of Economy, works on energy-related matters pertaining to:

1. Preparation of laws, secondary legislation and other regulations, and monitoring of their enforcement;
2. Preparation and adoption of strategic development documentation;
3. Investment activities;
4. Transformation of the public (state) sector;
5. Participation in, and coordination of, international projects in the country and abroad;
6. Preparation of energy balances and monitoring of their realisation;
7. Monitoring of energy supply and activities in the energy field by following the variations of prices, operating conditions and economical and financial operations of the public utilities, and by proposing appropriate measures;
8. Bilateral and multilateral international cooperation and implementation of the Stabilisation and Association Agreement with the European Union; and
9. Other modes of cooperation with state administration bodies, other organisations and institutions.

Pursuant to the Energy Law, in June 2003 the Energy Regulatory Commission of the Republic of Macedonia was founded. The Energy Regulatory Commission is independent in its operations and decision-making within the framework of authorities determined by the Law. The five members of the Energy Regulatory Commission are appointed and relieved of duty by the Assembly of the Republic of Macedonia, upon a proposal of the Government of the Republic of Macedonia. The operation of the Energy Regulatory Commission is financed from own sources of funds provided through collection of fees from the total income of energy-related operators and from collection of charges for the issued licenses. Except in cases when confidential information or business secrets are being

discussed, the sessions of the Energy Regulatory Commission are public, and its decisions are published in the Official Gazette of the Republic of Macedonia.

According to the Energy Law, the Energy Regulatory Commission, among other things, performs the following important tasks:

- Ensures reliable, continued and high quality supply of energy;
- Promotes the competition at the energy market;
- Prescribes conditions of supply of individual types of energy;
- Prescribes pricing methodologies of individual types of energy;
- Prescribes tariff systems of individual types of energy;
- Brings decisions on prices of individual types of energy, according to the Methodology of Pricing, tariff systems of individual types of energy and other legal regulations;
- Issues, modify and withdraw licences and follows licence execution of individual activities in the energy area;
- Prescribes rules for connection to energy networks;
- Promotes protection of the energy consumers' rights;
- Initiates adoption of laws and other regulations from the field of energy;
- Participates in resolving of disputes and proposes measures on disputes;
- Submits proposals to competent authorities for undertaking measures, according to their competencies and in a procedure prescribed by law, against the entities perform their activities contrary to this Law.

Within the Economic Chamber of Macedonia, an Energy Board is established, which organises public debates in regards to legal and development documents related to interests of the companies.

Prices and costs of energy

According to the Methodology on Pricing of Individual Types of Energy (“Official Gazette of RM” No. 43/98 and 08/01), see [14 Annex 07](#), prices are established and controlled for the following energy types:

- Electricity;
- Natural gas;
- Thermal energy;
- Geothermal energy; and
- Oil derivatives.

Basic elements of pricing of the above-stated energies, according to the Methodology, are as follows:

1. Normalised costs
 - depreciation
 - insurance
 - day-to-day maintenance, overhauls and maintenance services
 - expenses for materials, energy, spare parts and consumables
 - gross salaries
 - services of others except production services for regular maintenance
 - concessions for exploitation of natural resources;
1. Taxes and charges in connection with the financial results from the company operations;
2. Other levies; and
3. Profit, set at a level of 8% of the permanent value of the fixed assets and the permanent working assets.

Control of the energy prices is generally performed once in 6 months.

Price of energy can be changed if within a period of three months a change of costs occurs (normalised costs, taxes, charges and other levies) higher or lower than 5% of the current price.

If an extreme change of the controlled costs occurs, the pricing control may be performed in shorter periods, i.e. within 15 workdays.

Change of prices is initiated by energy companies. The Energy Regulatory Commission of the Republic of Macedonia (RCE) establishes the prices of oil derivatives every 14 days, taking into account the elements of the Methodology in Annex D of the Agreement on purchase of the Oil Refinery JSC OKTA Skopje. A proposal on changing the price of oil derivatives, according to the Methodology, is submitted by the Oil Refinery JSC OKTA Skopje to the Energy Regulatory Commission of the Republic of Macedonia.

Calculation of the price of oil derivatives is performed on a basis of the average price of the BRENT crude oil according to "Platt's Crude Oil Marketwire", including the costs for purchase, transport and company profit and the average exchange rate of MKD/USD of acquisition of the foreign currency in the previous 14-day controlled period. Thus, during the establishment and control of the oil derivatives' prices, the changes of real costs are taken into consideration, and therefore the prices for production and retail sale of oil derivatives approved by the Energy Regulatory Commission fully cover the expenses.

The current retail price of the geothermal water of 30,35 Euro cents per cubic metre is fully covering the expenses.

The average retail price of the thermal energy of 41,59 Euro cents per cubic metre in the remote heating is fully covering the expenses.

The existing average retail price of electricity is 3,9 Euro cents per kWh and this price does not completely cover the expenses. The calculated average cost price for 1 kWh is 4,48 Euro cents.

The price of natural gas is formed by JSC Makpetrol as a sole entity which manages the gas pipeline at the moment and that price is covering the expenses (for more details, please refer to answers to questions [14 II B](#)).

The Energy Regulatory Commission of the Republic of Macedonia currently prepares a new tariff system on electricity, which shall be adopted in the first quarter of 2005. At the same time, there is ongoing work on preparation of methodology and tariff systems for natural gas, thermal and geothermal energy. The base model for establishment and control of prices of energy sources has an incentive based approach - by setting the highest level of revenues or profit, or the highest level of prices. Such an approach will enable:

- Stimulation for improvement of efficiency;
- Possibility of reducing the investment risk with setting the price path for the course of several years; and
- Stimulation for presenting the real costs of the company.

Electricity sector:

The electricity sector, since recently has been characterised with the dominant position of the vertically integrated company *Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in state ownership*, which performed all basic and supporting activities of the supply of all consumers in the electricity system. Only an insignificant number of independent producers, which are part of certain industrial facilities and of some public enterprises for water management, were excluded.

In December 2000 ("Official Gazette of RM" No 80/00) a court re-registration was made of the former Public Enterprise Electric Power Company of Macedonia (EPCM) into a Joint Stock Company (JSC) in state ownership, which enabled the process of its future transformation (restructuring and privatisation).

In 2001, the administrative and expert basis was consolidated for starting this process, through preparation of the Project Terms of References (ToR), then, establishment of the Government Advisory Committee (the Committee) and the Steering Committee of the project, and selection of international expert advisor (the Consultant) of the Government in the process of restructuring and privatisation of JSC - EPCM.

In 2002, in cooperation with JSC - EPCM, the Consultant - a consortium of eight companies led by "Meinl Bank" from Austria, prepared a Due Diligence on the operations of JSC - EPCM, which served

as a basis of the database used in further modelling and directing of the restructuring and privatisation of this company.

In 2003, in cooperation with many expert teams, the Consultant has prepared and the Government has adopted the following: (1) a Model on restructuring of the JSC - EPCM, and (2) a Plan on implementation of the restructuring of the JSC - EPCM.

In March 2004, Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership ("Official Gazette of RM" No 19/04), see [14 Annex 02](#), was adopted, which stipulates separation of this joint stock company in state ownership into two new companies: *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, which will remain in state ownership, and *Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity*, (new), which could later enter into privatisation process upon decision and according to strategy adopted by the Government.

According to this Law, the privatisation can be done: (1) dominantly, to a private strategic investor, and only in a transparent procedure on a public tender with pre-qualification phase; and (2) in a minority part - which means in a part which will not breach the managing rights of the private investor, to an international financial institutions, with direct agreement.

In September 2004, the Government brought a Decision on separation of the JSC - EPCM with establishing the new companies in accordance with the abovementioned Law. On that basis, JSC - EPCM performed a legal procedure of separation which finished with closure of the existing vertically integrated joint stock company and registration of two new joint stock companies in state ownership on 31.12.2004. This means that since 01.01.2005, in the electricity sector of the Republic of Macedonia operate two completely independent companies, namely: (1) JSC - EPCM (new), *for Production, Distribution and Supply of Electricity*, and (2) JSC MEPSO, *for Transmission of Electricity and Operation of the Electrical Power System*.

At the same time, a new technical, commercial and financial Due Diligence of JSC - EPCM (new) (the new company - without the transmission system) was performed, which will be updated regularly in the future. During 2005, the procedure of privatisation of JSC - EPCM (new) will be prepared - the Government will prepare and adopt a strategy on the assets and the percentage of shares which will be offered to the investor, the entire tender documentation will be prepared and its realisation will begin.

In 2001 the common interest for cooperation between the Government of the Republic of Macedonia and the European Bank for Reconstruction and Development from London (EBRD) in the transformation of the JSC - EPCM was acknowledged. In the recent period, many contacts were made, as well as suggestions and negotiations, which resulted in signing an Agreement in October 2004 on conditional, delayed purchase of stocks of JSC - EPCM in total amount of no more than 45 million EUR. During the forthcoming future privatisation of this Company or of certain parts thereof, EBOR will purchase minority shares of stocks in the parts that will be dominantly privatised by the strategic private investor.

Then, the stocks will become ownership of the Bank, according to the conditions which will be accepted during the process of selection of the strategic investor and according to a discrete decision of the Bank in regards to the amount of the share and the parts JSC - EPCM of which stocks will be purchased.

The payment will be performed in separate amounts (instalments) in the period between the signing of the Agreement and the realisation of the privatisation transaction. Every payment is conditioned by meeting certain previously determined achievements (milestones) of a certain segment of the reforms in the energy field, as an obligation of the Government in regards to the Athens Memorandum and the establishment of a regional energy market in Southeast Europe.

The main conditions included into the milestones are the following:

1. Adopting a Law that will regulate the restructuring and privatisation of JSC - EPCM, compliant to the corresponding EU Directives and Athens Memoranda;

2. Separation of JSC - EPCM into two newly-registered companies, which will include founding of one independent transmission system operator, and accounting unbundling between the production and distribution, in accordance with the Directive 2003/54/EC;
3. Adopting new primary legislation on electricity market, which will include regulation of the market by the Energy Regulatory Commission, in regards to liberalisation and competition;
4. Implementation of the reforms anticipated in (1) and (3) above, and of the Plan for restructuring of JSC - EPCM;
5. Determining the percentage which has been approved by EBRD as its participation in the privatisation and approval by the Bank of the Privatisation Strategy and pre-qualification criteria.
6. Conclusion of a pre-qualification round resulting in at least two Investors being pre-qualified for the Privatisation of JSC - EPCM; and
7. At least one pre-qualified Investor formally advises EBRD of serious interest in EBRD being a shareholder in JSC - EPCM and its agreement to enter into shareholder arrangements with EBRD.

Some of these conditions were fulfilled during 2004, after the establishment of the Energy Regulatory Commission and adoption of the Law on Transformation of JSC - EPCM. The rest of the conditions, like the restructuring of JSC - EPCM, the new tariff system, the new Energy Law, successful management of the privatisation process etc., are planned to be completed during the year 2005.

The whole process between the signing of the Agreement and the privatisation transaction has to last no more than 24 months.

Gas supply sector

Currently, the natural gas sector is built only around the transmission pipeline from the border with Bulgaria to Skopje. Only few industry facilities on the territory where this pipeline passes are connected to the pipeline.

There is an ongoing procedure for determining the ownership rights to the gas pipeline among the Government of the Republic of Macedonia and JSC Makpetrol, and consecutive creation of institutional and legislative environment for operation of the system in compliance with the Directive 2003/55/EC.

Furthermore, staged transposition and implementation of certain provisions from the Law of Energy and from secondary legislation will be put into practice. The same applies to harmonisation of provisions of the Energy Charter Treaty, the Energy Transit Protocol and the Athens Memoranda.

District heating and geothermal sector

Production, distribution and supply of thermal energy for heating are mainly done in Skopje and, to some extent, in Bitola. The fuel used is heavy oil and natural gas.

Production and supply is performed by privately-owned companies. The owner of the distribution networks is the Privatisation Agency of the Republic of Macedonia, and they are leased to private operators.

The district heating sector is completely private-owned.

Geothermal energy is used for agricultural purposes (heating of greenhouses) in Vinica, Kočani, Gevgelija and Strumica. In Kočani it is also used for heating of some premises in the urban area.

Exploitation, distribution and supply to the consumers in Kočani are performed by a public enterprise. The other systems are run by privately-owned companies.

The coal sector

Coal (lignite) is mostly (around 98,5%) used as a primary fuel for production of electricity in the existing thermal power plants in Bitola and Oslomej. Exploitation and transport of this lignite are treated as part of the production process and are entirely a responsibility of the JSC - EPCM.

The production of the industrial coal is privatised.

The oil sector

The Oil Refinery JSC OKTA Skopje has a dominant position, especially in production, transport and wholesale, and also performs a supply of oil derivatives in the Republic of Macedonia. Besides this company, JSC Makpetrol has a strategic position on the market of derivatives, too. Both companies are dominantly privately-owned.

By signing the Agreement on purchase of shares and on concession in 1999 between the Government of the Republic of Macedonia and the JSC EL.P.ET. Balkanike (controlled by Hellenic Petroleum SA and Meton-Etep S.A.) as a Strategic Investor, 54,19% of the shares of Oil Refinery JSC OKTA Skopje were sold, and thus the Strategic Investor became a dominant owner of the Oil Refinery JSC OKTA - Skopje. With additional purchase of shares, this percentage increased to today's level of around 69,46%.

With the selling of the Oil Refinery, and taking into account that the distribution of oil derivatives in the Republic of Macedonia is privately-owned, the oil sector is dominantly privatised.

The idea for building a crude oil refinery dates from 1970's, as a result of the economic development in that period, with a purpose to cover the increased needs of the market in Macedonia, southern Serbia and Kosovo and to create a strong base for the petrochemical industry in Macedonia.

The idea was realised in 1982. The Oil Refinery has installed capacity of 2.500.000 tonnes per year (56.610 BPSD). The following products are part of the product range: liquid gas, oil, regular and unleaded petrol, diesel fuels, heating fuel, oils and other derivatives.

The Oil Refinery JSC OKTA consists of the required work units such as: department of electricity, water, oxygen and compressed air, quality control, storage and delivery, research and development department, fire department, etc.

The Oil Refinery JSC OKTA has a quality and experienced staff, which is up to European and world standards. At the same time, the development projects are compatible with the new process technologies and adaptable to ones used in the EU.

The research and development activity is aimed towards:

- Enrichment of the range of products within the existing oil processing technology;
- Improving the quality of the products and meeting the standards for protection of the environment;
- Optimisation of the process of oil processing; and
- Protection of the equipment from corrosion.

Hellenic Petroleum is currently the largest industrial and commercial corporation in the region, with intensive investments in several new sectors. The basic activities of the corporation are: refinement of crude oil and production of oil derivatives, chemical and petrochemical products; trade and distribution of oil derivatives and petrochemical products; construction and operation of pipelines; research and development of new technologies; production, trade and marketing of other types of energy.

The development strategy of Oil Refinery JSC OKTA stems from the need of further rational use of the installed capacity, its reconstruction and enlargement in the course of deepening the process of oil processing, reduction of rand man of heavy oil and production of higher quality products.

Structure of the capital of JSC OKTA:

Shares bought by employees	9,29%
Subscribed shares with discount	3,43%
Pension and Disability Insurance Fund of Macedonia	4,21%
EL.P.ET. Balkanike	69,46%
Privatisation Agency of the Republic of Macedonia	13,61%

After the construction of the oil pipeline Thessaloniki-Skopje, when all pre-conditions for better exploitation of the installed capacity for processing of crude oil were met, JSC OKTA focused on development and improvement of trade and distribution of oil derivatives in Kosovo and Southern Serbia.

Since 2002, Oil Refinery JSC OKTA Skopje commenced preparations on construction of product transmission line OKTA-Skopje-Serbia and Montenegro (Kosovo), which will provide fast,

inexpensive and reliable transportation of the needed types and quantities of oil derivatives for the market of Kosovo. The product transmission line OKTA-Skopje-Serbia and Montenegro (Kosovo) will provide flow of 65 m³/h of oil derivatives, directly to the existing storage facilities in Kosovo.

Oil Refinery JSC OKTA Skopje also plans to commence construction of a second product transmission line towards Southern Serbia, and thus to become a serious player on that market, too.

The realised production and sale of oil derivatives by Oil Refinery JSC OKTA Skopje in 2003 and in the period between 1.01.2004 and 30.09.2004 is:			
Derivative type	Quantities of oil derivatives produced by JSC OKTA in 2003 (in tonnes)	Quantities of oil derivatives sold by JSC OKTA to JSC Makpetrol in 2003 (in tonnes)	Quantities of oil derivatives sold by JSC OKTA to others in 2003 (in tonnes)
automotive petrol	126.004	43.039	44.261
diesel	212.455	48.456	92.090
burning oil	110.138	19.541	105.363
heavy oil	316.135	29.883	153.883
bitumen			
jet engine fuel	99		235
LPG	21.000		19.819
natural gas			

The rest of the quantities is exported.

Derivative type	Quantities of oil derivatives produced by JSC OKTA in the period before 30.09.2004 (in tonnes)	Quantities of oil derivatives sold by JSC OKTA to JSC Makpetrol in the period before 30.09.2004 (in tonnes)	Quantities of oil derivatives sold by JSC OKTA to others in the period before 30.09.2004 (in tonnes)
automotive petrol	96.366	34.330	31.992
diesel	181.720	49.594	61.833
burning oil	81.084	16.310	60.354
heavy oil	201.273	31.196	101.823
bitumen			
jet engine fuel	53		49
LPG	14.745		18.298
natural gas			

The rest of the quantities is exported.

Except for the Oil Refinery JSC OKTA Skopje, which has a primary activity of processing crude oil and production of derivatives, in the domain of oil derivatives import and retail market supply the private trade company JSC Makpetrol holds a notable position, having its own distribution network of around 120 petrol stations.

The realised production and sale of oil derivatives and natural gas by JSC Makpetrol in 2003 is:			
Derivative type	Quantities of oil derivatives obtained from JSC OKTA in 2003 (in tonnes)	Quantities of oil derivatives (in tonnes) and natural gas (in 10 ³ Nm ³) obtained from export in 2003	Quantities of oil derivatives (in tonnes) and natural gas (in 10 ³ Nm ³) delivered
engine petrol	41.400	39.200	81.400
diesel	44.100	52.600	96.624
burning oil	19.200	14.300	33.500
masut	28.800	11.300	41.000
bitumen	0	640	640
jet engine fuel	0	12.000	12.000
LPG	0	6.000	6.000
natural gas (Nm ³)	0	80.800	80.800

* The differences between the received and balance quantities are due to reserves, which are not included in this overview.

JSC Makpetrol did not export any energy sources in year 2003.

Collecting and processing of statistical data

The collection of statistical data in the energy area is organised on a satisfactory level and the State Statistics Office has an intention to respond fully to EU requests for information about the energy sub-sectors.

The grouping of statistical data was made in the pilot-project between EUROSTAT and the State Statistics Office in 1999 and 2000, which provided harmonisation of the statistics in the energy area in the countries of Southeast Europe. The harmonisation of the energy statistics was made according to international recommendations by UN, EUROSTAT and IEA. They are fully compliant to the annual energy questionnaires which are common for these institutions, and comprise of 5 segments: (1) electricity and heat; (2) coal; (3) oil and oil derivatives; (4) natural gas; and (5) renewables and waste materials.

The data on consumption of energy by sub-sectors is grouped according to the recommendations of EUROSTAT on the energy balance.

3. Please provide information on your energy strategy documents (energy policy, energy saving or policies in sub-sectors) and legislation on energy matters. If possible the strategy documents and legislation relating to government policy for the energy sector should be provided (in one of the official EU languages). A short summary of the reports and legislative acts would be appreciated. Both for reports and legislative acts, your country is invited to specify which report/act of legislation corresponds with which EU strategy or EU legal act (please provide this information for all questions related to energy). What is the general assessment on their (non-)compatibility with energy strategies and legislation of the EU?

There are many documents related to the Energy Sector of the Republic of Macedonia (concerning development, strategy and legislative). Some of them have been adopted, and some of them are in preparation phase, as follows.

According to the Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), and for the purpose of development of the energy sector in the Republic of Macedonia, the Government of the Republic of Macedonia shall prepare a Strategy on Long-term Development of the Energy Sector in the Republic of Macedonia, which is a responsibility of the Ministry of Economy. Funds for preparation of the Strategy are provided from the Budget of the Republic of Macedonia and from other sources. The Strategy should include relevant research in the area of resources, a number of scenarios on economic development and corresponding forecast on the energy requirements. Furthermore, the most important, the Strategy should also include analyses on the potential facilities and a prioritization of facilities which should be built in the corresponding period. The analyses should be done from the technical, financial and other points of view, then considering required funds and financial plan for their acquiring, organizational structure, environmental concerns, etc.

Up to this date, the Strategy on Development of the Energy Sector is still not completed. However, other documents are prepared, namely studies, analyses, development plans and other documents related to the energy sector, especially in the electricity sector.

In 1997 a National Strategy on Economic Development was prepared, part of which referred to the overall directions on development opportunities of the energy sector of the Republic of Macedonia in the future period.

In 2000 (with technical and financial support of USAID) a Strategy on Development of the Energy Sector of Macedonia was prepared. Because of its ampleness and completeness, it was accepted as a potential plan on development of the Electricity Sector of the Republic of Macedonia. This Plan includes descriptions of the characteristics of the existing energy infrastructure, parameters of the potential electricity sources, estimated increase of electricity consumption and scenarios on possible development of the Electricity Sector.

For the purpose of planning the electrical power system of the Republic of Macedonia, a Study on least-cost development until 2020 was prepared. The Study includes a prediction of the growth of electricity consumption in the Republic of Macedonia for the period until 2020 (three scenarios), analysis of the existing power production facilities and of potential production facilities, research on optimal development plan of the production part of the power system with least operating and investment costs.

In 2001 the Joint Stock Company Electric Power Company of Macedonia (JSC – EPCM) prepared a development plan on building, rehabilitation and modernization of the production, transmission, and distribution facilities for the period until 2015, which includes restructuring the electricity sector of the Republic of Macedonia, projection of the electricity needs, production capacities of the existing production facilities, building of new production facilities, new mining facilities, rehabilitation and modernization of the existing production facilities, building, rehabilitation and modernization of the power network, development of the energy management system (EMS) and telecommunications in the power system, structure and time schedule of the funds necessary for building and rehabilitation of the power facilities until 2015 and financial sources of support for the development plan until 2015.

In 2004 the World Bank prepared an Energy Policy Paper of the Republic of Macedonia which contains forecast of the electricity needs and possibilities of their fulfilment until 2009, investments in the electricity sector, energy efficiency and renewable energy sources, development of the power market, restructuring of the JSC – EPCM, the sector of gas, the sector of oil, etc.

In 1999, in compliance with the Energy Law, the Government of the Republic of Macedonia established a Programme on efficient energy use in the Republic of Macedonia until 2020, see [14 Annex 10](#). The Programme identifies the possibilities of more efficient energy use in Macedonia and establishes a base of efficient energy use policy. Additionally, it contains informational and educational activities on increasing the energy efficiency, measures for stimulating increased energy efficiency, legislative and other measures for increasing the energy efficiency, activities on fulfilling obligations from international agreements concerning increased energy efficiency.

In October 2004 the Government accepted a Strategy on energy efficiency in the Republic of Macedonia until 2020 see [14 Annex 09](#). Basic goals of this strategy are: defining the points and possibilities of energy savings in the Republic of Macedonia by categories of consumers, by types of energy and by its purpose; creating financial possibilities for support of the activities concerning efficient energy use; providing appropriate investment and technical documentation; efficient organization of the providers of this activity in the Republic of Macedonia; co-relating environmental aspects of the energy use; adopting legal and other stimulations for increased implementation of projects from this area. Part of the Strategy is the implementation plan, which contains activities to be undertaken in the future period concerning energy efficiency, providers of those activities and their time table.

The Energy Law (“Official Gazette of RM“ No 47/97, 40/99, 98/00, 94/02 and 38/03), establishes conditions and mode of operation in the energy sector, protection of energy installations, machines and facilities, protection of environment and nature from harmful influence caused by operation of energy facilities. The Law defines the activities in the energy sector, delivery of particular types of

energy by energy systems, connection to energy systems upon acquiring Energy Consent, licensing, etc.

In order to establish conditions for secure, sustained and quality energy supply, greater reliability, transparency and security in operation of existing and in building new facilities for production, transmission and distribution of energy, as well as energy market development, in compliance with the Energy Law, an Independent Energy Regulatory Commission of Republic of Macedonia was established. The competences of the Energy Regulatory Commission are as follows: providing conditions for secure, continuous and quality energy supply at minimum costs; prescribing tariff systems for individual types of energy; prescribing conditions of supply of individual types of energy; deciding on prices of individual types of energy in compliance with the Methodology of pricing, tariff systems of individual types of energy and other legal acts; issuing, modifying and withdrawing licenses for individual activities in the energy field; evaluating execution of the licenses; initiating and suggesting, through competent institutions, new laws and regulations from the energy field - and accordingly, providing opinions on laws, regulations and other acts from the energy field; taking participation in resolution of disputes and proposing measures concerning disputes; adopting regulations and other acts in compliance with the law.

Pursuant to the existing Energy Law the following secondary legislation was adopted:

- Methodology on Pricing of Individual Types of Energy (electricity, thermal energy, geothermal energy and oil derivatives), (“Official Gazette of RM” No 43/98 and 08/01), see [14 Annex 07](#);
- Conditions on delivery of appropriate energy type to the energy systems: electricity (“Official Gazette of RM” No 06/01), natural gas (“Official Gazette of RM No 36/99), thermal energy (“Official Gazette of RM” No 28/89 and 47/89);
- Tariff systems for sale of individual types of energy: electricity (“Official Gazette of RM” No 45/82, 15/83, 22/88, 29/89, 28/92 and 24/99), thermal energy (“Official Gazette of RM” No 51/97, 26/99 and 80/00) and geothermal energy (“Official Gazette of RM” No 07/01); and
- Decision on the criteria and conditions for limiting the use of individual types of energy (electricity and oil derivatives), (“Official Gazette of RM” No 22/83).

It is generally considered that this law is not compatible with the EU legislative, except for the parts concerning energy transit and trade, which are in compliance with the Energy Charter upon passing the amendments on the Law in 2000 (“Official Gazette of RM” No 98/00), and except for founding and functioning of Energy Regulatory Commission of the Republic of Macedonia compliant to the Directives No. 2003/54/EC and 2003/55/EC which superseded the Directives No. 96/92/EC and 98/30/EC, upon passing the amendments on the Law in 2002 and 2003 (Official Gazette of the Republic of Macedonia No. 94/02 and 38/03).

The Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership (“Official Gazette of RM” No. 19/04), see [14 Annex 02](#), was adopted in order to provide for implementation of the Government policy for reforms in the electricity sector, by complying with the economic principles of efficient and effective operation through commercialization, staged liberalization and controlled deregulation, and by implementation of competitive market criteria, through providing of conditions for secure and safe supply of power to the consumers and stable operation of the electric power system, as well as providing the necessary conditions for possible transparent and non-discriminatory access of parties to the power transmission network and conditions for transparent, non-discriminatory and fair privatization of the power sector.

This law regulates the transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership by separating the Company into two new state-owned companies (Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, and, Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System), which in effect means a separation of the transmission function from production and distribution functions, and providing a legal base for possible future privatization of the production and distribution parts of the current integrated company.

The Law is compatible with the requirement for unbundling of vertically integrated power utilities, contained in the Directive 2003/54/EC.

The following legal acts are in preparation phase:

a) New Energy Law

The Energy Law is one of the fundamental laws which shall affect the further economic development of the country. This complex law, which will be fully in compliance with the European legislative, will define numerous energy issues. Some of the more important ones are: energy policy and planning of energy development together with preparation of a strategy for complex and long-term energy development, and supervising the implementation of the strategy; creating conditions for the energy market (electricity and natural gas) and defining the market rules; transit of energy through energy systems and their use by interested domestic and foreign entities; defining the conditions for energy functions in terms of production, transmission and distribution of energy in market economy; creating conditions for higher level of investment activity in the energy sector, with as high as possible involvement of foreign capital, continued and quality supply of all types of energy to the consumers, according to the energy balances; defining rules for higher level of participation of renewable sources in the energy consumption of the country, increasing the energy efficiency, reducing the negative impact of energy sector to the environment; etc.

In the current preparation phase, a need for compliance with the following directives was identified: 2003/54/EC and 2003/55/EC on common rules for the internal markets of electricity and natural gas and the Regulation 1228/2003 on conditions for access to the network for cross-border trading of electricity; 68/414/EEC, amended by 98/93/EC, on maintaining minimal stocks of crude oil and oil derivatives; 73/238/EC on mitigating difficulties in supply of crude oil and oil derivatives; 2004/8/EC on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending the Directive 92/42/EEC; 2001/77/EC on promotion of electricity produced from renewable energy sources; 2003/30/EC on promotion of the use of biofuels or other renewable fuels for transport; 2002/91/EC on the energy performance of buildings;³

This Law shall be adopted in 2005.

b) Law on Electricity Market

Currently, a new model of the electricity market of the Republic of Macedonia is in preparation which will serve as a basis for preparation of the Law on Electricity Market of the Republic of Macedonia. At the same time, this Law shall provide a basis for meeting the requirements of the Athens Memoranda and the Energy Community Treaty.

Apart from the relations in the electricity sector, which are set out by the existing Energy Law, like the question of participants and functions in the sector, provisions and criteria for operating different functions, safety of operation, tariff conditions, role and competences of the Energy Regulatory Commission, the Law will also set out matters about liberalization of the market, role and protection of competition, international electricity, criteria on investments in electricity sector, relations and obligations in the regulated part of the market, principles of sustainable development of the electricity sector etc.

³ The Directive 85/337/EEC amended by the Directive 97/11/EC on assessment of the impact of public and private projects on the environment was implemented in the new Law on Environment, which is in parliamentary procedure, and will be adopted in the first quarter of 2005. The Directive 93/12/EEC, amended by Directive 1999/32/EC on Reduction of the Sulphur Content in Certain Liquid Fuels is implemented in the Law on Environmental Air Quality ("Official Gazette of RM" No 67/04), which contains a basis for Rulebook on Quality of Liquid Fuels, to be composed by the Ministry of Economy. The Directive 2001/80/EC on limitation of certain air pollutants will be implemented by secondary legislation which will be adopted on the basis of the Law on Environmental Air Quality ("Official Gazette of RM" No 67/04). Namely, the limit emission values from each thermal power plant will be determined by environmental license, which will be issued by the Ministry of Environment and Physical Planning, based on the Law on Environment. The Directive 79/409/EEC on the Conservation of Wild Birds will be implemented by secondary legislation which will be adopted on the basis of the Law on Nature Conservation ("Official Gazette of RM" No 67/04).

This Law shall be compatible with Directive 2003/54/EC and shall be adopted in 2005.

c) Law on Establishing Energy Agency of the Republic of Macedonia

For the purpose of successful and timely implementation of reforms in the energy sector, preparation and impact assessment of strategic documents in the energy sector, strengthening the development of the energy sector in Republic of Macedonia, establishment of an open and competitive market for electricity and natural gas and its integration into the regional and the Internal energy market of EU, increasing the activities in the area of energy efficiency and level of participation of renewable energies into the energy consumption by proposing incentives and direct subsidies for their support, etc., appropriate organization of the energy sector is required, which means that an Agency on Energy of Republic of Macedonia needs to be established. The role of the Agency shall be to initiate, coordinate, study and prepare appropriate documents, together with domestic and foreign specialized companies and experts, and to suggest concrete solutions and activities to the Government, through the Ministry of Economy. Specific activities of the Agency will be aimed towards: preparation of mid-term and long-term strategies and development plans; preparational and coordination of the energy reforms; proposal and evaluation of studies and projects on energetic, the energy sectors, energy efficiency and renewable energy sources; preparation and coordination of implementation of investment projects; regional cooperation and coordination of regional projects, and other activities.

This Law shall be adopted in 2006.

The existing energy legislation in the Republic of Macedonia is considered to be in partial conformity with the European legislation. However, by adopting the Laws which are now in preparation phase, and then adopting a corresponding secondary legislation which will originate from those laws, a full harmonization of the national with European energy legislative will be achieved.

4. Please provide information and, if possible, the texts of the agreements and conventions (in one of the official EU languages) that have been concluded with third countries or international organisations in the field of energy.

1. Final Act of the European Energy Charter Conference with: Annex 1 The Energy Charter Treaty, Annex 2 Decisions with respect to the Energy Charter Treaty and Annex 3 Energy Charter Protocol on energy efficiency and related environmental aspects, was ratified by the Assembly of the Republic of Macedonia with Law on ratification on the Final Act of the European Energy Charter Conference ("Official Gazette of RM" No16/98);
2. Memorandum of Understanding on the Regional Electricity Market in South East Europe and its Integration into the European Union Internal Electricity Market - 2002;
3. Memorandum of Understanding on the Regional Electricity Market in South East Europe and its Integration into the European Union Internal Electricity Market - 2003.

5. Please provide information on the fiscal measures (VAT, excise duties, CO2 energy tax, other taxes/levies) applied to energy products. Does the system favour indigenous energy sources? How will further tax harmonisation in the EU affect your energy balance?

VAT - Value Added Tax

Pursuant to the Law on Value Added Tax (VAT), ("Official Gazette of RM" No 44/99, 59/99, 86/99, 11/00, 08/01, 31/01, 21/03 and 19/04) VAT rates are calculated using proportional tax rates on the tax base of taxable commodities and services turnover, based on the common tax rate of 18% which is applicable to all types of energy products.

Excise duties

Excise duties, as a special type of circulation tax, were introduced since January 1994 and were imposed onto turnover and import of: oil derivatives, processed tobacco products, alcoholic beverages, beer, coffee, passenger vehicles and luxury goods.

Obligors of excise duties on these products are their producers or importers.

Onto the tax bases of separate excise duty products defined in the Law on Excises Duties, rates are applied as determined by the Excise Tariff, which is an integral part of the Law.

Excise duty exemptions are anticipated in two segments, namely: the first one treats the excise duty exemptions on import, export, re-export and transit and the second segment refers to the exemptions in domestic circulation which are executed on a principle of recovery of paid excise duty.

The Law on Excises Duties, ("Official Gazette of RM" No 32/01, 50/01, 52/01, 45/02, 98/02, 24/03 and 96/04), regulates the excise duties which are charged indirectly or directly for consumption on the territory of the Republic of Macedonia for: mineral oils, alcohol and alcoholic beverages and tobacco products. In terms of energy, important are the mineral oils (automotive fuel, diesel fuel, domestic heating oil - extra light and light special, jet fuel and aircraft petrol, engine petroleum, lighting petroleum, for airplanes and engines), which are processed pursuant to the following: subject of taxation, specific excise duty, proportional excise duty, mineral oils labelling, application of labelled mineral oils, excise duty exemption of mineral oils, special cases which are not considered as production of mineral oils, and excise duty storage of mineral oils.

The primary base for preparation of the Law on Excises Duties was the System Directive of the European Union No. 92/12/EEC, as well as its associated structural directives, separately for each of the goods subject to taxation with excise duties.

The Law on Excises Duties presents an entirely new system in the functioning of an indirect tax, which is based on the following novelties:

- Focusing the subject of taxation by using terms established exclusively for the purposes of this system;
- Liability to excise duty;
- Transportation of excise duty goods through the territory of the Republic of Macedonia;
- Origin of excise duty;
- Excise duty period; and
- Excise duty exemptions.

Specific legal excise duty per derivatives is:		
Derivative	Legal excise (MKD/kg)	Legal excise (MKD/l)
Automotive Petrol – 96	32,313	24,396
Automotive Petrol Unleaded – 90	28,731	21,692
Automotive Petrol Unleaded – 95	28,731	21,692
Diesel	14,344	12,121
Extra Light Oil	3,711	
M – 1 Heavy Oil	0,100	
M – 2 Heavy Oil	0,100	

Upon determining the retail price of separate oil derivatives, and for the purpose of rounding off the prices, the specific excise duty of mineral oils may vary up to $\pm 3\%$.

Specific excise duty of mineral oils with the following tariff marks: 2710 00 39 00, 2710 00 87 00, 2710 00 88 00, 2710 00 89 00, 2710 00 92 00 и 2710 00 94 00 is 7 MKD/kg; and for the products with the tariff marks: 3403 19 10, 3403 19 91, 3403 19 99, 3403 99 90 is 22 MKD/kg.

CO₂ Energy Tax

The Law on Environment and Nature Protection and Promotion ("Official Gazette of RM" No 13/03 consolidated text), in article 31, paragraph 2 determines that the assets for environment and nature protection and promotion, which are revenue to the Environmental Fund, are provided from charges which are paid upon registration of motor vehicles, amounting to 4% of basic insurance, and for vehicles with catalytic exhaust gasses purification systems 2% of the basic insurance. The assets of the Environmental Fund are for a purpose of funding projects which are directly aimed towards protection of the environment. Ministry of Environment and Physical Planning coordinates the realization of these projects.

The new Draft Law on Environment determines that "The polluter is obliged to compensate the costs for removal of the danger of environment pollution, to bear the costs for renovation and to pay proper compensation for the damage done to the environment, as well as to restore the environment to a condition most similar to the condition before the damage". A pollution compensation is imposed so that "Legal and natural persons which, according to the Registry of Polluters of different environment elements and the Registry of Toxic and Harmful Substances, have sources of environment and nature pollution at their disposal, provide assets aimed towards protection and promotion of the environment and the nature, according to the type and quantity of pollutants, in a form of compensation regulated by law".

The Law on Environment provides a basis for determining future fiscal measures which will apply to energy products, as well.

This Law is in compliance with the following Directives: 2003/4/EC on Public access to environmental information; 85/337/EEC, 97/11/EC and 2003/35/EC on the assessment of the effect of certain public and private projects to the environment; 96/61/EC on integrated prevention and control of pollution; 2001/42/EC on the assessment of the effect of certain plans and programmes on the environment; 96/82/EC on the control of major-accident hazards involving dangerous substances; 2003/35/EC on public participation in respect of the drawing up of certain plans and programmes relating to environment and amendments regarding public participation and access to justice.

The Law is in a parliamentary procedure and shall be adopted in the first quarter of 2005.

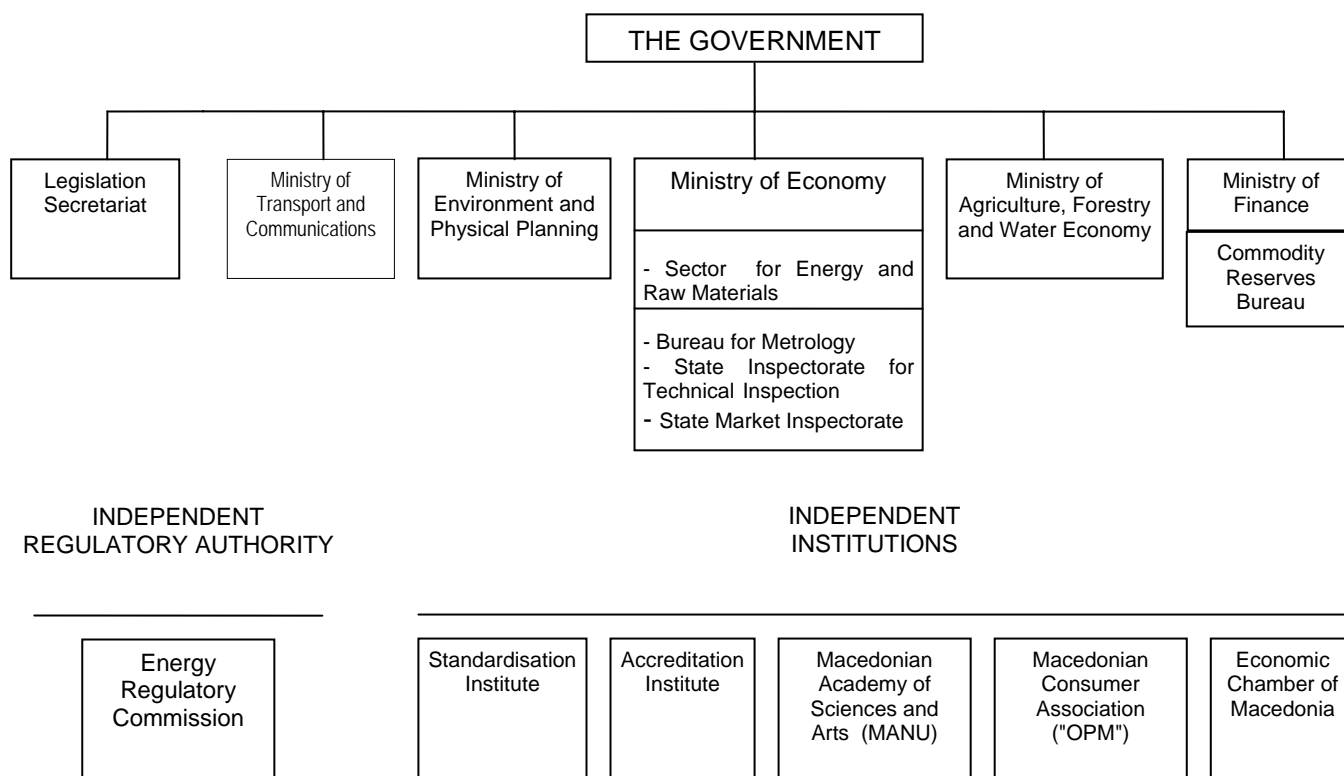
At the same time, the Second National Environmental Action Plan, which will be adopted in the second half of 2005, shall process the economic instruments and shall provide recommendations on introduction of other fiscal measures in the Republic of Macedonia. The economic instruments will also be subject to detailed analysis in the CARDS 2004 project "Further enhancement of the environmental management".

The tax system of the Republic of Macedonia, concerning energy products, does not favour domestic energy sources.

The harmonization with European Union tax regulations shall not influence the balance sheet of the Republic of Macedonia.

6. Could you provide an organisation chart of the relevant energy authorities (ministry, agencies, regulator, etc.) and their key contacts?

	Name	Person	Address	Telephone/fax	e-mail
1.	Ministry of Economy	Biljal Kasami - State Secretary Nikola Čerepnalkovski - State Counsellor Violeta Keckarowska - Head of Sector	Jurij Gagarin No. 15 1000 Skopje	Telephone: +389 2 3084903 fax: +389 2 3084 472	economy@economy.gov.mk
2.	Ministry of Environment and Physical Planning	Lindita Shaqiri Atanasova State Secretary	Drezdenska No. 52 1000 Skopje	Telephone: +389 02 3066 930 fax: +389 02 3066 931	info@moepp.gov.mk
3.	Ministry of Finance	Melaim Ademi State Secretary	Dame Gruev No.14	Telephone: +389 2 3117 288 fax: 389 02 3298 273	
4.	Ministry of Agriculture, Forestry and Water Economy	Besir Jashari State Secretary	Leninova No. 2	Telephone: +389 2 3131 477 fax: 389 02 3211 997	
5.	Ministry of Transport and Communications	Zoran Crvenkovski State Secretary	Skopje's Red Municipality Square No.4	Telephone: +389 2 3123 292 fax: +389 2 3126 228	
6.	Legislation Secretariat	Elena Malinkova Secretary	Veljko Vlahović bb	Telephone: +389 2 3228 203 fax: +389 2 3228 203	
7.	Macedonian Academy of Sciences and Arts	Cvetan Grozdanov - academician President	Bul. Krste Misirkov No.2	Telephone: +389 2 3114 200 fax: +389 2 3115 903	makakd@manu.edu.mk
8.	Energy Regulatory Commission	Slave Ivanovski - President	Dimitrie Čupovski No.2 4 th floor	Telephone: +389 2 3233 580 fax: +389 2 3233 586	erc@erc.org.mk
9.	Commodity Reserves Bureau	Radovan Popovski - Director	Orce Nikolov No.71	Telephone: +389 2 3227 745 fax: +389 2 3298 273	birostokrez@mt.net.mk
10.	Macedonian Consumer Association	Marijana Lončar-Velkova Director	Vodnjanska bb	Telephone: +389 2 3212 440 fax: +389 2 3113 265	marlon@sonet.com.mk
11.	Economic Chamber of Macedonia	Savka Dimitrova Acting President	Dimitrije Čupovski No. 13	Telephone: +389 2 3118 088 fax: +389 2 3116 210	



7. What are the likely investment needs in the various energy sub-sectors for the period until 2007? What type of financing is foreseen (public, private)?

Investments in the electricity sector until 2007				
(in million EUR)				
	2005	2006	2007	Total
Production	99	134	211	444
Transmission	40	40	29	109
Distribution	14	11	9	34
Total	161	177	249	587

Investments in the gas supply sector until 2007				
(in million EUR)				
	2005	2006	2007	Total
Total	5	17	17	39

Investments in the oil supply sector until 2007				
(in million EUR)				
	2005	2006	2007	Total
Total	7	16	14	37

Investments in the heating sector until 2007				
(in million EUR)				
	2005	2006	2007	Total
Total	7	7	8	22

Investments in the geothermal system				
(in million EUR)				
	2005	2006	2007	Total
Total	0,2	0,0	1,8	2,0

Within the electricity sector, the following is foreseen: investments into the transmission network, construction of a new facility for electricity production and finishing revitalisation of hydro power

plants and the revitalisation of one part of the thermal power plant Bitola. Financial assets for the hydro plants are provided from the loan of the World Bank "Power System Improvement Project", and for the thermal plant Bitola - from the succession of the debt of Russian Federation to the Republic of Macedonia.

Within the gas sector, the following is foreseen: finishing of the main pipeline ring with branches in Skopje, connection of the CHP plant and the heating plant "West" in Skopje, and construction of a transmission gas pipeline Klečovce-Negotino.

Within the oil sector, the following is foreseen: construction of a product pipeline from the refinery in Skopje to Serbia and Montenegro, building of petrol stations, and other installations.

Within the heating sector, the following is foreseen: upgrading of systems in Skopje and in Bitola, and initial investments in construction of heating systems in Kočani and Ohrid.

Within the geothermal sector, the following is foreseen: reconstruction of the installations for utilisation of geothermal waters in Debarski Banji, Banja BANSKO, Katlanovska Banja and Negorska Banja.

The financial assets in the gas, oil, heating and geothermal sector are planned to be provided from the own sources of the companies and through loans from financial institutions.

In the realisation of projects in electricity sector, the following loans participate with highest share:

- The loan from EBRD (400 kV transmission line Štip (Republic of Macedonia) - Chervena Mogila (Republic of Bulgaria) with 80% of the total fund);
- The loan from EIB (110 kV transmission line Tetovo - Gostivar and 110 kV transformer station in Skopje with 90% of the total fund); as well as
- Commercial loans of the constructors and equipment suppliers for the new HPP "Sveta Petka" and revitalization of the Suvodol lignite mine.

The Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity and Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System are Investors of the electricity projects.

8. What are the investment plans in the medium and long term in the various energy sub-sectors? What type of financing is foreseen (public, private)?

Estimate of the necessary investments by the 2030

Investments in the energy sector include the following:

- Production, transmission and distribution of power;
- Transport and distribution of natural gas;
- Production, processing and distribution of oil and oil derivatives;
- Production, transmission and distribution of thermal energy; and
- Utilization of renewable energy (geothermal energy).

Estimate of the necessary investments in the energy sector by the 2030						
	Electricity	Natural gas	Oil and derivatives	Thermal energy	Geothermal energy	Total
2008 - 2010	729	64	4	11	2	810
2011 - 2015	1.540	132	35	13	7	1.727
2016 - 2020	870	10	10	15	1	906
2021 - 2030	910	15	10	22		957
Total	4.049	221	59	61	10	4.400

Within the electricity sector, the following is foreseen: revitalisation and upgrading of the electricity network, construction of interconnections with the systems of the neighbouring countries, revitalisation of the existing and construction of new electricity sources (hydro-electricity plants, thermo-electricity plants and thermo-electricity and heating plants) and opening of new coal mines (lignite).

Within the gas sector, the following is foreseen: construction of a distribution network in some parts of Skopje, adaptation of the existing gas line Skopje (Republic of Macedonia) - cement factory (Serbia and Montenegro, Kosovo), construction of a distribution network in Kumanovo, Kratovo and Kriva Palanka, and construction of transmission lines: Petrič (Republic of Bulgaria) – Strumica - Bitola - Struga (Republic of Macedonia) - Republic of Albania - Republic of Italy; and, Tetovo - Gostivar - Kičevo.

Within the oil sector, the following is foreseen: upgrade of the desulphurisation facility - an environmental facility, construction of an isomerisation facility, construction of a product pipeline from the refinery in Skopje to Southern Serbia and Montenegro and construction of petrol stations.

Within the heating sector, the following is foreseen: completion of the heating system in Skopje, finishing the construction of systems in Kočani and Ohrid and construction of new heating systems in Kavadarci, Kičevo and Strumica.

Within the geothermal sector, the following is foreseen: finishing construction of the geothermal system in Kočani, together with building a geothermal water distribution network for household supply, finishing the construction of installations in Debarski Banji, Banja Banskó, Katlanovska Banja and Negorska Banja, as well as construction of new installations in Gevgelija, Štip and Kratovo. Generally, financial assets for construction of energy objects are expected to be provided from own sources, from credits for the equipment from the suppliers and from loans from banking institutions, considering that the energy objects will be built by domestic and foreign entities by using the concession model.

After energy systems are restructured and privatised, a higher level of involvement of direct private investors (domestic and foreign) is expected in the further construction of new energy objects.

After the opening of the energy market, construction of independent producers of energy with financial assets provided from various sources of financing is foreseen.

II. ENERGY MARKETS

B. Questions related to paragraph II.A

1. Could compliance with the above-mentioned rules and objectives lead to any problems in your country? (Please answer for each separate point.) If so, which are particularly difficult and for what reasons?

Carbohydrates

As regards the harmonization of this matter no problems are expected. Production (exploitation) of carbohydrates does not exist in the Republic of Macedonia, except in relation to processing imported crude oil. The import of oil and oil derivatives, as well as wholesale and retail sale according to the existing Law on Trade ("Official Gazette of RM" No 16/04) and secondary legislation adopted on the basis of this Law can be executed only by enterprises which meet the prescribed technical conditions on volume and technical equipment of warehouse capacities, as well as the retail facilities, but there is no discrimination regarding the free competition. The only oil pipeline (Skopje – Thessaloniki) is an investment owned by a private company and the Republic of Macedonia.

Transparency of prices

According to Article 11-g of Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), the Energy Regulatory Commission of the Republic of Macedonia has a responsibility to prescribe pricing methodology of individual energy types and to prescribe tariff systems for particular types of energy, and also to bring decisions on prices of particular types of energy. The decision-making process of the Energy Regulatory Commission is regulated by Article 11-i of the Energy Law, according to which the decisions brought by Energy Regulatory Commission are published in the Official Gazette of the Republic of Macedonia. Also, the Rules of Procedure of the Energy Regulatory Commission state that the decisions of Energy Regulatory Commission are published on the web page of the Energy Regulatory Commission. This provides an infrastructure for transparency of the relevant data on energy prices which are subject to decisions of the Energy Regulatory Commission.

Oil and Oil Derivatives Sector

According to the Pricing Methodology of particular oil derivatives, the price of crude oil and oil derivatives is calculated per 14-days' period, taking in consideration the movement of the price of crude oil on the world market and the US Dollar exchange rate in the specified period.

In accordance with the competences of the Energy Regulatory Commission originating from the Energy Law, the Energy Regulatory Commission determines the prices of individual oil derivatives and publishes them in the Official Gazette of the Republic of Macedonia, and immediately notifies the public media through notification distributed through the Information Agency of the Republic of Macedonia.

Natural Gas Sector

The price of natural gas is currently determined by the gas supplier in the Republic of Macedonia. There is an ongoing procedure for creating and adopting a new Methodology on pricing of natural gas by the Energy Regulatory Commission, which will provide transparent determining of retail prices of natural gas.

Electricity sector

The price of electricity in the recent period has been determined according to the Methodology on Pricing of Individual Types of Energy ("Official Gazette of RM" No. 43/98 and 08/01), see [14 Annex 07](#), and the tariff systems of electricity. According to the existing regulations, the decision on the price of electricity is being brought by the Managing Board of JSC - EPCM, approved by the Government of the Republic of Macedonia, and published in the Official Gazette of RM.

The newly-formed Energy Regulatory Commission has a responsibility to prescribe a tariff system and methodology on pricing of electricity, as well as to give consent on the requirements for prices by the electricity industry taking into consideration their compliance with the Methodology.

The Energy Regulatory Commission has prepared a Rulebook on the Method and Conditions for Regulating Electricity Prices ("Official Gazette of RM" No 95/04), see [14 Annex 08](#), while the new tariff system of electricity is in a preparation procedure and shall be adopted in the first quarter of 2005.

Transit of electricity and gas

Electricity

The existing Energy Law does not specify the competences on determining and approving the rules of management and allocation of inter-connection capacity. The rules on management and allocation of inter-connection capacity will be determined by the Grid Code, which is to be prepared by MEPSO

- Macedonian Electro-Transmission System Operator, and approved by the Energy Regulatory Commission. This Rulebook shall be in conformity with Regulation 1228/2003/EC.

Currently, electricity is exported by means of purchase agreements and bilateral agreements, and the cross-border electricity exchange is conducted according to the agreement on cross-border trade, signed by countries which participate in SETSO (Southeast Europe Transmission System Operators).

Natural gas

The state of construction of the natural gas transmission infrastructure in the Republic of Macedonia does not allow for transit of natural gas through the territory of the country. The new Energy Law will regulate the transit of natural gas, taking into consideration the provisions of Directive 2003/55/EC on common rules of internal market of natural gas in the European Union.

LIBERALIZATION OF ELECTRICITY AND NATURAL GAS MARKET

1. Opening of the market

Electricity and natural gas

The Republic of Macedonia signed the Memoranda of Understanding on Regional Energy Market in Southeast Europe and its integration into the European Community Internal Energy Market (MoU 2002, MoU 2003). According to these Athens Memoranda, as well as the process of signing the Treaty on Energy Community, the following deadline is proposed for opening the electricity and natural gas market (Annex I, Draft Energy Community Treaty):

- After January 1st 2008, all consumers except households;
- After January 1st 2015, all consumers.

The Law on Market of Electricity, which is to be adopted in the first half of 2005, will define Eligible Customers of electricity, the threshold of gaining Eligible Customer status (minimal yearly consumption of electricity) and a time frame on lowering of this threshold. The Energy Regulatory Commission will be competent for granting the status Eligible Customer of Electricity, pursuant to conditions determined by this Law.

With the new Energy Law, Eligible Customers of Gas will be determined in a procedure similar to the one for Eligible Customers of Electricity.

2. Legal separation of transmission and distribution systems

Electricity

Pursuant to the Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership ("Official Gazette of RM" No 19/04), see [14 Annex 02](#), the existing JSC – EPCM in state ownership, will be separated into two joint stock companies, as follows:

- Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new), in state ownership; and
- Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, in state ownership.

The accounting separation of the assets for production, distribution and supply of electricity was completed before the end of 2003.

The legal separation of activities and assets of the transmission system operator was completed on 31.12.2004.

Distribution system operator which will be independent in terms of its organization and decision making is expected to be established during 2005.

Natural gas

The new Energy Law introduces separation of accounting and legal activities pertaining to transmission, distribution and supply/storage of natural gas, taking the provisions of EU Directive 2003/55/EC into consideration.

3. Regulated access to third parties

Electricity and natural gas

According to Article 13 of the Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), connection of energy facilities managed by legal or physical entities to the energy systems is accomplished by entering into agreements with the legal entities which manage the energy systems. This agreement in particular provides for:

- Technical conditions for connection to the energy systems;
- Agreement on energy production;
- Secured collection of bills for the supplied energy; and
- Conditions for regular and additional supply for producers which use part of the production for their own needs.

According to Article 13-a of the Energy Law, the legal entities which manage the energy systems for transmission, transportation and distribution of energy and energy sources are obliged to provide services with their available capacities to parties interested in transmission, transportation, distribution and transit of energy and energy sources through those systems. Conditions for providing these services and the tariff items should be transparent and equal for all users and should be published in the public media.

If the legal entities which manage the energy systems for transmission, transportation and distribution of energy and energy sources unfoundedly refuse to provide services or practice discrimination in any respect during provision of services, the legal entity interested in receiving those services can request the Regulatory Commission to undertake measures and activities for solving their demand according to the law.

The new Energy Law shall precisely define the regulated access for third parties to networks for transmission and distribution of electricity and natural gas respectively, in a non-discriminatory and transparent manner. With this approach, the independent producers, traders and eligible customers of electricity and eligible customers of natural gas will have access rights to the system on the basis of published prices for using the transmission and distribution networks, which have been previously approved by the Energy Regulatory Commission. Access to the storage capacities, the quantity of gas in the pipeline and the ancillary services, which may be regulated or negotiated upon, will be defined in the new Energy Law.

4. Regulatory body

The Energy Regulatory Commission of the Republic of Macedonia is an independent legal entity founded by the Law on Amending the Energy Law ("Official Gazette of RM" No 94/02 and 38/03) for the purpose of providing reliable and continuous supply of energy to the consumers in the Republic of Macedonia, protection of environment and nature, improvement and protection of the competitive energy market pursuant to objective, transparent and non-discriminatory principles.

The members of the Energy Regulatory Commission were appointed on 23.07.2003 by the Assembly of the Republic of Macedonia, upon a proposal of the Government of the Republic of Macedonia. The Energy Regulatory Commission commenced with operations on 01.01.2004.

The Energy Regulatory Commission operates and makes decisions independently, and notifies the Government of the Republic of Macedonia and the Assembly of the Republic of Macedonia about its operations at least once a year.

The Energy Regulatory Commission operates on public sessions, except in cases when confidential information and business secrets are being discussed, upon which the President of the Energy Regulatory Commission brings the decision. The sessions of Regulatory Commission are convened and presided by the President of the Energy Regulatory Commission. The Energy Regulatory Commission brings decisions with majority of votes from the total number of members and its decisions are published in the Official Gazette of the Republic of Macedonia.

Individual acts of the Energy Regulatory Commission may be appealed in front of the Appeals Commission on Energy. The appeal does not postpone the execution of the decision of the Energy Regulatory Commission. Professional and administrative functions of the Appeals Commission are executed by the expert office of the Ministry which is competent for energy matters.

According to Article 11-g of the Energy Law, the Regulatory Commission executes the following operations:

- Ensures reliable, continued and quality supply of energy;
- Ensures development of a competitive energy market;
- Prescribes conditions for supply of individual types of energy;
- Prescribes a pricing methodology of individual types of energy;
- Prescribes tariff systems of individual types of energy;
- Decides on the prices of particular types of energy, according to the Pricing Methodology, tariff systems of individual types of energy and other legal regulations;
- Issues, modifies, withdraws licences and monitors license execution for particular activities from the energy area;
- Prescribes rules for connection to energy systems;
- Ensures improved protection of energy consumers' rights;
- Initiates procedure of adopting laws and other regulations from the energy area;
- Participates in resolution of disputes and proposes measures concerning disputes;
- According to its competencies and in a legal procedure, suggests measures to the competent bodies against entities breaching the Energy Law;
- Adopts Rules of Procedure and other acts of the Regulatory Commission; and
- Performs other activities determined by law.

The activity of the Regulatory Commission is financed by assets obtained through levies charged on the total revenue of organizations performing activity related to energy and from the licensing fee.

Before 1st October of the ongoing year, the Regulatory Commission submits a Draft Financial Plan of the Regulatory Commission for the following year to the Assembly of the Republic of Macedonia, which contains all revenues and expenditures of the Regulatory Commission, including the salaries of the members of the Regulatory Commission and the employees, as well as the fees of the members of the Appeals Commission and their deputies.

Within the frames of the Draft Financial Plan, and based on planned revenues of organizations performing energy-related activities for the ongoing year, the Regulatory Commission determines the fee for the following year through assigning an equal percent of collection from the total actual revenue of the organizations, upon a given consent from the Assembly of the Republic of Macedonia, and amounting to no more than 0,1% of the total actual revenue of the organizations. According to the determined percentage and the actual revenue in the previous year, the organisation performing energy-related activities pays the fee in two equal instalments, the first before April 30th, and the second before September 30th of the current year. The unused assets of the Regulatory Commission from the previous year are transferred to the following year and the fee is accordingly reduced.

After the finishing of the first year of the Regulatory Commission's operation and before March 31st of the following year, the President of the Regulatory Commission submits an Annual Report to the

Government of the Republic of Macedonia and to the Assembly of the Republic of Macedonia concerning the operations of the Regulatory Commission, which also includes material and financial activities of the Regulatory Commission. The Annual Report on the operations of the Regulatory Commission is also submitted to the Ministry competent for energy matters and is published in one of the public media.

Enhanced provisions on public service

a) Obligation on universal service for electricity

Within Article 4 of the existing Energy Law the operations of production, transmission and distribution of electricity, production, transportation and distribution of natural gas and production, transmission and distribution of thermal and geothermal energy, except for own use, are declared as energy-related activities of public interest.

According to Article 14 of this Law, the legal or natural persons, who perform energy-related operations of public interest, are obliged to perform their activity continually and with high quality. Pursuant to Article 26 the producers and distributors of energy are obliged to supply energy to the consumers in accordance with the energy balance, the agreement on supply and the conditions on supplying the appropriate type of energy. At the same time, According to Article 28 of the Energy Law, energy suppliers supply the energy to energy consumers if the energy facilities, machines and installations are in conformity with the prescribed standards, technical norms and norms of quality for the corresponding type of energy, which guarantees uninterrupted distribution and use of energy in the agreed quantity, power and quality and continuity and safety of people and property.

Article 41 of the Energy Law determines that every legal and natural person and citizen, who connects to the energy system, is obliged to provide energy consent from the energy system operator to which it connects to. In addition, the user which increases the energy usage and the engaged power determined by the existing energy consent, is obliged to provide new energy consent. At the same time, the energy provider is obliged, within 15 days of the application for energy consent, to issue a decision on energy consent in accordance with the technical, energy-related and economic conditions and to connect the consumer to the energy system, providing that the conditions from the energy consent and the supply agreement are met.

The Law on Electricity Market, which is to be adopted in the first half of 2005, and the new Energy Law, which is to be adopted in the year 2005, will provide reliable supply of electricity to the consumers, as well as transparent and reasonable pricing. In the new Energy Law, the universal service obligation for electricity shall be defined clearly, and in transparent and non-discriminatory manner, which shall impose an obligation to supply all tariff consumers with electricity, and this obligation shall also be included in the licence of the electricity provider. The transmission and the distribution system operators will provide connection of all consumers which meet the respective technical requirements and will provide: secure, continuous and quality supply of electricity, respecting the appropriate standards on quality of service.

b) Better protection of consumer rights

Besides the obligations determined by the Energy Law, the electric energy operators have obligations defined in the Consumer Protection Law ("Official Gazette of RM" No 38/04). At the same time, pursuant to this Law, the electricity supplied to the consumer will be calculated according to the consumption in a certain period, applying the electricity tariff system. The Law contains an obligation for the supplier to notify the consumer on all conditions of the agreement on supply of electricity. Also, the supplier is obliged to list the details concerning the quality and quantity of the supplied electricity in the bill. The supplier should provide non-discriminatory conditions for connection of all consumers to the network.

The following state bodies have competencies on consumer protection:

- Consumer Protection Council, as a Government consultative body;
- Energy Regulatory Commission;

- Ministry of Economy;
- Ombudsman;
- State Market Inspectorate; and
- State Inspectorate for Technical Inspection.

Furthermore, other non-governmental organizations and associations have important role in consumer protection, like the Consumer Protection Organization.

According to article 11-g of the Energy Law, the Energy Regulatory Commission is responsible for improvement of the rights of energy consumers and for this purpose it cooperates with the aforementioned institutions and associations, and has mechanisms for guaranteeing the rights and interests of the consumers by the following means:

- By issuing licenses to the energy companies, the Regulatory Commission imposes additional obligations for public services onto the energy companies, ensuring reliable supply of electricity to all households, including those in remote and/or isolated areas;
- By approving the electricity supply prices for regulated groups of consumers;
- By including guarantee form in the licence stipulating that the rights and interests of the consumers are protected.

According to the existing Energy Law, the specific consumer protection is regulated by articles 30, 31, 34, 35 and 36 of the Energy Law, where:

- In cases of temporary interruption of the supply of energy from the energy system (during planned inspections, examinations and control measurements, overhauls, reconstructions and expansions of the facilities, machines and installations) the energy supplier is obliged to execute them in a period when they are causing the least damage to the consumers, to notify the consumers in writing about the day and time of the temporary interruption and is obliged to notify the customer class of households and other smaller energy consumer through public media at least three days before the disruption;
- In a case of a temporary interruption of the supply of energy from the energy system (unplanned examinations, overhauls, inspections, control measurements and maintenance of the facilities, machines and installations) the period and length of the interruption are agreed by the supplier and the consumer of energy, where the energy supplier is obliged to notify the customer classes of households and other small energy consumers through public media at least 24 hours before the interruption;
- The supplier is obliged to reconnect a consumer disconnected from the energy system when he ascertains that the reasons for the disconnection from the energy system have ceased. The energy consumer bears the expenses for reconnection to the network;
- Energy consumer which considers to be unfoundedly disconnected from the energy system can request the competent inspection body to determine the state of facts which caused the supplier to cease delivery. If the competent inspection body determines that the disconnection of energy is unsubstantiated, it will order the energy supplier immediately, at its own expense, to reconnect the facilities, machines and installations of the consumer to its network and the energy consumer has a right to claim damage compensation;
- In cases of Force Majeure (floods, earthquakes, landslides, fires, severe winds, excessive icing of electrical conductors and poles, atmospheric discharges) and other circumstances (malfunction of machines and facilities not caused by actions of the supplier or of the consumer), the energy supplier may limit or terminate energy supply from the energy system and is obliged to notify the consumers about the occurred interruption and the time of elimination of the interruption.

c) Protection of socially sensitive groups of consumers

There is an ongoing study, financed by EBRD, on protection of the socially sensitive groups of consumers. At the same, it is possible to apply many known mechanisms for protection of sensitive groups, such as the welfare system, introduction of intraclass block tariffs and methods of energy efficiency.

d) Publishing the fuel mixture for electricity production

In the current practice, the JSC - EPCM as an exclusive producer of electricity publishes the combination of primary fuels which it uses for production of electricity in its Annual Report, which is a public document, as well as on its own web page.

e) Continuous fulfilment of the service level criteria

The quality of service, according to the licence, is regulated by the Energy Regulatory Commission via three parameters:

- Continuity of service: the continuity of flow of electric energy/gas/thermal energy to the consumer. This aspect is generally measured by frequency and duration of the interruption of service. Interruptions of service are less frequent in the gas industry than in electricity industry, mainly due to the different nature of the gas infrastructure and the fact that the gas network is subterranean and less exposed to external influences. The continuity of service actually implies responsibility onto the distribution function, but is also attributed to other functions;
- The quality of product: refers to the quality of transmitted energy. The quality of service parameter may be measured by oscillation of voltage and frequency of electricity, content of fuel in gas (which may affect its caloric value and operation of the burner) and its pressure, and content of fuel in oil derivatives. For thermal energy, these measurements include delivered water temperature and quality. Standards pertaining to the quality of product are very difficult to measure and because of that companies often rely on consumers to report certain problems;
- Consumer services: relates to the quality of relations between consumers and the company. This parameter may be measured in several ways; for example, through swiftness of response to telephone calls and response to written requests/complaints, and temporal restrictions of delivery of service (including punctuality during appointments). Consumer services are responsibility both of the suppliers and the distribution companies.

The Energy Regulatory Commission shall undertake mechanisms for regulation of quality of service such as:

- Benchmarking on quality performance between companies or comparison of competitors in order to stimulate competition. The competition comparison needs clear and detailed rules on methods of measurement and the data;
- Total and guaranteed performance standards; and
- Other penalties like: written warnings, modification of licence or withdrawing of licence.

Measurements of performance which represent every parameter of quality: continuity of service, quality of product and consumer services provide the Energy Regulatory Commission with enough information for evaluating the adequacy of company's operations. These performance measurements will be submitted to the Energy Regulatory Commission on a regular basis. If and when the Energy Regulatory Commission is notified that some company does not respond and does not operate properly, it will take respective measures. The Energy Regulatory Commission may request additional information as a part of the investigation on insufficient service, but this additional information is also collected on a regular basis. Parameters which must be determined for regular notification include the following: frequency of notification, period of notification, format of notification and report details.

The Energy Regulatory Commission shall prescribe standards on service performance, which should be met by licence holders, and upon granting each licence, the licence holders shall receive a Notification Manual, which will include all necessary information on what and when should licence holder report and whether they are meeting the requirements of the licence. The Energy Regulatory Commission cooperates with other governmental bodies on this matter, such as: Technical inspectorate.

f) Supervision of safety issues concerning supply

Pursuant to the Energy Law, the Energy Regulatory Commission ensures reliable, continuous and quality supply of energy. The Energy Regulatory Commission shall introduce Key Performance Indicators (KPI), in order to monitor the safety issues concerning the supply area, taking into consideration the international standards SAIDI, SAIFI, CAIDI, i.e.: Maximal acceptable number and duration of supply interruptions, maintained stability of frequency and voltage, period of reconnection after supply interruptions, minimal period of notice in a case of planned supply interruptions, minimal period of notice for planned reading of meters, maximal period during which the company has to respond to customer's applied complaint.

This matter shall be defined in more details with adoption of secondary legislation on energy.

2. What is your policy, what are your plans on electricity, gas or oil exchanges and network interconnections with neighbouring countries and/or regions? What projects are being carried out as regards electricity and gas interconnectors? Who provides the funding and what agreements exist with respect to access to those networks?

Electricity

In addition to the Athens Memoranda signed in 2002 and 2003, the Republic of Macedonia entered into negotiations and is determined to sign the Treaty on Energy Community, which shall enable establishment of a Regional Energy Market.

Besides of this legal framework, the Republic of Macedonia is in process of strengthening the existing interconnection corridors on the North-South route (Serbia and Montenegro and Republic of Greece) by means of:

- Upgrading of the existing 150 kV transmission line Bitola (Republic of Macedonia) - Florina (Republic of Greece) to 400 kV. The value of the project on the Macedonian side is 4,5 million EUR. In March 2003 this project was submitted to the Government of the Republic of Greece for financing from the programme “Greek Plan on Economic Reconstruction of the Balkans“. Considering the uncertainty as regards the beginning of the programme, a possibility of financing this project from own or other commercial sources is considered;
- Construction of a new 400kV transmission line between Skopje (Republic of Macedonia) and Niš (Serbia and Montenegro). This transmission line has a total length of about 200 km and the investment is estimated to around 42 million EUR. A feasibility study is currently being prepared. This project was also submitted to the Government of the Republic of Greece in March 2003 for financing from the programme “Greek Plan on Economic Reconstruction of the Balkans“.

Furthermore, the Republic of Macedonia is in process of establishing new interconnection corridors East-West, by means of:

- Construction of a new 400 kV transmission line between Štip (Republic of Macedonia) and Chervena Mogila (Republic of Bulgaria). This project, with total cost of approximately 50 million EUR, is in a realization phase and is expected to be launched by the end of 2006. EBRD provided 40,4 million EUR as a loan for JSC - EPCM. JSC - EPCM and NEK (Republic of Bulgaria) are covering the remaining 10 million EUR from own sources. During the construction NEK will pay its part of the project to JSC - EPCM. The whole arrangement is covered with a package of contracts.
- An initiative exists and two options have been considered so far (especially within SECI) for connection between Republic of Macedonia and Republic of Albania on 400 kV level. Those options are Skopje - Tirana and Bitola - Zemblak. Additional research will show if there is a necessity and which option could be realized. There is a preliminary interest at EBRD and the WB for financing interconnection with Albania. The connection Bitola - Zemblak could be of exceptional value if the interconnection between Albania and Italy by underwater cable in the Adriatic Sea becomes a reality. In that case, a significant corridor for transmission of

electricity would be provided - from East (Ukraine and Turkey) through Rumania, Bulgaria, Macedonia and Albania towards Italy.

By realization, partial or full, of the above-stated projects, Macedonia will be interconnected with all neighbours individually, and will have transmission capacity for exchange much larger than the internal needs, therefore, as a small system in the central part of the region, it shall contribute for increasing of the regional energy flows and shall create possibilities for establishment of new transport corridors for transmission of electricity in the region and in the wider surroundings.

Natural gas

Currently, Macedonia is connected with one gas transmission pipeline, with capacity of 800 million m³/year, from the gas transmission grid in Bulgaria to Skopje. Besides that, within the strategy of expansion and interconnection of the gas transmission pipeline with the neighbouring countries' networks, several potential options are being considered, such as:

- Construction of a regional gas pipeline system from Bulgaria, through Macedonia and Albania towards Italy, with capacity of 8 billion m³/year;
- Construction of a major gas transmission pipeline from Turkey through Macedonia towards north to Austria;
- Revitalization of a local major gas pipeline for connection to Kosovo (Serbia and Montenegro),

The realization of the potential projects for construction of regional gas pipelines depends on the results of several ongoing studies, especially of the World Bank study, as well as of the interest and needs of the gas market in the region and in Europe.

Oil

Dominant processing facility in the oil industry of Macedonia is the Oil Refinery JSC OKTA Skopje, whose basic activities are: refinement of crude oil, production of oil derivatives, chemical and petrochemical products, trade and distribution of oil derivatives.

After the construction of the oil pipeline Thessaloniki-Skopje, when all pre-requisites were satisfied for larger exploitation of the installed capacity for processing of crude oil in the only refinery in Macedonia - OKTA, possibilities were created for faster development and improvement of oil derivatives trade and distribution to the markets of Serbia and Montenegro, more exactly in Kosovo and Southern Serbia.

In 2002, preparation activities commenced on construction of product transportation line from OKTA towards Kosovo, which will provide fast, inexpensive and reliable transportation of the necessary types and quantities of oil derivatives for the needs of that market. The product transportation line towards Kosovo will provide a flow of oil derivatives of 65 m³/h.

Besides that, the Republic of Macedonia is involved in a process of preparation and potential realization of a project on construction of regional oil pipeline within Corridor 8 (East - West) from Burgas (Bulgaria), through the territory of Macedonia to Vlore on the Adriatic coast in Albania.

3. What steps have you taken to implement the commitments taken in the framework of the 2003 Athens Memorandum of Understanding on the Regional Energy Market in South East Europe, and to prepare for the establishment of the Integrated Regional Energy Market?

Pursuant to the commitments of the 2003 Athens Memorandum of Understanding, there is a need of reforms in the energy sectors - electricity and natural gas management, mainly referring to the requirement for implementation of Directives 2003/54/EC and 2003/55/EC and Regulation 1228/2003/EC from June 26 2003 on free access to network for cross-border exchanges, as well as the requirement for implementation of the directives directly related to the impact of the energy sector on the environment, such as Directive 85/337/EC on the assessment of the effect of certain public and private projects on the environment, the Directive 1999/32/EC on reduction of the content of sulphur in certain liquid fuels and the Directive 2001/80/EC on Large combustion plants.

Reforms and measures stemming from the requirements of the Athens Memorandum of Understanding can provisionally be separated into the following categories: institutional, legal and measures for commercialisation of electricity and natural gas utilities. Reforms are undertaken in each of the mentioned areas and they are either completed or in an implementation phase, with appropriate intensity in the areas of electricity and environment.

Key elements of Athens Memorandum of Understanding on the Regional Energy Market in South East Europe

National institutions

1. Establishment of independent institutions for creating strategy, regulations and operative management of the system

- National Energy Authority

The Ministry of Economy has the role of a National Energy Authority, which, among other things, has competencies concerning issues in the field of energy. Within the Ministry, a Sector on energy and raw minerals was established, responsible for preparation of strategic planning and policy of the energy sector, including safety of energy supply, renewable sources and energy efficiency.

Based on indications about the need of increased capacity of the Energy and Raw Materials Sector, an establishment of Energy Agency is planned, which shall provide support to the Government of the Republic of Macedonia, the Ministry of Economy and, to a certain extent, to the Energy Regulatory Commission and the energy-related industry, especially from the aspect of development of renewable energy resources and energy efficiency.

- Energy Regulatory Commission (ERC)

The Energy Regulatory Commission of the Republic of Macedonia is an independent legal entity founded by the Law on Amending the Energy Law ("Official Gazette of RM" No 94/02 and 38/03) for the purpose of providing reliable and continuous supply of energy to the consumers in the Republic of Macedonia, protection of environment and nature, improvement and protection of the competitive energy market pursuant to objective, transparent and non-discriminatory principles.

The members of the Energy Regulatory Commission were appointed on 23.07.2003 by the Assembly of the Republic of Macedonia, upon a proposal of the Government of the Republic of Macedonia. The Energy Regulatory Commission commenced with operations on 01.01.2004.

The Energy Regulatory Commission operates and makes decisions independently, and notifies the Government of the Republic of Macedonia and the Assembly of the Republic of Macedonia about its operations at least once a year.

The Energy Regulatory Commission operates on public sessions, except in cases when confidential information and business secrets are being discussed, upon which the President of the Energy Regulatory Commission brings the decision. The sessions of Regulatory Commission are convened and presided by the President of the Energy Regulatory Commission. The Energy Regulatory Commission brings decisions with majority of votes from the total number of members and its decisions are published in the Official Gazette of the Republic of Macedonia.

Individual acts of the Energy Regulatory Commission may be appealed in front of the Appeals Commission on Energy. The appeal does not postpone the execution of the decision of the Energy Regulatory Commission. Professional and administrative functions of the Appeals Commission are executed by the expert office of the Ministry which is competent for energy matters.

According to Article 11-g of the Energy Law, the Regulatory Commission of the Republic of Macedonia executes the following operations:

- Ensures reliable, continued and quality supply of energy;
- Ensures development of a competitive energy market;
- Prescribes conditions for supply of individual types of energy;
- Prescribes a pricing methodology of individual types of energy;
- Prescribes tariff systems of individual types of energy;

- Decides on the prices of particular types of energy, according to the Pricing Methodology, tariff systems of individual types of energy and other legal regulations;
- Issues, modifies, withdraws licences and monitors license execution for particular activities from the energy area;
- Prescribes rules for connection to energy systems;
- Ensures improved protection of energy consumers' rights;
- Initiates procedure of adopting laws and other regulations from the energy area;
- Participates in resolution of disputes and proposes measures concerning disputes;
- According to its competencies and in a legal procedure, suggests measures to the competent bodies against entities breaching the Energy Law;
- Adopts Rules of Procedure and other acts of the Regulatory Commission; and
- Performs other activities determined by law.

The activity of the Regulatory Commission is financed by assets obtained through levies charged on the total revenue of organizations performing activity related to energy and from the licensing fee.

Before 1st October of the ongoing year, the Regulatory Commission submits a Draft Financial Plan of the Regulatory Commission for the following year to the Assembly of the Republic of Macedonia, which contains all revenues and expenditures of the Regulatory Commission, including the salaries of the members of the Regulatory Commission and the employees, as well as the fees of the members of the Appeals Commission and their deputies.

Within the frames of the Draft Financial Plan, and based on planned revenues of organizations performing energy-related activities for the ongoing year, the Regulatory Commission determines the fee for the following year through assigning an equal percent of collection from the total actual revenue of the organizations, upon a given consent from the Assembly of the Republic of Macedonia, and amounting to no more than 0,1% of the total actual revenue of the organizations. According to the determined percentage and the actual revenue in the previous year, the organisation performing energy-related activities pays the fee in two equal instalments, the first before April 30th, and the second before September 30th of the current year. The unused assets of the Regulatory Commission from the previous year are transferred to the following year and the fee is accordingly reduced.

After the finishing of the first year of the Regulatory Commission's operation and before March 31st of the following year, the President of the Regulatory Commission submits an Annual Report to the Government of the Republic of Macedonia and to the Assembly of the Republic of Macedonia concerning the operations of the Regulatory Commission, which also includes material and financial activities of the Regulatory Commission. The Annual Report on the operations of the Regulatory Commission is also submitted to the Ministry competent for energy matters and is published in one of the public media.

- Transmission System Operator

Pursuant to the Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership ("Official Gazette of RM" No 19/04), see [14 Annex 02](#), the existing vertically integrated company JSC - EPCM shall be separated into two joint stock companies, as follows:

- Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new), in state ownership; and
- Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, in state ownership.

The legal procedure for registration of the two new joint stock companies, which is conducted in accordance with the Company Law ("Official Gazette of RM" No 28/04), enforced from 1.05.2004 and the Decision of the Government of the Republic of Macedonia for separation of JSC - EPCM in state ownership, Skopje, by founding with separation, from 27.09.2004, was completed by the end of 2004.

The Macedonian electro-transmission system operator *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, commenced with operations on 01.01.2005.

The *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System* is owner of the assets for transmission of electricity and will perform maintenance, expansion planning and construction of the transmission system, operation of the electricity power system, as well as organisation and management of the electricity market and ancillary services.

– Electricity Market Operator

The Market Operator, which will be responsible for organising the wholesale market of electricity, will be founded as a separate organisational unit within *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*.

Depending on the needs and requirements for development of the electricity market in the Republic of Macedonia, the Market Operator could be separated from *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, in future.

2. Creating independent operators of larger distribution systems

According to the plan on restructuring of JSC - EPCM, immediately after the completion of the first phase of restructuring, defined by founding of the Transmission System Operator - *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, and the new company for production, distribution and supply of electricity – *Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity*, (new), the second phase of restructuring has commenced, related to the legal separation of production and distribution. During this phase of restructuring, a decision will be made on the level of establishing an independent Distribution System Operator. This procedure will continue in the 2005.

National electricity market

1. Elimination of cross-subsidies and development of transparent tariffs for transmission and distribution

The accounting separation of assets and activities of production, distribution and transmission of electricity was completed before the end of 2003. This provided conditions for creating transparent transmission and distribution tariffs and preventing cross-subsidies between separate activities.

The prescription of tariffs is responsibility of the Energy Regulatory Commission. The Energy Regulatory Commission of the Republic of Macedonia prepared a Rulebook on the Method and Conditions for Regulating Electricity Prices ("Official Gazette of RM" No 95/04), while the new tariff system of electricity is in a preparation procedure and shall be adopted in the first quarter of 2005. For that purpose, two studies were prepared - one financed by the USAID and produced by the NERA consulting house in 2003/2004, and another financed by EU through the CARDS project on Development of the Energy Regulatory Commission in Macedonia, implemented by IKRP Rokas & Partners, completed in august 2004. USAID also financed training of employees of the Energy Regulatory Commission for calculation of electricity tariffs, conducted by the consulting company Pierce Atwood in October and November 2004.

On the bases of the analyses and experiences a Tariff methodology for calculation of the income of the electricity companies based on combination of the methods - price cap and revenue cap has been adopted. This also refers to application of the postal stamp method for payment of the transmission tariff, or application of unified transmission tariff on the whole state territory.

2. Adopting a National Action Plan

A National Action Plan on establishment of an electricity market, prepared by the Ministry of Economy, has been adopted at the session of the Committee on Restructuring and Privatization of the JSC - EPCM, held on 10.12.2003.

The section of the National plan concerning the reduction of losses in transmission and distribution network and improvement of collection of bills is prepared and is being implemented within Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new).

During 2005, activities for privatisation of certain parts of Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new) shall commence. For the purpose of conducting a transparent process of privatization, the Government of the Republic of Macedonia hired the consultant Meinh Bank Consortium from Austria. At the same time, the Government of the Republic of Macedonia signed an agreement on minority share pre-privatisation investment amounting to 45 million EUR with the European Bank for Reconstruction and Development (EBRD). The agreement implementation is conditioned by fulfilling a set of milestones related to the reforms required by the Athens Memorandum of Understanding and the European Directives, as well as the necessary steps for transparent privatisation by means of public competition. By this agreement the process of reforms and privatization is to be completed within a period of two years.

3. Adoption of the UCTE norms and standards

In the electricity system of Macedonia, the UCTE norms and standards are fully applied. The re-connection of the system with the first synchronous zone of UCTE was successfully performed on 10.09.2004.

4. Separation of the accounts of individual parts of the system (production, transmission and distribution), adoption of the International Accounting Standards (IASs), and independent annual audit of every part separately and measures on corruption abatement.

The separation of the accounts for production, distribution and supply of electricity was completed before the end of 2003.

International Accounting Standards became effective from 01.01.2005, in reference with which all necessary preparations within JSC Electric Power Company of Macedonia were completed. Within the fight against corruption and financial crime, the Law on Corruption Abatement ("Official Gazette of RM" No 28/02 and 46/04) and the Law on Prevention of Money Laundering and Other Proceeds from Crime ("Official Gazette of RM" No 46/04) were adopted. Furthermore, Committee on Corruption Prevention of the Republic of Macedonia, Financial police, Agency for prevention of money laundering were established, and other measures were undertaken for abatement of corruption in energy-related utilities.

5. Development of licences for operation

Based on the results of the CARDS project on Development of the Energy Regulatory Commission in Macedonia, implemented by IKRP Rokas & Partners, the Energy Regulatory Commission is developing a secondary legislation for licences. The legislation includes a Rulebook on Conditions, Method and Procedure for Issuing, Modifying and Cancellation of Licences for Energy-related activities. Also, it develops types of licences for individual energy-related activities, some of them being electricity and natural gas, which pertain to authorization and operation licensing for energy facilities.

The Energy Regulatory Commission is prepared to adopt the licensing rules in the first quarter of 2005.

6. Preparation of Grid Code, based on non-discriminatory approach

Within the activities for development of the regional electricity market, the Regional Grid Code is in final stage of preparation by the EDF.

Based on this Grid Code and local differences, within the same project a National Grid Code will be prepared. The Grid Code should be proposed by the Transmission system operator - Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, and approved by the Energy Regulatory Commission during the first half of 2005.

7. Adopting legislation on competition in the electricity sector

The national legislation on competition is in preparation phase by the consultant law firm Hunton&Williams, supported by the USAID, and by the local workgroup consisting of representatives of all relevant institutions in Macedonia. A serious approach on development of the legislation in two phases was developed.

First phase concerns the adoption of Electricity Market Design Plan, which defines the main entities on the market and their relations from the aspect of flows of energy, dispatch and system control, contractual relationship and funds. Based on this Design Plan, primary and secondary legislation shall be prepared, which shall regulate the competition relations in the electricity sector.

The second phase concerns the actual preparation of legislation. The primary Law on Electricity Market is to be adopted in the first half of 2005. It includes introduction of the basic principles of competition in the electricity sector, such as: the right on non-discriminatory third party access to the network, defining eligible customers of electricity, public service obligation and transparency of the procedures for investment and construction of energy facilities.

The necessary secondary legislation, which is also in a preparation phase, mainly includes transparent tariffs on production, transmission and distribution of electricity, issuing, modification and cancellation of licences, Grid Code, and Market Code. Preparation of the secondary legislation is mainly competence of the Energy Regulatory Commission.

8. Opening of market for so-called eligible customers (all consumers that are not households) and adopting regulations for their access to the network

The criteria of establishing the definition and the threshold of eligible customers will be determined by the Law on Electricity Market. The initial opening will be limited by the criterion of annual consumption of 20 GWh of electricity.

The Energy Community Treaty, which is in negotiation phase, envisages the following deadlines for opening the electricity and natural gas market (Annex I, Draft Energy Community Treaty):

- From January 1st 2008, all non-household customers;
- From January 1st 2015, all customers.

Regional electricity market

1. Participation of the national institutions in the market facilitation group, as well as in the sub-groups of regulators (CEER) and transmission system operators (ETSO) of the EU

Market Facilitation Group

The Energy Regulatory Commission participates in the work of the Council of European Energy Regulators (CEER) through the Work Group of Energy regulators of SEE (SEEER), since the very beginning of its operations.

2. Implementation of the SECI Plan for Teleinformation System among National Dispatching Centres in the Region

JSC - EPAC, with support by the World Bank, is developing a modern Electricity Management System (EMS) and telecommunication system, which enable real time management of the system and exchange of information with the neighbouring countries and the UCTE. These systems, supplemented by telecommunications with the neighbouring countries (Bulgaria, Serbia and Greece), will enable completion of the SECI Plan for Teleinformation connection within the region, as well as connection within the Electronic Highway of the UCTE. This project is expected to be completed by the end of 2006.

3. Application of the CEER and ETSO guidelines on cross-border exchanges, cross-border tariffs and congestion management in the network

In terms of interstate electricity trade, JSC - EPCM has signed the Agreement on cross-border trade of SEE countries, taking effect from 01.07.2004. Since 01.01.2005, this Agreement is inherited by Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, after its separation of JSC - EPCM.

The Agreement regulates the payment methods for electricity transits through countries of the region based on the Cross Border Trade Mechanism - CBT Mechanism, defined in the Annex of the Agreement.

In regards to solving overloads in the regional electricity network, the JSC - EPCM takes active participation in the preparation of procedures for common operation, within the Work Subgroup on congestion managements and access to the transmission network within Transmission System Operators of SEE (SETSO). This activity from 01.01.2005 is responsibility of Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System.

Key elements of the Athens Memorandum of Understanding on Regional Natural Gas Market in South East Europe

The elements for natural gas market development in the Republic of Macedonia, as well as the infrastructure for management of the gas itself, are in initial phase.

The existing transmission gas-pipeline is operated by JSC Makpetrol. At the same time, Makpetrol is the only supplier of natural gas for the large industrial consumers which are currently connected to the pipeline. A distribution network of natural gas is not developed yet.

National institutions

1. Establishment of independent institutions for strategy, regulations and operative management of the system

- National Energy Authority

The Ministry of Economy has the role of National Energy Authority, which, among other things, has competencies concerning energy-related issues.

- Energy Regulatory Commission (ERC)

The Energy Regulatory Commission of the Republic of Macedonia is responsible for development of the natural gas market.

- Transmission System Operator

No activities have been undertaken for establishing an independent transmission system operator of natural gas.

National Natural Gas Market

The National Natural Gas Market operations shall be regulated by the new Energy Law, which, among other things, shall regulate issues concerning transmission, distribution and supply of natural gas, third-party access to the network under non-discriminatory conditions and definition of eligible customers, as well as establishment of an independent transmission system operator of natural gas.

The secondary legislation is being prepared by the Energy Regulatory Commission, simultaneously with the secondary legislation on other types of energy transported by networks. Secondary legislation shall include tariffs on transmission and distribution of natural gas, as well as conditions for network operation and regulated access of third parties.

Regional natural gas market

Activities of the Energy Regulatory Commission

The Work Group on natural gas within the CEER WG SEEER was founded in February 2004, and its participant is the Energy Regulatory Commission of the Republic of Macedonia. The aim of the Work Group is to provide the regulatory contribution necessary for development of the regional natural gas market and compliance with the EU Acquis.

Harmonization and implementation of the EC Directives on impact of energy-related activities on the environment

According to the obligations from the Stabilisation and Association Agreement, the Athens Memorandum of Understanding from 2003, the Agreement with EBRD for conditional delayed purchase of shares in the privatization of the Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new), as well as the future Treaty on Energy Community, the Government of the Republic of Macedonia is obliged to prepare a Plan for implementation of Directives directly concerning the impact of energy-related activities on the environment, the Directive 85/337/EEC on assessment of the effect of certain public and private projects on the environment the Directive 1999/32/EC on the reduction of sulphur content in certain liquid fuels and the Directive 2001/80/EC on Large combustion plants.

The provisions of the abovementioned directives have already been incorporated into the package of laws from the area of environment (the Law on Environment - already in parliamentary procedure, to be adopted in the first quarter of 2005, and the Law on Environmental Air Quality ("Official Gazette of RM" No 67/04)⁴).

Based on these laws, a detailed secondary legislation shall be adopted, directly regulating the conditions, method and procedure of implementation of legal obligations.

4. Indicate your country's relation with the Trans-European Energy (TEN-E) priority projects concerning electric and gas interconnections (cf. Decision 1229/2003 and Regulation (EC) 807/2004 for Community financial aid in the field of trans-European networks). Recent relevant Commission documents are the proposal for a revision of the TEN-E guidelines (COM (2003) 742) and the Communication "Energy Infrastructure and Security of Supply" (COM (2003) 743). Indicate your country's relation with the Quick-start projects in Energy Networks specified in the Communication "European Initiative for Growth" (COM (2003) 690). What are the current and future facilities for import/export of energy and what is their capacity/annual throughput?

Power system

The power system of the Republic of Macedonia is currently interconnected with the power systems of Serbia and Montenegro (SCG) and Greece at a voltage level of 400 kV.

⁴ The Directive 85/337/EEC amended by the Directive 97/11/EC on assessment of the effect of certain public and private projects on the environment was implemented in the new Law on Environment, which is in parliamentary procedure, and will be adopted in the first quarter of 2005. The Directive 93/12/EEC, amended by Directive 1999/32/EC on decreasing the sulphur content in liquid fuels is implemented in the Law on Environmental Air Quality ("Official Gazette of RM" No 67/04), providing a basis for the Ministry of Economy to adopt Rulebook on Liquid Fuels Quality. The Directive 2001/80/EC on limitation of certain air pollutants will be implemented by secondary legislation which will be adopted on the basis of the Law on Environmental Air Quality ("Official Gazette of RM" No 67/04). Namely, the limit emission values from each thermal power plant will be determined by environmental license, which will be issued by the Ministry of Environment and Physical Planning, based on the Law on Environment.

In the development plan, the power system of the Republic of Macedonia is connected via the TEN-E initiative through the following interconnections:

- 400 kV transmission line Bitola (Republic of Macedonia) – Florina (Republic of Greece)
The line is ready for construction, and expropriation is completed. The feasibility study and technical studies (main design) were prepared with co-financing of EC within the TEN Programme, where the Public Power Corporation of Greece (PPC) was the main contractor of the project, and the JSC - EPCM was associated contractor to PPC (CONTRACTXVII/5.7100/2/97-014). This project was submitted to the Government of the Republic of Greece in March 2003 for financing from the Programme “Greek Plan on Economic Reconstruction of the Balkans”. Considering the uncertainty as regards the beginning of the programme, a possibility of financing this project from own or other commercial sources is considered;
- 400 kV transmission line Skopje (Republic of Macedonia) - Niš (Serbia and Montenegro)
For this line, a feasibility study is in a final preparation phase, co-financed by EC as a part of the TEN Programme. The main contractor of the study is the independent Hellenic Transmission System Operator (HTSO), whilst the Electric Power Company of Macedonia is sub-contractor. (CONTRACT No TREN/TEN-E/2002/5.7100/Z/02-005). This document was submitted to the Government of Republic of Greece in March 2003 for financing from the Programme “Greek Plan on Economic Reconstruction of the Balkans”.
- 400 kV transmission line Štip (Republic of Macedonia) - Chervena Mogila (Republic of Bulgaria)
The project is in implementation phase. There are ongoing tender procedures for selection of most suitable construction contractors. The physical construction of the line (Overhead Transmission Line-OHTL) is foreseen to commence mid-2005 and to be completed by the end of 2006. This project is being financed mainly by financial support of EBRD, with signed loan agreement amounting to 40,4 million EUR.
- Potential connection with Albania, as an option, is being considered within SECI Regional Transmission System Planning project. Additionally, in cooperation with EBRD and the SEETEC project of the Canadian International Development Agency (CIDA), a project was initiated for preparing a feasibility study on the Corridor East-West, with a possibility of connection to Italy by undersea power cable. This possibility is considered very advantageous and is supposed to have positive influence on evaluation of the other interconnection investments in the narrower region, especially between Macedonia, Bulgaria and Albania.

All high voltage, 400 kV, interconnection lines built by Macedonia have a maximum transmission capacity of 1.200 MW. For determining the real transmission interconnection capacity to each country separately, there are international methods and procedures (UCTE). All the investments, which are carried out and planned by Macedonia, have a significant influence on enlarging the transmission capacities for power exchange among countries in the region and with the European Union. Furthermore, the capacity for exchange with neighbours which is available to Macedonia is currently close to the peak load of the internal system, which significantly surpasses the criterion of 20% set by EU as recommended. Investments in new inter-connections increase the possibilities, diversity and security of Macedonia's power exchange with neighbouring systems, and further, at the same time in the region have essential influence to the possibilities for overcoming potential congestions in the future regional electricity market, as well as in trade and exchange with EU countries.

Transmission interconnection capacities of RM with neighbours (MW)	SCG	Greece	Bulgaria	Albania
current situation	1.200	1.200	0	0
period 2006-2009	1.200	2.400	1.200	0
period 2010-2019	2.400	2.400	1.200	1.200
period 2020-2030	2.400	2.400	1.200	1.200

Planned interconnection capacities in the power sector of RM				
Country 1	Country 2	Connection	voltage (kV)	operational

MKD	GRE	Bitola - Florina	400	2006
MKD	BUL	Štip - Chervena Mogila	400	2006
MKD	SCG	Skopje 5 - Niš	400	2010
MKD	AL	Bitola - Zemblak or Skopje - Tirana	400	2012

Gasification system

The existing main transmission gas pipeline in the Republic of Macedonia is in length of 98 km (Deve Bair - Skopje), the main gas pipeline branches to the cities of 26 km and distribution gas network of 31,5 km with capacity of 800 million m³ per year and consumption of natural gas of 100 million m³ per year.

The Republic of Macedonia has a strategic orientation to connect the gas network to networks of the neighbouring countries, mostly by extension of the transmission pipeline towards the Albania, Serbia and Montenegro and Greece.

For connection of the countries of Southeast Europe to Italy, a Trans-Adriatic Pipeline (TAP) within the framework of Corridor VIII is being considered by the countries in cooperation with some commercial companies from Western Europe. The potential gas pipeline would connect gas transmission systems of Republic of Bulgaria, Republic of Macedonia, Republic of Albania and Republic of Italy. The route of this gas pipeline in the Republic of Macedonia is anticipated to pass from Delčevo through Prilep to Struga and would be with length of about 200 km. A feasibility study is currently being prepared for this project. This gas pipeline will have capacity of 8 to 12 billion m³ /year, and the natural gas would be supplied from Russia and Sub-Caucasian countries.

5. Could you briefly describe the legal, procedural, technical and environmental frameworks for authorisation of networks? What is the average timescale to complete procedures governing authorisation for the construction of power and gas installations/networks etc.? Do you have plans to improve the timescale and address the difficulties; if so, when and how?

The procedure for obtaining approval for construction of facilities of public interest (transformer substations, hydro and thermo power plants, gas power plants, biomass power plants, geothermal power plants, wind power plants, pipelines, underground lines) is regulated by the existing legislative (Law on Expropriation ("Official Gazette of RM" No 33/95, 20/98, 40/99 and 31/03), Law on Spatial and Urban Planning ("Official Gazette of RM" No 04/96, 28/97, 18/99, 53/21 and 45/02) and Law on Construction of Investment Buildings ("Official Gazette of RM" No 15/90, 11/91, 11/94, 18/99 and 25/99)). According to the aforementioned regulations, the competent Ministry (Ministry of Transport and Communications), upon a request of the investor, issues the documentation necessary for construction of the object, which is as follows:

- Conditions for construction;
- Construction approval for the facility; and
- Usage approval for the facilities after completion of technical inspection of the facilities.

In addition, according to the existing Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), the Energy Regulatory Commission issues a license for energy-related activities.

According to the Law on General Administrative Procedure ("Official Gazette of the SFRY" No 52/56, 10/65, 04/77, 11/78, 09/86 and 16/86, and "Official Gazette of RM" No 44/02), conditions for construction are issued no later than 10 days of application. In order to obtain an approval for construction, the investor should prepare appropriate technical documentation (main design) in conformity with the Spatial Plan of the Republic of Macedonia, which shall contain a Study on evaluation and analysis of the environmental impact and a Study on protection against fires and explosions. After submitting the request with the necessary documentation, the Ministry of Transport and Communications issues the approval for construction within 15 days. After completion of the construction of the facility and after the completed technical inspection of the facilities (confirmed by a

Committee established by the Minister of Transport and Communications), a usage approval of the facility is issued.

According to the Law on Concession ("Official Gazette of RM" No 25/02) and the Energy Law, concession of an energy-related facility is awarded on a public competition, organized and conducted as an open call procedure or as a limited call concession procedure. The Government of the Republic of Macedonia brings the decision on granting a concession and publishes it in the Official Gazette of the Republic of Macedonia and in one of the public media. The procedure of granting concessions is prepared, organized and conducted by Committee established by the Government of the Republic of Macedonia, which is obliged to prepare tender documentation and announce a public invitation for bidding for concession. After the deadline for bidding expires, there is public opening of bids and the Committee evaluates and ranks the bidders, and starts negotiations with the highest-rank bidder, and after the completion of the negotiations, the conceder (the Government of the Republic of Macedonia) invites the highest-rank bidder to meet the concession agreement conditions stated in the public invitation. After concluding a concession agreement the procedure is considered as closed.

The procedure on granting concessions for water during construction of hydro power plants is conducted according to the Law on Waters ("Official Gazette of RM" No 04/98 and 19/00) and the Law on Concessions, through an open competition. Concession for water exploitation is granted by the Government of the Republic of Macedonia upon a proposal from the competent Ministry (Ministry of Agriculture, Forestry and Water Economy). The application for water concession is submitted to the Ministry of Agriculture, Forestry and Water Economy accompanied by appropriate technical documentation. After reviewing the documentation, optional field inspection of the location and gathering opinions from the competent ministries, the Ministry of Agriculture, Forestry and Water Economy produces a draft-Decision for commencing procedure of awarding a concession, and submits it to the Government of the Republic of Macedonia, which produces a Decision on commencing procedure and forms a Committee for execution of the procedure. After that, the Committee prepares the tender documentation (with conditions for open competition), and after the approval from the Government of the Republic of Macedonia, the Committee announces an open competition for bidding for concession. The deadline for bidding is 90 days, after which the Committee opens the bids in public and evaluates the bids in a manner and within a period compliant with the evaluation criteria stated in the public announcement and with the tender documentation, and prepares a ranking list which is simultaneously distributed to all bidders and then negotiates with the highest-rank bidder. After that, the conceder (the Government of the Republic of Macedonia) invites the highest-rank bidder (concessionaire) to meet the concession agreement conditions stated in the public invitation, after which both parties conclude the concession agreement.

The procedure for granting concessions for detailed geological surveys and exploitation of raw minerals is conducted according to the Law on Mineral Resources ("Official Gazette of RM" No 18/99 and 29/02). The application is submitted to the Government of the Republic of Macedonia, and the Government submits it to the Ministry of Economy, which evaluates the documentation, performs a field inspection of the designated location, collects opinions from the competent ministries and submits a draft-Decision to the Government of the Republic of Macedonia. The Government of the Republic of Macedonia brings a Decision for granting concession on surveying and exploitation of raw minerals. The time between receiving the application and bringing a Decision for concession for surveying and exploitation is 90 days.

For the purpose of harmonization of the existing legislation with the EU legislation, the new Draft Law on Environment includes the fully transposed directive on amending the directive of the Council 337/85 on assessment of the impact of certain public and private projects on the environment 97/11 and the Convention on Environmental Impact Assessment in Transboundary Context (Espoo).

The Draft Law on Environment, which is in a parliamentary procedure and will be adopted in the first quarter of 2005, contains a chapter on Environmental Impact Assessment, which describes the procedure of assessment of the environmental impact (further in the text - EIA). The Government of the Republic of Macedonia will issue a decree (currently in a drafting phase) which shall determine the projects according to which an obligatory procedure of EIA is conducted, as well as the criteria on

general designated projects which will need assessment of the need of EIA on individual basis. For all other projects that are not included in the aforementioned decree, a study on environmental impact assessment will have to be prepared.

According to the Draft Law on Environment, the investor who plans a project is obliged to submit a Letter of Intent to the Ministry of Environment and Physical Planning concerning the purpose of the project as well as an opinion about the necessity of EIA. After receiving the Letter of Intent, the Ministry of Environment and Physical Planning notifies the investor with a Decree about the need of environmental impact assessment. According to the type of the project, the Ministry determines the volume of the study of environmental impact assessment. The Opinion should contain the alternatives which should be considered, a basic overview and the necessary examinations, methods and criteria used for prediction of impact assessment, measures for improvement which should be considered, a list of legal entities which should be consulted during preparation of the EIA study, the structure, contents and volume of environmental information. If projects require EIA, the investor is obliged to prepare a Study on EIA and submit it to the body competent for environmental issues. Upon reception of the study, the competent body prepares a report on relevance of the EIA study. The report may also be prepared by a person authorized by the competent body. The Ministry of Environment and Physical Planning on the basis of the EIA, the report, a public discussion and received public opinions brings a decision on approval or disapproval of the Project. The brought decision causes legal effect in a period of two years after its adoption and its validity period may be prolonged if there are no significant changes occurred during a modification of the project, as a result of the conditions in the affected area, new information in connection with the basic content of the study or development of new technology which might be used in the project.

The body responsible for Project Implementation may not issue a decision/permit for implementation of the project without decision on approval or disapproval of the Project issued by the Ministry of Environment and Physical Planning and submitted by the investor. In addition, the body which issues permits for implementation of the project is obliged to notify the Ministry of Environment and Physical Planning if an application for projects without EIA was submitted.

During the whole EIA procedure, the competent body consults the local self-government units on whose territory the project is implemented, as well as the public, the non-governmental organizations from the area of protection and promotion of the environment through providing necessary documentation, announcing and organizing a public debate and publishing on the web page of the Ministry. In the Decision, the Ministry should state the opinions which were considered during its adoption, as well as an explanation on the opinions which were not considered.

Pursuant to the Law the duration of EIA procedure is 120 days, not including the time necessary for preparation of the EIA study (the foreseen periods are reduced to a minimum). It is necessary to mention that the EIA procedure which will be conducted before issuing the approval for construction, as a separate procedure conducted by the Ministry of Environment and Physical Planning.

The Draft Decree on determining projects for which an EIA procedure is conducted, in its Annex 1 determines the projects which require an obligatory EIA procedure, among which:

1. Crude oil refineries (except facilities for production of oils from crude oil) and installations for gasification and liquefaction of 500 tonnes or more of coal or bituminous shales a day;
2. Thermal power plants and other combustion facilities, with output heat of 300 megawatts or more;
3. Pipelines for transmission of gas, oil or chemicals with diameter larger than 800 mm and length greater than 40 km;
4. Installations of overhead electrical cables with voltage of 110 kV or more and length greater than 15 km.

The Annex 2 of the Decree determines the projects for which the necessity of AEI will be evaluated individually and by the minimal criteria given in Annex 1 and Annex 2 of the Directive on AEI, which relates to the following projects:

- a) Industrial facilities for production of electricity, steam and hot water;

- b) Industrial facilities for transportation of gas, steam and hot water and for transmission of electricity through overhead cables;
- c) Surface storage of natural gas;
- d) Underground storage of flammable gases;
- e) Surface storage of fossil fuels;
- f) Industrial briquetting of coal and lignite;
- g) Facilities for processing and storage of radioactive waste;
- h) Hydro power plants; and
- i) Facilities for exploitation of the wind power, for energy production (so-called wind farms).

The Draft Decree is currently under public debate, after which scope and type of the projects which will require an AEI procedure shall be finally determined.

For the purpose of harmonization of the existing legislation with the EU legislation, a new Law on Construction is in preparation, where the duration for receiving a construction permit is left unchanged, because we consider it to be sufficiently short in the current legislation (15 days).

Furthermore, a new Law on Waters was prepared and is currently in procedure of adoption and will be adopted in the first quarter of 2005, which shall determine the procedure, conditions and deadlines for granting a concession on water. In preparation phase are the new Energy Law and the new Law on Mineral Resources (it is expected to be adopted in 2005), which will also treat the procedure on granting concessions.

6. What is the legislative/regulatory framework for competition in the energy sector? Which are the specific issues that require an adaptation of the existing legislation? In which energy sub-sectors are there State aids (please specify) and in which are there trade barriers and what are these barriers? Which monopolies (e.g. refinery, import/export monopoly, exclusive or special production, transportation or distribution rights) in the energy sector currently exist in your country and what are your plans with them? What is the legislative situation regarding Independent Power Producers?

The general legislative framework stems from the provisions of the Constitution of the Republic of Macedonia, according to which the Republic has an obligation to provide equal legal position for all economic operators on the market, as well as to take measures against monopolistic behaviour on the market. The Constitution stipulates that the freedom of the market and entrepreneurship may be limited only for purpose of protection of the public interest, determined by law.

In the Republic of Macedonia the rules on competition in the energy sector are applied according to the Law on Protection of Competition ("Official Gazette of RM" No 04/05). This Law regulates the forbidden forms of disturbing, limiting or violating competition, competition protection, and measures and procedures in connection with limitations of competition. The energy sector is not excluded from the application of this Law. All entities which operate in this sector, regardless if they are public enterprises or private-owned companies, are obliged to a market conduct compliant with the provisions of this Law. In case of competition violation in the energy sector, through forbidden agreements or decisions, agreed practice, misuse of a dominant position or concentrations, authority competent for the procedures is the Commission for Protection of Competition.

The existing Energy Law (together with all amendments thereof) and all international Agreements signed by the Republic of Macedonia (the Stabilisation and Association Agreement, the Protocol for Accession to the World Trade Organisation, the Energy Charter Treaty etc.) represent a factual legal framework which sublimates the principles of: equal treatment for all entities on the market, i.e. protection against unfair competition, elimination of quantitative restrictions and measures with similar effect, principles of most-favoured nation and national treatment etc.

The new Law on Electricity Market and the new Energy Law, which are being prepared, and in accordance with the Programme on approximation of the national legislation with the EU legislation (2004) are planned to be adopted in the first half of 2005 and during 2005 (respectively), shall regulate the issues of establishing a competitive Energy Market.

Considering that currently there is no legislative framework for a competitive market, it will be established by the new laws which will be harmonized with Directives 2003/54/EC and 2003/55/EC, complying with requirements of Athens Memoranda and the forthcoming Treaty on Energy Community among the countries of Southeast Europe and the EU.

With the enforcement of the Law on State Aid ("Official Gazette of RM" No 24/03), which is in conformity with the EU legislation, a new system of granting and treatment of state aid is introduced. After 2003, there are no more trade limitations and no state aid exists in the field of energy. Since 2004, the exclusive right on import of energy sources is also abolished.

Within the electricity sector, the monopolistic structure of the JSC - EPCM is visible through the exclusive position of this enterprise in regards to transmission and distribution of electricity, while in the production, it has a dominant position. This enterprise finished its transformation in the end of 2004, which enabled, through legal separation of the transmission system and the control system, transfer of exclusive transmission rights to the Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, in state ownership. In the subsequent phase, during 2005, a distributional system-operator shall also be established. Regarding the dominant position on the market and prevention of abuse thereof, this enterprise will be under constant regime of monitoring by the Energy Regulatory Commission.

The exclusive rights of the company JSC Makpetrol in the trade and supply of natural gas are attached to the right of operating the transmission gas pipeline system and the branching network, and the main reason for that is the undefined status regarding the ownership of the basic infrastructure, which is currently being disputed. After solving this issue, conditions will be created for necessary institutional structuring of this sector, which shall enable efficient regulation of the dominant positions of the entities by the Energy Regulatory Commission.

Within the liquid fuels (oil derivatives) sector, the market behaviour of the dominant production and wholesale companies, regarding the possible abuse of the market position and limiting of competition, will be controlled by the Energy Regulatory Commission and the Commission for Protection of Competition.

According to the existing Energy Law, the independent power producers have a right to connect to the energy systems for transmission and distribution of individual energy types on the basis of an agreement with the enterprise which manages the appropriate energy system. The content of that agreement is regulated by the Energy Law. The new legal regulations, which are being prepared, will stipulate regulated access of third parties to energy networks in accordance with the EU energy directives (2003/54/EC and 2003/55/EC).

7. What is the structure of electricity and gas markets (ownership, concentration, separation of activities)? What are the main sources of energy? What is the structure of tariffication for transmission/distribution? Who approves tariffs or tariff methodology? Are there cross-subsidies? Are all consumers connected to the distribution network? What is the rate of collection of bills? Is there a regulator in place? What are its competencies, staff and budget? Is there a Transmission System Operator for electricity in place? What are its competencies?

Structure of electricity and gas markets (ownership, concentration, separation of activities)

The Republic of Macedonia signed the Memoranda of Understanding on the Regional Electricity Market in South East Europe and its Integration into the European Union Internal Electricity Market, in 2002 and 2003. Currently, negotiations are underway for signing a Treaty on Energy Community, which is expected to be signed by the EU and countries of SEE in 2005.

According to these documents, the following deadlines for opening the electricity and natural gas market are foreseen (Annex I, Energy Community Treaty):

- From January 1st 2008, all non-household customers;
- From January 1st 2015, all customers.

Electricity

Apart from the Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new), in state ownership, and Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, in state ownership, other entities which participate the electricity market are the customers, which can be “direct customers” - connected to the transmission network and “distribution customers” - connected to the distribution network. According to the Energy Law (“Official Gazette of RM” No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), functions are defined as follows: production, transmission, distribution of electricity, as well as transit and trade. Production, transmission and distribution of electricity are functions of public interest.

The transformation of JSC – EPCM is conducted according to the principles contained in the Directive 2003/54/EC. Pursuant to the Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership (“Official Gazette of RM” No 19/04), see [14 Annex 02](#), the existing JSC – EPCM in state ownership, will be separated into two joint stock companies, as follows:

- Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity, (new), in state ownership; and
- Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System, in state ownership.

The accounting separation of the assets for production, distribution and supply of electricity was completed before the end of 2003.

The legal separation of activities and assets of the transmission system operator was completed on 31.12.2004.

Distribution system operator which will be independent in terms of its organization and decision making is expected to be established during 2005.

Natural gas

The natural gas market in the Republic of Macedonia is considered to have relatively underdeveloped distributional infrastructure.

In the area of natural gas supply there is intensive activity on creating institutional and legislative environment for participation in the future energy market of Southeast Europe and wider. In that sense, appropriate provisions from primary and secondary legislation of European Community are going to be transposed, mainly the EU Directive on natural gas 2003/55/EC, and the provisions from the Energy Charter Treaty, as well as the Protocol on energy transit shall be implemented.

Main sources of energy

Natural Gas sector

Currently, the natural gas sector is supplied through a single transmission pipeline stretching from the border with Bulgaria to Skopje. Only some industries on the territory where this pipeline passes are gasified.

There is an ongoing procedure for determining the ownership rights of the gas pipeline between the Government of the Republic of Macedonia and JSC Makpetrol, and consecutive creation of institutional and legislative environment for operation harmonized with the requirements of the Directive 2003/55/EC.

In addition, a gradual transposition and implementation of certain provisions from primary into secondary legislation will be made and they will be put into practice. The same applies to

harmonisation of provisions from the Energy Charter Treaty, the Protocol on Energy Transit and the Athens Memorandum.

In addition, the increased gas consumption and the increased number of distributional consumers, which are expected as a result of the potential concession projects in preparation, are significant factor for development of this market.

The oil sector

The Oil Refinery JSC OKTA Skopje has a dominant position, especially in production, transport and wholesale, and also operates as a supplier of oil derivatives in the Republic of Macedonia. Besides of this company, JSC Makpetrol also has a strategic position on the market of derivatives. Both companies are dominantly privately-owned.

By signing the Agreement on purchase of shares and on concession in 1999, between the Government of the Republic of Macedonia and the Joint Stock Company EL.P.ET. Balkanike (controlled by Hellenic Petroleum SA and Meton-Etep S.A.), as a Strategic Investor, more than 54,19% of the shares of OKTA were sold, and by that the Strategic Investor became a dominant owner of the Oil Refinery JSC OKTA Skopje. With additional purchase of shares, this percentage increased to a current level of about 69,46%.

Thermal and geothermal sector

Production, distribution and supply of thermal energy for heating are mainly performed in Skopje and, to a lesser extent, in Bitola. The fuel is masut (heavy oil) and natural gas.

Production and supply is performed by privately-owned companies. The owner of the distribution network is the Privatization Agency of the Republic of Macedonia, and the network is leased to these companies.

This sector is completely privately-owned.

Geothermal energy is used for agricultural purposes (heating of greenhouses) in Vinica, Kočani, Gevgelija and Strumica, and in Kočani it is also used for heating of premises in urban environment.

Exploitation, distribution and supply of consumers in Kočani are performed by a public company and to the other systems by privately-owned companies.

The Coal Sector

Coal (lignite) is mostly (around 98,5%) used as a primary fuel for production of electricity in the existing thermal power plants in Bitola and Oslomej. Exploitation and transport of this lignite are treated as part of the production process and are entirely a responsibility of *Joint Stock Company Electric Power Company of Macedonia for Production, Distribution and Supply of Electricity*, (new), in state ownership.

The production of coal for the industry is privatized.

Consumption

The average total consumption of energy in the Republic of Macedonia on an annual level is around 120.000 TJ. Within the primary energy consumption, crude oil participates with 30%, coal with 51,6%, natural gas with 3%, and the remaining approx. 15% are hydro energy, fire-wood and geothermal energy. The total consumption of energy is covered as follows: 60% from domestic production and 40% from import.

Structure of tarification for transmission/distribution

The Energy Regulatory Commission of the Republic of Macedonia prepared a Rulebook on the Method and Conditions for Regulating Electricity Prices ("Official Gazette of RM" No 95/04), see

[14 Annex 08](#), while the new tariff system of electricity is in a preparation procedure and shall be adopted in the first quarter of 2005. Furthermore, the Energy Regulatory Commission shall prescribe and adopt a new Pricing Methodology on natural gas.

Currently, the retail price of individual types of energy is formed according to the Methodology on Pricing of Individual Types of Energy ("Official Gazette of RM" No. 43/98 and 08/01), see [14 Annex 07](#), which incorporates the production price, transport price, trade margin, excise duty, taxes and other special duties.

According to the Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), the Energy Regulatory Commission of the Republic of Macedonia is competent to prescribe a Methodology on pricing of individual energy types, to prescribe tariff systems on individual energy types and to bring decisions on prices of individual energy types.

There are no subsidies in the energy area.

Connection of the consumers to the distribution network

There are direct consumers which are connected to the power transmission system of 110 kV directly, while the following are connected to the distribution network: industrial consumers (35 kV, 20 kV, 10 kV, 6 kV, and I tariff level 0,4 kV), households and others (II tariff level 0,4 kV, public lighting). 100% of distribution consumers in the Republic of Macedonia are connected to the single distribution network.

Collection of bills

According to the data from the *Joint Stock Company Electric Power Company of Macedonia*, the percentage of collection of electricity bills is 85%, and separated by categories of customers is as follows:

- Households 87%;
- Industry 89%, and
- Direct consumers 72%.

Regulatory body, competencies, personnel and budget

The Energy Regulatory Commission of the Republic of Macedonia is an independent legal entity founded by the Law on Amendments to the Energy Law from June 2003 ("Official Gazette of RM" No 94/02 and 38/03).

The members of the Energy Regulatory Commission were appointed on 23.07.2003 by the Assembly of the Republic of Macedonia, upon a proposal by the Government of the Republic of Macedonia. The Energy Regulatory Commission commenced with operations on 01.01.2004.

Competencies

According to Article 11-g of the Energy Law, the Regulatory Commission of the Republic of Macedonia executes the following operations:

- Ensures reliable, continued and quality supply of energy;
- Ensures development of a competitive energy market;
- Prescribes conditions for supply of individual types of energy;
- Prescribes a pricing methodology of individual types of energy;
- Prescribes tariff systems of individual types of energy;
- Decides on the prices of particular types of energy, according to the Pricing Methodology, tariff systems of individual types of energy and other legal regulations;
- Issues, modifies, withdraws licences and monitors license execution for particular activities from the energy area;

- Prescribes rules for connection to energy systems;
- Ensures improved protection of energy consumers' rights;
- Initiates procedure of adopting laws and other regulations from the energy area;
- Participates in resolution of disputes and proposes measures concerning disputes;
- According to its competencies and in a legal procedure, suggests measures to the competent bodies against entities breaching the Energy Law;
- Adopts Rules of Procedure and other acts of the Regulatory Commission; and
- Performs other activities determined by law.

The Energy Regulatory Commission is independent in its operations and decision-making, and at least once a year reports to the Government of the Republic of Macedonia and to the Assembly of the Republic of Macedonia. The Energy Regulatory Commission performs operations from its scope of activity on public sessions, except in cases when confidential information and business secrets are discussed, concerning which the decision is brought by the President of the Regulatory Commission. The sessions of the Regulatory Commission are convoked and presided by the President of the Regulatory Commission. The Regulatory Commission brings decisions with majority of votes of the total number of members and its decisions are published in the Official Gazette of the Republic of Macedonia. Individual acts of the Regulatory Commission may be appealed in front of the Appeals Commission on Energy. The appeal does not postpone the execution of the Decision of the Regulatory Commission. Expert and administrative work of the Appeals Commission is performed by the expert office of the Ministry competent for energy matters.

Personnel

The Energy Regulatory Commission of the Republic of Macedonia currently employs 19 experts, including the members of the Regulatory Commission.

The Regulatory Commission consists of five members. The members and the President of the Regulatory Commission, which is one of the members, are appointed and dissolved by the Assembly of the Republic of Macedonia, upon a proposal of the Government of the Republic of Macedonia. The position of member of the Regulatory Commission is professional.

The term of office of every member of the Regulatory Commission, except for members of the first composition, is five years, and no member may serve more than two terms of office.

The term of office of the appointed members in the first composition of the Regulatory Commission is: for one member - one year; for two members - two years; for three members - three years; for one member - four years; for one member - five years.

The term of office of the members of the Regulatory Commission of the first composition may be extended for no more than five years.

If a member of the Regulatory Commission is dissolved by the Government of the Republic of Macedonia before the end of his term of office, the Assembly of the Republic of Macedonia appoints a new member until the end of the term of office.

Budget

The budget for 2005 is 40 million MKD.

The operation of the Regulatory Commission is financed from own sources provided from fees collected from the total income of energy-related operators and from charges for the issued licenses.

The Regulatory Commission, before October 1st of the ongoing year submits a draft Financial plan of the Regulatory Commission for the following year to the Assembly of the Republic of Macedonia, which contains all revenues and expenditures of the Regulatory Commission, including the salaries of the members of the Regulatory Commission and the employees, as well as the fees of the members of the Appeals Commission and their deputies.

Within the proposed financial plan, and on basis of the planned revenues for the current year of the energy-related companies, the Regulatory Commission determines the fee for the following year by setting an equal percentage of collection of the total actual revenue of the companies, which must be approved by the Assembly of the Republic of Macedonia and can not exceed 0,1% of the total revenue of the companies. The fee, based on the determined percentage and the total actual revenue in the previous year, is paid by the organisation performing energy-related activities in two equal instalments, the first before April 30th, and the second before September 30th of the ongoing year. The unused assets of the Regulatory Commission from the previous year are transferred to the next year and the fee is reduced accordingly.

After the finishing of the first year of the Regulatory Commission's operation and before March 31st of the following year, the President of the Regulatory Commission submits an Annual Report to the Government of the Republic of Macedonia and to the Assembly of the Republic of Macedonia about the operations of the Regulatory Commission, which also includes the material and financial activities of the Regulatory Commission. The Annual Report on the operations of the Regulatory Commission is also submitted to the Ministry competent for energy-related issues and is published in one of the public media.

Transmission system operator for electricity, competencies thereof

In accordance with the Law on Transformation of the Joint Stock Company Electric Power Company of Macedonia for Production, Transmission and Distribution of Electricity in State Ownership ("Official Gazette of RM" No 19/04) since 01.01.2005 a Transmission System Operator - *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, in state ownership, exists.

The legal separation of activities and assets of the transmission system operator was completed on 31.12.2004.

Competencies

The competencies of the Transmission System Operator - *Joint Stock Company MEPSO for Transmission of Electricity and Operation of the Electrical Power System*, in state ownership, and shall be specified in details by the Law on Electricity Market, which is to be adopted in the first half of 2005.

According to the existing regulations, within the planned scope of activities of this company are activities related to: (1) ownership of the transmission and management system, (2) management of the transmission system, and (3) realization of market operations.

8. In the solid fuels sectors, it should be noted that a state aid framework [Council Regulation 1407/2002 of 23 July 2002 published in the Official Journal of the European Communities L 205, page 1] exists for certain categories of coal [Article 2(a) of Council Regulation 1407/2002 defines the categories of coal covered by the state aid regulation as "high-grade, medium-grade and low-grade category A and B coal within the meaning of the international codification system for coal laid down by the United Nations Economic Commission for Europe".] and that other solid fuels having no specific state aid framework (lignite, oil shale, peat etc.) fall directly under the provisions of the Treaty. Does your country produce indigenous coal covered by the state aid framework?

In the Republic of Macedonia neither exist nor are being exploited categories of coal covered by the framework of state aid (Council Regulation (EC) No. 1407/2002 of 23 July 2002, on State aid to the coal industry), which are classified as high-grade, medium-grade and low-grade category A and B coal within the meaning of the international codification system for coal laid down by the United Nations Economic Commission for Europe (International system for codification of medium-grade

and high-grade coal (1998), International classification of coal in seam (1998) and International system of codification for low-grade coal (1999)).

9. In the event that your country produces coal covered by the state aid framework, could you please indicate:

- a) What is your government's position as regards Council Regulation 1407/2002? Could you provide an overview of your current or future modernisation, rationalisation and restructuring plans for coal undertakings (cf. Articles 4 and 5 of the Regulation)? Does your government have or envisage to have a support scheme for capacity reduction? What are the contents of this scheme and what are the social/regional justifications?**
- b) What are the features of State aid in the sector? Are all elements of State aid currently part of the State budget? Is it planned to include all State aid in the State budget?**
- c) Concerning hard coal, what is your government's position on achieving a "coal-free trade area" in accordance with EU competition rules, particularly those related to "vertical agreements" (e.g. agreements with coal procedures and electricity producers)?**

In the Republic of Macedonia neither exist nor are being exploited categories of coal covered by the framework of state aid (Council Regulation No. 1407/2002 of 23 July 2002).

10. With regard to Council Regulation no. 405/2003 of 27 February 2003 [Official Journal of the European Communities, L 62 of 6 March 2003, page 1.] establishing a Community system for monitoring imports of hard coal originating in third countries, is your country in a position to provide the information required by this Regulation?

The Republic of Macedonia imported total of 63.000 tonnes of coal in 2003, of which 2.100 tonnes were for the purposes of steel industry.

For 2004 the planned import was 72.500 tonnes, of which 2.500 tonnes were for the purposes of the steel industry.

11. All solid fuels:

- a) Please provide information on the current and recent levels of production of hard coal and lignite.**
- b) Please provide information on any current State aid schemes for indigenous lignite production as well as on plans for their progressive reduction.**
- c) Where solid fuel industries are subsidised and with a view to restructuring, what are the current and future social plans, including those for adaptation of the labour force, and what are the regional conversion plans (e.g. attraction of new business)?**

The total production of lignite in the Republic of Macedonia is from 7.500.000 to 8.000.000 tonnes per year.

The Law on State Aid ("Official Gazette of RM" No 24/03) defines the terms and conditions for granting and utilizing state aid in all areas of economy, except in the areas of agriculture and fishing. Article 2 of this Law determines that every state aid, no matter whether granted through state aid schemes or as an individual aid, which endangers or threatens to endanger competition through favouring certain companies or certain products is opposed to the provisions of this Law, as long as it can affect the trade between the Republic of Macedonia and the European Community. The aid granted contrary to the provisions of this Law will be returned. The aid for export is incompatible to the provisions of this Law. Furthermore, Article 3 defines that state aid is every aid granted by a state aid donor, in every form, which favours certain companies, certain products or certain services. State aid donor is the Government of the Republic of Macedonia, civil administration bodies, local self-government units or other bodies or institutions which provide or are planning to provide state aid.

There are no special programmes for state aid of the Government of the Republic of Macedonia to the domestic production of lignite. In connection to this, there are no special plans on reduction or withdrawal of this type of aid. According to Chapter IV of the Law on Raw Minerals ("Official Gazette

of RM “ No 18/99 and 29/02), for surveying and exploitation of raw minerals, where lignite is included, a concession is issued and a concession fee for exploitation is paid. By special decisions determining the criteria and amount of the concession fee for performing detailed geological surveys and exploitation of mineral raw materials by the Government (“Official Gazette of RM” No 22/03 and 51/03), the fee is determined to 90.000 MKD/km² per year for use of the space and 3 MKD/tonnes for produced lignite. On the other side, Article 49 of the Law on Concession (“Official Gazette of RM” No 25/02 and 24/03) determines that granting of concessions does not apply to public companies which before the day of the enactment of this Law use goods of public interest, or perform activity related to these goods, until their transformation to limited liability companies or joint stock companies according to the Law on Public Enterprises or their privatization, unless otherwise stated in the law. The lignite mines AD Brik - Berovo and Drimkol-lignite DOO Struga, whose production is intended for industrial and consumer use (around 100.000 tonnes per year), are paying concession fee for exploitation.

The lignite produced in the Republic of Macedonia is almost entirely used for production of electricity. Considering that the thermal power plants (Bitola I, II and III and Oslomej) are located near the existing lignite deposits, opening of other deposits is planned after the existing ones are exhausted, for the purpose of continuity of electricity production. Because of this, there are no larger changes expected regarding the labour force engaged in the production of lignite for the period until 2025.

III. EMERGENCY MEASURES

B. Questions

1. What is the current level of oil stock reserves in your country, calculated according to EC methodology, and how are stocks currently calculated and controlled?

According to the Law on Commodity Reserves (“Official Gazette of RM” No 68/04), see [14 Annex 03](#), the stock reserves of oil derivatives are mandatory stored, kept and renewed by the entities which perform production or trade of oil derivatives thereby complying to the general and specific conditions on trade with oil derivatives in the Republic of Macedonia.

The current level of reserves of oil derivatives within the stock reserves warrants coverage of the consumption in the Republic of Macedonia for 43 days, calculated according to the average daily consumption in the previous calendar year, which is in conformity with the EU methodology.

The Commodity Reserves Bureau controls stock reserves of oil derivatives, and according to the Law on Commodity Reserves, the control can also be entrusted to an entity registered for oil derivatives quantity and quality control.

The State Market Inspectorate and the State Inspectorate for Technical Inspection perform inspection supervision over the stock reserves of oil derivatives.

2. What are the existing or envisaged mechanisms in your country to face a disruption in oil supply and mitigate the effects of such disruption?

In a case of a disrupted or insufficient supply of the market in the Republic of Macedonia with oil derivatives, caused by a state of war, a state of emergency, a natural disaster or another cause, the Government of the Republic of Macedonia decides on the regime of utilization and renewal of oil derivatives within the stock reserves.

According to the Law on Commodity Reserves ("Official Gazette of RM" No 68/04), see [14 Annex 03](#), the quantities of separate types of oil derivatives in the stock reserves should be on a level of daily consumption for at least 90 days, calculated according to the average daily consumption in the previous calendar year. Pursuant to this Law, a mid-term Programme on Commodity Reserves for 2005-2007 was adopted by the Assembly of the Republic of Macedonia ("Official Gazette of RM" No 96/04). The procurement of stocks of oil derivatives, according to the mid-term programme on stock reserves is as follows:

- In 2005, reserves of all types of oil derivatives shall be on a level of daily internal consumption for 46 days;
- In 2007, reserves of all types of oil derivatives shall be on a level of daily internal consumption for 60 days;
- In 2010, reserves of all types of oil derivatives shall be on a level of daily internal consumption for 90 days.

In cases of reduced availability of oil derivatives, in normal or emergency conditions, according to the regulations and documents of the Government, a prioritised, or in cases of difficulties - a reduced supply to preferential and specific consumers of oil derivatives may be performed.

3. With priority given to the constitution of stocks according to paragraph A. above, what would be a realistic timetable to address the above issues (including a timetable to reach 30-60-90 days of stocks) as well as the expected difficulties while implementing the above legislation (financial, legal, setting up of institutions, other)?

According to Article 6 and Article 7 of the Law on Commodity Reserves ("Official Gazette of RM" No 68/04), see [14 Annex 03](#), the Assembly of the Republic of Macedonia, upon a proposal from the Government of the Republic of Macedonia, adopts a mid-term programme which determines the type and quantity of stock reserves. With the mid-term programme for 2005 - 2007, the planned restocking of the oil derivatives' reserves to 60 days coverage of consumption will be reached by the end of 2007, and 90 days coverage of consumption will be reached by the end of 2010, which will be subject of the mid-term programme for the period 2008-2010.

Financial problems may arise during the implementation of restocking of oil derivatives' reserves according to the above-stated schedule, if the planned funds from the Budgets of the Republic of Macedonia in the period between 2005 and 2010 for restocking of oil derivatives' reserves are not provided.

4. What is your government's position on IEA membership and, if appropriate, by what date has such membership been requested or will it be requested?

The Republic of Macedonia has not applied for membership in the International Energy Agency.

The membership in the International Energy Agency is subject to meeting several criteria, among which are the following:

- Creating an energy policy based on sustainability, flexibility and efficiency, in accordance with the rising awareness of the energy impact to the environment, which is a primary goal of the International Energy Agency;
- Incorporation into the global energy context, through sharing and exchange of information regarding the energy sector, coordination of the energy policy and cooperation in the development of energy programmes;
- Accepting the nine common goals of the International Energy Agency, pertaining to:
 - Diversity, efficiency and flexibility within the energy sector;
 - Ability to respond promptly and flexibly to energy emergencies, especially related to oil supply;
 - Environmentally sustainable provision and use of energy with minimum adverse environmental impacts;
 - Use of environmentally acceptable energy sources;

- Improved energy efficiency for promoting environmental protection and energy security;
- Research, development and market deployment of new and improved energy technologies;
- Undistorted energy prices;
- Free and open trade; and
- Cooperation among all energy market participants.

The Government of the Republic of Macedonia shall implement the necessary reforms in the energy sector in the near future. In the meantime, it shall consider the possibilities for meeting the conditions for membership in the OECD and the IEA and submitting an application for membership in these institutions.

5. What is your current legal framework for this area? In the event that your country has a dedicated oil stocks body, what are its tasks, staffing and budget?

In the Republic of Macedonia there is no dedicated authority competent exclusively for oil reserves, but instead, the oil derivatives are integral part of the stock reserves and are under competence of the Commodity Reserves Bureau.

The legal framework which regulates this subject is the Law on Commodity Reserves ("Official Gazette of RM" No 68/04), see [14 Annex 03](#).

The Bureau is a state administration authority within the Ministry of Finance, with a capacity of a legal entity. The Bureau has 24 employees, including 1 official - the Director, 8 civil servants and 15 workers for performing auxiliary tasks (without a status of civil servant). The Bureau is a holder of rights, obligations and responsibilities in the management, utilisation and handling of stock reserves of the Republic of Macedonia. The Bureau is responsible to the Government of the Republic of Macedonia and to the Minister of Finance for its operation.

The Bureau controls the methods of establishing, storing, restocking, utilization, as well as quality and quantity control of the commodities in the stock reserves.

The funds for financing the stock reserves are provided from the Budget of the Republic of Macedonia and from donations. However, in the period since 1999 to date, the Commodity Reserves Bureau has not received any donation.

In the period until 2007, the Budget of the Republic of Macedonia for the Commodity Reserves Bureau will amount up to 395.000.000 MKD on an annual level, including 45.000.000 MKD for salaries, rental fees and charges for goods and services, 250-350.000.000 MKD for provision of oil derivatives and no more than 100.000.000 MKD for the remaining commodities in the stock reserves.

6. Does your Government, in case of IEA membership, have the intention to co-ordinate closely its positions in the IEA with those of the EU/European Commission? What would be your preferred mechanism for such coordination?

In the case of achieving membership in the International Energy Agency, the Republic of Macedonia will coordinate its position in this organisation with the position of the EU / European Commission. Therefore, in the mechanisms, special attention will be paid to the coordination and harmonisation of our energy policy with the policy of EU member states.

IV. ENERGY EFFICIENCY, RENEWABLE ENERGY SOURCES AND ENVIRONMENT

1. Please provide information on current and planned measures promoting energy efficiency and new and renewable energies (nature of measures; budget available, etc.).

Direct and indirect provisions on energy efficiency are incorporated in the Energy Law, the National Strategy on Economic Development and other related laws and regulations.

The Energy Law ("Official Gazette of RM" No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), is a principal legal framework for this sector. This Law determines the national policy on energy which, among other things, emphasizes the importance of: increased use of natural gas as a high priority environmentally friendly fuel; incorporating energy efficiency into the construction standards; separating the funds necessary for realization of energy efficiency projects; identifying the possibilities for efficient energy consumption; adopting measures and activities for realization of the aforementioned activities.

In 1999 the Government of the Republic of Macedonia adopted a Programme on efficient energy use in the Republic of Macedonia until 2020, see [14 Annex 10](#). The preparation of this programme is also a legal obligation stemming from the Energy Law. This Programme determines many measures on increasing the energy efficiency, among which: preparation of a Strategy on energy efficiency in the Republic of Macedonia until 2020; legal and other incentive measures; establishment of a fund for financial support; preparation of investment and technical documentation for realization of concrete projects; realization of concrete projects; preparation of regulations, standards and other acts; informational and educational activities; publications and brochures; international activities.

The initial activity in the Programme is preparation of the Strategy on energy efficiency in the Republic of Macedonia until 2020, see [14 Annex 09](#). The Strategy was prepared in the beginning of 2004, upon an initiative of the Ministry of Economy. It was prepared by the American company Nexant. Inc., in cooperation with national experts, and was adopted by the Government in October 2004.

The strategy includes a number of initiatives, including capacity building, as well as technical activities. Institutional building and capacity building include the following activities: founding of Energy Efficiency Agency; receiving a certificate from energy auditor; energy codes for facilities; equipment standards; founding an Energy Efficiency Fund.

A number of technical programmes which were identified and analysed were included into the implementation plan. Some of the more important initiatives described in the Strategy are: A Programme on housing facilities; a Programme on commercial facilities; a Programme on buildings of public institutions; a Programme on industrial facilities; a Programme on street lighting.

The European Bank for Reconstruction and Development (EBRD) in 1994 provided credit in amount of 4.500.000 EUR for realization of projects for rational energy use, under the following conditions: 10 years of down payment, which includes 2 years of grace period and LIBOR+1 interest rate. The Ministry of Economy, on an open competition, allocated these funds as a loan to 27 economic operators in the country for co-financing of energy efficiency projects, 15 of which for adaptation of energy machines in industrial facilities for natural gas usage.

In the period between 1998 and 2003, through the PSO Programme of the Government of the Netherlands, with a total amount of 3.500.000 EUR, five projects on energy efficiency and exploitation of renewable energy sources were implemented.

Grant funds for preparing a Programme on small hydro plants were provided through the World Bank, in 1998. The programme considers 70 small hydro plants with total installed capacity of 183 MW and annual production of electricity of 700 GWh.

Within the bilateral cooperation of the Republic of Macedonia with the Republic of Austria, the Austrian Government provided grant funds in amount of 400.000 EUR in 1998 for implementation of the project „Geothermal system - Kočani“. This was a successful project and the effects from the operation of this system are visible today. In 1999 the Austrian Government also provided grant funds of 420.000 EUR for realization of the project „Geothermal system - Vinica“.

Renewable sources of energy are subject of many foreign and domestic studies which treat the energy efficiency, too. Three particularly useful studies, developed with foreign financial support, are:

- “Potential of renewable energy sources in the Republic of Macedonia”, Electrotek Concepts and Macedonian Academy of Science and Art, funded by USAID, 1999;
- The report prepared through funding of EU SYNERGY Programme in March 2001: “Energy-related policies in the EU member-states regarding protection of the environment and energy efficiency: Possibilities of their implementation in Macedonia”; and
- EU PHARE programme “Investment options in the energy sector”, prepared by Exergia S.A.

In these studies, among other things, the potentials of renewable sources in the Republic of Macedonia and the energy efficiency potentials are estimated.

In October 2004 the Government of the Republic of Macedonia allocated approximately 65.000 EUR from Swiss Counterpart fund for preparation of a Study on utilizing renewable energy sources in the Republic of Macedonia. This Study shall include analysis of the necessary expenses and the benefits of using the renewable energy sources. In addition, within this Study, an impact assessment of the European legislation in the area of renewable energy will be prepared.

In the period from July 2004 to July 2005, the Project for Preparation of a Programme on renewable energy will be carried out, which shall enable provision of a grant of 5.000.000 USD from the Global Environmental Facility (GEF) through the World Bank as an implementation agency. The basic objective of this Programme is stimulation of investments in energy efficiency and use of renewable energies by removal of institutional and financial barriers. With realization of this programme, a Fund for Sustainable Energy for support of projects on energy efficiency and renewable energy sources will be founded.

Within the cooperation with the Republic of Austria, a decision on grant assistance of about 300.000 EUR for realization of a programme on solar water heaters is expected in the beginning of 2005. The programme envisages a training of professionals on solar energy and a realization of a programme on improvement of technology and production of thermal solar energy equipment and systems, in the period between 2005 and 2007.

Other related laws and regulations

The Law on Local Self-Government (“Official Gazette of RM” No 05/02) transfers the authority to the local government. This Law determines that, among other obligations, the municipalities are authorized for supply of natural gas and thermal energy, protection of the environment and the nature.

The existing law and laws on amending the Law on Construction Activities (“Official Gazette of RM” No 15/90, 11/91, 11/94 and 18/99), do not include specific provisions that require investors or contractors to design and build new buildings in the most energy efficient way. However, in the sections dedicated to the technical documentation needed for construction of a new building, this Law requires the documentation of the project to be prepared according to the standards and norms on construction design brought by the Ministry of Transport and Communications.

The Law on Prescribing Technical Requirements for Products and Conformity Assessment (“Official Gazette of RM” No 55/02) defines the regulations which impose technical requirements onto the

“products”. These technical requests are regulated in a legal form for the purpose of protection and promotion of the environment, as well as protection of consumers and other users of products.

In accordance to the Article 4, Paragraph 2 of this Law, the technical requirements may be adopted and implemented by the Ministry competent for production, trade and usage of appropriate products (including construction of buildings). Therefore, there are no legal obstacles for implementation of provisions on mandatory application of norms and standards which would stimulate efficient energy use in buildings (and other consumers of energy). It is worth mentioning that there are standards on thermal insulation of the buildings, dating from before the disintegration of the former Yugoslavia. However, the implementation of this Rulebook is limited. The current version of this Rulebook on standards regarding techniques of heating and issues related to thermal insulation was published in the Official Gazette No. 32/1999. This Rulebook adopts the appropriate ISO standards and standards from the En-Charter as national standards (ISO 6946, 7345, 9251, 9346, 9229, 1011-1). These standards, however, are mostly related to the method of calculation, and not to the minimal criteria for insulation and in many cases, according to the law, their application is not compulsory.

2. The European Union has adopted legislation with a view to improving energy efficiency, the environment and to promote renewable energy. (E.g.: Directive 93/75/EC to limit carbon dioxide emissions by improving energy efficiency; Directive 96/57/EC on energy labelling of household electric refrigerators, freezers and combinations; Directive 2000/55/EC on energy efficiency requirements for ballasts for fluorescent lighting; Directive 2001/77/EC on the promotion of Renewable Energy Sources in the consumption of electricity; Directive 2002/91/EC on the energy performance of buildings; Directive 2003/30/EC on the promotion of biofuels; Directive 2004/8/EC on the promotion of cogeneration; Directive 2003/96/EC for the taxation of energy products and electricity.)

a) Is there framework legislation in place (an Energy Law)? Does secondary legislation already exist? Which piece of legislation corresponds with which acquis and what is the state of compatibility? Is your country already labelling appliances according to EU acquis? Is the institutional framework in place and operational (National Agency, etc.)? What is its staffing and budget?

b) Has a governmental National Plan or Strategy been adopted to promote renewable energy sources and rational use of energy?

c) Have studies to assess the impact of the European acquis in the field of renewable energy been undertaken?

d) What difficulties do you foresee in the gradual adoption of these EU rules? What timetables for application are there foreseen?

e) In relation to Directive 2001/77/EC and Directive 2003/30/EC on the promotion of Renewable Energy Sources, what is the current situation and what are your ambitions for the contribution of renewable energy sources in electricity production by the years 2010, 2015 and 2020?

(Please use the methodology of the annex of the Directive.)

a)

The existing Energy Law (“Official Gazette of RM“ No 47/97, 40/99, 98/00, 94/02 and 38/03), see [14 Annex 01](#), contains provisions on energy efficiency. Pursuant to these provisions, the Government of the Republic of Macedonia adopts a long-term programme on efficient energy use. For realization of this programme, the Government establishes an Energy Efficiency Fund, which shall be financed by banks and other financial institutions, foreign loans, donations and sponsorships from domestic and foreign legal entities and natural persons.

According to the Programme for Approximation of the National Legislation to the Legislation of the European Union, a new Energy Law is being prepared. The Law shall contain a separate section on the provisions for energy efficiency and exploitation of renewable energy sources, shall be adopted in 2005 and shall be in conformity with the EU Acquis in the area of energy efficiency.

After the adoption of the new Energy Law, secondary legislation is going to be adopted. The secondary legislation will be approximated with the directives from the EU acquis, concerning the

area of rational energy use and energy savings. For the time being, only a Draft-Licence on production of electricity from renewable energy sources, which according to the Energy Law is responsibility of the Energy Regulatory Commission of the Republic of Macedonia, has been prepared.

The new Law on Construction, which is in adoption phase, contains provisions which would impose an obligation to the investor to comply with energy efficiency standards. This draft Law contains provisions according to which the technical documentation needs to define the concept and technical specifications of the construction project, as well as plans for its construction. The new Draft Law on Construction requires compulsory estimation on energy consumption, as one of the criteria contained in the technical documentation.

The Republic of Macedonia still has not introduced labelling of appliances, which shall be introduced with the new Energy Law.

In the Republic of Macedonia there is no related institutional framework in place. An Energy Agency shall be established by separate law, planned for adoption in 2006.

Competences regarding rational use of energy and exploitation of renewable energy sources are responsibilities of the Sector for Energy and Raw Materials within the Ministry of Economy.

b)

In 1999 the Government of the Republic of Macedonia, upon a proposal from the Ministry of Economy, adopted a Programme on efficient energy use in the Republic of Macedonia until 2020, see [14 Annex 10](#). The initial activity of the Programme concerns the preparation of a Strategy on Energy Efficiency of the Republic of Macedonia until 2020, see [14 Annex 09](#), and establishment of a fund for financial support of energy efficiency, which shall enable realization of concrete projects, preparation of investment and technical documentation, publication of brochures and publications etc. Establishment of this fund is also a legal obligation stemming from the Energy Law. The Strategy on Energy Efficiency in the Republic of Macedonia until 2020 was adopted by the Government. A Sustainable Energy Fund is expected to be established, upon receiving of a grant financial support provided by the Global Environmental Facility (GEF).

National Strategy on Economic Development of the Republic of Macedonia, which was initiated by the Government, financed by UNDP and the Government of Austria, and published in December 1997, emphasizes the need for energy efficiency as a key factor for accomplishing the national development objectives. In general terms, this document suggests the necessity of striving towards economic development with minimal consumption of energy, and at the same time the document identifies the positive consequences on the environment resulting from more efficient energy use.

c)

In October 2004 the Government of the Republic of Macedonia allocated approx. 65.000 EUR from Swiss Counterpart fund for preparation of a Study on utilizing renewable energy sources in the Republic of Macedonia. This Study shall include analysis of the costs and benefits from use of renewable energy sources. In addition, within this Study, an impact assessment of the European legislation in the area of renewable energy will be prepared.

d)

Possible difficulties in adoption of the EU rules on energy efficiency and increased use of renewable energy sources could be:

- Amendments to several laws and secondary legislation of the Republic of Macedonia, as well as adoption of new regulations;
- Organizational activities in civil administration and other institutions;
- Financial support for implementation;
- Low prices of energy sources;
- Appropriate education of professionals in various sectors.

It is estimated that overcoming the identified barriers and adoption of EU rules in this area shall take place in the following 10 years.

e)

The Republic of Macedonia has a long-term tradition in exploitation of the hydro potential. Currently, that enables 19% of electricity production to originate from renewable energy sources. The current production of electricity from renewable energy sources is above the national indicated targets of the Directive.

For 2003, production of electricity from renewable energy sources,–or specifically from the hydro potential of the Republic of Macedonia, was $4,9 \times 10^3$ TJ, or 21,6%, and for 2004 it was $4,2 \cdot 10^3$ TJ, or 19%.

It is realistic to expect that the national indicated target of 22% will be accomplished by 2010, then, 25% by 2015, and 27% by 2020. These national indicated targets are justified by the estimates of maximum exploitation of the hydro potential of the country, introducing technologies for exploitation of bio-mass energy as well as bio-gas from water treatment stations.

The Republic of Macedonia so far has kept the pace with the EU requirements regarding the quality requirements of the fuels intended for transport. The Republic of Macedonia currently does not have own production or technology available for biofuels or other renewable fuels which could substitute conventional fuels for transport. Studies on feasibility of such a production and use have not been made. Of course, in accordance with the general efforts for improved environment, there is a high interest for application of biofuels.

3. What is the current status of your country in standardisation bodies active in the energy sector, such as CEN/CENELEC?

The National Technical Committee “Oil and Lubricants” within its scope of activities covers the area of appropriate CEN committees. This Committee follows the work of CEN committees in the respective area. Activities related to joining CEN/CENELEC are ongoing.

4. Concerning the oil sector, do standard forms such as EN-288 (unleaded petrol-automotive fuel), EN-589 (LPG automotive fuel), EN-590 (diesel automotive fuel) exist?

The existing Macedonian standards on quality of liquid fuels (automotive petrol, unleaded automotive petrol, diesel fuel, jet fuel and heating oils) were prepared in 1999 using as a basis existing European standards. Enforcement and application of these standards is regulated by the Rulebook on Quality of Liquid Fuels (“Official Gazette of RM” No 72/03, 85/03 and 23/04), where:

- Content of lead in automotive petrol is:
 - For leaded petrol, 0,15 g.Pb/l (previously 0,6 g.Pb/l)
 - For unleaded petrol, 0,013 g.Pb/l (previously 0,02 g.Pb/l)
- Content of sulphur in diesel fuels is:
 - 0,26% g.Pb/l (previously 0,6 g.Pb/l)

The National Technical Committee on Oil and Lubricants is currently working on translation of texts of the standards: EN-228 2004 and EN-590 2004.

Adoption of these standards, as well as the standard EN-589 2004 on automotive fuels is planned for 2005.

INITIATIVE FOR ADOPTING THE NEW EUROPEAN STANDARDS EN-228 AND EN-590 .

The Technical Committee on producing draft standards “Oil products and lubricants” received an initiative by JSC Makpetrol Skopje for amendments to Macedonian standards: MKS B.H2.210: 1999 on unleaded petrol; and MKS B.H2.410: 1999 on diesel fuel; Or creating and adopting Macedonian standards on Unleaded Automotive Petrol Super 98+ and ECO diesel. At the same time, the group of motor vehicles and spare parts vendors within the Macedonian Economic Chamber submitted an

initiative on adopting the European standards of unleaded and diesel fuels, harmonized with EN and ISO standards.

Based on the above mentioned, the Technical Committee on producing draft standards "Oil products and lubricants" on its session on 28.09.2004 accepted the proposal on adoption of an Annex to the National standard on unleaded petrol super 98. After eventual positive response from competent institutions, a procedure on adoption of this standard is expected to begin.

By adopting the Rulebook on Quality of Liquid Fuels ("Official Gazette of RM" No 72/03, 85/03 and 23/04) the first phase of the strategic recommendations was realized and completed. Currently, there is ongoing implementation of the second phase of the strategic recommendations, which includes:

- Establishing an independent laboratory for fuel quality testing;
- Appointing a competent institution on monitoring the quality of fuels and preparing a national system on systematic supervision on the fuel data;
- Adopting legal acts (secondary legislation) on the Law on accreditation of laboratories for fuel quality control;
- Specifying a specific deadline for elimination of leaded petrol;
- Technical Committee on Standardization should prepare new Macedonian standards which shall apply only to unleaded petrol, and shall include all new requirements from EU Directives;
- Preparation of Rulebook which shall enforce the new Macedonian standards on petrol, and shall apply only to unleaded petrol; and
- Preparation of a strategy on communication and a campaign for raising the public awareness, for the purpose of informing all relevant organizations about the prohibition date of leaded petrol, which will satisfy the requirements of the Directive 98/70/EC on quality of automotive fuel and diesel fuels.

This phase will be completed before 01.01.2006 in accordance with the Basic plan on elimination of lead from the petrol, adopted in 2003 as a result of the project "Strengthening the capacity of the Ministry of Environment and Physical Planning", PHARE programme SOP 99.

For the time being, sampling for examination of the quality of liquid fuels and methods for determining limit values by a Rulebook are performed according to Macedonian standards on liquid fuels, as follows:

1. Liquid fuels-Automotive fuel			
MKS B.H2. 220			
Characteristics	Unit	Limit value	
		minimum	maximum
density at 15 °C	g/ml	0,730	0,780
distillation:			
below 70 °C distils	% v/v	15	45
below 100 °C distils	% v/v	40	65
below 180 °C distils	% v/v	85	
end of distillation	°C		215
RON			
- by research method		96	
- by motor method		86	
content of lead	g/l		0,15
content of sulphur	% m/m		0,05
colour		blue	

2. Liquid fuels-Unleaded Automotive Fuel					
MKS B.H2. 210					
Characteristics	Unit	Limit value			
		Unl.petrol-		Unl.petrol-	
		minimum	maximum	minimum	maximum
density at 15 °C	g/ml	0,730	0,780	0,730	0,780
distillation:					
below 70 °C distils	% v/v	15	45	15	45

below 100 °C distils	% v/v	40	65	40	65
below 180 °C distils	% v/v	85		85	
end of distillation	°C		215		215
RON					
- by research method		90		95	
- by motor method		80		85	
content of lead	g/l		0,013		0,013
content of sulphur	% m/m		0,05		0,05
colour		green		uncoloured	

3. Liquid fuels - Automotive Diesel Fuel				
MKS B.H2. 410				
Characteristics	Unit	Limit value		
		minimum	maximum	
density at 15 °C	g/ml	0,820		0,860
distillation:				
below 250 °C distils	% v/v			65
below 350 °C distils	% v/v	85		
below 370 °C distils	% v/v	95		
filterability , CFPP ⁵⁾				
in winter period	°C			-15
in fall period	°C			- 7
in summer period	°C			- 2
Cetin number		49		
content of sulphur	% m/m			0,20
ignition point	°C	55		

4. Liquid fuels - Jet Engine Fuel				
MKS B.H2. 331				
type 1 (GM-1)				
Characteristics	Unit	Limit value		
		minimum	maximum	
density at 15 °C	g/ml	0,775		0,840
distillation:				
10% v/v distils at	°C			205
end of distillation	°C			300
flaming point, closed container	°C	38		
freezing point	°C			- 47
visual appearance	clear and	transparent		

5. Liquid fuels - Heating oils							
MKS B.H2. 430							
Characteristics	Unit	Limit		value			
		EL		M - 1		M - 2	
		min.	max.	min.	max.	min.	max.
density at 15 °C	g/ml		0,860				
flaming point, closed container	°C	55		80		100	
content of sulphur	% m/m		0,3		2		3
viscosity at 100 °C	mm ² /s				28		50
colour			red				

5. Do any regulations on emissions from route and non-route vehicles exist?

In the Republic of Macedonia since 02.11.2000, when the Order on mandatory testing (homologation) of wheeled vehicles, equipment and parts for motor vehicles ("Official Gazette of RM"

⁵ The period between December 1st and February 28th(29th) is considered as winter period, between April 16th and September 30th as summer period. Periods between October 1st and November 30th and between March 1st and April 15th are fall periods.

No 84/01, 21/02, 31/02, 52/02, 26/04 and 35/04) was adopted, the issue related to emissions from route vehicles is completely regulated.

In the following table (which is contained in the Order), rulebooks are related to emission of gases from route vehicles. ECE rulebooks, which are harmonized with appropriate EEC directives of EU, are indicated.

Contents of the rulebook	ECE Rulebook number	Appropriate basic EEC directive	Appropriate required EEC directive	Enforced for standard homologation	Enforced for new vehicles	Enforced for second-hand vehicles	Category of vehicles according to EEC
Emission of gases from engine	R 15/04			27.08.1976	27.08.1976	27.08.1976	M1, N1
Emission of gases from diesel engines	R 49/01 R 49/02	88/77	91/542,96/1	05.01.1985 01.10.1998	05.01.1985 01.10.1998	05.01.1985 01.10.1998	M,N
Emission of gases from petrol and diesel engines	R 83/02 R 83/03 R 83/04	70/220	93/59 94/12 96/44 96/69	01.10.2001 01.10.2002	01.10.2001 01.10.2004	01.10.2001 01.10.2005	M1,N1

6. Could information be given on compliance with EU standards in other energy sub-sectors?

Currently, valid Macedonian standards from the other energy sub-sectors are still not harmonised with the European norms from the corresponding area.

A preliminary assessment of the correspondence of the standards which are valid in the Republic of Macedonia (MKS) and the equivalent CEN / CENELEC standards is in progress. Comparative tables on the numbers of corresponding standards in individual energy sub-sectors are given below.

MAIN GROUPS OF MKS STANDARDS WHICH CORRESPOND TO CEN CLASSIFICATIONS ICS27 ⁶			
Main groups of MKS standards	number of standards	CEN ICS27 standards	number of standards
/	/	27.010 Energy and heat transfer engineering	1
M.F. Machines for transformation of energy	4	27.020 Internal combustion engines	12
P.J. Steam engines	1	27.040 Gas and steam turbines. Steam engines	42
M.F. , M.E Thermal energy machines and pressure containers	38	27.060 Burners. Boilers	59
/	/	27.080 Heat pumps	17
N.C. Electricity conductors	1	27.100 Power stations in general	48
/	/	27.140 Hydro energy engineering	1
M.F. Machines for transformation of energy	3	27.160 Solar energy engineering	8
/	/	27.180 Wind turbines and other alternative energy sources	1
M.E. , M.B. Nuts, bolts and other connection elements	24	27.200 Refrigerating technology	28
/	/	27.220 Heat recovery. Thermal insulation	2
TOTAL	71		219
MAIN GROUPS OF MKS STANDARDS WHICH CORRESPOND TO CEN CLASSIFICATIONS ICS75 ⁷			
Main groups of MKS standards	number of standards	CEN ICS75 standards	number of standards

⁶ ICS27 Energy and heat transfer engineering

⁷ ICS75 Petroleum and related technologies

B.A. Basic and general standards for the sector of mining and processing of petroleum and coal	2	75.020 Extraction and processing of petroleum and natural gas	2
B.H Solid mineral fuels. Petroleum, bitumen, earth gas, wax and products thereof	2	75.040 Crude petroleum	3
B.F. Gases	19	75.060 Natural gas	16
B.H.	45	75.080 Petroleum products in general	47
B.H.	49	75.100 Lubricants, industrial oils and related products	10
H.Z. Various standards from the chemical industry	22	75.120 Hydraulic fluids	8
B.H.	23	75.140. Waxes, bituminous materials and other petroleum products	50
B.H. , D.B. Products of forest exploitation	53	75.160. Fuels	54
B.H. , B.A. Basic and general standards for the sector of mining and processing of raw minerals, petroleum and coal M.J. Special machines, devices and other metalwork for mining	19	75.180. Equipment for petroleum and natural gas industries	67
B.H.	11	75.200. Petroleum products and natural gas handling equipment	34
TOTAL	245		291

MAIN GROUPS OF MKS STANDARDS ON PRODUCTION, TRANSMISSION, DISTRIBUTION AND SUPPLY OF ELECTRICITY WHICH CORRESPOND TO CEN AND CENELEC CLASSIFICATIONS			
Main groups of MKS standards	number of standards	CENELEC Technical committees	number of standards
N.A Basic and general standards on electrical engineering	53	Electrical engineering in general 29.020 CEN ICS	26
TOTAL	53		26
N.B Production, transmission and distribution of electricity	72	TC 8X	3
		TC 11 *	7
		TC 20 *	104
		TC 97	5
		TC 99X	1
		TC 213	13
		TC 218	1
		BTTF 62-3	2
TOTAL	72		136
N.C. Electricity conductors	117	TC 11 *	7
		TC 20 *	104
		TC 64	34
		TC 106X	9
TOTAL	117		154
N.E. Materials for electrical installations	113	TC 17A *	13
		TC 17B *	39
		TC 17C *	12

		TC 17D *	11
		TC 20 *	104
		TC 23B *	8
		TC 23E *	13
TOTAL	113		200

Main groups of MKS standards	number of standards	CENELEC Technical committees	number of standards
N.F. Materials for electrical conductors	49	TC 17A *	13
		TC 17B *	39
		TC 17C *	12
		TC 17D *	11
		TC 20 *	104
		TC 36A	8
TOTAL	49		187
N.G. Electrical rotating machines	10	TC 2	64
		TC 88	5
TOTAL	10		69
N.H. Transformers, reactors and converters	46	TC 13	26
		TC 14	36
		TC 38X	10
TOTAL	46		72
N.K. Switch	18	TC 17A *	13
		TC 17B *	39
		TC 17C *	12
		TC 17D *	11
		TC 23B *	8
		TC 23E *	13
TOTAL	18		96
TOTAL NUMBER OF STANDARDS	478		451
* Standards from the corresponding Technical Committee (TC) of CENELEC include more than one group of MKS standards			

Considering that the MKS classification of standards is not identical to the EN classification, one MKS standard may be equivalent to more than one EN standard.

The process of harmonisation of the legislation in this area in the Republic of Macedonia, as well as the needs of industry and consumers will determine the schedule of adoption of the European Standards. Having this in mind, the Standardisation Institute of the Republic of Macedonia commenced activities for preparation of bases for planned adoption of the European standards as Macedonian.

7. Please provide information on energy technology and other programmes aiming at promoting energy efficiency and renewables. Could details of these programmes be provided, including the level of public subsidies?

The Strategy on energy efficiency, among other things, incorporates determination for realization of projects with new technological solutions on energy efficiency.

Project for Preparation of a Programme on renewable energy (2004-2005) financed by the Global Environmental Facility (GEF), through the World Bank as an implementation agency, (350.000 USD), for establishing a Fund for Sustainable Energy and Body for Project Development Assistance. The basic aim of this project is promotion of energy efficiency and use of renewable energy resources through financial support of new technologies and economically justified projects from this area.

Project "Solar Water Heaters" (2005-2007), which is expected to be approved for financing by the Austrian Government in the beginning of 2005, (about 300.000 EUR) for training of professionals in solar energy and improvement of the technology of production, evaluation of the available technology and energy characteristics of the existing solar cells and their production, as well as development of knowledge and technology of the production of solar cells and tanks.

A Programme on Efficient Distribution of Energy (2004-2005) financed by the Swiss Government, (12.100.000 CHF), divided into four components, the third being a promotion of energy efficiency, (250.000 CHF). This component provides for preparation and conducting of a survey, processing and analyzing of data, providing recommendations for realization of concrete projects for increasing energy efficiency, and project implementation.

Feasibility study on construction of a cogeneration gas plant 184-237 MWe + 134-177 MWth (2004), financed by a Japanese grant through the World Bank. The aim of the study is evaluation of economical feasibility of constructing cogeneration gas plant in Skopje, and helping to find a strategic investor; selection of a consultant for preparation of tender documentation for realization of the cogeneration plant. With this cogeneration plant, a new technological process of production of electricity and thermal energy will be introduced.

Funds of 750.000 USD are provided from the Global Environmental Facility (GEF) through the World Bank, for co-financing of five small hydro power plants with total installed capacity of 1,37 MW and annual electricity production of 11 GWh.

With the realization of the project "Geothermal system - Kočani", a new geothermal well for exploitation of low-temperature geothermal water for heating of greenhouses, public and business premises was built. For the purpose of rational exploitation of the spring, a modern electronic monitoring system for regulation and a system for waste water re-injection were built. For the purpose of greater exploitation of the geothermal water for heating, a connection of households to the distribution hot water network in the city of Kočani is planned for the near future.

Within the framework of the project "Geothermal system – Vinica" the following primary goals were achieved: sustainability of the geothermal water production, optimization of the transmission and distribution system, and adaptation of greenhouses to new achievements in heating technology.

Within the PSO Programme of the Dutch Government in the period between 1998 and 2003 the following five projects on energy efficiency and exploitation of the renewable energy sources were implemented:

- *Energy savings in the factory Evropa AD-Skopje*, by converting the heating system from hot-water to steam, optimizing the steam system and introducing a new production line (of caramels) with greater energy efficiency. By completing the whole project, savings of energy consumption in the production process of the company were achieved;
- *Exploitation of biomass for energy purposes in the factory Lozar AD-Veles*, which accomplished the primary aim for heating the company's greenhouses by exploitation of waste vine branches as a renewable energy resource. The realization of the project enabled the greenhouse boiler room in the company Lozar AD- Veles to be equipped with a new

system for incineration of vine branches, which replaced the old system which used heavy oil as a fuel. This project enabled replacement of the fossil fuels with another energy source - biomass (vine branches), which contributes to increased energy efficiency and decreased pollution of the air, and in the future much larger positive energy and environmental effects may be expected;

- *Alternative energy source for Teteks AD-Tetovo, which contributes to reduction of environmental pollution*, enabling the company “Teteks” AD Tetovo to replace the old coal boilers with new, which use heavy oil for a fuel, with a final purpose of their adaptation to natural gas when it will be available, which shall contribute to decreased pollution of the air and soil, and in future much larger positive energy and environmental effects will be achieved,
- *Upgrade of the process of powder enamelling in boiler production (for sanitary hot water) in the company Leov Company-Veles*, by setting up a complete section for powder enamelling of boilers which satisfies the environmental regulations for enamelling. The environmentally clean technology itself enables energy savings in the production process as well as increased energy efficiency of the final product; and
- *Market-oriented upgrade of the valves and fittings production programme in MZT, Macedonia*, which achieved the primary objective for energy efficient and environmentally friendly production of castings (valves and fittings) in MZT - Skopje. This project enabled painting of the castings in MZT with epoxy pitch instead of bitumen, which achieved positive environmental effects in the production process. The final product has a high-grade insulation and corrosion protection, which makes it an ecology product by itself.

V. NUCLEAR ISSUES

A. Nuclear energy

1. Please submit any nuclear policy papers/statements/declarations made by your government regarding the peaceful utilisation of nuclear energy in your country. Please submit your government’s plans for the present and the future regarding nuclear energy, including the financing aspect.

The Government currently has no plans or declarations for utilisation of nuclear energy, except for use of radio-isotopes in medicine and industry.

2. Please provide information on the structure of the National Regulatory Authority (NRA) (if any). Please provide the following information in detail:

- a) the legal framework of the NRA;
- b) the powers of the NRA concerning nuclear safety, the licensing of operating and/or new nuclear facilities, including fuel and waste treatment facilities, implementation of nuclear safeguards;
- c) the structure and responsibilities of the various departments of the NRA;
- d) the degree of autonomy and independence of the NRA, method of appointment and reporting relationship of the officers of the NRA.

The Republic of Macedonia has no National Regulatory Authority on nuclear safety. According to the Law on Ionizing Radiation Protection and Safety (“Official Gazette of RM” No 48/02), see [14 Annex 04](#), establishing of a Directorate for Radiation Safety is in process. This activity shall be completed in 2005.

3. What provisions are related to nuclear safety? Are there specific authorities dealing with the matter? Does your country use/apply the IAEA/NUSS codes and standards?

The Law on Ionizing Radiation Protection and Safety ("Official Gazette of RM" No 48/02), does not contain separate provisions which are related to nuclear safety, except for the general provisions on protection from ionizing radiation, the reason being that the Republic of Macedonia has neither nuclear plants nor facilities nor nuclear material on its territory.

The Republic of Macedonia does not have a separate authority for nuclear safety for the same reasons stated above. IAEA standards on nuclear safety are not used in the Republic of Macedonia, except for the International Basic Safety Standards (BSS) from 1994 publicised by IAEA.

4. Regarding the supply of fuel:

i) Who in your country can buy, own and sell nuclear material?

ii) Who in your country can physically hold nuclear material?

iii) With regard to the fuel used in your reactors, which country/countries is/are the source of enrichment services?

In the Republic of Macedonia there are no nuclear reactors - neither for research nor for energy production, therefore no nuclear fuel is used, meaning that Macedonia does not import nuclear fuel.

According to the existing legislation of the Republic of Macedonia, no authorizations on buying, owning and selling of nuclear material are given, and no authorization on physical handling of nuclear material is given.

5. Please describe what is your country's policy regarding import, export and trade of nuclear equipment, nuclear materials, new and irradiated nuclear fuel. Please give details of any national authorities responsible for controlling and/or monitoring such trade.

There are no provisions concerning import, export and trade of nuclear equipment, nuclear materials, new and irradiated nuclear fuel, in the existing legislation of the Republic of Macedonia.

6. What is the existing and planned capacity for storing nuclear waste?

The Republic of Macedonia has no capacities for storing nuclear waste, and no storage of nuclear waste is planned for the future.

7. What are your country's nuclear research activities (existing/planned)? In case your country has research reactors, of which type are they and which nuclear fuel do they use?

In the Republic of Macedonia there are no nuclear research activities, nor research reactors, and their construction is not planned; therefore no nuclear fuel for research is used.

B. International commitments (nuclear energy, radiation protection and safeguards)

1. Please provide the Commission with the texts of your international agreements and conventions on cooperation in the field of nuclear energy and radiation protection with other countries (in one of the official EU languages).

The Republic of Macedonia hasn't signed any international agreements and conventions on cooperation in the field of nuclear energy and radiation protection with other countries.

2. Please provide the Commission with the list of IAEA conventions to which your country is party as well as the corresponding national legislation aiming to enforce these conventions in the national legal order.

The Republic of Macedonia has joined the following conventions and other documents of the International Atomic Energy Agency (IAEA):

- Statute of the IAEA - the Statute was published in the "Official Gazette of the SFRY" No 01/58. The Statute was adopted in February 1994 by succession, and was enforced on 17.09.1991.
- Convention on Early Notification of a Nuclear Accident - the Convention was ratified with a Law on Ratification, and was published in the "Official Gazette of the SFRY" No 15/89. The Convention was adopted on 20.09.1996 by succession, and was enforced on 17.11.1991.
- Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency - the Convention was ratified with a Law on Ratification, and was published in the "Official Gazette of the SFRY" No 04/91. The Convention was adopted on 20.09.1996 by succession, and enforced on 17.11.1991.
- Convention on the Physical Protection of Nuclear Material - the Convention was ratified with a Law on Ratification, and was published in the "Official Gazette of the SFRY" No 09/85. The Convention was adopted on 20.09.1996 by succession, and was enforced on 17.11.1991.
- Vienna Convention on Civil Liability for Nuclear Damage. - the Convention was ratified with a Law on Ratification, and was published in the "Official Gazette of the SFRY" No 05/77. The Convention was adopted on 08.04.1994 by succession, and was enforced on 08.09.1991.
- Treaty on the Non-Proliferation of Nuclear Weapons - the Treaty was ratified with a Law on Ratification, and was published in the "Official Gazette of the SFRY" No 10/70. The Treaty was adopted on 30.03.1995 by succession, and was enforced on 17.11.1991.
- Agreement for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons, which was ratified on 23.01.2002 and published in the "Official Gazette of RM" No 13/02, see [14 Annex 06](#). The Agreement was enforced on 16.04.2002. The Small Quantities Protocol, which is signed by all countries that do not have nuclear weapons available, was signed together with the Agreement.
- Law on Liability for Nuclear Damage ("Official Gazette of the SFRY" No 22/78) and the Law on Amending the Law on Liability for Nuclear Damage ("Official Gazette of the SFRY" No 34/79) , see [14 Annex 05](#).

According to Article 68, Line 6 of the Constitution of the Republic of Macedonia, the Assembly of the Republic of Macedonia ratifies the international agreements of the Republic of Macedonia with law. After the ratification, the international agreements became part of the internal legislation and can not be amended by law. Consequently, by the act of ratification itself, the conventions became a part of the internal legal order and there is no need of adopting special acts of their implementation into the legislation.

In Annex is the text of the Law on Ionizing Radiation Protection and Safety ("Official Gazette of RM" No. 48/02), see [14 Annex 04](#).

3. Given that your country is party to the Treaty for the Non-Proliferation of Nuclear Weapons, does it have a full-scope safeguards agreement in force with the IAEA? If so, please send a copy. If not, will there be such an agreement in force in the near future?

The Republic of Macedonia signed the Treaty on the Non-Proliferation of Nuclear Weapons. In accordance with Article III (4) of this Treaty, on 21.03.2002 the Agreement for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons was signed. The Agreement was ratified on 23.01.2002 and published in the "Official Gazette of RM" No 13/02, see [14 Annex 06](#). The Agreement was enforced on 16.04.2002. The Small Quantities Protocol, which is signed by all countries that do not have nuclear weapons available, was signed together with the Agreement.

4. Is your country a member of the Nuclear Suppliers Group (NSG)? Does it have national legislation to enforce the guidelines of the NSG and the capability to maintain the necessary controls?

The Republic of Macedonia is not a member of the Nuclear Suppliers Group (NSG). Law on Ionizing Radiation Protection and Safety ("Official Gazette of RM" No 48/02), see [14 Annex 04](#), has been adopted and harmonized with the international Basic Safety Standards (BSS), which enables implementation of NSG guidelines and the necessary control in the country.

5. Has your country signed a Protocol Additional to the Safeguards Agreement on the basis of the document published as INFCIRC/540 and, if yes, since when is this Protocol in force?

The Ministry of Foreign Affairs initiated a procedure with other ministries for signing the Protocol Additional to the Safeguards Agreement, based on the document published as INFCIRC/540, in order the procedure to be completed in the second half of 2005.

6. Has your country made a voluntary offer to the International Atomic Energy Agency concerning extended reporting on movements of nuclear materials and equipment, pursuant to IAEA document GOV/2929 of 22.1.1993? If so, please provide a copy.

The Republic of Macedonia has not made an offer to the International Atomic Energy Agency concerning extended reporting on movements of nuclear materials and equipment, pursuant to the IAEA document GOV/2929 of 22.01.1993.

7. What is the position of your country regarding third party nuclear liability (the Vienna Convention and the Paris Protocol)? Please give a progress report regarding the ratification process.

The Vienna Convention on Civil Liability for Nuclear Damage was ratified with the Law on Ratification ("Official Gazette of the SFRY" No 05/77). The Convention was adopted on 08.04.1994 and enforced by succession on 08.09.1991.

The position of the Government of the Republic of Macedonia is to support efforts for locating direct liability for nuclear damages. The Republic of Macedonia is not a member of the Paris Protocol, but considers that conditions for entering this Protocol have been already met.

8. Does your country follow the 1994 International Basic Safety Standards (BSS) edited by the IAEA?

The Republic of Macedonia fully complies with the International Basic Safety Standards (BSS) published by IAEA in 1994. In 2002 the new Law on Ionizing Radiation Protection and Safety ("Official Gazette of RM" No 48/02) was adopted. It was previously verified by the legal department of IAEA. Based on Article 3 of that Law, there is an ongoing procedure for establishment of an independent Directorate for Radiation Safety. This activity shall be completed in 2005.

With the expert assistance from IAEA:

1. Three rulebooks have been drafted so far:
 - Draft Rulebook for Limitation of Exposure to Ionizing Radiation, Conditions for Exposure in Special Circumstances and Carrying out Interventions in Emergency Cases, see [22 Annex 21](#);
 - Draft Rulebook for the Conditions and Measures for Protection against Ionizing Radiation for Performing Works with Radioactive Sources, see [22 Annex 22](#); and
 - Rulebook on Conditions and Measures for Protection against Ionizing Radiation in Operation of X-ray Apparatuses, Accelerators and other Devices arising from Ionizing Radiation, see [22 Annex 23](#).

2. Country Programme Framework was developed (CPF), see [14 Annex 11](#), based on which national projects from the field of radiation protection for building capacities and human resources for implementation of BSS are being conducted.

9. Is your country a member of the Nuclear Energy Agency of the OECD or if not, does it intend to become member?

The Republic of Macedonia is not a member of the Nuclear Energy Agency of the OECD, and for now, there is no intention on becoming a member.

C. Safeguards

1. Please provide the Commission with the texts of the international agreements and conventions that have been concluded with third countries or international organisations in the field of nuclear material supply, accountancy and safeguards.

The Republic of Macedonia has not concluded any international agreements and conventions with third countries or international organisations on cooperation in the field of nuclear material supply, accountancy and safeguards.

2. Please provide the Commission with texts of national legislation and policy in the field of nuclear material supply, accountancy and safeguards.

In the Republic of Macedonia there is no legislation in the field of nuclear material supply, accountancy and safeguards. According to the Spatial Plan of the Republic of Macedonia, adopted by the Assembly of the Republic of Macedonia ("Official Gazette of RM" No 39/04), in the section on energy sources and energy infrastructure, there is no planned construction of nuclear facility for production of electricity or other facility which would use nuclear material, on the territory of the Republic of Macedonia.

3. Does your country envisage any regulatory problems in adapting its legislation to ensure that it conforms to the provisions of chapter VII of Euratom as regards the implementation of Euratom safeguards in all nuclear installations on its territory?

The Republic of Macedonia does not envisage any regulatory problems in adapting the national legislation to conform to the provisions of chapter VII of Euratom as regards the implementation of safeguards, having in mind that there are no nuclear facilities in the country.

4. Please provide information for all major nuclear sites and installations in your country on their activities, processes, throughputs and inventories of Uranium, Plutonium and Thorium.

On the territory of the Republic of Macedonia there are no nuclear sites or installations.

5. Please provide information on any future plans or projects for installations storing, handling or processing Uranium, Plutonium and Thorium.

In the Republic of Macedonia there are neither plans nor future projects for installations storing, handling or processing Uranium, Plutonium and Thorium.

6. Please provide information on components and equipment related to the nuclear fuel cycle present in your country that are subject to any agreement or convention concluded with third countries or international organisations.

There are no components and equipment related to the nuclear fuel cycle present in the Republic of Macedonia, therefore there are no agreements or conventions concluded with third countries or international organisations.

7. Does your country participate in any fusion research programme that involves the use of Tritium and who are the suppliers of this Tritium?

The Republic of Macedonia does not participate in any fusion research programme that involves the use of Tritium; therefore there is no need for supply of Tritium.

8. Does your country envisage any problems in suspending the existing Safeguards Agreement between your country and the IAEA and adhering to the Agreement INFCIRC/193 between the Community, the IAEA and the non-nuclear weapon Member States of the European Union? Please answer the same question concerning the Protocol Additional to the Safeguards Agreement between your country and the IAEA.

The Republic of Macedonia does not envisage any problems in suspending the existing Safeguards Agreement with the IAEA and adhering to the Agreement INFCIRC/193 between the Community, the IAEA and the non-nuclear weapon Member States of the European Union.

In addition, the Republic of Macedonia does not envisage any problems in suspending the Protocol Additional to the Safeguards Agreement between the Republic of Macedonia and the IAEA.