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Western Balkans: Employment in the Gas and Electricity Sectors

The report was drafted by an expert team of the Vienna Institute for International Economic Studies (wiiw) consisting of Vasily Astrov, Edward Christie, Doris Hanzl-Weiss, Mario Holzner, Sebastian Leitner, Waltraut Urban and Hermine Vidovic. The authors drew upon background material and interviews conducted among the main stakeholders of the electricity and gas sectors in the Western Balkan contracting parties by a team of local experts: Arsena Gjipali, University of Tirana, Albania; Samra Prasovic, Centre for Economic, Technological and Environmental Development, Sarajevo, Bosnia and Herzegovina; Zoran Kisic and Nenad Balazin, Ekonerg, Institute of Energy Research and Environment Protection Ltd., Zagreb, Croatia; Avdullah Hoti, University of Prishtina, Kosovo; Silvana Mojsovska, University St. Cyril and Methodius, Skopje, Macedonia; Vojin Golubovic, Institute for Strategic Studies and Prognosis, Podgorica, Montenegro; Dusan Pavlovic, Faculty of Political Science, University of Belgrade, Serbia.

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Acronyms

ACER	Agency for the Cooperation of Energy Regulators
BD	Brcko District
BiH	Bosnia and Herzegovina
CCHP	Combined cooling, heating and power production
CEER	Council of the European Energy Regulators
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
DSO	Distribution System Operator
Easee-gas	European Association for the Streamlining of Energy Exchanges-Gas
EBRD	European Bank for Reconstruction and Development
ECC	Energy and Climate Change Committee (Croatia)
ECRB	Energy Community Regulatory Board
ECT	Energy Community Treaty
EE	Energy efficiency
EIHP	Energetski Institut Hrvoje Požar (Energy Institute Hrvoje Požar) www.eihp.hr
ELEM	Macedonian Power Plants
EMCEF	European Mine, Chemical and Energy Workers Federation
EPBiH	Elekroprivreda BiH – Electricity company of BiH
EPCG	Montenegrin Electric Enterprise
EPHZHB	Elekroprivreda Hrvatske Zajednice Herceg Bosne
EPRS	Elektroprivreda Republike Srpske – Electricity Company of Republika Srpska
EPS	Electric power industry of Serbia
EPSU	European Federation of Public Service Unions
ERGEG	European Regulators Group for Electricity and Gas
ESC	Economic and Social Council
ESCO	Energy service company
ETSO	European Transmission System Operators Organisation
ETSO-E	European network of transmission system operators for electricity (as of July 2009; 6 predecessor associations: ATSOI, BALTSO, ETSO, NORDEL, UCTE, UKTSOA)
Eurelectric	Association of the electricity industry in Europe
EVN	Energieversorgung Niederösterreich (Austria)
FBiH	Federation of Bosnia and Herzegovina (entity level)
FDI	Foreign Direct Investment
HROTE	Croatian Energy Market Operator www.hrote.hr
HEP	Hrvatska Elektroprivreda – Croatian Electricity Company
HPP	Hydro Power Plant
IEA	International Energy Agency
ILO	International Labour Organization
ITC	Inter TSO Compensation

KEK	Kosovo Energy Corporation
KESH	Albanian Power Corporation
LFS	Labour Force Survey
MLSW	Ministry of Labour and Social Welfare (Kosovo under UNSCR 1244/99)
MOL	Hungarian oil and gas company
LNG	Liquefied natural gas
M&As	Mergers and acquisitions
MO	Market Operator
NACE	Nomenclature générale des Activités économiques dans les Communautés Européennes
NHS	Independent Croatian Trade Union (Croatia)
NLC	National Labour Council (Albania)
NMS	New EU Member States
OECD	Organizaton for Economic Cooperation and Development
OSSH	Operator of distribution of electricity to the consumers (Albania)
OTC	Over The Counter – bilateral trading directly between parties
RA	Regulatory Authority
RES	Renewable Energy Sources
RS	Republika Srpska (entity level)
SAP	Social Action Plan
SEE CAO	South East European Coordinated Auction Office (to be operational in 2011)
TSO	Transmission System Operator
TPP	Thermal Power Plant
UCTE	Union for the Co-ordination of Transmission of Electricity
UNDP	United Nations Development Programme
UNMIK	United Nations Mission in Kosovo
UNSCR	United Nations Security Council Resolution
UGS	Underground Gas Storage
USAID	United States Agency for International Development
WBC	Western Balkan countries

Executive summary

The gas and electricity sectors of the Western Balkan contracting parties are characterized by largely outdated infrastructure which has not been properly maintained and in addition was badly damaged during the wars in the 1990s. Also, the efficiency of both sectors is rather low, and the risk of technical failures is sizeable. Domestic gas markets are generally under-developed, while Albania, Montenegro and Kosovo (under UNSCR 1244/99) are not gasified at all. On average, natural gas is a much less important source of energy than e.g. coal (largely lignite) and oil. Still, the Western Balkans are heavily dependent on imports of natural gas from outside the region, in particular Russia; this dependence will grow further as local gas production is projected to decrease. In four countries of the region – Serbia, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Kosovo – lignite-fired thermal power plants are the main source of electricity; by contrast, in Croatia, Montenegro and Albania, the bulk of electricity is generated from hydropower. None of the countries examined are currently operating nuclear power plants; in turn, the future development of their coal sector is likely to be constrained by the EU emission targets. The high losses in transformation, transmission and distribution result in low reliability of electricity supply and occasional electricity shortages, first of all in Albania. The local electricity markets are generally dominated by one – usually state-owned – generator supplying electricity at regulated tariffs, which are typically not sufficient to cover the cost of new investments.

The Energy Community became a vehicle of legal integration of the energy markets, starting on 1 July 2006. The contracting parties are the European Union on the one hand and the territories of Southeast Europe on the other. The Energy Community seeks to integrate the Western Balkan contracting parties into the EU energy market by making them adopt the Acquis on energy, which includes legislative acts from the EU Second Internal Energy Market Package. These entail the unbundling of former vertically integrated utilities in order to separate infrastructure and service provision, the non-discriminatory access to networks for all energy producers, the establishment of a regulator and gradual market opening; all these steps are currently under way or have already been taken in the Western Balkan contracting parties. The electricity and gas markets for all non-household customers were opened on 1 January 2008; markets will be opened to all customers by 1 January 2015 (except for Croatia, where the market was opened for all customers already on 1 July 2008). Generally, Croatia is by far more advanced concerning the adoption of the Acquis than the rest of the contracting parties due to its nearing EU accession; progress in the electricity sector is more advanced than in the gas sector.

Employment data available so far as well as results obtained from interviews with companies and trade unions in the gas and electricity sectors indicate only minor job losses – occurring particularly in production and in distribution – since 2004. The share of female employment fell in the electricity sector, but increased slightly in the gas sector, implying that males were more affected by job cuts than females.

With the exception of Croatia, all Western Balkan contracting parties show a declining employment share of the oldest age group in the electricity sector, while employment in the gas sector resembles the EU pattern, with a shrinking portion of the youngest and a rising share of the oldest age groups.

The skill composition of those employed in the electricity sector has changed only marginally in the past several years. Slightly more than half of the employees have secondary education – this is a considerably lower share than in the NMS where about two thirds of energy sector employees hold a secondary education degree. The portion of employees with the highest level of education has somewhat increased (but has fallen in absolute terms). In contrast, the gas sector underwent a sig-

nificant upward shift towards highly educated employees while the portion of those with secondary education fell noticeably. The share of the less educated was on the decline, implying that job losses were mainly experienced at the expense of low-skilled workers.

Wages in the energy sector tend to be higher than average wages in the economy which compares well with other European countries. In Bosnia and Herzegovina, Serbia and the former Yugoslav Republic of Macedonia, wages in the energy sector exceed the national average by 40%, in Montenegro by about 30%. Only in Croatia is the discrepancy between national average wages and wages in the energy sector much lower than in the remaining Western Balkan contracting parties.

Information obtained from national statistical sources indicates only a small decline in employment in both the gas and electricity sectors, which would hint at a low degree of restructuring. This is in contrast to surveys conducted among companies and trade unions which suggest that, in the electricity sector, a major part of employment restructuring has been completed in most Western Balkan contracting parties; in Croatia and Serbia that restructuring process is halfway through, while in Montenegro it is still ahead. In the gas sector, however, substantial restructuring has so far only occurred in Croatia according to the surveys. In general, both company and trade union respondents believe that there will be rather small job reductions in the future. More than half of the employees' representatives think that female employment will not be affected by job losses, while the remaining respondents expect women to be hit hardest. Concerning older workers, they could be (heavily) affected by employment cuts due to restructuring according to two thirds of respondents.

The vast majority of respondents expect that as a consequence of market liberalization, new skills will be required, in particular technical skills, financial and legal as well as marketing and sales qualifications. In general a shift towards high-skilled workers is anticipated.

In all Western Balkan contracting parties except Albania and Kosovo, between 90% and 100% of all employees are members of a trade union both in the gas and electricity sectors. Almost all employees are covered by collective agreements concluded at company level due to the absence of employers' associations.

Labour efficiency in the Western Balkans is very low, even when compared to the new EU member states that are using similar technologies of production. On average Western Balkan gas and electricity companies would have to reduce employment by about half in terms of the number of employees in order to reach the same level of efficiency as their NMS peers. However, this has to be seen as an upper bound figure as it was not possible to take account of the specific structure of the respective sectors as regards sources of production in a more sophisticated way. Nevertheless, the analysis shows that the Western Balkan electricity and gas sectors are among the least efficient in Europe and that further liberalization in the course of the EU accession process will put additional pressure on the local labour markets, although some of the jobs lost will certainly reappear in other sectors as a result of outsourcing activities.

Restructuring in the energy sectors of the Western Balkan contracting parties is expected to have not only quantitative effects with respect to employment levels but also effects on the qualitative aspects of work. Analysing the effects of the liberalization from 2005 onwards, one can observe a rise in work-related stress levels but no clear impact on other quality aspects such as work-related illnesses. In about one third of cases work-related accidents are reported to have been reduced in the period. About half of the enterprise and also trade union representatives interviewed for the wiiw study claim that staff satisfaction has improved compared to 2005. However, one reason for this result may be that in some of the Western Balkan countries possible reductions of the workforce have not been effected up to now. One instrument to deal with the social consequences of restruc-

turing in a socially responsible manner is represented by the Social Action Plans (SAPs) that were drafted by the Western Balkan contracting partners in cooperation with the social partners and stakeholders. The promotion of a social dialogue, training and support measures for employees affected by restructuring and the improvement of working conditions are to be coordinated and enhanced with the help of the document serving as a roadmap. However, many SAPs comprise more general objectives instead of detailed measures associated with definite timetables. At least two thirds of the trade unions interviewed in the wiiw survey reported that they were actively involved in the drafting of the SAPs. They expect that the process of implementation will result in improvements in companies' policies concerning age management (e.g. early retirement schemes), health and safety and retraining measures and equal opportunity measures for women.

Restructuring at the company level included the legal unbundling of former vertically integrated utilities in the Western Balkan contracting parties. While the process of legal unbundling is well advanced in the electricity sector, it is lagging behind in the gas sector (excepting Croatia). The extent of mergers & acquisitions (which came along with the liberalization in the European countries) has been moderate in the Western Balkan contracting parties in the past ten years. For the future, some activities are envisaged, mostly allocated in the next two years and targeted at the gas sector. Looking at privatization, three main privatization cases occurred in the region, two of them in 2009. These deals included the inflow of foreign capital (Austrian EVN in the former Yugoslav Republic of Macedonia; Czech CEZ in Albania; Italian A2A in Montenegro). Overall, about 85% of employees in the electricity sector and 71% of those in the gas sector work today in majority state-owned companies. For the future about one fifth of respondents anticipate further privatizations, but these may take longer than two years and may be more pronounced in the electricity sector. As regards restructuring at the company level, two thirds of companies expecting employment reductions in the future are well prepared and have already decided, or are currently discussing, restructuring plans in their companies. In this process, talks with trade unions were not frequent.

The process of restructuring at the company level also includes 'outsourcing', which occurs when a particular economic activity ceases to be performed within the company and is instead purchased from another company. Outsourcing is important and will remain so in the future in both the gas and the electricity sectors, yet so far it is more relevant in the gas sector. This is particularly true for the outsourcing of non-core activities, such as catering, cleaning, IT services etc. As for the future, there seem to exist certain limits to further outsourcing of core activities (maintenance of distribution networks, customer services, etc.) in both sectors, while outsourcing of non-core activities may still increase. However, the impact of outsourcing on employment now and in the future is considered relatively small by companies as well as by trade unions, with a few exceptions only.

Keywords: *Western Balkans, energy market liberalization, employment, job quality, restructuring*

JEL classification: *J21, J24, J28, J50, L94, L95, Q4*

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Introduction and background

Introduction

The objective of this study is the analysis of employment development in the gas and electricity sectors in seven Western Balkan Contracting Parties. These are Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Kosovo under UNSCR 1244/99.[1] In addition the up-to-date impact of liberalization of the respective markets is examined (quantitatively and qualitatively) and the most likely trends for the future development identified.

In more detail, the study analyses the current state of the gas and electricity sectors in the Western Balkan countries as well as the evolution of employment in these sectors and the different areas of activities by structural features. Based on results from interviews with the main stakeholders of the energy sector it assesses the impact of liberalization and EU energy legislation on the number of jobs in the Western Balkan countries.

In addition we examine the process of job destruction and job creation during the period of liberalization and restructuring but also explore how different categories of workers are affected. Specific emphasis is given to the impact on the quality of jobs, such as changing skill requirements, improvements in work organizations and working conditions.

Following these objectives, the study is divided into four major chapters: Chapter 1 analyses the relevant Acquis Communautaire (directives and regulations) and study their proposed timeframe and implementation. Chapter 2 consists of two parts: the first one focuses on the employment evolution in the electricity and gas sectors and the different areas of activities in each WBC contracting party starting from 2000 onwards. Where possible analyses on structural employment features are included. In the second part of this chapter we estimate potential effects of liberalization in the Western Balkan electricity and gas sectors using econometric and Data Envelope Analysis (DEA) methods. Chapter 3 examines the impact of liberalization on the quality in work, skill shortages and training needs, but is restricted in this report to the Social Action plans of the individual contracting parties. This

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[1] Kosovo under UNSCR 1244/99 is included in the term 'countries' for the use of this report.

chapter includes the quality of social dialogue between trade unions and companies. Chapter 4 is divided into three subchapters, dealing with: (i) the analysis of the restructuring process in these sectors on the company level including unbundling, mergers & acquisitions and privatization as well as with steps undertaken in anticipation of restructuring on the organizational level; (ii) outsourcing in the electricity and gas sectors and (iii) the impact of FDI into related sectors with potential employment effects.

Methodology

Interviews were carried out among the main stakeholders of the electricity and gas sectors in all countries providing a substantial source of information for all tasks of the study. For each country surveyed we aimed at achieving approximately 10 interviews (depending on the country and based on a questionnaire) with stakeholders of the electricity and gas sectors, e.g. representatives of the management and personal departments of the respective companies, trade unions, regulators, ministries as well as energy experts in the respective countries.

In drafting the questionnaires we drew inspiration from an earlier survey conducted by ECOTEC (2007) in selected EU member states and designed two questionnaires, one for companies and one for trade unions (and related institutions). Pilot interviews were then carried out by local experts, who provided valuable comments for revisions. These were supplemented by comments received from the Commission (The final questionnaires can be found in Annex A). Subsequently, local experts first established contact by telephone with representatives from companies, ministries and energy agencies and then conducted interviews with those persons willing to cooperate (Annex B presents a list of organizations interviewed). In some countries, however, interviews were delayed because of a number of administrative obstacles or representatives were not interested to participate. Finally, we sent back some questionnaires to the country experts for small revisions and clarifications.

The questionnaires provide basic information about the respective company (Company Questionnaire) – size, number of employees over time, gender, age, qualification of employees, type of employer (public/private) – or the respective trade union (Trade Union Questionnaire) – the level of unionization, coverage of collective agreements, minimum wages. Employment developments since 2005 as well as expectations for next three years are investigated. In addition, a special focus is put on job quality. A core piece of the questionnaire concentrates on measures connected with restructuring in the past and future planning, such as early action in anticipation of restructuring or investment in training and retraining. The role of Social Action Plans and its measures are examined at the end. In addition, the questionnaire is adjusted to specificities of the Western Balkan countries including for example a question on employment of minorities.

In total, our survey encompasses 67 filled-in questionnaires from seven contracting parties in the region. Concerning country coverage, wiiw defined the planned scope of coverage, i.e. the total number of interviews as well as the type of interviews (company/trade union/others). We received the following number of questionnaires per contracting party: Albania (5), Bosnia & Herzegovina (11), Croatia (10), the former Yugoslav Republic of Macedonia (8), Montenegro (11), Serbia (11) and Kosovo under UNSCR 1244/99 (11).

As regards the number of companies in our sample, we received 46 filled-in company questionnaires. These companies employed about 82,800 persons in 2009, representing approximately 95% of employment in the electricity and gas sectors in the region (only indicative number; depending on data source and on certain assumptions). The size of companies ranged from 4 employees to 35,000 employees, with 15 questionnaires coming from small companies (1-49 employees), 9 from medium-sized companies (50-249 employees) and 22 from large companies (with more than 250 employees). The responses consisted of 28 companies operating in the electricity sector and 18 companies operating in the gas sector.

Regarding the number of trade unions and related institutions in our sample, we received 21 filled-in questionnaires. Of these, 15 replies came from trade unions proper, representing about 63,000 employees in the region (this is only an indicative number). Eight trade unions covered employees from the electricity sector, 4 from the gas sector and 3 from both sectors. The number of represented persons ranged from 28 employees to 32,000 employees. In addition, we received 5 filled-in questionnaires from ministries and one filled-in questionnaire from an energy agency.

Overall, having nearly all main electricity and gas companies in our sample, we consider the answers to be representative for the energy sector in the region. The same applies to answers from trade unions proper. Answers from ministries are mostly from Serbia.

We now provide additional details for the individual countries (for the list of organizations interviewed, see Annex B):

- *Albania (5):* In total, we received 5 questionnaires from electricity companies. As there is no gas market, no gas companies were included in the sample.[2]
- *Bosnia and Herzegovina (11):* We received 8 company questionnaires, five from electricity companies and three from gas companies. In addition, three trade union-questionnaires proper were returned, two for the electricity sector and one for the gas sector.

[2] Trade union questionnaires were either supplied too late or did not cover the energy sector.

- *Croatia (10):* We received 8 company questionnaires, two from electricity companies and six from gas companies. In addition, two trade union questionnaires proper were returned (one for the gas sector and one covering both sectors).
- *The former Yugoslav Republic of Macedonia (8):* We received 5 company questionnaires, three from electricity companies and two from gas companies. Furthermore, we got two trade union questionnaires proper for the electricity sector and another one from a ministry covering both sectors.
- *Montenegro (11):* For the electricity sector, we received two company questionnaires and two trade union questionnaires. Although there is no gas market in this country, i.e. meaning there is no gas infrastructure available, we there are six gas companies and one gas trade union in our sample.
- *Serbia (11):* For this country, two company questionnaires were returned (one electricity and one gas company questionnaire). In addition, four trade union questionnaires proper were supplied (one for the electricity sector, one for gas and two for both sectors). Furthermore, we received four questionnaires from ministries and one from the energy agency all covering both sectors.
- *Kosovo under UNSCR 1244/99 (11):* Overall, we received 10 company questionnaires from the electricity sector and one trade union questionnaire proper covering the electricity sector. As there is no gas market, no gas companies were included in the sample.

Background: The electricity and gas sectors of the Western Balkan contracting parties

Overview

The gas and electricity sectors of the Western Balkan contracting parties are characterized by largely outdated infrastructure dating back to the 1960s and 1970s, which has not been properly maintained and in addition was badly damaged during the wars in the 1990s, particularly in Serbia, Kosovo under UNSCR 1244/99, and Bosnia and Herzegovina. Therefore, there is a general need for rehabilitation and replacement of existing infrastructure. In addition, the efficiency of the gas and electricity sector is rather low, whereas the risk of technical failures is sizeable – despite the relatively high level of interdependence within the region and the fact that the Western Balkan countries participate e.g. in daily and seasonal exchanges of electricity. A further progress in (re-)integration of the countries' currently small energy markets is seen as crucial for reducing the region's investment requirements in the energy sector (by reducing the need for new power generating capacity), on the one hand, and for increasing the attractiveness of the region for potential foreign investors by providing the economies of scale and scope, on the other.

The generally poor shape of the gas and electricity sector of the Western Balkan countries cannot but affect the social dimension. According to UNDP, some 16% of people in the region lack access to sufficient energy services, and in several countries up to 40% of households are not able to ensure adequate space heating and suffer from air pollution caused by inefficient cooking stoves. Also, the high energy consumption, resulting from the poor insulation of buildings and the low efficiency of appliances such as stoves and boilers, represents a heavy financial burden on poorer households – despite the prevailing administrative regulation of energy tariffs. Financial aspects apart, the low energy efficiency has a detrimental impact on health, e.g. associated with burning fuelwood in inefficient wood stoves or with living close to environmentally unfriendly lignite-fired power plants.

Natural gas sector

The Western Balkans are heavily dependent on the imports of natural gas from outside the region. Own gas production is limited and confined mostly to Croatia (2 billion cubic meters per year), where it started back in 1959 and currently covers some 70% of domestic consumption. Also Montenegro reportedly has some off-shore natural gas deposits. The majority of Western Balkan countries are dependent on the gas imports from Russia (Gazprom), which also cover the remaining 30% of Croatia's gas consumption.

On the other hand, domestic markets for natural gas are under-developed. Albania, Montenegro and Kosovo under UNSCR 1244/99 are not gasified at all; Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia still have very small domestic gas markets; only Croatia and Serbia are significant consumers of natural gas in the Western

Balkan region. On average, natural gas accounted in 2005 for just 13% of total primary energy supply of the region – much less than e.g. coal (largely lignite) and oil. The role of natural gas for electricity generation is also extremely modest: only in Croatia does it play some role (around 15% of produced electricity), while in other countries its role is negligible. In Croatia, more than 50% of gas is consumed in the household sector. In Serbia, 57% of gas is destined for industrial and non-energy uses. In the former Yugoslav Republic of Macedonia, 50% of gas consumption is accounted for by district heating, and even industrial customers use gas mostly for heating. Finally, in Bosnia and Herzegovina, only a few areas have access to gas supply, 55% of gas is consumed by just two industrial enterprises (Birac Zvornik aluminium plant and Arcelor Mittal Zenica steel plant), and the bulk of the rest by district heating in Sarajevo. In Serbia and in the former Yugoslav Republic of Macedonia, gas demand is characterized by a very high peak demand in winter, posing the infrastructural challenge of providing for peak capacity requirements.

Table 1

Selected indicators of the gas sector of Western Balkan countries, as of 2007

	Bosnia & Herzegovina	Croatia	The former Yugoslav Republic of Macedonia	Serbia
Production, bcm p.a.	0	2.35	0	0.26
Consumption, bcm p.a.	0.38	3.09	0.08	2.30
of which Russian gas, bcm p.a.	0.38	1.06	0.08	2.10
Consumption forecast in 2025, bcm p.a.	1.4	4.2	1.2	3.6
Transmission network per capita, km/mn inh.	48	474	48	275
Distribution network per capita, km/million inh.	245	3960	25	1310

Source: Energy Community (2009).

However, the domestic demand for gas in the Western Balkan countries is projected to go up in line with the economic growth. E.g. Serbia's gas market is forecasted to grow in the period 2010-2025 by 2% p.a., in the former Yugoslav Republic of Macedonia by 4%, and in Bosnia and Herzegovina by 6% (albeit in the latter two countries starting from very low levels). Simultaneously, the local gas production is projected to go down, so that the region's dependence on gas imports will rise accordingly. The latter potentially represents a source of insecurity, as exemplified by the Russian-Ukrainian gas price conflict in January 2009, which led to temporary supply cuts to a number of European countries. The entire Balkan region was hit over-proportionately hard – not least because of the insufficient underground gas storage (UGS) capacities and the poor network of pipelines running in alternative directions. Serbia, Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia completely lack gas storage facilities, although an UGS site at Banatski Dvor in Serbia is reportedly under construction, which is projected to hold about one-third of the country's annual gas demand. In contrast, the former Yugoslav Republic of Macedonia is

not even planning to construct UGS. Of all the Western Balkan countries, Croatia enjoys the highest security of gas supplies, as it has an underground gas storage capacity in Okoli, which was built in 1987 in a depleted gas field.

The recent (spring 2010) political rapprochement between Russia and Ukraine following the victory of the pro-Russian opposition leader Viktor Yanukovych in presidential elections in Ukraine drastically reduced the probability of further 'gas wars' in the near future, implying that gas supply cuts – including to the Western Balkan countries – are unlikely to be repeated. However, in the longer run, the reliability of supplies potentially remains hostage to the political instability in Ukraine and the volatile nature of Russia-Ukraine relations, raising the issue of diversifying external suppliers and/or creating alternative routes for gas transportation. One of the projects in this vein is Serbia's participation in the planned South Stream gas pipeline, which would bring Russian gas to Europe via the Balkan region, avoiding Ukrainian territory. The planned construction of LNG terminal in Omisalj in Croatia would also serve the goal of supply diversification. Besides, the Energy Community foresees a so-called Gas Ring project, including the construction of the Ionian Adriatic pipeline, which would connect the non-gasified markets of Albania, Montenegro and southern Croatia with Greece and – via the Trans-Adriatic pipeline – with Italy. Within the framework of this project, three gas-fired power plants in Fieri (Albania), Dalmatia (Croatia) and Podgorica (Montenegro) could be potentially constructed. The idea behind is to create additional power sources on the Adriatic coast, where power shortages still represent a serious constraint to tourism. However, the development of intra- and inter-regional gas supply infrastructure could be hampered due to the stated aspirations of several Balkan countries to build electricity generation capacity relying on fuels other than gas (largely coal – more on that, see below).

Within the region, Croatia and Serbia are the only countries with well-developed legislation on the gas sector. The transmission of gas is typically operated by state-owned TSOs (transmission system operators), such as Plinacro in Croatia, Srbijagas in Serbia, and GA-MA in the former Yugoslav Republic of Macedonia (50% state-owned). In Bosnia and Herzegovina, the gas transmission network is owned by three companies: BH-Gas (in the Federation of Bosnia and Herzegovina) and Gaspromet Pale and Sarajevo-Gas Lukavica (in Republika Srpska). However, in terms of gas suppliers, the role of the private sector is much greater. Thus, in Croatia, gas is supplied by INA (47% owned by Hungarian MOL), which is the sole gas producer, the sole underground storage operator and controls the gas wholesale market. In the former Yugoslav Republic of Macedonia, gas is imported by Makpetrol (100% private JSC). In all countries, tariffs for transmission, supply and total price of natural gas are regulated by government agencies and are subject to VAT, the value of which varies by country. In all countries in question, gas tariffs charged to final consumers hovered around EUR 0.3 per cm in 2008.

Electricity sector

The electricity sector in the Western Balkans is characterized by small but fast growing markets. The size of the electricity markets varies considerably: from 3.2 TWh in Kosovo under UNSCR 1244/99 to 25.6 TWh in Serbia. Among the countries of the region, Serbia also has the largest installed generation capacity (some 7.6 GW). However, in most Western Balkan countries generation facilities operate below their installed capacity due to degraded infrastructure. The region as a whole is a net electricity importer, with Bosnia and Herzegovina being the only 'surplus' country. The electricity network of former Yugoslavia was interconnected with the Western European electricity grid, forming part of the so-called Union for the Coordination of Transmission of Electricity (UCTE). However, in 1992, two separate sub-regional electricity networks emerged, comprising the western and the eastern parts of the former Yugoslavia respectively, whereby Bosnia and Herzegovina was split. It was not until 2004 that these two grids were re-connected, resulting in somewhat safer electricity supplies and improved export options. Currently, electricity is generally flowing from the north to the south of the region, and all countries are participating in extensive daily and seasonal exchanges of electricity.

The bulk of electricity generated in the Western Balkans comes from the lignite-fired thermal power plants. Coal (lignite) accounts for the bulk of electricity generation in four Western Balkan countries: in Serbia for 66%, in Bosnia and Herzegovina for 52%, in the former Yugoslav Republic of Macedonia for 78%, and in Kosovo under UNSCR 1244/99 for nearly 100% of generated electricity. The region's reliance on coal for power generation may grow further if the countries opt to limit their growing dependence on natural gas imports. According to World Bank (2010) estimates, the Western Balkan countries can potentially raise their coal production by about 1-3% per year over the period until 2030. At the same time, the development of the coal sector in these countries – which are all, starting with Croatia, likely future EU member states – will be constrained by the EU emission targets, e.g. in line with the so-called '20-20-20 strategy', which envisages a 20% reduction in greenhouse gas emissions by 2020.

In the three remaining countries, the bulk of electricity is generated from hydropower: 53% in Croatia, almost 80% in Montenegro, and 98% in Albania. Albania has the installed generation capacity of about 1.5 GW, but its hydropower plants date back to the period between the 1960s and the 1980s and have been poorly maintained, resulting in a dramatic deterioration of their condition. Also Bosnia and Herzegovina has significant hydropower capacity. The Western Balkan countries do not have nuclear power plants; however, the Krsko nuclear power plant in Slovenia is jointly owned by Croatia and Slovenia, and the generated electricity is equally split between them.

The outdated energy infrastructure, the high losses in transformation, transmission and distribution, and inefficiency in energy consumption all contribute to the high energy intensi-

ty of the region, which is up to 2.5 times higher than the European OECD average. In particular, some 20% of electricity (in Albania even 30%) is reportedly lost in transmission networks. At the same time, there is a wide variation within the region, with inefficiencies being most pronounced in Kosovo under UNSCR 1244/99 and least pronounced in Croatia. According to IEA estimates, bringing electricity transmission losses of the entire region to the level of Croatia alone would result in savings of some 5 TWh.

Table 2

Electricity generation in the Western Balkan countries, 2000-2007

in thousand GWh

	2000	2001	2002	2003	2004	2005	2006	2007
Albania	4.7	3.7	3.2	4.9	5.5	5.5	5.6	3.0
Bosnia & Herzegovina	10.1	10.3	10.4	10.8	12.3	12.2	12.8	11.3
Croatia	10.7	12.2	12.3	12.7	13.3	13.1	13.0	12.4
Kosovo under UNSCR 1244/99	:	:	3.2	3.2	3.5	4.0	4.0	4.3
The former Yugoslav Republic of Macedonia	6.8	6.4	6.1	6.7	6.7	6.9	7.0	6.5
Montenegro	2.7	2.5	2.3	2.7	3.3	2.9	3.0	2.1
Serbia	32.0	31.0	31.0	32.0	34.0	36.0	36.0	37.0

Source: Eurostat; Bosnia and Herzegovina: EIA.

One adverse consequence of these losses is the low reliability of electricity supply, with rationing and black-outs being common in some countries of the region. One reason for this is the wide-spread use of electric heaters instead of fuelwood during winter, leading to sharp and often unpredictable spikes in electricity consumption. Besides, as demonstrated by Table 2, in some countries of the region – first of all Albania – electricity generation has been extremely volatile over time and dependent on the rainfall. As a result, electricity shortages have been quite a wide-spread phenomenon in the region. The Business Environment and Enterprise Performance Survey conducted jointly by the World Bank and EBRD in 2008 revealed that 48% of firms considered electricity a problem for doing business (up from 26% in 2005). Unsurprisingly, in Albania the situation appears to be the worst: electricity supply was the top concern for businesses of all sizes and types, prompting investments into inefficient and environmentally-unfriendly back-up diesel generators.

The local electricity markets in the Western Balkan countries are generally dominated by one – usually state-owned – generator supplying electricity at regulated tariffs. These tariffs vary considerably across the region, but are typically not sufficient to cover the cost of new investments. E.g. in Bosnia and Herzegovina and in the former Yugoslav Republic of Macedonia, electricity tariffs are kept at a very low level, although a more targeted social assistance scheme is planned to be implemented in the former Yugoslav Republic of Macedonia. In Montenegro, there is cross-subsidization of electricity tariffs between industry and households, which is to be phased out and replaced by targeted social assistance in the course of five years. In Kosovo under UNSCR 1244/99, Serbia and Albania, the minimum

amount of electricity is supplied to households at subsidized prices. According to some estimates, the biggest distortion in the electricity markets of Western Balkan countries reportedly results from the still largely non-market price formation charged to final electricity consumers.

Box 1

Regulatory authorities in the WBCs:

Country	Name	Homepage
Albania	Electricity Regulatory Entity (ERE)	www.ere.gov.al
Bosnia and Herzegovina	State Electricity Regulatory Commission (SERC) Regulatory Commission for Energy of the RS (RERS) Regulatory Commission for Electricity in FBiH (FERK)	www.derk.ba www. reers.ba www.ferk.ba
Croatia	Croatian Energy Regulatory Agency (HERA)	www.hera.hr
The Former Yugoslav Republic of Macedonia	Energy Regulatory Commission of Macedonia (ERC)	www.erc.org.mk
Montenegro	Energy Regulatory Agency of Montenegro (ERA)	www.regagen.co.me
Serbia	Energy Agency of the Republic of Serbia (AERS)	www.aers.rs
Kosovo under UNSCR 1244/99	Energy Regulatory Office (ERO)	www.ero-ks.org

Box 2

Market actors in the electricity market:

Country	Utility	Transmission System Operator (TSO)	Distribution System Operator (DSO)
Albania	KESH	OST	OSSH 76% sold to CEZ (2009)
Bosnia and Herzegovina	EP-HZHB (FBiH) EP BiH (FBiH) EP RS (RS)	Elektroprenos-Elektroprijenos BiH (BiH level)	FBiH: legal unbundling not yet completed RS: 5 legally unbundled DSOs
Croatia	HEP-Grupa (Group) HEP Proizvodnja (Production)	HEP Operator prijenosnog sustava (Transmission System Operator)	HEP Operator distribucijskog sustava (Distribution System Operator)
The Former Yugoslav Republic of Macedonia	ELEM (TPP Negotino)	MEPSO	EVN Makedonija AD Skopje (EVN - Austria main shareholder)
Montenegro	EPCG (partly privatized to Italian A2A in 2009)	Prenos AD	Unbundling activities needed
Serbia	Electric Power Industry of Serbia (EPS)	Elektromreza Srbije (EMS)	Legally unbundled; five companies, which are fully-owned by JP EPS
Kosovo under UNSCR 1244/99	Kosovo Power Corporation (KEK)	KOSTT	Ongoing unbundling into generation and distribution company

Source: Energy Community Secretariat, various issues; Austrian Energy Agency (www.energyagency.at, last update 2009-01-16); Energy Regulators Regional Association (www.erranet.org).

Box 3

Market actors in the gas market:

Country	Importer (I) Proudcer (P)	Transmission companies	Distribution companies
Albania	No gas market	No gas market	No gas market
Bosnia and Herze-govina	Energoinvest (i) BH Gas - Sarajevo	Gaspromet Pale Sarajevo-Gas Lukavice BH Gas - Sarajevo	Zvornik Stan Sarajevo-Gas Sarajevo Sarajevo-Gas Lukavica Visokogas
Croatia	Prirodni plin (I) INA (P)	Plinacro	38 distribution companies
The Former Yugoslav Republic of Macedonia	Makpetrol (I)	GA-MA	DTIRZ
Montenegro	No gas market	No gas market	No gas market
Serbia	Srbijagas (i) NIS (P)	Srbijagas Yugorosgaz	Srbijagas 30 DSOs
Kosovo under UNSCR 1244/99	No gas market	No gas market	No gas market

Source: Energy Community Regulatory Board (2010).

1 Liberalization process and adoption of the Acquis

1.1 Introduction: The Energy Community as a vehicle of legal integration

The Energy Community was established by international treaty in October 2005 as the outcome of the Athens Process. The contracting parties are the European Union on the one hand and the countries and territories of Southeast Europe on the other, namely (at the time), Albania, Bulgaria, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Romania, Serbia, and Kosovo under UNSCR 1244/99. The treaty entered into force on 1 July 2006.

The Energy Community seeks to establish an integrated European energy market through the integration of European non-Member States into the European Union's single regulatory space. Membership of the Energy Community implies an obligation to adopt the *Acquis* on energy, environment, competition and renewables. This includes the adoption of EU directives and regulations on electricity and gas markets, as well as commitments to security of supply and energy solidarity goals.

1.2 Legislative acts and liberalization process

EU legislation in the area of gas and electricity markets has evolved over time with the First, Second and Third Internal Energy Market packages. The key items of legislation for the Second and Third Internal Energy Market packages concerning electricity and gas market liberalization are listed in Table 1. The structure of the packages is based on a directive and a regulation for electricity market liberalization and a directive and a regulation for gas market liberalization. Each of these four items of legislation of the Second Internal Energy Market package is repealed by corresponding directives and regulations in the Third Internal Energy Market package. The latter also establishes an Agency for the Cooperation of Energy Regulators (ACER) through Regulation 713/2009.

The four legislative acts from the Second Internal Energy Market Package that concern electricity and gas market liberalization, shown in the first column of Table 1, must be adopted by the members of the Energy Community and constitute the legal basis for the liberalization of the electricity and gas markets in the region.[3] The goals and contents of these acts, as well as those of other legislative acts that are relevant for this project are discussed in Section 1.3.

The four legislative acts from the Second Internal Energy Market Package that concern electricity and gas market liberalization, shown in the first column of Table 1.1, were includ-

[3] Legislation included in the Third Energy Market package is not yet included, however, there is an open discussion on when and how the Contracting Parties shall implement the Third Package requirements.

ed in the Energy Community Treaty in October 2005 (except Regulation 1775/2005 in December 2007). The members committed to transposing these acts into national legislation by 1 July 2007 (December 2008 for Regulation 1775/2005). Members also committed to fully opening both the gas and electricity markets to non-household customers by 1 January 2008, and to fully opening both markets to all customers by 1 January 2015.

Table 1.1

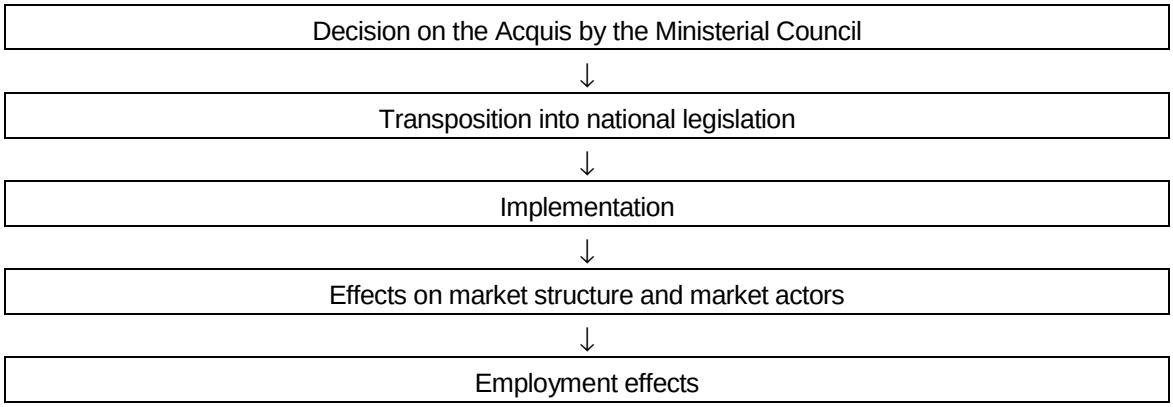
EU electricity and gas market liberalization: main legislative acts

Second Internal Energy Market Package	**Third Internal Energy Market Package**
Directive 2003/54/EC of 26 June 2003: internal market in electricity	Directive 2009/72/EC of 13 July 2009: internal market in electricity (repeals 2003/54/EC)
Regulation 1228/2003 of 26 June 2003: access for cross-border exchanges in electricity	Regulation 714/2009 of 13 July 2009: access for cross-border exchanges in electricity (repeals 1228/2003)
Directive 2003/55/EC of 26 June 2003: internal market in gas	Directive 2009/73/EC: internal market in natural gas (repeals 2003/55/EC)
Regulation 1775/2005 of 28 September 2005: access to natural gas transmission networks	Regulation 715/2009 of 13 July 2009: access to natural gas transmission networks (repeals 1775/2005)

This process offers a clear timeframe and specifically defined milestones for the members of the Energy Community to liberalize their electricity and gas markets, as well as for the Energy Community Secretariat, the European Commission and other observers to monitor and assess progress in transposing and applying the legislation. Economic effects are expected to take place only after the legal implementation. Therefore we may look at the liberalization as a sequential process, whereby national implementation leads to effects on market actors and market structures, and in consequence to employment effects, see Figure 1.1.

Figure 1.1

Analysis of liberalization and market structure



The legal component of the liberalization process may proceed faster or more slowly than initially planned depending on how fast the legislation process operates in the various

countries. Deviations from the initial timeframe may occur at the level of transposition into national law (e.g. national parliaments delay or try to amend or block the legislation, or on the contrary accelerate its adoption), or at the level of its entry into force (which could be delayed or on the contrary brought forward), or at the level of its implementation by the corresponding regulatory authorities who may or may not be well-staffed, well-prepared and pro-active in applying the new legislation.

The economic and labour market component of the liberalization process may be pictured as resulting from the super-imposition of four Figures similar to Figure 1.1. Because liberalization concerns non-household customers much earlier than household customers (2008 versus 2015), and because of structural differences between gas and electricity markets, it is effectively the case that four different liberalization processes occur, namely: gas for non-household customers and electricity for non-household customers in the first instance, followed by gas for household customers and electricity for household customers.

Each of those four processes may have its own separate impacts on market actors and structures, and ultimately on employment, as well as having inter-related impacts. Also, the economic and employment effects may or may not occur with some time lag if market actors and structures respond more slowly or faster to the new legislative environment. Similarly, market actors may or may not anticipate the entry into force of the new legislation (since it was publicly announced) and start to adapt before (or even much before) specific milestones.

The complex way in which new legislation can lead to employment outcomes at different moments and at different speeds is therefore an important question for this research project. In Section 1.4 we therefore assess the legal component of the liberalization process in terms of the timing of legal events, namely transposition into national law and entry into force. The economic aspects, in terms of the timing and extent of changes in market structures and employment outcomes will be assessed within chapters 2, 3 and 4 of this project.

Before looking into the timing and extent of the implementation of the relevant legal and administrative steps, we proceed with a description of the main features of the legislation and what they mean, notably in economic terms, for companies in the gas and electricity sectors.

1.3 Goals and contents of the legislation on liberalization

Core legislation on electricity and gas markets

The electricity supply chain is made up of generation activities, transmission activities, distribution activities, and supply activities, as defined in 2003/54/EC. The natural gas supply chain is made up of upstream activities, transmission activities, distribution activities, and

supply activities, as defined in 2003/55/EC. In both cases the legislation seeks to achieve the provision of non-discriminatory access to networks for all energy producers (Third Party Access), the transparent separation of infrastructure management from the provision of services (unbundling), the effective management of infrastructure by independent transmission and distribution system operators (TSOs, DSOs), the introduction of a regulator that is independent from the interests of the industry, and the gradual opening of the market, allowing consumers to chose between energy suppliers (Renner, 2009).

Electricity and natural gas markets in most European countries have traditionally been segmented along national lines. Moreover in many member states one has traditionally had to contend with a small number of large and vertically-integrated undertakings which cover most or all of the domestic supply chain, from production / generation (and/or imports from foreign countries in the case of gas) to distribution activities or even supply. Transmission (of either electricity or gas) is a natural monopoly to a large extent. Even distribution is to some extent a natural monopoly, at least locally. For that reason the goal of the legislation is not to promote the construction of competing transmission or distribution networks, but to ensure third party access to joint infrastructure networks, with the latter coming under the responsibility of the TSOs or DSOs. As a result, new market entrants should be able to compete on price for the delivery of supply services. Final customers would then be able to arbitrate between competing offers, thus (according to economic theory) driving down prices and driving up the economic efficiency of the gas and electricity supply chains. The practical consequences of such legislation are however not automatic due to high entry costs for potential new suppliers. Rules on third party access and unbundling are enablers for competition, but they do not guarantee that all barriers are removed for new players to enter the market.

Security of supply legislation

The European Union also adopted two directives on security of supply, one for electricity, 2005/89/EC, and one for gas, 2004/67/EC. In December 2007 it was agreed by the Ministerial Council of the Energy Community that those two directives would be included in the Acquis for the Energy Community as well, obligating member countries to transpose those directives into their national legislations by the end of 2009.

The energy directive on security of supply aims at ensuring the continuity of electricity supplies, providing an adequate level of interconnection between countries, introducing a degree of diversity in electricity generation, promoting energy efficiency, and continuously renewing transmission and distribution networks to maintain performance. The gas directive on security of supply provides security of supply for specific customers.

1.4 Progress in the legal implementation of the legislation

Figure 1.2 and Figure 1.3 outline the main steps for the liberalization of the electricity and gas markets in the Western Balkan countries, starting with the Athens Process between 2002 and 2005, the signing of the Energy Community Treaty (ECT) in 2005, the dates for implementation of relevant directives and regulations as well as the stipulated dates of market opening. They offer a clear timeframe for the contracting parties of the Energy Community and serve as a broad benchmark for actual achievements in the individual countries.

Progress in the implementation of the legislation is monitored in detail by the Energy Community bi-annually (see Implementation Reports, 2007, 2008, 2009 and 2010) and is structured along the following key areas of the *Acquis*, namely:

- Institutional Organization and Regulatory Authorities
- Public Service Obligations and Customer Protection
- Monitoring of Security of Supply
- Technical Rules
- Authorization (tendering) procedures for new capacities
- Unbundling Provisions
- Third Party Access
- Market Opening
- Cross Border Trade Mechanism

Overall, Croatia is far more advanced with the adoption of the Acquis than the rest of the WBCs. This is due to Croatia being close to the accession to the European Union – most likely at the end of 2012/beginning of 2013 – and therefore needs to adopt the Acquis OF THE EUROPEAN UNION, not just the Acquis of the Energy Community. According to the European Commission (2009), Croatia complies with the acquis of the second internal energy market package and will now need to focus on implementing the requirements of the recently adopted third internal energy market package. Preparations in this area are assessed to be advanced. Transposition and implementation of the EU's Third Energy package are expected in March 2011 and March 2012 respectively. According to companies interviews, further restructuring of companies might be performed then.

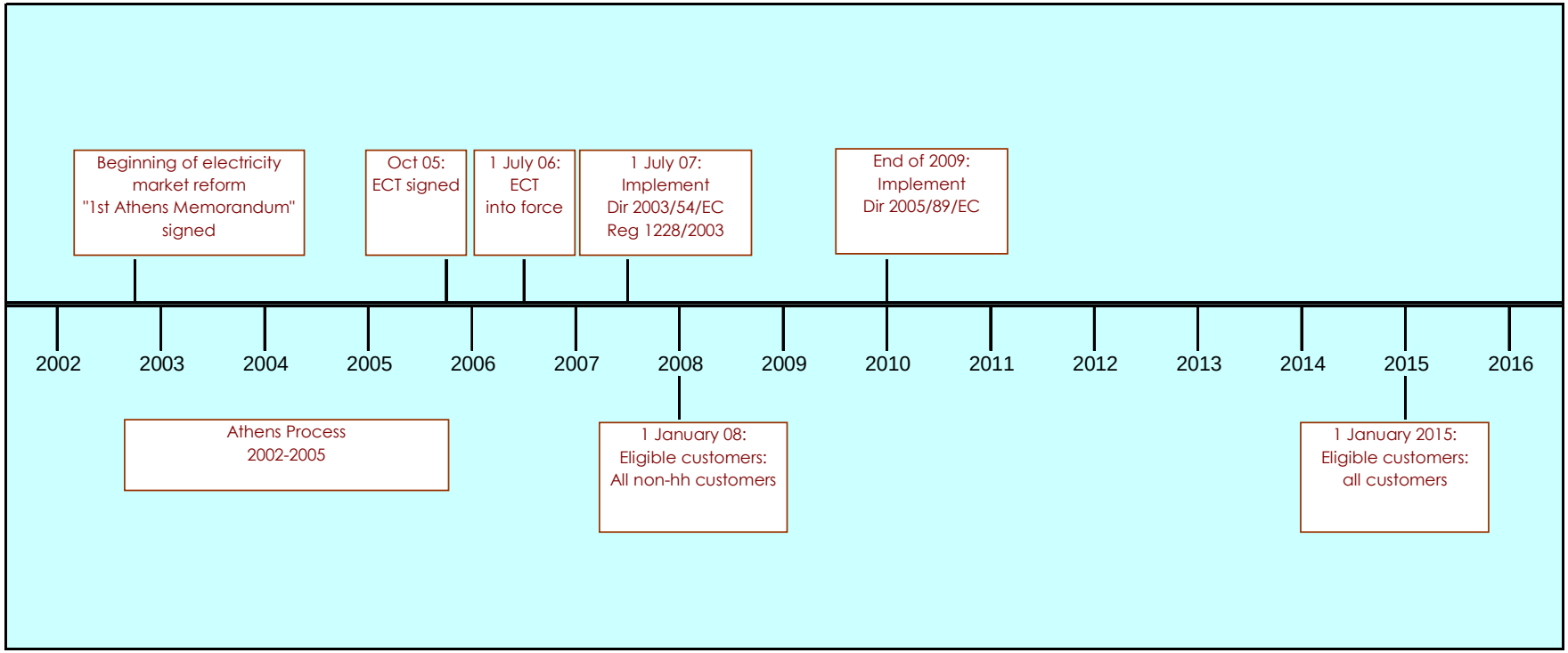
Besides Croatia, the former Yugoslav Republic of Macedonia is also a candidate country, while the other WBCs are potential candidates for EU accession and hence are less advanced.

Liberalization efforts on the electricity markets

The report now outlines the timeframe of liberalization of the electricity markets in each of the individual countries. First, a timeframe maps the main steps of liberalization, including main legislative acts, legal unbundling and market opening. It shows the beginning and proposed end of 'formal' liberalization (see Figures 1.4 to 1.10). However, actual implementation cannot be seen from these timeframes, so that - as a second step -, we add a descriptive analysis of the process of implementation, where the liberalization in practice becomes visible (e.g. actual switching, see Box 1.2). Overall, this will be the basis for allocating employment changes in the next parts of the report: it will be interesting to see whether employment changes have taken place already or not and when they happened - before or during liberalization.

Figure 1.2

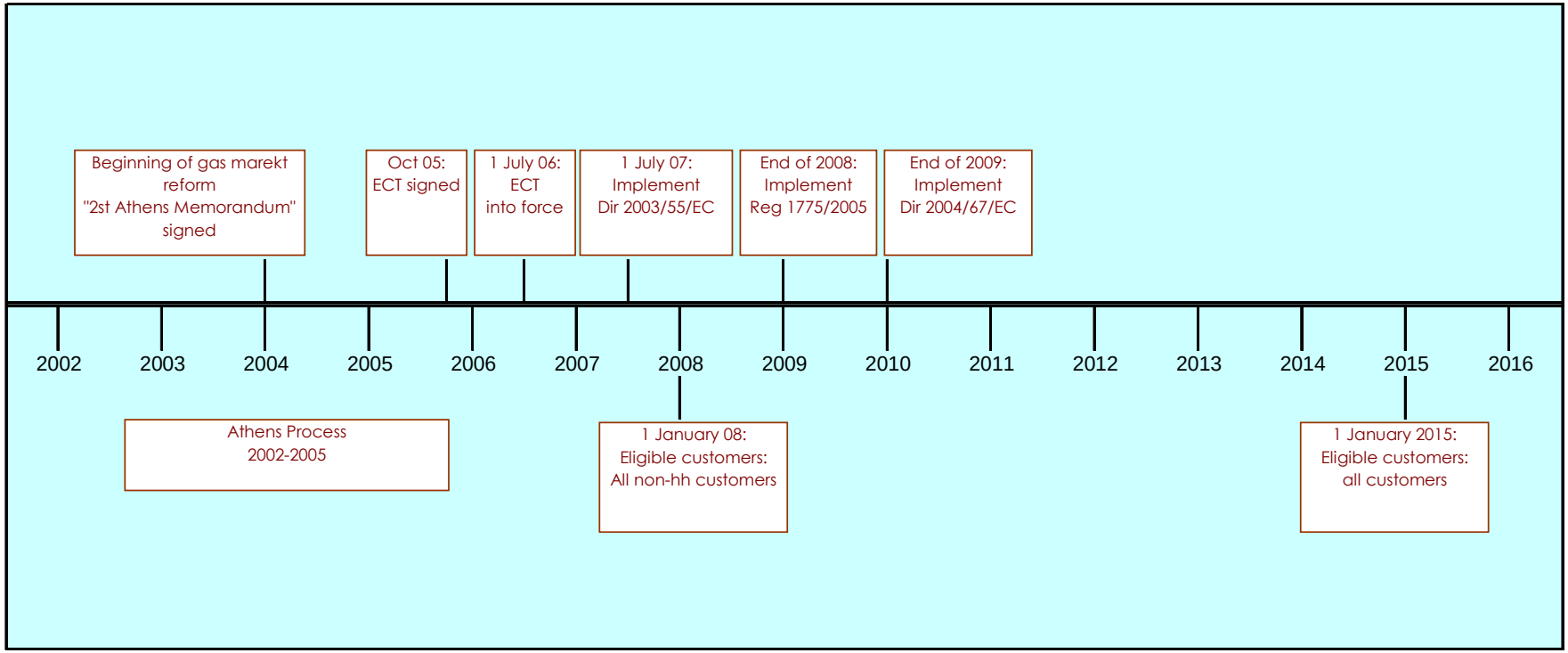
Timeframe of liberalization – electricity



Notes: ECT = Energy Community Treaty; Dir = Directive; Reg = Regulation.

Figure 1.3

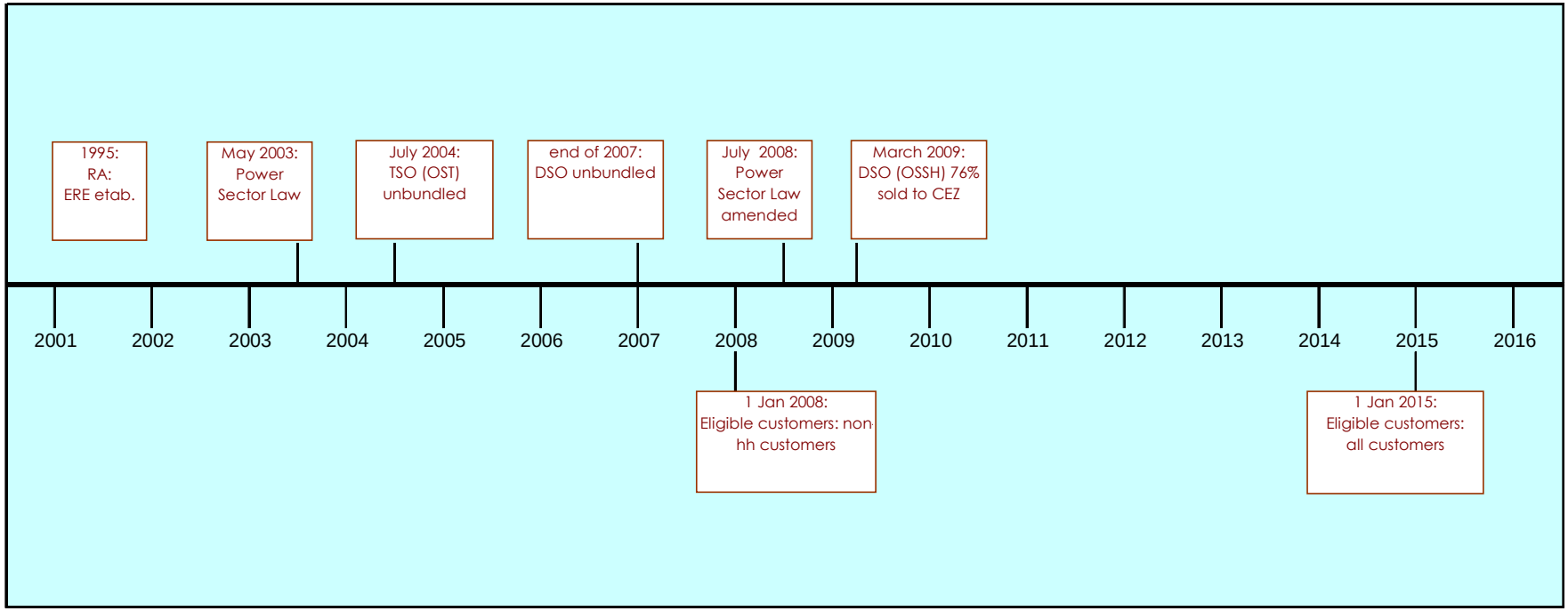
Timeframe of liberalization – gas



Notes: ECT = Energy Community Treaty; Dir = Directive; Reg = Regulation.

Figure 1.4

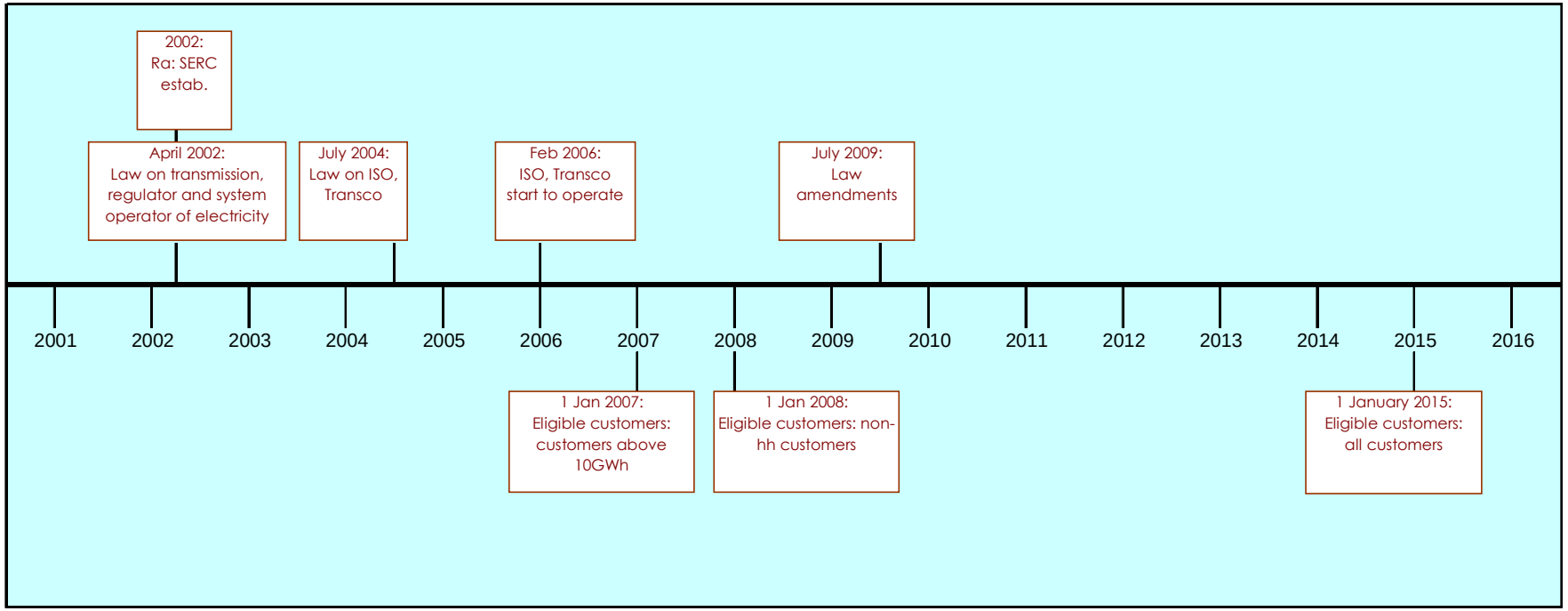
Albania: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; ERE = Energy Regulatory Entity; TSO = Transmission System Operator; DSO = Distribution System Operator.

Figure 1.5a

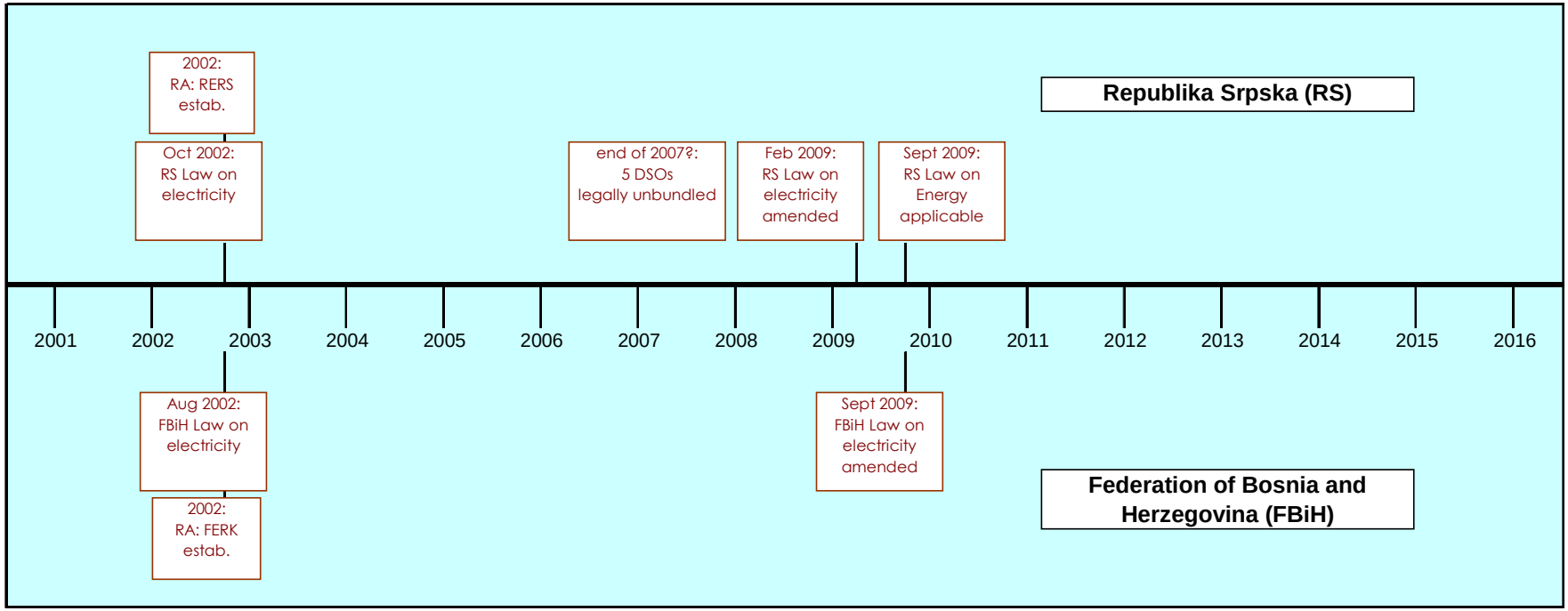
Bosnia and Herzegovina (state level): Timeframe of liberalization -–electricity



Notes: RA = Regulatory Authority; SERC = State Electricity Regulatory Commission; ISO = Independent System Operator (NOS BiH); Transco = Transmission Company (Elektroprenos-Elektroprijenos).

Figure 1.5b

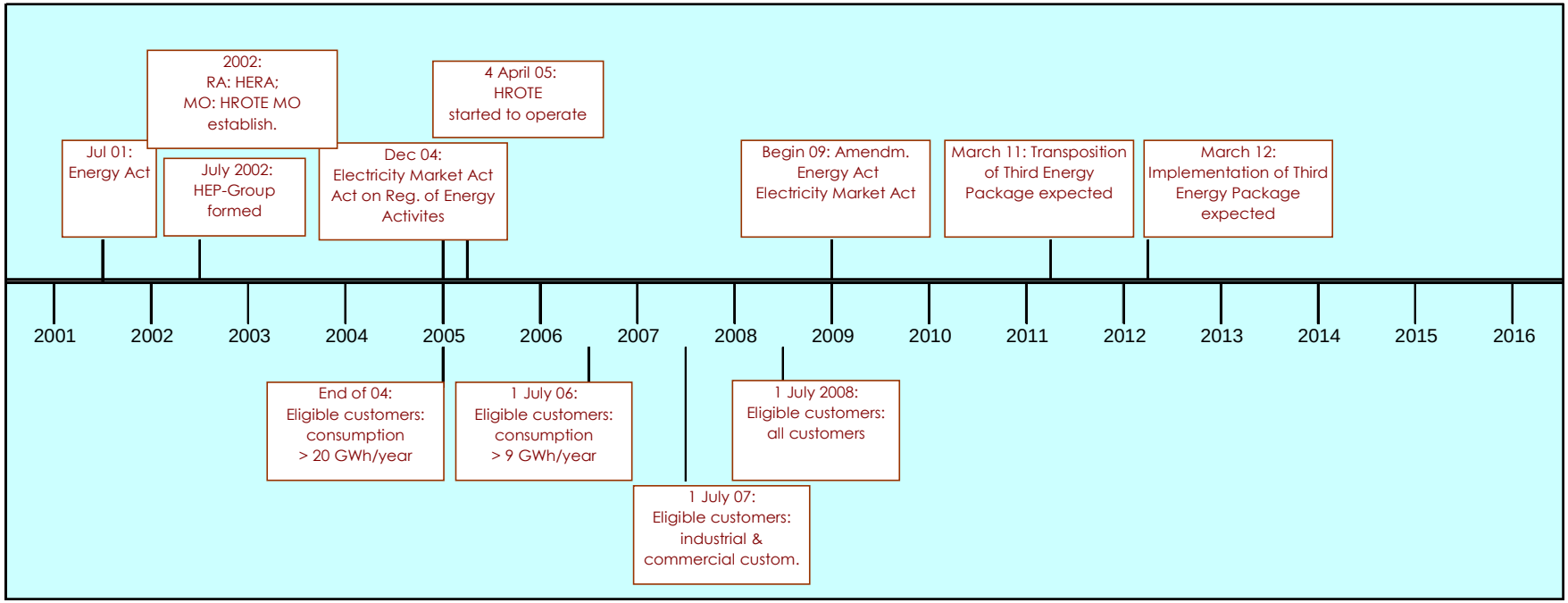
Bosnia and Herzegovina (entity level): Timeframe of liberalization – electricity



Notes: RERS = Regulatory Commission for Energy of the RS; FERK = Regulatory Commission for Electricity in FBiH; DSO = Distribution System Operator.

Figure 1.6

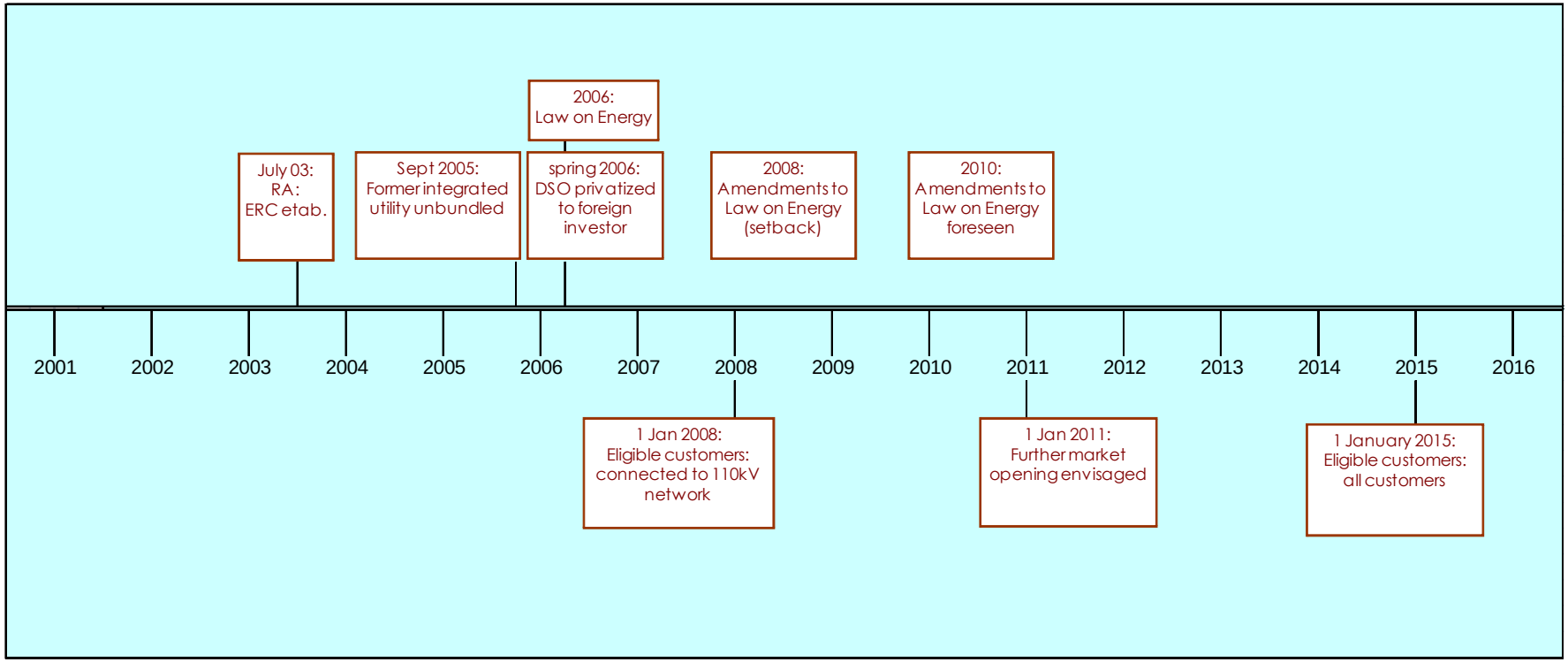
Croatia: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; HERA = Croatian Energy Regulatory Authority; HROTE = Croatian Energy Market Operator ; MO = Market Operator; HEP = Hrvatska Elektroprivreda d.d.

Figure 1.7

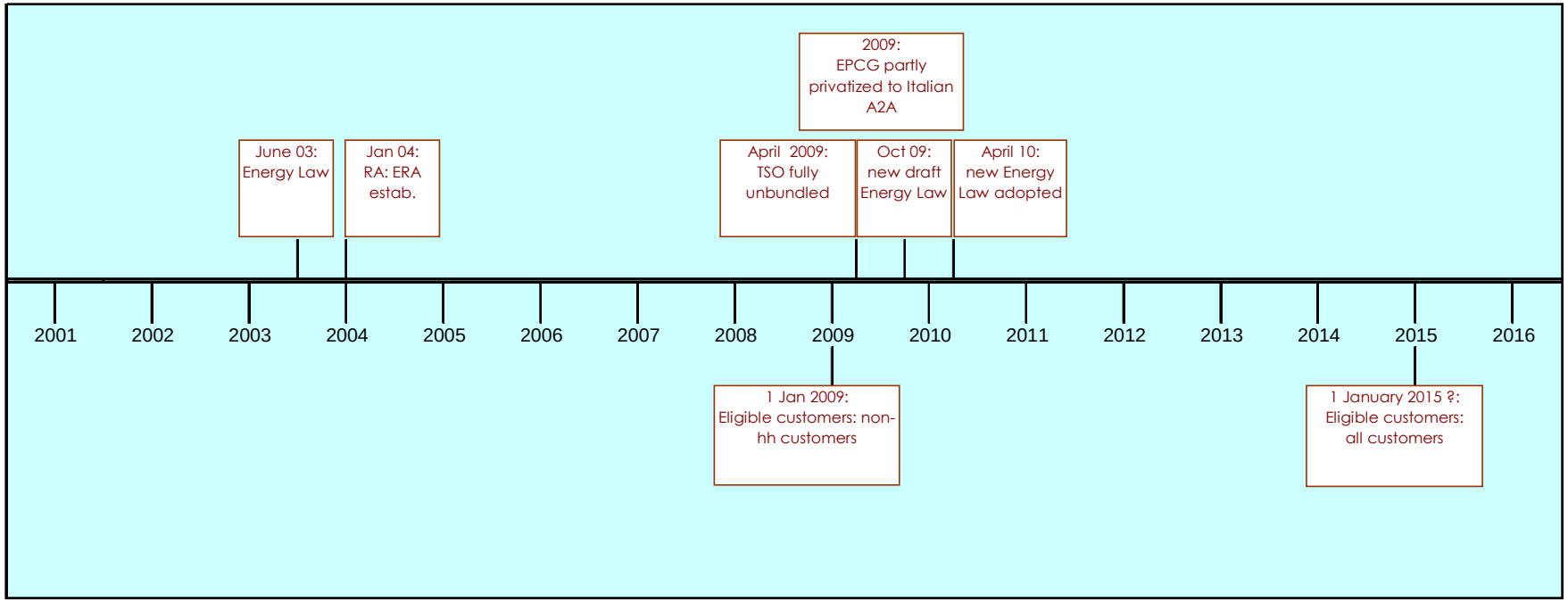
The former Yugoslav Republic of Macedonia: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; ERC = Energy Regulatory Commission of Macedonia; DSO = Distribution System Operator.

Figure 1.8

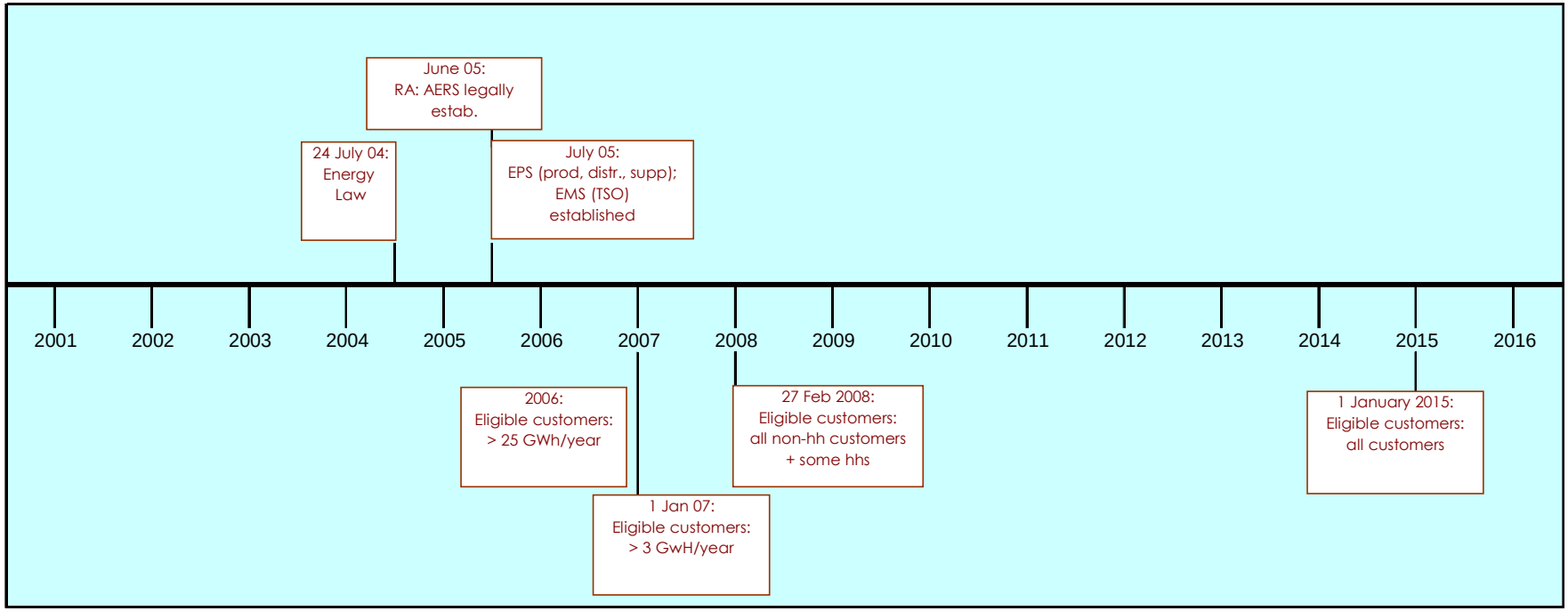
Montenegro: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; ERA = Energy Regulatory Agency of Montenegro; TSO = Transmission System Operator; EPCG = Elektroprivreda Crne Gore (formerly vertically integrated utility).

Figure 1.9

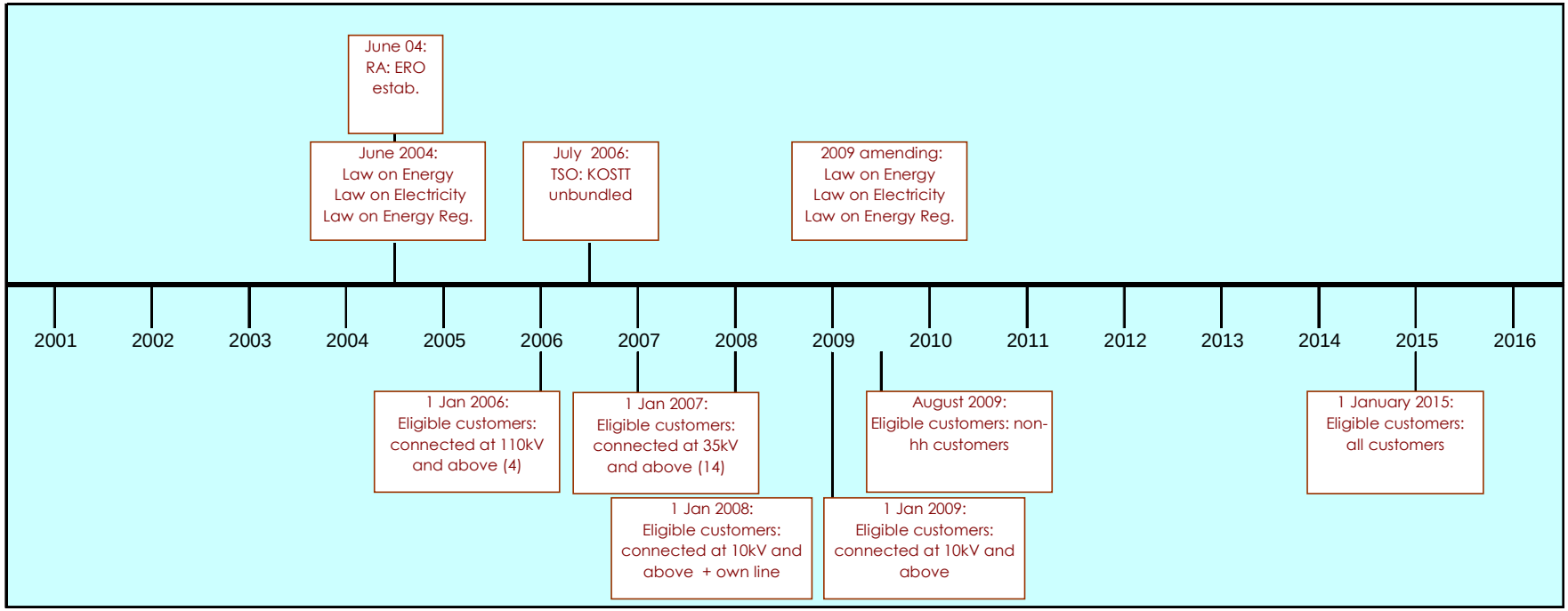
Serbia: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; AERS = Energy Agency of the Republic of Serbia; EPS = Electric Power Industry of Serbia; EMS = Elektromreza Serbije; TSO = Transmission System Operator.

Figure 1.10

Kosovo under UNSCR 1244/99: Timeframe of liberalization – electricity



Notes: RA = Regulatory Authority; ERO = Energy Regulatory Office; TSO = Transmission System Operator.

The actual status of implementation is summarized in the following box:

Box 1.1

Electricity

Progress with respect to electricity directives and regulations based on the Implementation 2010b from the Energy Community

Albania: Following changes and amendments in the power sector legislation in 2008, secondary legislation was further upgraded in 2008 and 2009. Overall, the legal and regulatory framework has undergone significant developments over the past few years. Currently all non-household customers can switch supplier, which makes approx 44% of the market. However, effective market opening is impeded by the option for eligible customers to remain supplied under regulated tariffs that are not fully cost-reflective and the lack of transmission capacity. Further obstacles are the inherited low level of payment discipline, insufficient or inadequate metering, an inadequate generation structure and relatively low reliability of the base load.

Bosnia and Herzegovina: In late 2009, the Law on Transmission was amended after serious problems in the operation of the transmission company occurred. Still, however, bottlenecks in the operation of the transmission operator take place. Market opening is in line with the Energy Community Treaty. However in real terms there is no customer switching except in one single case - partial (one third of the total) supply of one large customer.

Republika Srpska (RS): In 2009, the Energy Law was adopted and the Electricity Law was amended in Republika Srpska.

Federation of Bosnia and Herzegovina (FBiH): The Federation of Bosnia and Herzegovina amended its Electric Power Law in 2009. The two vertically integrated electricity utilities are still waiting for legal unbundling (unbundling of accounts is completed).

Croatia: In the beginning of 2009, amendments were made to the Energy Act and the Electricity Market Act. Several important steps were taken then, aimed to foster the state of compliance and the operation of the electricity market. In October 2009, the Croatian Assembly adopted a new Strategy for Energy Development of the Republic of Croatia for the period until 2020. The focus is now gradually shifting towards the requirements of the new EU Third Energy Package. The electricity market is legally open 100% and all customers, including households, are considered eligible as of 1st July 2008.

The former Yugoslav Republic of Macedonia: The electricity sector is governed by the Energy Law of 2006, as amended in 2007 and 2008. New amendments to the Energy Law are currently prepared, the draft Energy Law was already finalized and commented upon by the Secretariat. Yet is it remains to be enacted. The Strategy for Energy Development was adopted in 2010. The electricity market is open for buyers whose facilities are connected to transmission network (110 kV and above). This is not compliant with the requirements and the timetable for the market opening according to the acquis.

Montenegro: The new Energy Law was adopted in April 2010. Its implementation now requires the adoption of substantial new secondary legislation. The electricity market was opened for all non-household consumers with effect from 1 January 2009. However, they maintain the right to be supplied by the incumbent supplier at regulated tariffs. The Energy Law envisages all household cus-

tomers to become eligible in 2015. Unbundling started in mid 2009 when the TSO was legally unbundled from the rest of utility in April 2009. Generation, distribution and supply are still bundled. No timeline is foreseen for the legal unbundling of the distribution system operator.

Serbia: Serbia has been reviewing its outdated Energy Law of 2004 since 2007. However, only slow progress has been achieved. In 2009, amendments were submitted to the Secretariat for assessment. The TSO and the five DSOs are legally unbundled from the other electricity undertakings. Further unbundling of distribution and supply is needed. The electricity market was formally open on February 27, 2008, as the Regulatory Agency granted the eligibility status to all non-households customers. This potentially opened the electricity market by 47%. Practically, however, no eligible customer switched so far as they can still benefit from regulated retail tariffs that are well below any electricity price that can be provided by a private supplier.

Kosovo under UNSCR 1244/99: In September 2009, draft amendments of three basic legal acts of the energy sector – the Law on Energy, the Law on Electricity and the Law on Energy Regulator - were developed and adopted in October 2010. The Energy Strategy 2009 – 2018 was adopted in April 2010. The TSO is legally unbundled while the vertically integrated utility is undergoing a process of further legal unbundling. The government has the intention to privatize the newly incorporated company including distribution system operation and supply. Market opening is implemented gradually – depending on voltage level. Starting with 2009, the electricity market is open for all customers connected to networks of 10 kV and above.

Liberalization efforts on the gas markets

Now we will look in more detail on the liberalization efforts on the gas markets. Here one has to keep in mind that three countries have no gas infrastructure and hence no gas market – Albania, Montenegro and Kosovo under UNSCR 1244/99. For these countries, liberalization is related to legislation only. Developments in this area are nevertheless important in order to facilitate investment in the future. In addition, the former Yugoslav Republic of Macedonia has no distribution lines.

Generally, progress is the gas sector is far behind that in electricity and strongly varies between countries. Croatia is the only country to comply with the Treaty. Progress in Bosnia and Herzegovina is significantly delayed due to lack on agreement between the Entities. Box 1.2 provides short country overviews on the gas market and its related legislation. A timeframe of liberalization is then provided for the two more advanced countries Croatia and Serbia (see Figure 1.11 and 1.12).

Box 1.2

Gas

Progress with respect to gas directives and regulations based on the Implementation Report 2010b from the Energy Community

Albania*: Despite the lack of a gas market, the Natural Gas Sector Law, which is in force since June 2008, has transposed almost the entire Directive 2003/55/EC as well as most of the provisions of Regulation 1775/2005. Directive 2004/67/EC (security of supply) has not yet been transposed. However, market opening is not defined in line with the acquis.

Bosnia and Herzegovina: Still no legislative framework for the gas sector exists on the State level but only on the level of entities. In the Republic of Srpska there is an existing Law on Gas, in the Federation of Bosnia and Herzegovina there is a Decree on Organization and Regulation in the Gas Sector. However, the gas market is governed differently and not in line with the acquis. A regulatory authority for the entire State is still missing.

Croatia: The gas acquis under the Treaty has been transposed in Croatia. Now, the focus should be placed on the implementation and the efficient functioning of the gas market.

The former Yugoslav Republic of Macedonia: The gas sector is governed by the Energy Law of 2006, amended in 2007 and 2008. A draft for the new Energy Law was presented in several versions in 2010 but remains to be enacted. Several crucial provisions of Directive 2003/55/EC are still not transposed; market opening is not in line with the Treaty.

Montenegro*: The lack of gas market notwithstanding, the acquis has been transposed by the Energy Law, approved in April 2010. It transposes Directive 2003/55/EC, most of the provisions of Regulation 1775/2005 as well as Directive 2004/67/EC. As a next step, secondary legislation has to be developed and capacity-building within the regulatory authority done.

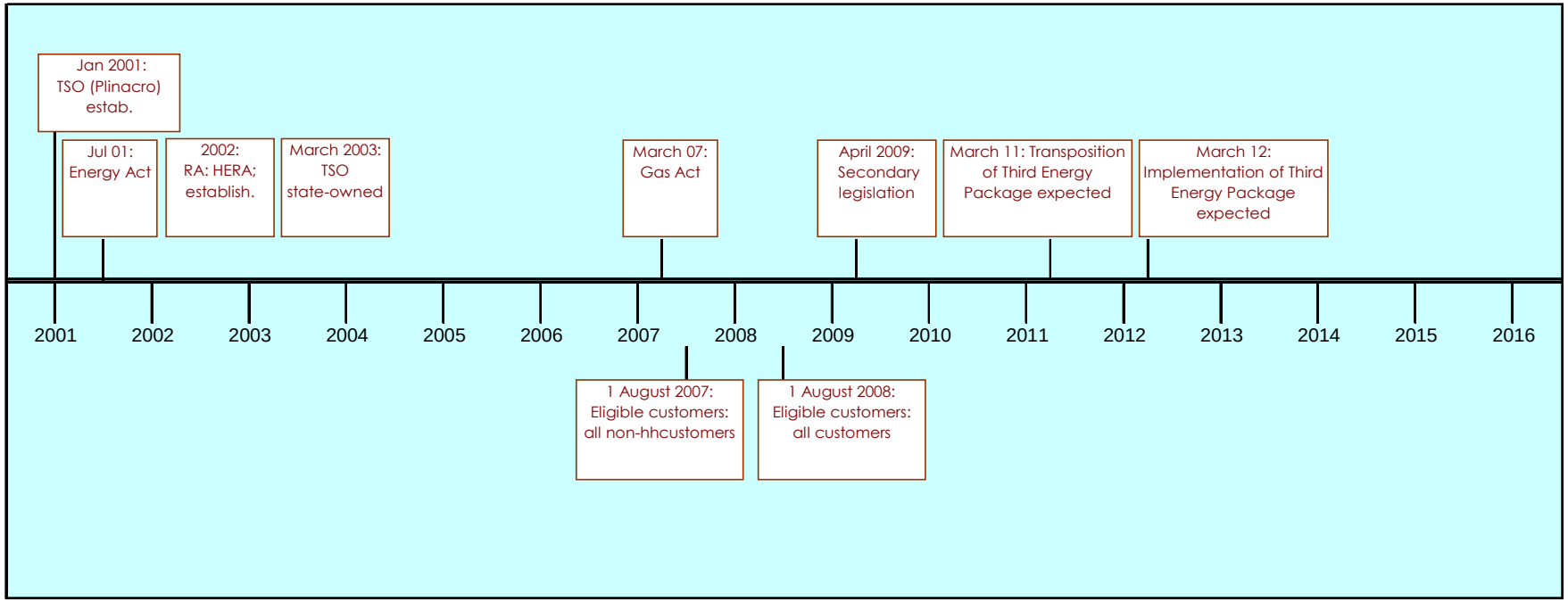
Serbia: The gas market is governed by the Energy Law (in force since 2004), which is largely non-compliant with the acquis. Draft amendments were submitted to the Secretariat in November 2009, however, no progress was made since then. Since the end of February 2008, all non-household customers are eligible and all household customers will be eligible according to the Treaty. Unbundling is lagging behind.

Kosovo under UNSCR 1244/99*: Kosovo under UNSCR 1244/99 has transposed the requirements of the Directive 2003/55/EC in the Law on Gas - which was promulgated on 12th November 2009. The implementation of Regulation 1775/2005 is still pending; the transposition of the Directive 2004/67/EC still has to be performed.

Notes: * Countries without gas markets.

Figure 1.11

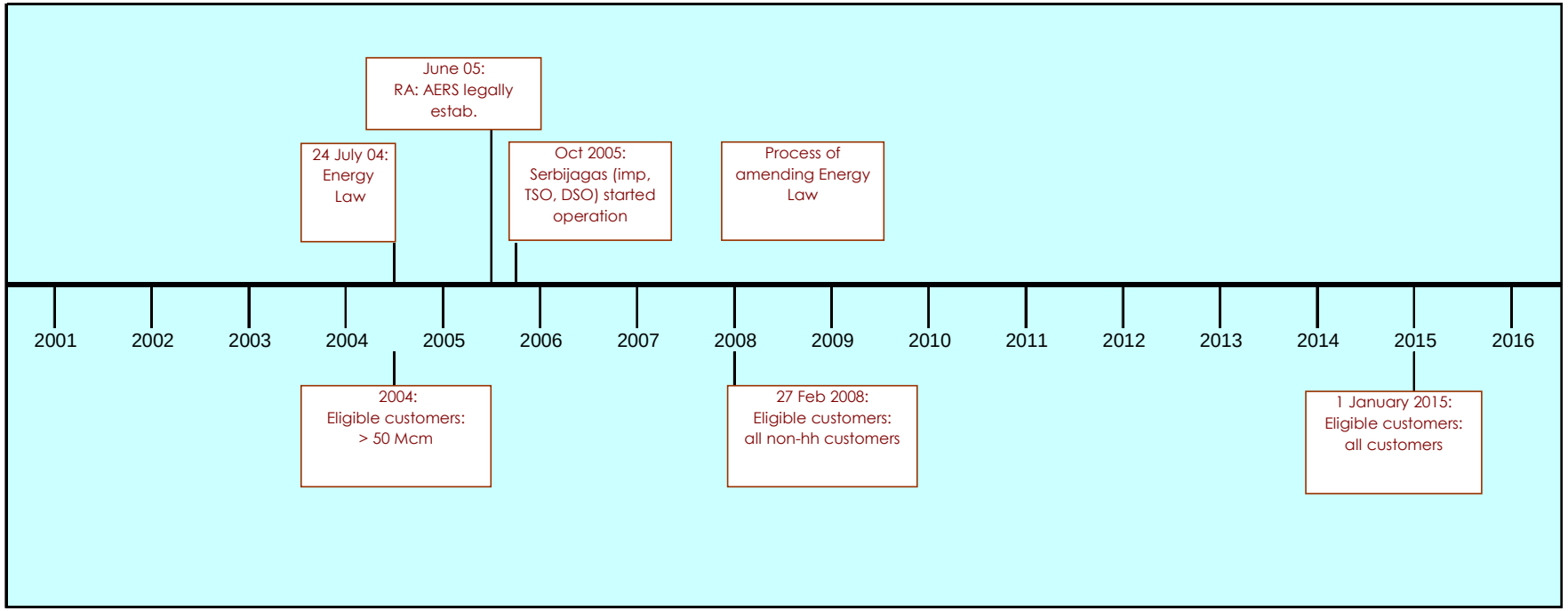
Croatia: Timeframe of liberalization – gas



Notes: RA = Regulatory Authority; HERA = Croatian Energy Regulatory Authority; TSO = Transmission system operator.

Figure 1.12

Serbia: Timeframe of liberalization – gas



Notes: RA = Regulatory Authority; AERS = Energy Agency of the Republic of Serbia; imp = importer; TSO = Transmission System Operator, DSO = Distribution System Operator)

1.5 Other components of the Acquis

Renewable energy

The Treaty of the Energy Community encompasses the following Acquis for Renewables:

- **Directive 2003/30/EC**: on the promotion of the use of biofuels or other renewable fuels for transport
- **Directive 2001/77/EC**: on the promotion of electricity produced from renewable energy sources in the internal electricity market

Article 20 of the Energy Community Treaty foresees the development of national plans for the adoption of the above mentioned Directives within one year after the Energy Community Treaty entered into force. The formal requirements were fulfilled by spring 2007 when all countries submitted their plans. Progress towards the implementation of the national actions plans is reported regularly by the Energy Community Secretariat.

Further developments in the EU, i.e. the adoption of the Climate Package by the European Parliament in December 2008, led to a new directive on renewable energy, namely:

- **Directive 2009/28/EC** on the promotion of the use of energy from renewable sources

The directive amends and subsequently repeals Directives 2001/77/EC and 2003/30/EC (with effect from 1 January 2012). The directive sets mandatory national targets for the EU Member States. The directive is not yet part of the Acquis for the Energy Community, however, work is ongoing in that direction. A decision was postponed in 2010 due to data problems mainly related to biomass.

Energy efficiency issue

The Energy Community Treaty encourages the adoption of measures fostering the development of energy efficiency. According to Article 35, the Energy Community may adopt measures to foster energy efficiency. Hence, in December 2007 the Energy Community Ministerial Council took the decision to establish a Task Force on energy efficiency issues.

Between January 2008 and June 2009 the Task Force conducted four main tasks: First, the analysis of the state of the play of energy efficiency in the Contracting Parties (Alliance to Save Energy (2008)), second, preparation of a non-customized Action Plan to advance energy efficiency in the Contracting Parties (in accordance with Energy Service Directive 2006/92/EC), third the analysis of energy related EC Directives and their impact on the Energy Community, if transposed and fourth, the development of a Communication and Awareness Campaign Plan.

As a result, the Ministerial Council decided to include the following end-use Directives into the Acquis under the Energy Community Treaty in December 2009:

- **Directive 2006/32/EC** on the energy end-use efficiency and energy services
- **Directive 2002/91/EC** on the energy performance of buildings, and,
- **Directive 92/75/EEC** on the indication by labelling and standard product information of the consumption of energy and other resources by household appliances

In May 2010, the European Union adopted a recast of Directives 2002/91/EC and 92/75/EC. In September 2010, the Ministerial Council adopted these recast Directives as well, namely:

- **Directive 2010/31/EU** (recasting and repealing Directive 2002/91/EC) on the energy performance of buildings, and,
- **Directive 2010/30/EU** (recasting and repealing Directive 92/75/EC) on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products**.**

In contrast to energy efficiency measures on the supply side (energy sector; included in the respective directives), these directives target the energy use-side. The main end-use sectors include: households, services (public and commercial), industry, and transport. Action Plans propose measures along this distinction, as well as cross-sector measures and general energy efficiency measures.

Conclusions: Setting the timeframe of energy market liberalization

The Energy Community became a vehicle of legal integration of the energy markets of the contracting parties of the region from its entering into force on 1 July 2006. However, the liberalization process of the energy markets already started before, i.e. through the Athens Process taking place between 2002 and 2005. On the country level, almost all contracting parties of the region established their regulatory authorities and adopted energy legislation already in the first half of 2000, some of them even started legal unbundling. The Energy Community Treaty then stipulated a clear timeframe and specifically defined milestones for their members regarding the adoption of the relevant acquis of the EU's Second Internal Energy Market package. Thus, legislation was amended in most contracting parties accordingly. The opening of electricity and gas markets for all non-household customers was set to take place on 1 January 2008; the market opening to all customers will proceed by 1 January 2015. Croatia is an exception, as it is close to accession to the European Union (most likely at the end of 2012/beginning of 2013) and needs to adopt the acquis of the European Union, not just the acquis of the Energy Community. Their market has formally been opened to all customers by 1 July 2008. As the European Union has recently adopted the Third Internal Energy Market package, Croatia's next milestones are the transposition of related legislation expected in March 2010 and their implementation in March 2012. According to company interviews, further restructuring of companies might be performed then.

2 Employment development and employment outlook

2.1 Employment evolution in the electricity, gas and water supply sectors in the Western Balkan contracting parties

This chapter is based on employment data in the gas and electricity sectors available from registers and the national Labour Force Surveys published by the respective Statistical Offices as well as findings obtained from interviews with energy companies and sectoral trade unions. The LFS is the only source providing comparable information on employment trends in the gas and electricity sectors for most of the Western Balkan contracting parties, but it does not offer any data on the impact of labour market liberalization. As for other shortcomings of the LFS, (i) there are no detailed LFS data available for Albania and Kosovo under UNSCR 1244/99; (ii) in a number of countries the LFS methodology has been adjusted several times to Eurostat/ILO methodology in the past couple of years; thus there are numerous breaks in the time series, which do not allow an in-depth analysis over time; and (iii), the data coverage is only available at the NACE two-digit level 'electricity, gas and water supply'. Due to these shortcomings of the LFS, registration data are used in some cases.

2.1.1 Overview of employment in the electricity, gas and water supply sectors

In the following we analyse the employment developments in the electricity, gas and water supply sectors based on LFS and registration data. Only registration data allow a breakdown of the NACE sector E into the two sub-sectors 'Electricity, gas, stream and hot water supply' (40) and 'Collection, purification and distribution of water' (41). Where available (Croatia, Montenegro, Serbia) the electricity, gas, stream and hot water supply sectors account for 62-67% of the NACE E groups' total employment.

Additional information for this section is obtained from interviews conducted among companies and trade unions of the electricity and gas sectors in the Western Balkan contracting parties. These data include information on the type of contract, employment by gender, age, qualification and sectoral distribution. In contrast to the data provided by the Statistical Offices, these data are available for the electricity and gas sector separately.

Information obtained from the individual contracting parties' registration data show only a moderate employment decline in the electricity, gas and water supply sectors between 2004 and 2008. As shown in Table 2.1 the number of employed decreased from 139,500 to an estimated 135,600 – a decline of 3,900 jobs.[4] A breakdown by individual contracting parties indicates that the number of employees was falling almost everywhere in the region, though to differing degrees; in Montenegro and in Kosovo under UNSCR 1244/99 it

[4] However, incomplete data suggest that restructuring of the energy sectors might have started in the first half of the new millennium already. E.g. Job losses for the 2002-2008 period are posted at about 9,600 based on registration data.

remained stable. The most noticeable drop is reported for the former Yugoslav Republic of Macedonia (-6.1%), Bosnia and Herzegovina (-4.6%) and Albania (-3.7%). In Croatia and in Serbia it fell by slightly more than 1%. As for the three countries where a more detailed breakdown of the employment data is possible, in the 2004-2008 period employment in the 'Electricity, gas, stream and hot water supply sector', decreased by about 4% both in Croatia and in Serbia and even rose in Montenegro.

Table 2.1

Registration data - Employment in electricity, gas and water supply

1000 persons average

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania	15.0	16.0	16.1	14.0	14.0	13.0	11.0	16.0	13.0	.
Bosnia & Herzegovina [1)]	.	.	24.0	24.0	23.7	24.6	23.9	22.3	22.6	22.9
Croatia [1)]	27.4	27.7	27.1	26.8	27.1	27.3	27.2	26.9	26.8	.
The former Yugoslav Republic of Macedonia[2)]	14.9	15.3	15.8	15.1	14.8	13.8	13.7	13.8	13.9	13.9
Montenegro	5.4	5.4	5.8	5.5	5.5	5.5	5.6	5.6	6.0	5.5
Serbia [1)]	.	48.7	47.5	47.0	46.5	45.6	43.7	45.0	45.8	45.8
Kosovo under UNSCR 1244/99[3)]	.	.	9.8	8.8	8.5	8.4	7.4	7.5	7.5	8.5
Total			**146.2**	**141.3**	**139.5**	**137.6**	**132.4**	**134.0**	**135.6**	**.**

Note: 2009 data are not available for Albania, in Croatia change of methodology.
1) Employees by registration.- 2) SNA. - 3) KEK.

Source: National Statistics.

A moderate decline is also indicated when using information obtained from the national labour force survey data. The data reliability is, however, questionable due to the strong fluctuations reported in the LFS of Serbia – the biggest country of the region.

Table 2.2

LFS data - Employment in electricity, gas and water supply

1000 persons, average

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Albania [1)]	15.0	16.0	16.1	14.0	13.5	12.5	10.9	13.0	13.0	.
Bosnia & Herzegovina [2)]	.	.	.	24.0	23.7	24.6	23.9	22.3	22.6	22.9
Croatia	30.0	29.0	27.0	28.0	29.0	29.0	23.0	28.0	29.0	.
The former Yugoslav Republic of Macedonia	.	16.5	14.8	15.2	15.8	17.0	16.0	15.6	15.5	15.3
Montenegro	.	.	.	.	6.5	5.6	4.8	6.1	5.6	5.6
Serbia	.	.	.	.	47.5	57.0	61.9	58.0	44.9	46.8
Kosovo under UNSCR 1244/99[3)]			9.8	8.8	7.4	8.4	7.4	7.5	7.5	8.5
Total					**139.5**	**154.0**	**147.9**	**150.5**	**138.1**	**.**

Note: 2009 data are not available for Albania, in Croatia change of methodology.
1) Employment by registration. - 2) Employees by registration. - 3) KEK (electricity sector).

Source: National LFS; KEK for Kosovo under UNSCR 1244/99.

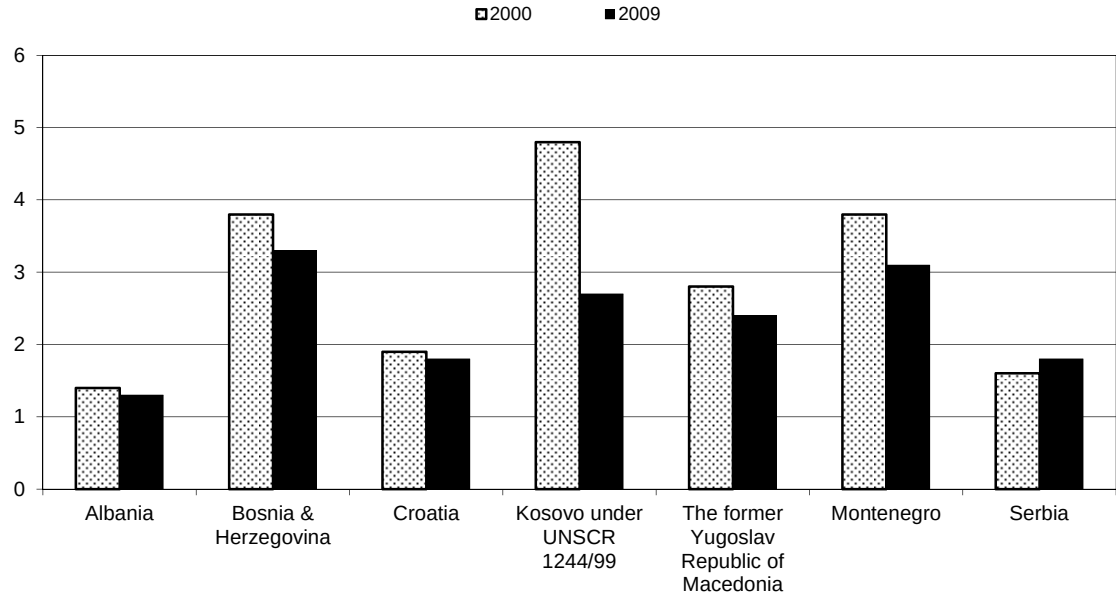
Measured as a share in total employment (Figure 2.1) the gas, electricity and water supply sectors are most important in Bosnia and Herzegovina and in Montenegro (slightly above 3% each), followed by Kosovo under UNSCR 1244/99 and the former Yugoslav Republic of Macedonia. In Croatia and Serbia these sectors absorb less than 2% of total employment, in Albania only 1.3%. The latter shares compare well with the values reported for the new EU member states (NMS). With the exception of Albania and Croatia, the share of those employed in the gas and electricity sectors has been steadily on the decline.

Regarding the type of contract, survey results indicate that employees both in the electricity and gas sectors are almost exclusively permanently employed. Part-time employment is practically nonexistent. Temporary employment accounts for about 1.5% of the total employment in the electricity sector and slightly less than 3% in the gas sector. Between 2005 and 2009 temporary employment increased somewhat in the electricity sector, but fell in the gas sector.

Figure 2.1

WBC: Employment in electricity, gas and water supply

share in total employment in %



Note: AL, ME: Employment by registration. BA: Employees by registration.
Data 2000: BA refers to 2003, KS to 2002, MK to 2001, ME and RS to 2004.
Data 2009: AL refers to 2007, Croatia to 2008.

Source: National LFS unless otherwise stated.

Employment by gender

Employment in the gas and electricity sectors has been dominated by males, accounting for 88% of total employment in Serbia, 85% in the former Yugoslav Republic of Macedonia and between 80% and 82% in Bosnia and Herzegovina and in Croatia. These percentages

have changed only slightly over time in Croatia and in Bosnia and Herzegovina, fell continuously in the former Yugoslav Republic of Macedonia and rose steeply in Serbia (from 79% in 2004). In Montenegro the proportion of males increased in the past couple of years from 80% in 2004/05 to 82% in 2008.

Findings from company surveys suggest that in the region as a whole the portion of female employment in the electricity sector fell from 23% in 2005 to about 19% in 2009. This is in strong contrast to the results obtained for both the old and the new EU member states, where the share of female employment in electricity sector increased during the period of liberalization. In the gas sector, where overall employment declined during that period, the portion of female employment even slightly increased to 24%, implying that men were more affected by job cuts than females.

Employment by age

Ageing of the workforce was one of the main findings of the ECOTEC study (2007, p. 119) dealing with the outcomes of restructuring in the gas and electricity sectors after/during market liberalization in the EU. As for the Western Balkan contracting parties only Croatia provides detailed data on the age structure of the employed for a longer time period (see below), which compares well with the results obtained for the EU countries.

Information collected from company surveys indicate only small shifts in the electricity sector employment structure by age in the Western Balkan contracting parties (excluding Serbia) between 2005 and 2009: accordingly in both years the share of employees up to 30 years accounted for roughly 9%, while the share for the 31-50 years age group increased by 1.5 percentage points to almost 60% and that for the age group over 50 years fell to 31%. By contrast, information provided by gas companies shows more pronounced shifts in the age structure of employed than in the electricity sector. In the gas sector the share of the young and prime age group declined by almost 2 percentage points in 2005 as compared to 2009, while that of the oldest age group rose by 4 percentage points to over 35%. This might suggest that the gas sector has not recruited new labour (young people in particular) during the past years and is also an indication that the liberalization process in this sector is not very advanced. As experienced in the European Union liberalization would require the creation of new job profiles (such as financial and legal and, marketing and sales qualifications). In the gas sector the share of the age group between 31 and 50 years is by about 10 percentage points lower than in the electricity sector.

Employment by sectoral distribution

The electricity sector of the Western Balkan contracting parties is dominated by employees in the upstream/production/generation and the distribution sectors accounting for 38% and 35% of the whole electricity sectors employees. But, since 2005 the proportion of both sec-

tors had decreased somewhat and the share of employees in transmission, auxiliary services and particularly in supply increased. According to information gained from the gas companies, the bulk of the workforce is employed in distribution (40%) and to a lesser extent in transmission (18%). Both sectors indicate a remarkable increase of their share in total gas sector employment since 2005, while the portion of employees in supply and auxiliary services shows a decline. Combined results for both sectors resemble the findings for the electricity sector (with the exception of auxiliary services) and also confirm trends in the EU countries reported in the ECOTEC study (2007): accordingly the distribution sector and to some extent the production sector have been affected most by employment cuts in the course of market liberalization, while employment in the transmission sector remained stagnant (declined in the Western Balkan contracting parties).

Employment by educational attainment

Information on the skill structure in these sectors is missing for most of the contracting parties in the statistical sources available. In Croatia providing the most detailed data the share of highly skilled employees has been increasing at the expense of the low skilled in the last couple of years (for further details see below).

Additional information obtained from the company questionnaires shows that the skill composition of employed in the electricity sector has changed slightly between 2005 and 2009. More than half of total sector employment accounts for employees with secondary education; its share fell from 54.6% to 52.6%. From a comparative perspective these findings contrast with those from the new EU member states where about two thirds of the energy sector employees hold a secondary education degree.[5] At the same time the portion of employees with a university degree or a non-university college degree has somewhat increased (but fell in absolute terms). As for the gas sector, findings from the company surveys indicate a considerable shift in the share of the highly educated employees, increasing by roughly 5 percentage points to 30% in 2009, while the portion of those with secondary education fell by almost 5 percentage points (to 48%). The portion of employees with lower education was slightly on the decline, implying that job losses have been mainly experienced at the expense of low skilled workers.

[5] This might be explained by the large differences in the structure of education between the new EU member states and the Western Balkan contracting parties. As it is found by Gligorov et al. (2008) the *overall educational attainment levels* of the working-age population in all countries of the region, except Croatia, show a significantly higher share of low-educated than the EU-15. Close to 40% belong to this group, in Bosnia and Herzegovina and in the former Yugoslav Republic of Macedonia almost half of the working-age population, as compared to around 35% in the EU-15 and some of the new EU member countries. At the same time, the portion of the highly educated is in some cases (Bosnia and Herzegovina and the former Yugoslav Republic of Macedonia) much lower than either in the EU-15 or in for example in Slovenia. The Western Balkan countries have a lower representation of the medium-educated as compared to the new EU member states.

Wages

Wages in the energy sector tend to be higher than the average wages in the economy. As Table 2.3 illustrates average monthly gross wages in the electricity and gas sectors exceeded the average wage in 2009 by more than 40% in Bosnia and Herzegovina, Serbia and Macedonia; in Montenegro it is about 30%. Only in Croatia the discrepancy between national average wages and wages in the energy sector is much lower than in the remaining Western Balkan contracting parties. Among the reasons behind the higher wage levels in the energy sector may be the higher educational level of employees as compared to the national average, but also the high degree of unionization in this sector.

Table 2.3

Western Balkan contracting parties: Average gross monthly wages in EUR

	2005	2006	2007	2008	2009
Albania					
Total	161	177	221	228	242
E Electricity, gas and water supply		.	.	.	.
Bosnia and Herzegovina					
Total	407	444	488	569	615
E Electricity, gas and water supply	.	.	676	788	871
NACE E in % of average wages	.	.	138.7	138.5	141.6
Croatia					
Total	844	906	961	1044	1051
E Electricity, gas and water supply	934	1003	1065	1175	.
NACE E in % of average wages	110.6	110.7	110.9	112.5	.
Serbia					
Total	308	377	484	561	470
E Electricity, gas and water supply	429	505	664	711	663
NACE E in % of average wages	139.5	133.8	137.1	126.7	141.0
The former Yugoslav Republic of Macedonia					
Total	348	376	395	428	488
E Electricity, gas and water supply	442	535	527	545	689
NACE E in % of average wages	127.0	142.2	133.5	127.3	141.3
Montenegro					
Total	326	377	497	609	643
E Electricity, gas and water supply	499	633	701	783	829
NACE E in % of average wages	153.0	167.8	141.0	128.6	128.9
Kosovo under UNSCR 1244/99 - net wages in the budget sector					
Total	194	195	199	211	275

Note: 2009 data are not available for Albania. Croatia: change of methodology (not comparable with previous years).

Source: wiiw, Statistical Office Kosovo.

2.1.2 Employment in the electricity, gas and water supply sectors by country

In the following section we shall provide information on employment in the electricity, gas and water supply sectors of the Western Balkan contracting parties country by country based on official statistical sources. However, available data differ significantly by methodology and coverage across the region with Croatia and the former Yugoslav Republic of Macedonia providing the most detailed datasets about the sector, while information on Kosovo under UNSCR 1244/99 is almost non-existent. In addition we employed information obtained from surveys among companies and trade unions of the energy sector.

Thus, data limitations may impede the analyses and the outcome might be controversial in some cases depending on the data source used.

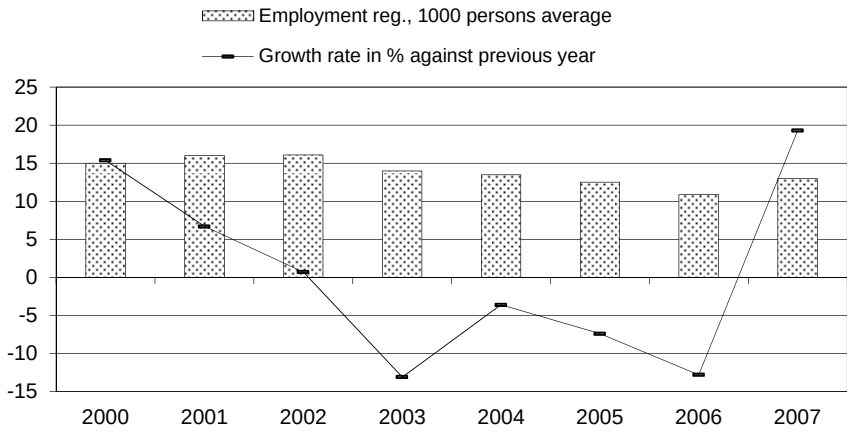
Albania

In absolute terms the electricity, gas and water supply sector employed about 13 thousand persons in 2007 - or 2000 persons less than in 2000 (Figure 2.2). Following the decline in the 2003-2006 period employment rose again quite substantially in 2007, by 19.3% or 2100 persons as compared to 2006. The reduction of employees is likely a consequence of restructuring, while new job creation in 2007 seems to have been politically motivated (2008 was an election year).

Employment in the electricity and gas sectors accounted for about 1.3% in overall employment in 2007 which was only slightly lower than in 2000 (1.4%). This low percentage compared with most of the other contracting parties is primarily resulting from the fact that 'the gas system is practically out of use due to the very low level of gas availability' (ECRB, September 2008).

Figure 2.2

Albania: Employment in electricity, gas and water supply



Note: 2002 break in time series.

Source: wiiw Database incorporating national statistics.

Findings from the company interviews indicate that the electricity sector employs about 7700 workers, the number of which has somewhat increased since 2005. The share of female employment accounted for roughly 20% in 2009. The vast majority (77%) of employees has secondary education, while those with the highest and the lowest educational levels account for 11% and 12% respectively.

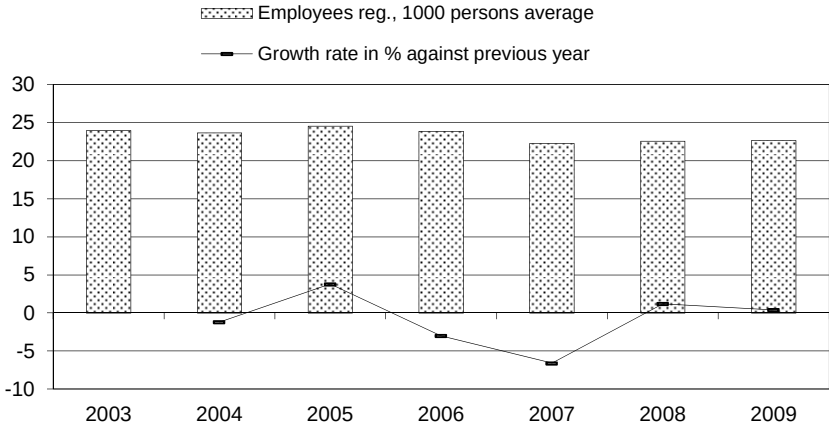
Bosnia and Herzegovina

In Bosnia and Herzegovina the number of employees in the electricity, gas and water supply sectors fell by about 1,3400 persons or 4.6% between 2003 and 2009 (Figure 2.3). In 2009 this sector absorbed about 3.3% of total employees down from 3.8 % in 2003.

Results from company surveys indicate that the number of employees in the electricity sector has increased between 2005 and 2009 by about 13%. About 46% of the employees have a low level qualification, the share of which has somewhat decreased in the past couple of years. Employees with a high level of education constitute about 23% of the sectors employees (with a tendency to rise) and those with a secondary education about 31%. Female employment accounting for about 22% of electricity sector employment has increased since 2005. Regarding the age profile of the workforce both the share of the young and old age groups indicate an increase in the past couple of years, while the share of the prime age group witnessed a strong decline.[6]

Figure 2.3

Bosnia and Herzegovina: Employment in electricity, gas and water supply



Source: wiiw Database incorporating national statistics.

Croatia

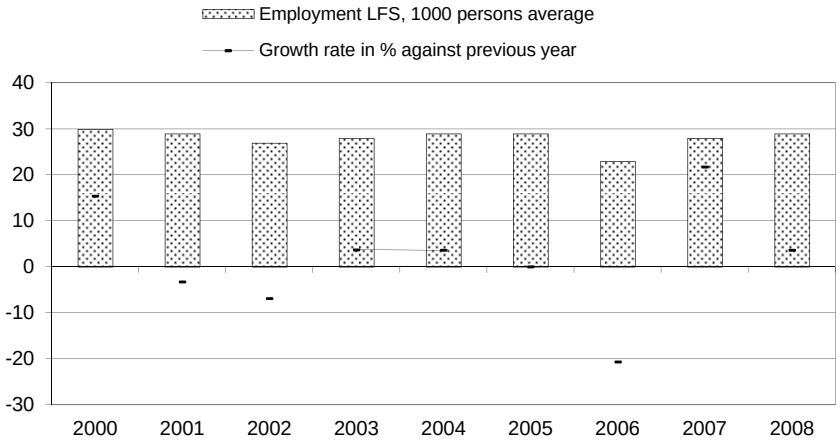
Based on LFS data Croatia's workforce in the gas, electricity and water supply sectors fluctuated somewhat in the 2000-2008 period with the number of workers declining in the

[6] Information on employment by gender and age has to be treated with caution due to the small number of respondents.

years 2001 and 2003 following a resumption of employment growth thereafter (figure 2.4a). 2006 witnessed a sharp job reduction which was more than offset in the two consecutive years. Over the whole period employment fell from 30 thousand persons in 2000 to 29 thousand in 2008. With the exception of 2001 the proportion of those working in the electricity and gas sectors amounted to less than 2% of total employment.

Figure 2.4a

Croatia: Employment in electricity, gas and water supply

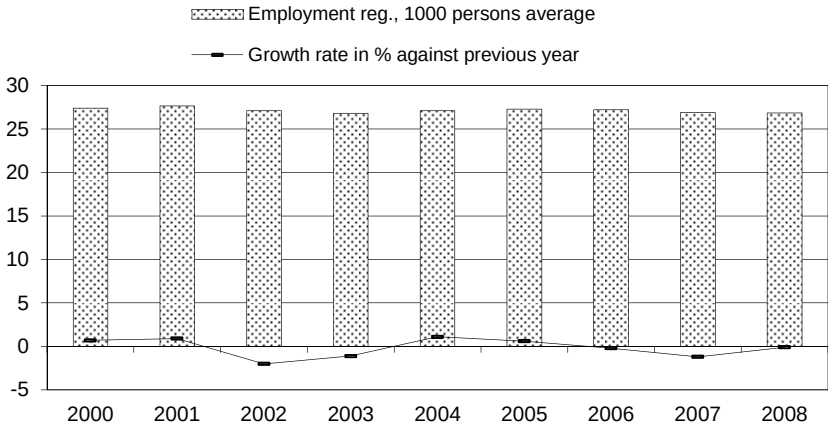


Source: wiiw Database incorporating national statistics.

Registration data covering only employees, post the number of persons working in the electricity, gas and water supply sectors at close to 27 thousand in 2008, which is almost equal to those employed in 2000 (Figure 2.4b). Out of the total, close to 80% were males, the percentage of which remained practically unchanged over the whole period under consideration.

Figure 2.4b

Croatia: Employment in electricity, gas and water supply



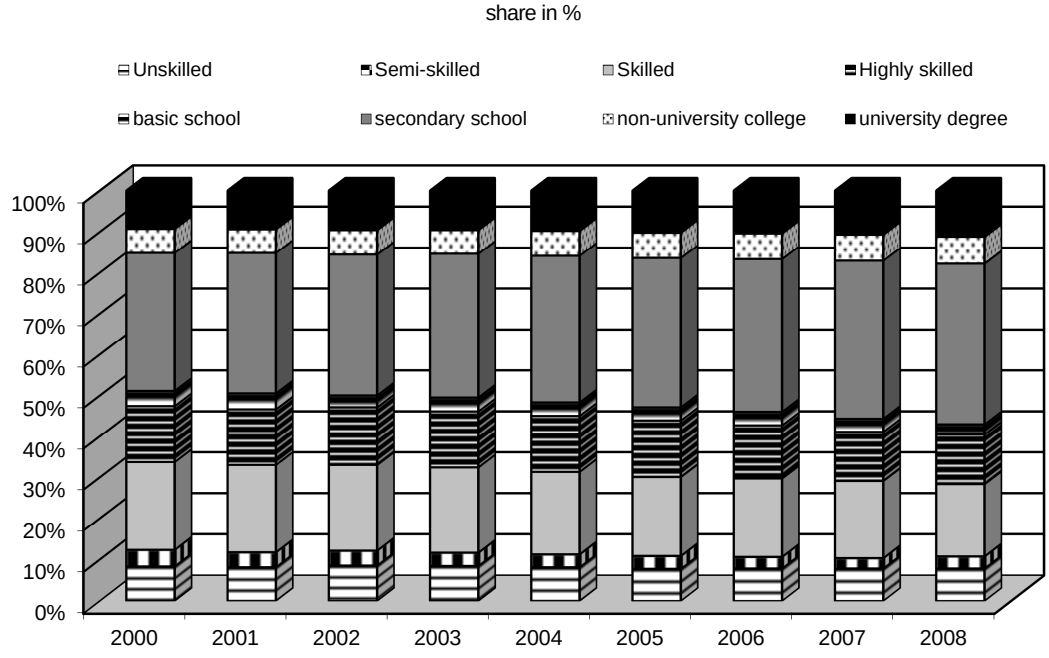
Source: wiiw incorporating national statistics.

This dataset allows also a breakdown of the NACE E sector into 'electricity, gas, stream and hot water supply' (40) and 'Collection, purification and distribution of water' (41). Accordingly the number of employees in the division 40 fell by about 1400 in the period 2000-2008, mostly in 2002-2003 and 2007-2008. A breakdown by educational attainment shows rising employment for the highly educated groups from 2003 onwards, while all other educational groupings report job losses.

These developments are also reflected in their share in the total electricity and gas sector employment. As illustrated in Figure 2.5 the proportion of employees holding a university degree rose to 11.2% in 2008 from 9.3% in 2000 and of those with non-university college to 6.6% (5.9%). However, the most outstanding rise among all educational groups is reported for employees with secondary education, increasing their share from 33.7% to 39.2%, which is mostly due to the changes in male employment. Conversely, the proportion of skilled employees fell continuously, from 21.4% to 17.5% over the same period.

Figure 2.5

Croatia: Employment in electricity, gas and water supply by educational attainment, 2000-2008

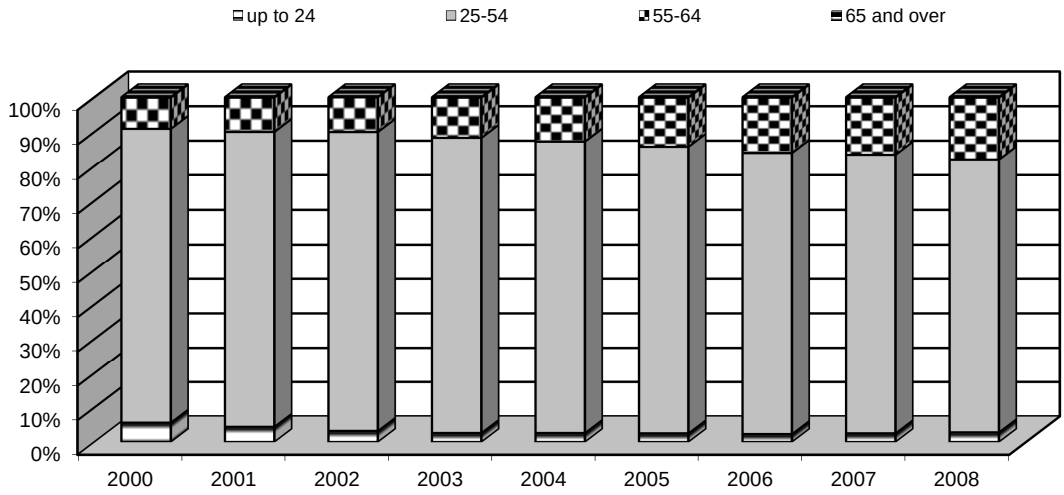


Source: Statistical Office of Croatia. Registration data.

The past years witnessed an ageing of the workforce in the electricity and gas sectors in Croatia with the share of young people (up to 24 years) declining to 2.8 % (from 5.6%) and those in the prime age (25-54 years) shrinking to 79.2% in 2008 from 85.3% in 2000 (Figure 2.6. By contrast the share of employees in the 55-64 age groups doubled from 9% to 18%. These patterns apply to both, males and females equally.

Figure 2.6

Croatia: Employment in electricity, gas and water supply by age, 2000-2008



Source: Statistical Office Croatia. Registration data.

When it comes to employment by ownership, it is interesting to note that the share of those working in state owned companies has been increasing over time, from about 85% in 2000 to 93% in 2008, at the same time the proportion of privately employed increased from 3.2% to 4%, while the share of employees in companies with mixed ownership fell from 11% to 3.4%.

In the course of 2010 the Croatian government announced to reduce the staff in the public sector by 5%, which will also affect employees in the electricity and gas sectors. In September 2010 the management of INA, Croatia's major oil and gas Company announced to lay off 1500 workers (about 9% of the company's workforce) with a redundancy programme.

The former Yugoslav Republic of Macedonia

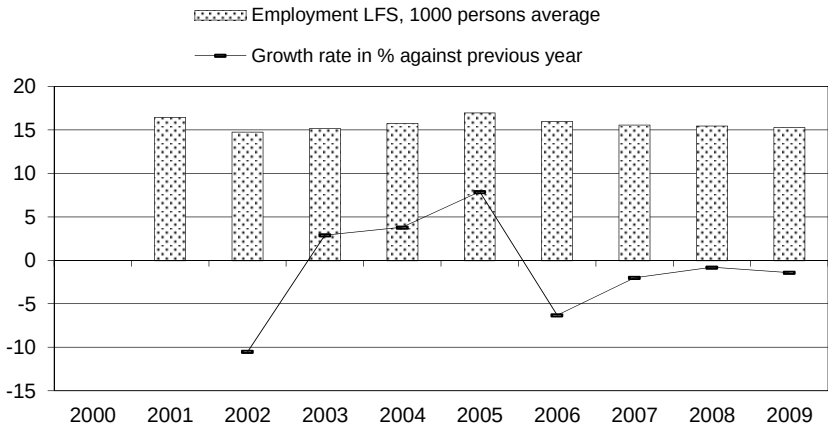
In the former Yugoslav Republic of Macedonia employment in the electricity, gas and water supply sectors grew up to 2005 when 17,000 persons were working in the energy sector, but fell steadily thereafter (Figure 2.7). Based on LFS data in 2009 about 15,300 persons were engaged in the energy sectors, with the share in total employment falling from 2.8% in 2001 to 2.4% in 2009. Male employment accounted for roughly 82% and was significantly down compared with 2001 (87%).

Figures given by national account statistics are lower during the observation period, reporting a peak level in employment in 2002 and a steady decline thereafter. According to that

measure the number of employed in the gas and electricity and water supply sectors amounted to 13,900 in 2008 by 1600 less than recorded by the LFS.

Figure 2.7

The former Yugoslav Republic of Macedonia: Employment in electricity, gas and water supply

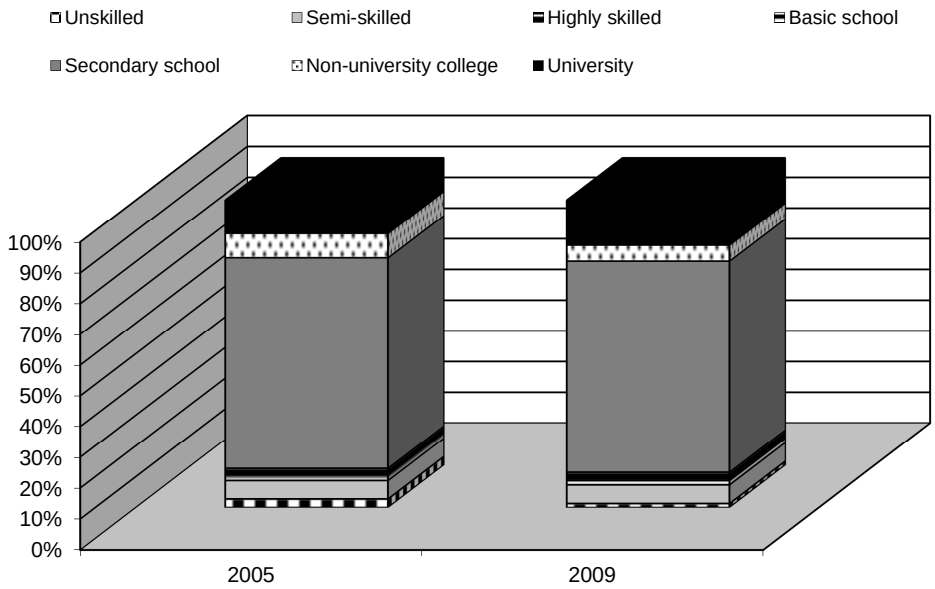


Source: LFS the former Yugoslav Republic of Macedonia.

Regarding educational attainment, findings from company interviews, indicate a rising share of employed in the electricity sector holding a university degree or which have attended a non-university college. The share of the major group (secondary education) comprising about two thirds of the sectors' employed as well as those with the lowest qualification fell slightly between 2005 and 2009 (Figure 2.8).

Figure 2.8

The former Yugoslav Republic of Macedonia: Employment in electricity, gas and water supply by educational attainment, 2005 and 2009



Source: Company interviews.

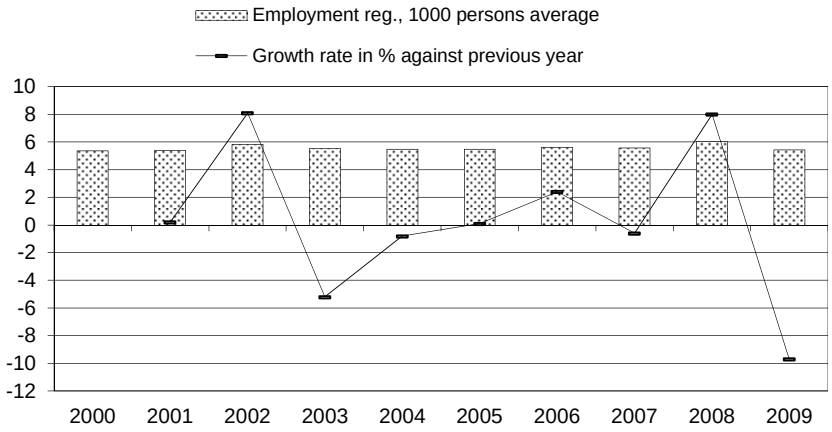
Montenegro

Irrespective of the methodology used employment in the electricity, gas and water supply sectors in Montenegro stood at about 5600 in 2009. While figures obtained from the LFS point to shrinking employment as of 2008 and a stagnation in 2009, registration data report an uneven development in the past couple of years and a particularly strong decline in 2009 (Figure 2.9). Similar to most other contracting parties, the electricity and gas sectors' share in total employment fell over time, amounting to 2.6% in 2009 (LFS).

Conversely, information obtained from registration data puts this share of the electricity and gas sectors in total employment at 3.1%. Starting from 2002 the employment composition by gender exhibits a rising share of female employment from 19.6% to 22.2% in 2008. Registration data does also allow a breakdown of the NACE E sector into 'electricity, gas, stream and hot water supply' (40) and 'Collection, purification and distribution of water' (41). Accordingly, employment shrank up to 2004 and increased continuously till 2008 (latest available data). In 2008 division 40 accounted for about two thirds of the total NACE E group, out of which 19% were females in 2008.

Figure 2.9

Montenegro: Employment in electricity, gas and water supply



Source: wiiw Database incorporating national statistics.

Kosovo under UNSCR 1244/99

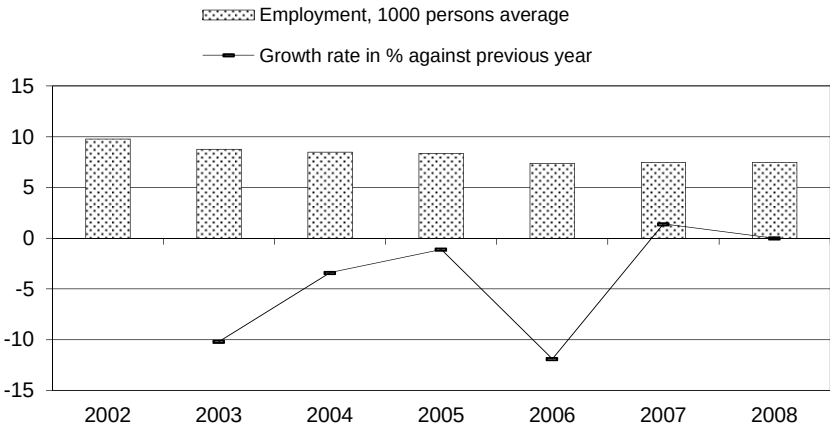
According to the Annual Reports of KEK (Kosovo Energy Corporation) the sole electricity provider in the country, the electricity sector employed 7500 people in 2007, by 2322 persons or 23.6% less than in 2002 (Figure 2.10).

Kosovo under UNSCR 1244/99 LFS reports employment data by activities only in relative terms. The whole energy sector absorbed around 4.5% of total employment in 2009. Major employment challenges in the electricity sector are still ahead. The government has indi-

cated that it will move forward with the privatization of KEK, but a clear timetable and a detailed plan of action are still missing.

Figure 2.10

Kosovo under UNSCR 1244/99: Employment in the electricity sector (KEK company)



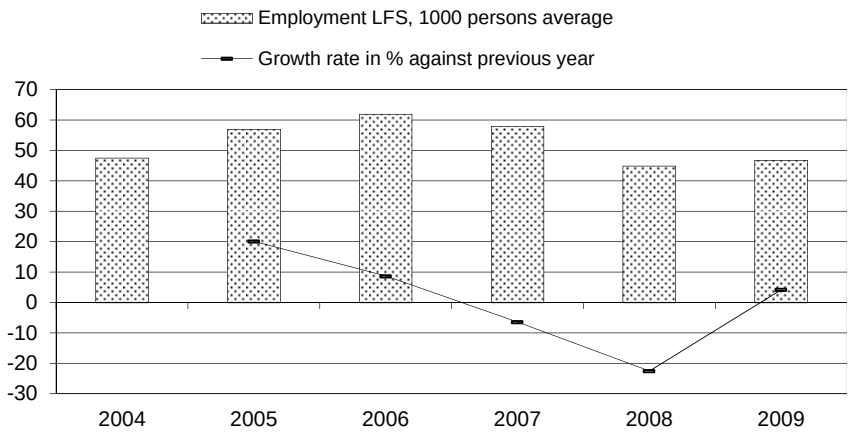
Source: KEK. Own calculations.

Serbia

As illustrated in Figure 2.11 employment data for the electricity and gas sectors in Serbia show large differences - particularly for the years 2005-2007 - dependent on the sources used. LFS data indicate substantial employment fluctuations in the gas and electricity sectors, reaching a peak level in 2006 when the workforce in that sector totalled 62,000 persons (Figure 2.11a). In the following two years employment fell sharply (-27.5%). In October 2009 the electricity and gas sectors accounted for 1.8% in total employment. The share of females has been declining from 21% in 2004 to 12.3% in 2009. As regards the educational attainment about two thirds were medium skilled, 25.8% highly skilled and the remainder (8%) was low skilled. Concerning the age structure of the employed the LFS does not consider the young people up to 24 years; prime age workers (25-54 years) account for about 80% and those between 55 and 564 years of age 20%. The regional distribution of workers employed in the electricity and gas sectors has changed significantly between 2004 and 2009. In 2009 employment was concentrated in Central Serbia (without Belgrade) absorbing about two thirds of total sector employment (versus 34% in 2004), slightly more than one quarter in Belgrade (vs. 39%) and about 21% in Vojvodina (vs. 18%).

Figure 2.11a

Serbia: Employment in electricity, gas and water supply

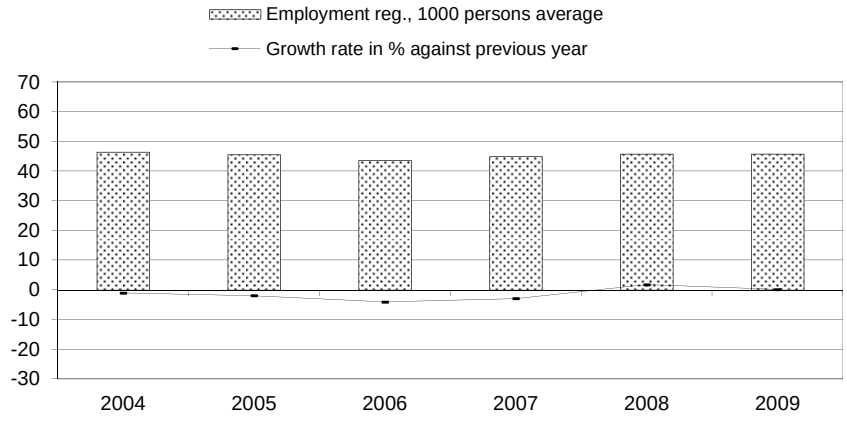


Source: Statistical Office of Serbia.

Employment developments based on registration data paint a different picture. According to this measure in the period 2001-2006 about 5100 jobs got lost, which was partly offset by new employment creation in the two following years; in 2009 registered employment in the electricity and gas sectors totalled 46,800 persons. Registration data does also allow a breakdown of the NACE E group into two divisions 'electricity, gas, stream and hot water supply' (40) and 'Collection, purification and distribution of water' (41). Accordingly, division 40 accounted for about 61% of the total NACE E section in 2008.

Figure 2.11b

Serbia: Employment in electricity, gas and water supply



Source: LFS and registration data Statistical Office Serbia.

2.1.3 Current state of employment restructuring and outlook for the next three years

In the following we present results from interviews conducted among companies and trade unions in the electricity and gas sectors in the Western Balkan contracting parties concerning the question on the scope of employment restructuring until 2009 and the expectations for the years to come.

Altogether this question has provoked a wide range of answers. Companies and trade union responses differ across the region and by sectors. As illustrated in Table 2.4 representatives of both companies and trade unions from Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Kosovo under UNSCR 1244/99 think that a major part of employment restructuring in the electricity sector has been completed; in Croatia and in Serbia about half of the restructuring is believed to have been completed (Serbian trade union representatives stated on several occasions that 'restructuring is over'). Only in Montenegro the bulk of the restructuring is still ahead, according to the questionnaires. In general, trade union representatives are more optimistic about restructuring - in the sense that they think most of it is already completed – than employers. Results obtained from interviews with company representatives of the gas sector show that only in Croatia a substantial restructuring of employment has already occurred. As for the remaining countries respondents think that a major part of restructuring in still ahead.

Table 2.4

Proportion of employment restructuring, end of 2009, in %

	AL	BiH	HR	MK	ME	RS	KS
According to Companies							
Electricity sector	25-100	60-80	50	20-65	15	70	50-70
Gas sector	n.a	10	0-60	n.a.	0-80	20-30	n.a
According to Trade Unions							
Electricity sector	n.a	60-80	80	70-100	0-25	40-60	70
Gas sector	n.a	60	n.a	n.a.	0	20-90	n.a

Question: Taking the end of 2005 as a starting point, and 2015 as an end point (when full market opening of the market should occur), what approximate

Source: 61 Questionnaires (ministries and energy agency excluded).

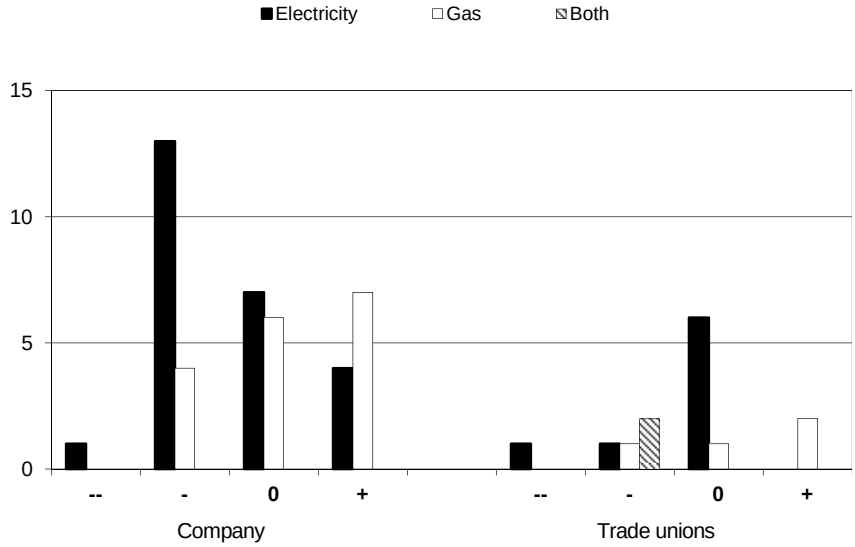
Findings about future employment prospects for the electricity and gas sectors do not point to any dramatic changes in the near future. Accordingly the majority of employers expect rather small, but necessary, job reductions or stable employment in the electricity sector and to a lesser extent in the gas sector in the years up to 2012. A significant portion of respondents even expects a rise in employment (particularly in the gas sector). Among representatives from trade unions the overwhelming majority (75%) does not expect any strong employment reductions in the electricity sector. There is also a general belief that future employment reductions will not be necessary. Most of the respondents (75%) expect the number of employees to remain stable, but none of the trade union representatives interviewed thinks that employment in the electricity sector will rise in the years up to 2012. Some believe that the number of employed will remain unchanged but expect that technological changes may entail a shift in the educational structure of the sectors' workforce.

As for the former Yugoslav Republic of Macedonia, the country's biggest electricity company saw already strong job reductions since EVN Austria bought a 90% share in 2006. Despite an agreement not to lay off personnel in the first three years after the takeover, about one third of the original staff has left the company in the frame of a voluntary leave programme. Also in Montenegro an employment guarantee was provided when the Italian A2A partially privatized the country's electricity company. In that case a voluntary leave programme existed already even before the takeover. However, the number of those who left the company is not that significant as in the Macedonian case.

Asked about the future employment evolution by type of employment 44% of company respondents in the electricity sector expect the number of permanent employees to decline in the next three years, while about 40% think that employment will remain stable. Only a small portion of respondents is seeing permanent employment to increase. Regarding temporary employment half of the employers surveyed in the electricity sector do not expect any change, while one third of respondents indicated a decline in the years to come (however as illustrated above the portion of temporary employed is almost negligible). More than half of the company respondents in the gas sector think that permanent employment will remain stable and one third expects a rise in employment; only a negligible portion of employers surveyed expects a job reduction in the period up to 2012.

Figure 2.12

Employment expectations for the next 3 years, number of responses



Question: How will total employment evolve in your company over the next 3 years (2010-2012)?
(--) There will be strong reductions (more than 10% of the total)
(-) Reductions will be necessary, but will be small
(0) Staff numbers will stay roughly the same
(+) Staff numbers will increase

Notes: Both = Trade unions covering both sectors

Source: 61 Questionnaires (ministries and energy agency excluded).

In the ECOTEC study (2007) it was found that in the EU-15 and EU-10 the incidence of employment cuts from restructuring was much higher for males than for females. As for the Western Balkan contracting parties more than half of trade union representatives think that female employment will not be affected by employment reductions in the course of restructuring, while the others expect women to be hit most. It is interesting to note, that the reasons given in both cases were the strong representation of female employment in administration, which will either remain (more or less) stable or decline significantly. As far as older workers are concerned two thirds of respondents think that older workers could be (heavily) affected by job losses due to restructuring. So far, many companies offer retirement packages or are expected to do so. One of the trade union respondents representing one of the biggest companies in the regions' electricity sector addressed the problem of the workforce ageing and the need of training programmes for the younger staff members.

As a consequence of market liberalization, new skills will be required. About 70% of respondents have stated that new technical skills will be needed. In addition, more than half of the company representatives indicated the need of financial and legal, marketing & sales personnel in the future. In general, a shift to high skilled workers is expected.

Generally, different factors might affect the employment development in the gas & electricity sectors. These include the liberalization of the markets (through the opening of the customer market and the third party access rules), general economic conditions or technological change. Looking at the company responses, the vast majority (86%) thinks that after the opening of the consumer markets employment in the electricity sector will remain stable or increase; also third party access rules are seen leading to a growing (27%) or a stable number of employees (66%). General economic conditions may bring about stable employment (55%) or an increase in employment (30% of respondents). Almost half of the company representatives (48%) believe that technological change should not result in any particular change of employment, while some 30% think that the number of jobs may shrink and at least 20% expect employment to increase. Results obtained for the gas sector employment are very similar to those for the electricity sector, where – as a consequence of market liberalization, changes of technology or because of the general economic conditions – the majority of respondents expects either a stable or growing number of jobs.

2.1.4 Trade unions in the Western Balkan contracting parties

From an earlier wiiw study on the Western Balkan labour markets (commissioned by DG ECFIN, 2008) and more recent literature (Kohl, 2009) we know that *trade union* density has been declining in the majority of the Western Balkans in general, but is still higher than in the NMS (Table 2.5); organizations are fragmented, and this seems to fuel fragmentation on the employer side and vice versa (Sengenberger, 2006; Cazes and Nesporova, 2006). Though trade unions have changed during the transition period, from party-

controlled bodies to representatives of workers interests, their bargaining power has declined at all levels (Arandarenko, 2003). The union density is highest in the state dominated sectors and very low or non-existent in the private sector. In most countries, excepting Bosnia and Herzegovina and Kosovo under UNSCR 1244/99, there exist statutory requirements for tripartite consultations, but in many cases only on paper. Frequently the dialogue between the government and the social partners, particularly the trade unions, is lacking.

Table 2.5

Trade union density and collective bargaining coverage in selected countries

	Trade union density[1)]		**Collective bargaining**[2)] **coverage**
	1995	**2008**	**2008**
Czech Republic	46	19	50
Hungary	29	17	25
Poland	33	13	30
Slovakia	57	20	35
Slovenia	63	40	96
Estonia	32	8	25
Latvia	28	16	34
Lithuania	20	11	10
Bulgaria	35	19	35
Romania	60	35	100
Albania	.	23	30
Bosnia and Herzegovina	.	30	50
Croatia	65	35	55
Former Yugoslav Republic of Macedonia	.	30	45
Montenegro	.	35	60
Serbia	.	33	.
EU 25	26	25	66

Note: Kosovo under UNSCR 1244/99: Collective Agreement formally signed in 2004, but not in force yet.
1) Trade union density: union members as a percentage of wage earners. – 2) Collective bargaining coverage: wage earners covered by collective bargaining.

Source: European Foundation (2007b), www.worker-participation.eu; Kohl (2009) and http://www.worker-participation.eu/National-Industrial-Relations/Across-Europe/Collective-Bargaining2

In the whole region employers' organizations exist at national level, but there are no employers' organizations in the gas and electricity sectors. Thus, collective agreements as a rule are concluded at company level.

Trade unions in the energy sector

In all Western Balkan contracting parties, trade union density in the electricity and gas sectors is exceeding average trade union density by far. In both sectors 90-100% of all employees are members of a trade union, the only exceptions being Albania and Kosovo un-

der UNSCR 1244/99 where the respective values are ranging between 40% and 50%. The high union density is primarily resulting from the fact that the energy sector is majority state owned in most countries of the region. By contrast, in a number of small companies interviewed in the framework of the present study, trade unions do not exist at all. Considering the high trade union density it is not surprising that almost all employees are covered by collective agreements in both sectors in all Western Balkan contracting parties.

There are three main trade unions in the energy electricity sector in *Bosnia and Herzegovina*: the trade unions of EP HZHB, EP RS and the trade union of EP BiH. In terms of hierarchy, all of them have the same power. But even so, there is a certain competition among them – bearing in mind that salaries, normative rules etc. depend on whichever electricity company is concerned, and that they have their own collective agreements. The trade union of EP RS also covers sectors such as mining and oil and, partly, the metals industry. This is not the case for EP HZHB and of EP BiH. Mining, oil and the metals industry have their own trade unions which are not as influential as those of the electricity sector.

Workers in the gas industry are represented by the trade union of municipal workers (communal sector), who are covered by a different collective agreement. Theoretically, also here all trade unions have the same power and do not compete among each other. However, the electricity sector has a more dominant position because it has its own trade union as opposed to the gas sector which is part of the communal sector trade union.

According to *Croatian* trade union representatives, 94% of the 33,000 employees in the electricity sector are under collective agreements. In key energy companies such as INA and HEP all workers are covered by collective agreements; the latter are concluded at company level. HEP has three trade unions of which HES is the largest. When the collective agreement within HEP is discussed, all trade unions are cooperating. Their power depends on the number and position of their members in the HEP Group – HES being the most influential.

In other Croatian companies of the energy sector there are also several trade unions, the two largest being the Independent Trade Union of Energy, Chemistry and Non-metal Industry and SING (Trade Union of Petrol Economy, the latter representing mostly the workers of Plinacro, the state-owned Gas TSO Operator). SING and HES are members of the same trade union association – the Independent Croatian Trade Unions (NHS). They have common goals and are cooperating. Workers in gas distribution companies (city gasworks) are members of the Autonomous Trade Union of Workers in Public Utilities. In general all these trade unions are not competing among each other because they have different employers.

Company-level agreements apply also to the *former Yugoslav Republic of Macedonia*, owing to the lack of an employers' association in the electricity sector (i.e. no partner for negotiations). Only permanent workers benefit from collective agreements. Until 2005, when the state-owned company ESM was split into four parts (production – ELEM and another thermal power plant, Negotino; transmission; and distribution), there was only one trade union within that company. After the split, each company established its own trade union, but all of them became members of a single sectoral trade union which was formed then.

After the distribution company had been sold to EVN, a new trade union was formed within that company which acts as an independent body. The EVN trade union is neither a member of, nor does it cooperate with, the sectoral trade union (which continues to exist with three members – the ELEM, MEPSO and Negotino trade unions).

In the absence of a collective agreement in the electricity sector, there is hardly any field for competition among the trade unions, thus they are focused on their work (and negotiations) with the companies within the existing framework. Furthermore, the sectoral trade union follows a policy which is usually guided by its members (ELEM, MEPSO and Negotino trade unions), while the EVN trade union acts completely independent.

In *Montenegro*, there has so far been one strong union in the main electricity company, but currently an additional union for that company is in the process of registration. This will result in competition among the two unions, as some members of the 'old' union signed up for the new one. In the gas sector there is no competition.

Both of the two large public companies in the gas and electricity sectors in *Serbia* have their own trade unions – the Trade Union of the Workers of Elektroprivreda Srbije, and the Unified Trade Union Organizations of Srbijagas. They have a dominant position in the companies, claiming that 95% of the workforce are their members.

These two trade unions do not communicate with other trade unions – notably, the Alliance of Autonomous Trade Unions of Serbia, and the Independent, who claim to represent the whole body of workers in Serbia. Neither the Alliance nor the Independent try to compete for influence over the Elektroprivreda Srbija or Srbijagas workers.

Conclusions

Employment data available so far as well as results obtained from interviews with companies and trade unions in the gas and electricity sectors indicate only minor job losses – occurring particularly in production and in distribution – since 2004. The share of female

employment fell in the electricity sector, but increased slightly in the gas sector, implying that males were more affected by job cuts than females.

With the exception of Croatia, all Western Balkan contracting parties show a declining employment share of the oldest age group in the electricity sector, while employment in the gas sector resembles the EU pattern, with a shrinking portion of the youngest and a rising share of the oldest age groups.

The skill composition of those employed in the electricity sector has changed only marginally in the past several years. Slightly more than half of the employees have secondary education – this is a considerably lower share than in the NMS where about two thirds of energy sector employees hold a secondary education degree. The portion of employees with the highest level of education has somewhat increased (but has fallen in absolute terms). In contrast, the gas sector underwent a significant upward shift towards highly educated employees while the portion of those with secondary education fell noticeably. The share of the less educated was on the decline, implying that job losses were mainly experienced at the expense of low-skilled workers.

Wages in the energy sector tend to be higher than average wages in the economy which compares well with other European countries. In Bosnia and Herzegovina, Serbia and the former Yugoslav Republic of Macedonia, wages in the energy sector exceed the national average by 40%, in Montenegro by about 30%. Only in Croatia is the discrepancy between national average wages and wages in the energy sector much lower than in the remaining Western Balkan contracting parties.

Information obtained from national statistical sources indicates only a small decline in employment in both the gas and electricity sectors, which would hint at a low degree of restructuring. This is in contrast to surveys conducted among companies and trade unions which suggest that, in the electricity sector, a major part of employment restructuring has been completed in most Western Balkan contracting parties; in Croatia and Serbia that restructuring process is halfway through, while in Montenegro it is still ahead. In the gas sector, however, substantial restructuring has so far only occurred in Croatia according to the surveys. In general, both company and trade union respondents believe that there will be rather small job reductions in the future. More than half of the employees' representatives think that female employment will not be affected by job losses, while the remaining respondents expect women to be hit hardest. Concerning older workers, they could be (heavily) affected by employment cuts due to restructuring according to two thirds of respondents.

The vast majority of respondents expect that as a consequence of market liberalization, new skills will be required, in particular technical skills, financial and legal as well as mar-

keting and sales qualifications. In general a shift towards high-skilled workers is anticipated.

In all Western Balkan contracting parties except Albania and Kosovo under UNSCR 1244/99, between 90% and 100% of all employees are members of a trade union both in the gas and electricity sectors. Almost all employees are covered by collective agreements concluded at company level due to the absence of employers' associations. Despite the high fragmentation of trade unions it seems that they do not compete among each other in most contracting parties.

Overview of statistical sources

Electricity, gas and water supply: Employment data

		E Electricity, gas and water supply						40 Electricity, gas, stream& hot water supply						41 Collection, purification & distribution of water					
		total	gender	age	education	occupation	ownership	total	gender	age	education	occupation	ownership	total	gender	age	education	occupation	ownership
HR	Employment LFS	**96-08**																	
	employees av.	**97-08**	**99-07**	**-**	**-**	**-**	**-**	**99-08**	**99-08**	**-**	**-**	**-**	**-**	**99-08**	**99-08**	**-**	**-**	**-**	**-**
	employees 31.03	**99-08**	**99-08**	**99-08**	**99-08**	**-**	**99-08**	**99-08**	**99-08**		**99-08**	**-**	**-**	**99-08**	**99-08**		**99-08**	**-**	**-**
AL	Employment LFS	**07**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**
	Employment reg.	**94-07**																	
BA	Employment LFS																		
	Employees	**03-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
MK	Employment LFS	**01-09**	**01-08**	**-**	**02-05**	**01-09**	**01-09**		**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**
	Employment SNA	**97-08**																	
	Employees	**03-08**																	
ME	Employment LFS	**01-09**	**08-09**																
	Employment reg.	**00-09**	**02-08**					**02-08**	**02-08**					**02-08**	**02-08**				
RS	Employment LFS	**04-09**	**08-09**	**08-09**	**08-09**														
	Employees	**01-08**						**01-08**						**01-08**					
KS	Employment LFS																		
	Employees	**03-09**	**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**

Sources: National statistics.

n.a

available

2.2 Quantitative analysis of labour surplus in the electricity and gas sectors of the Western Balkans

Introduction

In this section we will analyse quantitatively the potential surplus of labour in the electricity and gas sector of the Western Balkans, given future liberalization efforts and efficiency gains. We will employ two different quantitative methods. Firstly, in a panel data approach, we will estimate econometrically the impact of liberalization reforms on employment in the electricity and gas sector of European countries including the Western Balkan contracting parties. Secondly, in a Data Envelopment Analysis (DEA) we will estimate non-parametrically the labour efficiency of employees in the gas and electricity sectors separately. This should provide us with information on the potential labour surplus in these sectors in the Western Balkans with regard to their European peer sectors.

Panel data analysis

Here we aim to analyse potential employment effects of liberalization in the Western Balkan electricity and gas sector using a panel data approach. We will estimate the following general equation for labour demand:

$$L = f[C, X], \tag{1}$$

where the labour force L is a function of a set of control variables C, such as net electricity generation (Y) and time dummies (γ), and X is a liberalization index. In this specification endogeneity might be a problem, as for instance production determines labour, but the labour stock may also have a feedback into production. Therefore we shall estimate the following equation in a System-GMM setting as developed by Arellano and Bover (1995) and Blundell and Bond (1998):

$$L_{it} = \gamma_t + \alpha L_{it-1} + \beta_1 Y_{it} + \beta_2 X_{it} + \eta_i + v_{it}, \tag{2}$$

where i corresponds to each country in the sample and t to each year, γ_t are the period-specific intercepts, that capture labour market changes that are common to all countries, and L_{it-1} is the lagged labour stock variable. The η_i represents unobserved individual-level effects and the v_{it} reflect the observation-specific errors. Moreover the estimator uses as GMM-style instruments the lags of the first differences of L_{it-1} and Y_{it}, as well as X_{it} and the time dummies as standard IV-style instruments. Finally the equation is estimated in a robust way. This is necessary as tests have revealed both groupwise heteroskedasticity in the residuals as well as serial correlation in the idiosyncratic errors of the panel data model. Thus, the resulting standard error estimates are consistent in the presence of any pattern of heteroskedasticity and autocorrelation within panels.

The dataset used contains information for 38 European countries from the EU, actual and potential EU candidate countries and EFTA over a maximum period of 1992-2007. As a

proxy for L we use Eurostat and national statistics data on total employment in the electricity and gas sector (NACE E). Net electricity generation in GWh was obtained from Eurostat, national statistics as well as from the Union for the Co-ordination of Transmission of Electricity (UCTE).

The liberalization index was taken from the EBRD transition indicators database. Unfortunately this index exists only for the electricity sector and not for the gas sector, which is the reason why this exercise mostly covers the electricity sector. However, the working assumption is that liberalization in both sectors developed in parallel. The index ranges from 1 (Power sector operates as government department with few commercial freedoms or pressures; average prices well below costs, with extensive cross-subsidies; monolithic structure, with no separation of different parts of the business) to 4.33 (Tariffs are cost-reflective and provide adequate incentives for efficiency improvements; large-scale private sector involvement in the unbundled and well-regulated sector; fully liberalized sector with well-functioning arrangements for network access and full competition in generation.). The liberalization index exists only for a sample of the new EU member states, the EU candidate and the potential EU candidate countries (as well as other transition countries). Therefore we had to make an assumption for the old EU member states as well as for the EFTA countries in the sample. Though this assumption appears to be somewhat arbitrary we decided to attach a 3.33 in 1992, a 3.67 from 1993 to 1997 (1st EU electricity directive in 1996 and 1st EU gas directive in 1998), a 4 from 1998 to 2002 and a 4.33 from 2003 (2nd EU electricity and gas directive) to 2007 for these countries. These assumptions[7] create a starting year and three five-year-periods of liberalization related to EU electricity and gas directives. Additionally for Kosovo under UNSCR 1244/99, which is also missing in the data base, we assumed a 2 from 1992 to 1999 (period under Serbian rule) and a 2.33 from 2000 to 2003 and a 2.67 from 2004 to 2007. Similarly for Turkey we assumed a 2.33 for 1992, a 2.67 for 1993 to 1997, a 3 for 1998 to 2002 and a 3.33 for 2003 to 2007.

Table 2.6 presents the results of the estimation of equation 2. We find the path dependency of employment in the electricity and gas sector rather strong as the coefficient of the lagged dependent variable is 0.93. The coefficient of electricity generation is very small. The results for the time dummies are not presented. Finally the coefficient of the liberalization reform index is -1.25, which leads us to the following interpretation: An increase of the reform index by 1 results in a decrease of employment by 1250 persons. All the coefficients are significant and the AR(1), AR(2) and Hansen specification tests indicate, at least nominally, that the instruments applied seem to be valid.

[7] Alternatively it was tried to make use of the OECD Indicators of Product Market Regulation which include a sectoral indicator for electricity and which is partly overlapping with the EBRD liberalization index in terms of country coverage but has a focus on West European countries. However, the two indices do not necessarily reflect the same substance which makes it extremely difficult to translate the index from one into the other. Still, it was tried but this combined index for all the countries in our sample did not yield any significant results in subsequent regressions. It has to be acknowledged that reform indices per se are difficult to construct and do not necessarily reflect real developments.

Table 2.6

System-GMM estimate of the labour stock in the electricity and gas sector

	Coefficient	t-statistic	P-value
Lagged employment (1000)	0.93320	55.77	0.000
Total net electricity generation (GWh)	0.00003	3.64	0.001
Liberalization reform index (1 - 4.33)	-1.25362	-2.63	0.012
Arellano-Bond test for AR(1) in first differences:			0.016
Arellano-Bond test for AR(2) in first differences:			0.360
GMM instruments, Hansen test:			1.000
IV instruments, Hansen test:			1.000
Number of observations: 398			
Number of groups: 38			
Number of instruments: 269			

We would thus like to look at the specific results for the Western Balkan contracting parties for the latest available year 2007 in more detail. In Table 2.7 we present the year 2007 data employed in the model as well as the labour stock predicted by the model and the estimated loss of labour due to a full liberalization, ceteris paribus. Thus, no additional improvement in efficiency is assumed as the lagged dependent variable acts like a fixed effect. These labour losses of around 2000 employees can be seen as a lower bound estimate upon full EU integration of the Western Balkans.

Table 2.7

Actual and predicted data for 2007 in the System-GMM model

	Predicted employment (1000)	Actual employment (1000)	Electricity generation (GWh)	Liberalization reform index (1 - 4.33)	Employment loss, full liberalization
Albania	11.3	13.0	2947	2.67	-2.1
Bosnia and Herzegovina	23.3	22.3	11783	3.00	-1.7
Croatia	22.4	28.0	11703	3.00	-1.7
Kosovo under UNSCR 1244/99	21.6	15.2	4309	2.67	-2.1
The former Yugoslav Republic of Macedonia	15.7	15.6	6070	3.00	-1.7
Montenegro	6.8	5.6	2039	2.33	-2.5
Serbia	60.4	58.0	38897	2.33	-2.5

The model predicts the employment levels of the electricity and gas sectors of most Western Balkan contracting parties quite well. Only in the cases of Croatia and Kosovo under UNSCR 1244/99 we can find quite substantial deviations. Croatian electricity and gas sector's labour stock is predicted by the model to have almost 6000 employees less than the

actual value. This might indicate that given its characteristics and its European peers, this country's sector is highly overstaffed. At the other extreme we find Kosovo under UNSCR 1244/99, where the model predicts a labour force of about 6000 employees more than the actual figures. The major reason being the employment figures for Kosovo, which where constructed using the statistical offices employment rates and shares and the IMF's estimate of the population of Kosovo under UNSCR 1244/99. This results in an unnaturally low sectoral employment figure for 2007. The predicted value actually resembles much more the constructed values of 2006 and 2008. In any case the results for Kosovo under UNSCR 1244/99 have to be handled with special care.

As indicated above, the System-GMM's specification tests suggest that the instruments applied are valid. However, these tests can be weak when instruments are many. In fact there are more instruments than countries. In this case of small N it might be more appropriate to apply a bias corrected Least Squares Dummy Variable dynamic panel data estimator (LSDVC). Table 2.8 presents the results of the LSDVC estimation of equation 2. The coefficients are of fairly similar size. However, in this estimation the coefficient of the liberalization reform index is not significant anymore. Thus we can conclude that the results regarding the liberalization effects obtained so far are not very robust. Also adding additional control variables such as the FDI stock in the electricity and gas sector reduces the significance of the reform index, apart from not being significant itself using both estimators. Weak robustness of the regression results suggests making use of a simpler, non-parametric methodology.

Table 2.8

LSDVC estimate of the labour stock in the electricity and gas sectors

	Coefficient	z-statistic	P-value
Lagged employment (1000)	0.77379	28.7	0.000
Total net electricity generation (GWh)	0.00008	2.83	0.005
Liberalization reform index (1 - 4.33)	-1.71303	-0.91	0.363

Note: Bootstrapped standard errors.

Data envelopment analysis

The Data Envelopment Analysis (DEA) is a non-parametric method[8] which does not impose a specific functional form. It is used to empirically measure productive efficiency of decision making units (DMUs). We use it in order to analyse the level of relative efficiencies

[8] Non-parametric models differ from parametric models in that the model structure is not specified a priori but is instead determined from data. Also, Data Envelopment Analysis provides efficiency coefficients similar to those obtained by regression analysis without any distributional assumption. Thus, non-parametric methods are simpler and more robust. In general they leave less room for improper use and misunderstanding.

given the input and the output of the electricity and the gas sector separately in a sample of EU 27 and EU accession and potential accession countries, according to data availability. Western Balkan electricity and energy sectors will thus be compared to benchmark countries in Europe.

As for the output of the electricity sector we use Eurostat, UCTE and national data on net electricity production in GWh. Data on the input factor employment in the electricity sector is available from Eurostat and national electricity companies. For the gas sector we use an aggregated indicator of turnover including production, trade and stock changes in TJ as provided by Eurostat and the International Energy Agency (IEA) as a proxy for the output. The input data is the data on employment in the production and distribution of gas as available from Eurostat, the Amadeus data base and national gas companies. The analysis is performed for the latest available year 2007. This benchmarking exercise will allow for an additional estimate of future employment trends and focuses at the level of labour efficiency. The employed DEA is input-oriented and assumes Constant Returns to Scale (CRS). With input-oriented DEA, the linear programming model is configured so as to determine how much the input use of a DMU could contract if used efficiently in order to achieve the same output level. CRS means that the producers are able to linearly scale the inputs and outputs without increasing or decreasing efficiency.

The DEA results for the electricity sector in 2007 are presented in table 2.9. The first two columns show the input variable (employment level) as well as the output variable (net electricity generation). The other columns present the DEA results. One country operates at the efficiency frontier and is thus ranked on position 1: this is Spain. The other countries are ranked due to their efficient input of employment. The Western Balkan countries are among the least efficient countries with efficiency levels of around 10% as compared to the efficiency frontier. Only the former Yugoslav Republic of Macedonia ranks in the middle of the distribution with an efficiency level of 25%. The DEA also estimates the employment surplus given a move to the efficiency frontier. Thus, these estimates have to be seen as an upper bound of excess labour in the electricity sector and have to be analysed with prudence.

The estimated excess labour ranges from about 75% of the 2007 employment level for the former Yugoslav Republic of Macedonia to about 90% for the other WBCs. In absolute terms this makes for the former Yugoslav Republic of Macedonia and Montenegro between 2000 and 3000 employees, for Albania and Kosovo under UNSCR 1244/99 between 6000 and 7000, for Bosnia and Herzegovina and Croatia between 11000 and 13000 and for Serbia as much as 30000 employees. The Serbian figures are particularly high as for instance for political reasons some 5000 de-facto-unemployed employees of the Serbian state electricity company who were formerly working in Kosovo under UNSCR 1244/99 are still on the payroll.

Table 2.9

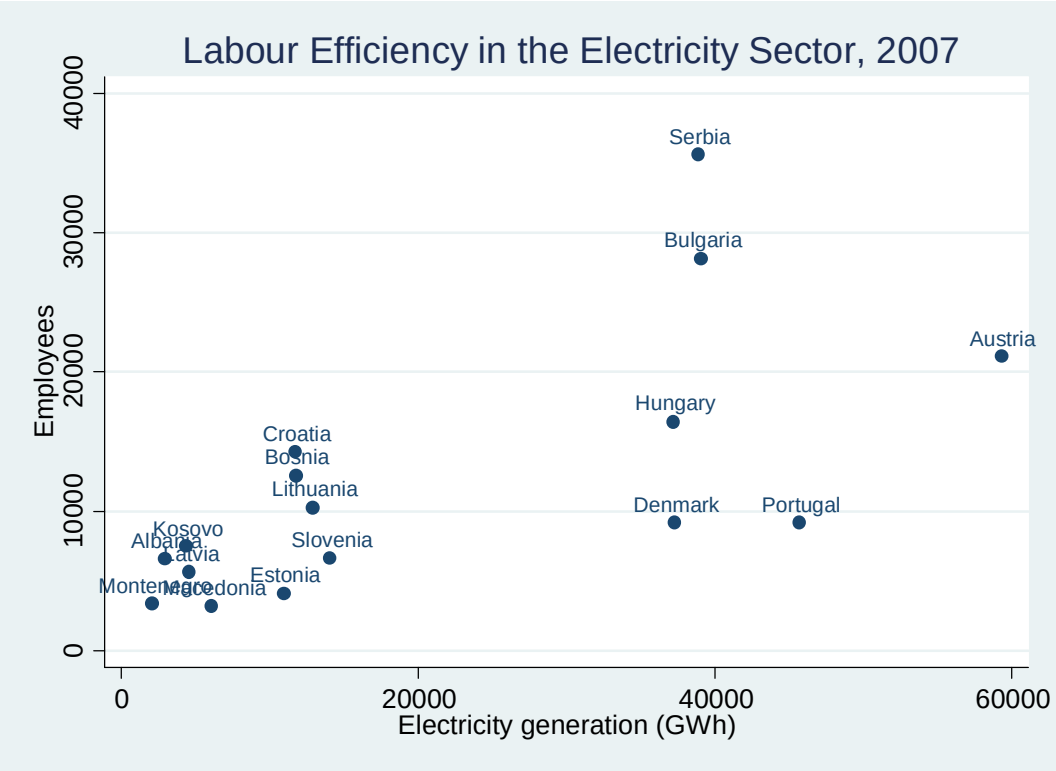
DEA results for the electricity sector, 2007, EU benchmark countries

	Employment in persons	Electricity generation (GWh)	Efficiency rank	Efficiency in % of best performer	Employment surplus vs best performer	Employment surplus vs NMS non-nuclear average
Albania	6600	2946	27	6	6217	4816
Bosnia and Herzegovina	12578	11783	22	12	11045	5445
Croatia	14269	11703	23	11	12747	7184
Kosovo under UNSCR 1244/99	7500	4333	26	8	6936	4877
The former Yugoslav Republic of Macedonia	3200	6070	16	25	2410	-475
Montenegro	3382	2057	25	8	3114	2137
Serbia	35609	38897	21	14	30550	12061
Austria	21105	59319	12	37	13389	-14807
Belgium	15759	85092	5	70	4691	-35756
Bulgaria	28139	39067	18	18	23057	4488
Czech Republic	14700	81410	4	72	4111	-34585
Denmark	9191	37283	10	53	4342	-13380
Estonia	4100	10954	13	35	2675	-2532
Finland	12001	77819	2	84	1879	-35110
France	112802	544416	7	63	41989	-216786
Germany	204061	595361	11	38	126621	-156369
Hungary	16449	37220	14	29	11608	-6084
Italy	61773	296016	8	62	23270	-117434
Latvia	5664	4577	24	11	5069	2893
Lithuania	10280	12878	19	16	8605	2484
Poland	87653	145383	17	22	68743	-362
Portugal	9200	45706	6	65	3255	-18470
Romania	51047	56165	20	14	43742	17045
Slovenia	6633	14044	15	28	4806	-1869
Spain	37858	291054	1	100	0	-138345
Sweden	22505	145130	3	84	3628	-65356
United Kingdom	81986	378452	9	60	32760	-147128

Note: Please interpret the table with prudence – see explanations in the text.

This can be well seen in Figure 2.13, where the number of employees is plotted against GWh of electricity production. In order for the small Western Balkan electricity sectors to be clearly presented, the figure shows only country data for electricity sectors with less than 40000 employees and 60000 GWh electricity production. It is interesting to note that in this sample Portugal is the most efficient country with a similar number of persons employed in the electricity sector and a similar technology mix of thermal and hydro power but produces about four times more electricity as compared to the average WBC.

Figure 2.13



As a robustness check we also did the same analysis for the year 2006. There the results for excess labour are even higher. Though there is only one year difference, this might indicate that countries are already moving a bit to the productivity frontier. Also we did the same analysis using more detailed data by sources of electricity production (nuclear, hydro, thermal and wind). However, due to the fact that we do not have according data for the labour input, but only the aggregate, this analysis was not very informative.

Nevertheless, employed technology matters as for instance nuclear electricity production needs less manpower. Also the progress in the liberalization process matters. Therefore we recalculated labour surplus using the average of those EU new member states (NMS) that do not use nuclear energy generation (Estonia, Latvia and Poland) and that have advanced less in the liberalization process as compared to their EU peers as benchmark countries. This comparison might be considered more relevant given that a move to other electricity generation technologies is costly and takes a lot of time and ultimately might not be desired. Moreover also the liberalization process will take some time and thus a comparison with countries that have not yet fully liberalized but are a step ahead might proove to be useful. With this benchmark the estimated employment surplus is much lower. However it is still about 12000 for Serbia, 7000 for Croatia, around 5000 for Albania, Bosnia and Herzegovina and Kosovo under UNSCR 1244/99 and about 2000 for Montenegro. In the case of the former Yugoslav Republic of Macedonia we find a negative value of about

500, indicating that this country has already reduced employment in the electricity sector above the average non-nuclear NMS.

Table 2.10

DEA results for the gas sector, 2007

	Employment in persons	Gas supply (TJ)	Efficiency rank	Efficiency in % of best performer	Employment surplus
Albania	30	670	21	8	28
Bosnia and Herzegovina	400	16067	18	14	344
Croatia	1979	125655	15	22	1539
The former Yugoslav Republic of Macedonia	57	3984	13	24	43
Serbia	1522	91144	16	21	1203
Austria	4292	324680	10	26	3156
Bulgaria	2051	140045	14	24	1561
Czech Rep.	4484	333135	11	26	3318
Denmark	829	188947	3	80	168
France	22307	1790205	9	28	16043
Germany	21314	3565460	5	59	8839
Hungary	4897	497989	8	36	3155
Italy	22505	3234576	6	50	11188
Latvia	1379	63247	17	16	1158
Lithuania	1836	134518	12	26	1365
Poland	22313	575767	20	9	20298
Portugal	920	177165	4	67	300
Romania	17372	603922	19	12	15259
Slovenia	314	42528	7	47	165
Spain	5185	1481892	1	100	.
Sweden	170	42358	2	87	22

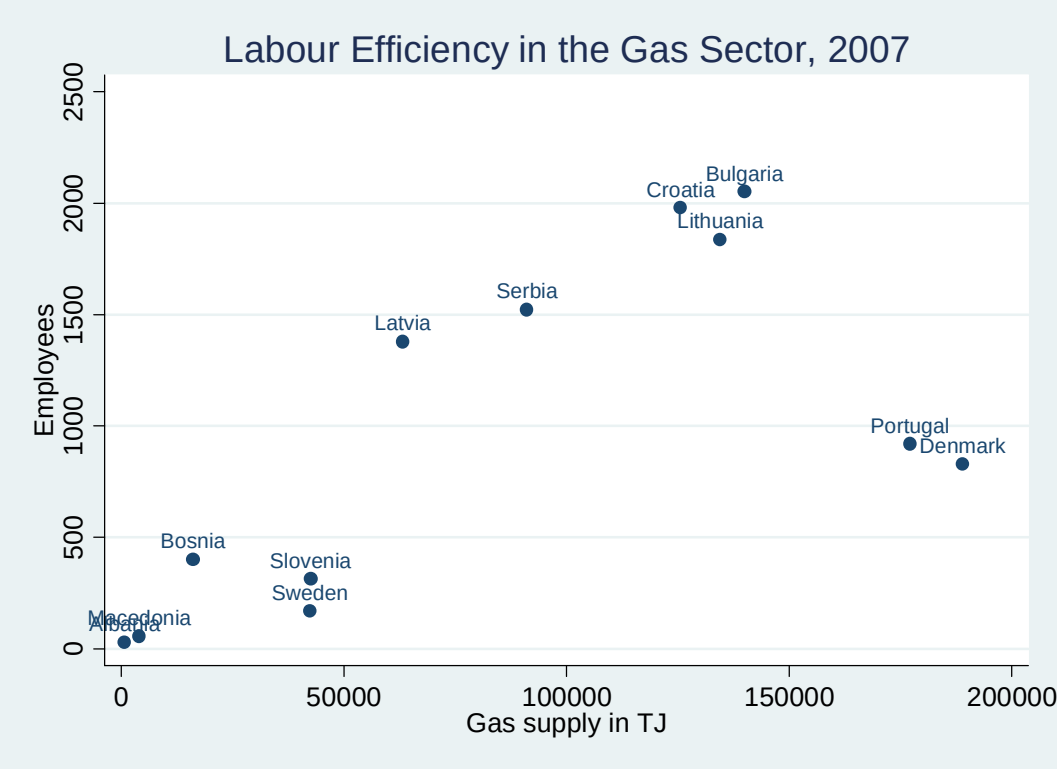
Note: Please interpret the table with prudence – see explanations in the text.

The same DEA procedure was also applied to the gas sector for the year 2007 (Table 2.10). Again, the results indicate that the Western Balkan countries are ranked among the least efficient. Labour efficiency levels in percent of the best performer (Spain) are ranging between 10% and 20% only. The employment surplus is substantial. In relative terms, for Albania and Bosnia this makes about 90% of the 2007 employment level and for Croatia, the former Yugoslav Republic of Macedonia and Serbia about 80%. For Croatia and Serbia this suggests an excess of labour of about 1500 and 1200 employees respectively. For Albania, Bosnia and the former Yugoslav Republic of Macedonia the total numbers are not high, given that in these countries gas is only marginally used, however in relative terms the loss is huge. Especially for Albania the estimate does not seem to be realistic. However, this is the only country where no proper information on employment was available. Only three Albanian firms are partly involved in the gas business. In general the country is not gasified. Therefore 10 employees for each company were assumed. A

reduction by 28 employees would leave only two in the business. There are no results for Kosovo under UNSCR 1244/99 and Montenegro as these countries are not gasified. Figure 2.14 presents graphically the relationship of employment and output of the gas sector. In order for the small Western Balkan gas sectors to be clearly presented, the figure shows only country data for gas sectors with less than 2500 employees and 200000 TJ gas supply.

The figure shows that for the smaller Western Balkan suppliers such as Albania, Bosnia and the former Yugoslav Republic of Macedonia, Sweden (efficiency rank 2) can be an example of efficient gas supply. While for the medium size suppliers Croatia and Serbia, Denmark (efficiency rank 3) could act as a benchmark gas supplier in terms of efficiency.

Figure 2.14



Conclusions

The econometric analysis of the effects of the liberalization of the electricity and gas sectors in Europe has shown that, given the experience of other European countries and given the differences in productivity levels, full liberalization is accompanied by a loss of about 2000 employees in each of the Western Balkan contracting parties. Further Data Envelopment Analysis for the electricity and gas sector separately has focused on the efficiency differentials. The results show that labour efficiency in the Western Balkans is very low,

even when compared to the NMS that are using similar technologies of production. The smaller markets such as Albania, Bosnia and Herzegovina, and Kosovo under UNSCR 1244/99 and Montenegro would have to reduce employment by 2000 to 6000 employees if the same level of efficiency as for their NMS peers is assumed. For Croatia this would be a loss of about 9000 and for Serbia even 13000 employees. The former Yugoslav Republic of Macedonia is an exception as no labour surplus was estimated, which is likely due to FDI related layoffs of workers. However, these figures have to be seen as upper bound figures as it was not possible to analyse the specific structure of the respective sectors as regards sources of production in a more sophisticated way. Nevertheless, the analysis shows that the Western Balkan electricity and gas sectors are among the least efficient in Europe and that further liberalization in the wake of the EU accession process will put additional pressure on the local labour markets, although some of the lost jobs will certainly move to other sectors as a result of outsourcing activities. The study's findings and including on the likely employment development underline the importance of addressing this in a concrete manner in the national Social Action Plans. Training measures and redeployment are ways to mitigate the negative impact for example. The European social partners in the electricity sector have addressed this in their joint toolkit on restructuring which exists in Croatian. It could be considered that the national social partners organize a national round table with representatives of employers and trade unions which have already gone through the process or restructuring. Finally, additional investment in the gas and electricity sectors could help to keep the employment.

3 Impact on the quality of jobs

In Chapter 3 we focus on the status and evolution of the quality of the work in the gas and electricity sectors in the Western Balkan contracting parties. The analysis comprises the situation of job satisfaction of employees, health at the workplace, equal opportunity and diversity management, training and re-training measures and age management. Moreover the situation of industrial relations climate and measures for improvements will be discussed. In order to smooth effects of liberalization on employment and job quality, the Energy Community also takes care about social issues. Thus, in the individual contracting parties Social Action Plans were established. An overview of the plans and the opinions of social partners on the measures laid down in those are presented in the second part of this chapter.

A first look into the literature on quality of work in the electricity and gas sector shows, that the liberalization in those industries in the EU did not only have quantitative effects on employment but also substantial impacts on the quality of the working life of employees. Employee satisfaction, the situation of health and safety at work and job tenure are also influenced by restructuring taking place in the course of outsourcing, foreign takeovers and off shoring as was stressed for the EU countries (ECOTEC, 2007; for further details on changes in jobs and quality in work in the Western Balkan countries, see Vidovic, 2008). The balance between flexibility versus security of employment is affected threefold: by the implementation of the EU directives in the Western Balkan contracting parties, changes in the labour legislation in general in all countries of the region over the past couple of years (see e.g. DG ECFIN and wiiw, 2008) and the responses to restructuring needs in the face of a changing business environment on the sector level and that of individual firms.

In the study 'Future skill needs in the European Electricity Sector' (Fairbrother, etal, 2003) one of the principal findings is that the industry has to face a looming skill deficit in the EU. This is aggravated by staff reductions and freezes in recruitment in companies in the course of liberalization, which affects the skill pool of the aging workforce to dwindle. Since skill shortages could have a negative impact on security of supply, maintenance and renewal of infrastructure, etc., investment in training becomes increasingly necessary. However, one of the effects of outsourcing taking place in the course of restructuring may be a reduction of training investments of subcontractors in order to offer services at more competitive rates, as highlighted e.g. by Thomas and Hall (2003). In order to raise the efficiency of energy production and use, the countries monitored will face the need to develop required skills not only in the energy and gas sectors but also in the wider field of energy efficiency sectors.

As laid down in the 'Equal Opportunities and Diversity Toolkit' (Pillinger, 2007) another challenge for companies also in the electricity and gas sectors is to make use of the poten-

tial of the existing labour force by preventing discrimination and promoting equal treatment of employees, applying measures like mentoring and career development, adjusting recruitment policies and payment structures, etc.

Apart from working conditions of employees at the firm level liberalization and restructuring have also effects on the climate of industrial relations, which may hamper the positive effects of an increase of productivity in these sectors.

Findings from the study survey

In total, representatives of 46 companies and 15 trade unions of the Gas & Electricity sectors were interviewed. In order to consider the sometimes diverse effects of liberalization in the two industries we present in the following detailed results of the wiiw survey on the development of different aspects of labour quality in the Western Balkan region. Furthermore we tabulate individual results from company questionnaires and those from trade unions in order to shed light on the different views of employers and employee representatives. The total results for each sector are simple averages of the results for trade unions and enterprises, whereby both results were weighted equally. An overview of the results is presented in Tables 3.1 to 3.3 below. In our analysis we also examined the influence of state versus private ownership of enterprises. Slight differences in the results could be detected in the case of employee satisfaction, work-related stress levels and training measures for vulnerable groups as described below.

Employee satisfaction

As outlined in the study on the employment effects of the opening of electricity and gas markets in the EU (ECOTEC 2007) the job satisfaction deteriorated in line with a massive loss in employment. Our findings based on enterprise and trade union interviews in the Western Balkan contracting parties reveal a different picture. Overall staff satisfaction is reported to have increased between 2005 and 2009 in about half of the interviewed companies. While almost no representative of a state owned company mentioned deterioration in this aspect, in about a quarter of privately owned firms this was the case. Surprisingly the view of the trade unions concerning employee satisfaction is almost as positive. However, in the electricity sector also about a quarter of trade unions see a deterioration of staff satisfaction, while this is the case for about a third of union representatives in the gas sector. In the electricity sector respondents on average see a deterioration of staff satisfaction in Montenegro and even more so in Serbia. In the gas sector this is the case for the FYR of Macedonia and also Serbia. One reason for the in general positive view concerning this aspect of job quality might be that some effects of liberalization especially concerning layoffs have not emerged up to now in the majority of the Western Balkan contracting parties. This can also be concluded from the general development of employment as laid out in

Chapter 2. However, most of the companies and trade unions in the region report that no strong reductions are expected in the coming years. If this will be the case due to rising levels of demand for energy, or if the respondents and/or employees in the region are in general misperceiving the future developments is a matter of interpretation. Chapter 2.2 points out that productivity levels in some of the Western Balkan contracting parties are well below the levels observed in the average of EU countries. Should liberalization put pressure on the companies in the Western Balkan the situation of job quality could decline together with staff numbers.

Paid and unpaid overtime

In order to gather information on the changes of intensity of work for employees in the course of liberalization we collected information on the evolution of paid and unpaid overtime. In the electricity sector at least the relative majority of company and union representatives claims that the situation remained stable. While on average about a third of trade union representatives reports that unpaid and paid overtime decreased, a third of enterprise representatives claim a rise in paid overtime. In the gas sector the views of trade unions and companies are more divergent. About 50% of trade unions report an increase in paid and a third in unpaid overtime, while about 80% of enterprises do not see any change in overtime levels. The findings on unpaid overtime do not diverge by large by country. Concerning paid overtime increases are reported for the electricity sector in the FYR of Macedonia, Croatia and Albania and for the gas sector in Serbia and Montenegro, respectively.

Work-related stress levels

Nevertheless, in the process of liberalization the intensity of work has risen. In the electricity sector about two thirds of unions and more than half of enterprises interviewed report an increase in work-related stress levels. About 20% of all respondents claim that there was no change in stress levels, further 20% observed a decline. In the gas sector about 50% of all respondents report a rise in stress levels, while the other half claims that stress remained stable. In both sectors a difference could be detected between companies in private and state ownership. While in the former about two thirds report a rise in stress levels in the latter group this is the case for slightly less than half.

Work-related illnesses and accidents at the work-place

Obviously, the increase in stress levels is expected to influence also other aspects of working conditions. Trade unions and enterprise representatives however have different views in this respect. 40% of the unions in the electricity sector and one third of those in the gas sector report that incidents of occupational or work-related illnesses have risen; about 40% in the electricity and two thirds in the gas sector think that the level of illnesses remained stable. On the contrary, about 70% of the company representatives in the electricity sector

and about 90% in the gas sector think that incidents remained stable, in the electricity sector about a quarter of enterprise respondents think that illnesses have even decreased.

In the past five years a pronounced decline in accidents at the work-place seems to have occurred in both the electricity and gas sector. In the majority of countries in the Western Balkan region within the process of liberalization laws were adopted to improve the situation of health and safety at the workplace and based on these, measures were introduced with an active involvement of workers representatives. Half of the trade unions of both sectors reports a decline of accidents, the other half claims that the situation didn't change. 20% to 30% of enterprise representatives also report a decline in accidents, while the majority sees no change in this respect.

Working days lost due to strikes

Strikes are rather uncommon in the gas and electricity sectors in the Western Balkan contracting parties. The ongoing liberalization did not lead to a change of this situation. Almost all respondents reported that incidents of strikes are very rare, remained at the same level or have decreased.

Training and retraining measures in the course of restructuring

One important result laid down in the study 'Future skill needs in the European Electricity Sector' (Fairbrother, etal, 2003) is that in the electricity and the gas sectors there is a looming skill deficit accompanied by an ageing of the workforce. In order to overcome those obstacles training and retraining measures should be intensified.

In the electricity sector about two thirds of trade unions and 80% of companies report an increase in training measures, while in the gas sector about half of trade unions and 40% of enterprises stated that there was a growing number of training measures in the past five years. Almost no respondent in both sectors had the view that training measures decreased in that time period.

However, for vulnerable groups of employees training measures where used less intensively in the past five years to upgrade their skills. In the electricity sector about 30% of union representatives and half of the companies report a rise in training measures for older workers and for low skilled employees. In the gas sector on average 20% of the respondents say that an increase took place, slightly more claim that training for low skilled workers rose compared to training for older employees. According to enterprise questionnaires training for vulnerable groups was intensified more in state owned companies compared to privately owned enterprises.

The expectations on the future development of skill enhancement of the staff are rather similar in the electricity sector. However, trade union representatives expect that expenditures will rise less swiftly than in the past five years not only for training in general but also for older workers. Yet, in the gas sector the opposite expectations are to be observed. Two thirds of all representatives believe that training expenditures will increase in the next three years; one third thinks that this will also be the case for training measures for older workers and half of the respondents say that the same will happen in the case of low skilled workers.

Involvement of employee representatives in restructuring

In order to analyse the involvement of employee representatives in the restructuring process and the intensity of social dialogue at the company and sector level we asked trade unions and company representatives in what fields plans are being discussed or if the employee representatives are only informed about plans that the management is going to implement. As expected, the opinions of trade unions and company representatives often diverge as can be seen in table 3.3. In the electricity sector only about 20% of trade unions claim that they are actively involved in decisions on redundancy plans, while about half of the companies claim that this is the case. Only in Croatia trade unions and companies both agree upon the active involvement of worker representatives in redundancy plans. In the gas sector about a quarter of respondents of companies and trade unions alike, claim that worker representatives are involved.

Measures of age management, like e.g. early retirement schemes, are due to alleviate the social hardship in the course of restructuring. In the electricity sector about 70% of respondents claim that age management plans are implemented, while in the gas sector even 90% report the use of those measures. About half of those observing the use of age management measures think that employee representatives are actively involved, the other half thinks that they are only informed.

In general, trade unions claim that they are not involved in the preparation of hiring plans of firms, a view that is to a somewhat lower extent confirmed by the answers of company representatives.

In both energy sectors more than 70% of union representatives report that no equal opportunity plans exist for women and ethnic minorities respectively. In those cases where plans exist the unions claim that they have only been informed. Company representatives have in this respect another opinion. 60%-70% claim that opportunity plans exist and in about half of those cases they say that employee representatives were not just informed but also actively involved.

The strongest involvement of employee representatives seems to take place in the field of health and safety measures. In both sectors about two thirds of all respondents report that active involvement takes place, about a quarter (to a larger extent companies) say that employee representatives have just be informed. Only 6% on average claim that no plans to implement health and safety measures exist.

Concerning retraining measures, only about a quarter of trade unions in both sectors reports that they are actively involved in the drafting of plans. Two thirds of unions in the electricity sector and one third in the gas sector claim that they are only informed. In the electricity sector almost half of the companies report that employee representatives are actively involved in the planning of retraining measures.

On outsourcing plans in the majority of cases employee representatives seem to be only informed. In the electricity sector about 30% of all respondents report that no outsourcing plans exist and 15% claim that employee representatives are actively involved. In the gas sector surprisingly many trade unions report an active involvement in the drafting of plans.

Table 3.1

Evolution of job quality since the end of 2005[1)], in % of total answers

	Trade Union questionnaires			Company questionnaires			Total		
Electricity sector	**Increased**	**Decreased**	**No change**	**Increased**	**Decreased**	**No change**	**Increased**	**Decreased**	**No change**
Overall staff satisfaction (e.g. autonomy of work, work intensity, work organization)	45	27	27	54	11	36	**50**	**19**	**31**
Paid overtime	18	27	55	37	15	48	**28**	**21**	**51**
Unpaid overtime	20	40	40	10	15	75	**15**	**28**	**58**
Occupational or work-related illness	40	20	40	5	23	73	**22**	**21**	**56**
Accidents at the work-place	0	45	55	12	28	60	**6**	**37**	**57**
Work-related stress levels	64	18	18	55	23	23	**59**	**20**	**20**
Workings days lost due to strikes	11	11	78	0	11	89	**6**	**11**	**84**
Gas sector	**Increased**	**Decreased**	**No change**	**Increased**	**Decreased**	**No change**	**Increased**	**Decreased**	**No change**
Overall staff satisfaction (e.g. autonomy of work, work intensity, work organization)	50	33	17	59	12	29	**54**	**23**	**23**
Paid overtime	50	17	33	12	12	76	**31**	**14**	**55**
Unpaid overtime	33	33	33	6	6	88	**20**	**20**	**60**
Occupational or work-related illness	33	0	67	6	6	88	**20**	**3**	**77**
Accidents at the work-place	0	50	50	0	18	82	**0**	**34**	**66**
Work-related stress levels	50	0	50	44	6	50	**47**	**3**	**50**
Workings days lost due to strikes	0	17	83	0	0	100	**0**	**8**	**92**

Note: 1) Question: How have the following aspects of job quality evolved since the end of 2005? Increased / deteriorated / no change.

Table 3.2

Evolution of training of staff since the end of 2005 and over the next three years, in % of total answers

	Trade Union questionnaires			Company questionnaires			Total		
Electricity sector	**Increase**	**Decrease**	**No change**	**Increase**	**Decrease**	**No change**	**Increase**	**Decrease**	**No change**
Evolution of training since the end of 2005									
Training measures, general	64	0	36	81	0	19	**73**	**0**	**27**
Training measures for older workers (> 45 years)	27	9	64	57	0	43	**42**	**5**	**54**
Training measures for low skilled workers	30	0	70	45	0	55	**38**	**0**	**62**
Evolution over the next three years									
Training measures, general	45	0	55	74	0	26	**53**	**0**	**47**
Training measures for older workers (> 45 years)	18	9	73	56	8	36	**31**	**5**	**65**
Training measures for low skilled workers	30	0	70	46	4	50	**34**	**0**	**66**
Gas sector	**Increase**	**Decrease**	**No change**	**Increase**	**Decrease**	**No change**	**Increase**	**Decrease**	**No change**
Evolution of training since the end of 2005									
Training measures, general	50	0	50	41	6	53	**46**	**3**	**51**
Training measures for older workers (> 45 years)	17	17	67	13	13	73	**15**	**15**	**70**
Training measures for low skilled workers	20	0	80	27	0	73	**23**	**0**	**77**
Evolution over the next three years									
Training measures, general	71	0	29	61	0	39	**66**	**0**	**34**
Training measures for older workers (> 45 years)	29	14	57	43	0	57	**36**	**7**	**57**
Training measures for low skilled workers	67	0	33	38	0	62	**53**	**0**	**47**

Table 3.3

Involvement of employee representatives in restructuring [1)], in % of total answers

	Trade Union questionnaires			Company questionnaires			Total		
Electricity sector	**No plans**	**Actively involved**	**Just informed**	**No plans**	**Actively involved**	**Just informed**	**No plans**	**Actively involved**	**Just informed**
Redundancy plans	45	18	36	24	48	29	35	33	32
Age management, e.g. early retirement plans	27	36	36	35	30	35	31	33	36
Hiring plans	9	0	91	19	10	71	14	5	81
Equal opportunity plans for women	73	0	27	38	29	33	55	14	30
Equal opportunity plans for ethnic minorities	73	0	27	38	29	33	55	14	30
Health and safety measures	0	73	27	10	62	29	5	67	28
Retraining measures	18	18	64	14	43	43	16	31	53
Outsourcing Plans	30	10	60	25	20	55	28	15	58
Gas sector	**No plans**	**Actively involved**	**Just informed**	**No plans**	**Actively involved**	**Just informed**	**No plans**	**Actively involved**	**Just informed**
Redundancy plans	43	29	29	13	19	69	28	24	49
Age management, e.g. early retirement plans	14	43	43	6	38	56	10	40	50
Hiring plans	0	14	86	13	31	56	7	23	71
Equal opportunity plans for women	71	0	29	31	38	31	51	19	30
Equal opportunity plans for ethnic minorities	100	0	0	31	31	38	66	16	19
Health and safety measures	14	71	14	0	63	38	7	67	26
Retraining measures	43	29	29	13	25	63	28	27	46
Outsourcing Plans	0	57	43	44	13	44	22	35	43

Note: 1) Question: What is the general involvement of employee and/or trade union representatives in restructuring? No plans exist / representatives actively involved / representatives just informed or not informed.

Overview of the Social Action Plans of Western Balkan contracting parties

The establishment of the Energy Community, comprising the European Union and the countries of South-East Europe, was signed in 2005 and became effective in 2006. Thereafter, the state parties and the European Commission recognized the need to take into account the social consequences of the implementation of the Energy Community, which resulted in the resolution of the 'Memorandum of Understanding on Social Issues in the Context of the Energy Community' in Vienna on 18 October 2007. Furthermore, it was concluded that each country should establish a working group including government representatives and social partners to elaborate Social Action Plans (SAP), serving as a roadmap to develop and implement the necessary measures to deal with the social consequences in a socially responsible manner. In order to discuss and consider the experiences of the countries in implementing the Memorandum of Understanding, a Social Forum was established, meeting on a yearly basis.

At the first Social Forum meeting held in Tirana in November 2008, it was agreed that the Western Balkan countries should complete their Social Action Plans by June 2009. However, at the second Social Forum held in Zagreb in October 2009, only few of the countries could present their finalized SAPs. At the third Social Forum held in Skopje in June 2010 all SAPs had been finalized and experiences from the consultation process of stakeholders in the course of the preparation of the plans could be discussed.

The template of Social Action Plans proposed in May 2008 foresees four main fields of activities to be organized in order to meet the following goals:

- Ensuring the needed level of protection for vulnerable consumers in line with a sustainable and competitive energy market.
- Establishing and developing mechanisms of information and consultation of social partners in the energy sector.
- Promoting the development of specific employment, training and support services in order to manage the restructuring process in the energy sector in a socially responsible manner.
- Promoting measures to guarantee workers' fundamental rights; to improve working conditions and standards of living; to enhance the working environment concerning the health and safety of workers as well as the promotion of equal opportunities in the energy sector.

In the following we present the main points of the Social Action Plans (SAPs) of the individual Western Balkan contracting parties, focusing on the latter three fields of activities mentioned above. An overview of activities planned can be found in Table 3.4 including also a description of shortcomings and missing aspects of SAPs. The review is based on the approved SAP versions of the respective countries, the first having been available in

June 2009 for Serbia, while the last ones were finalized in mid 2010. However, it has to be pointed out, that for many contracting parties the SAP documents are formulated in a rather general manner. Instead of presenting detailed measures with definite timetables in order to meet the above mentioned goals many SAPs contain general objectives without operational tasks. Sometimes these objectives are not energy sector specific. The analysis of the situation in the SAPs is often a description of the general situation of social dialogue and working conditions in the country. Not all plans have definite provisions for the follow-up and monitoring of the activities. Almost all SAPs mention the lack of funding as an obstacle for the implementation of measures. However, a prioritization of objectives and concrete measures is not presented. The only contracting party that set up a budget scheme for the implementation of the SAP activities is Kosovo under UNSCR 1244/99.

Table 3.4a

Planned activities laid down in Social Action Plans

	Albania	Bosnia & Herzegovina
Promotion of social dialogue		
	Incentives to reach agreements in bipartite dialogue Improvement of content of collective agreements Promotion of social dialogue at regional level Methods of peaceful solution of labour disputes **Chapter contains rather general description without definite measures**	Participation of social partners in developing labour law amendments Establishing joint committees for implementation of collective agreements Strengthening role of Economic-Social councils at national, entity and energy sector level Promoting collective negotiations Regulate employers obligations to inform workers
Management of change		
	Modernization and strengthening of employment service activities, particularly at the local level Implementation of activation policies and enforcing vocational training Cooperation of employment office with employers and further stakeholders Improvement of labour market analysis **Measures aimed only to a minor degree at specific energy sector developments**	Qualitative and quantitative analysis of the workforce Preparation of training measures and a social care program for redundant workers
Social Dimension: Improvement of working conditions, health and safety at work and equal opportunities		
	Continuation of process of harmonization of labour law with EU directives in various fields of health and safety at work and equal opportunities Improvement of law on social assistance and work **No particulars on the energy sector mentioned**	Harmonization of legislation with EU regulations concerning safety and health at work Developing legislation to ensure equal opportunities of vulnerable persons, women and men and minorities
Monitoring of SAP implementation		
	Responsibility of SAP working group **No definite reporting scheme set up by now**	Annual reports by governments of the entities and the BiH Ministry of Civil Affairs
General shortcomings and missing aspects		
	Dates for implementation and budgets allocated not specified	Measures are not detailed Therefore deadlines are also not provided for in detail

Table 3.4b

Planned activities laid down in Social Action Plans

	Croatia	Kosovo under UNSCR 1244/99
Promotion of social dialogue		
	Establishment of tripartite Energy and Climate Change Committees at national and local level in order to deal with SAP issues Promoting bipartite body for social dialogue in the energy sector Social partner capacity building via workshops, round tables, etc.	Improvement of social partners' capacities Improvement of social partner information and consultation mechanisms, esp. via the existing Social and Economic Council **Very general description**
Management of change		
	Task force for monitoring energy company restructuring Analysis of possible reallocation of workers within the energy sector Activation policies and training measures Mobile counselling teams for redundant workers	Establishment of Employment Agency Establishment of new vocational training centres and training for new occupations **Very general description**
Social Dimension: Improvement of working conditions, health and safety at work and equal opportunities		
	Improvement of monitoring the abidance of labour laws and health and safety regulations by increasing the staff of the State Inspector's Office, the Employment Service, etc. Workshops and study tours in order to enhance the capacities of all institutions involved in social dialogue **No energy sector specific measures mentioned**	Improving capacities of the Labour Inspectorate Alignment of labour legislation according to EU standards Implementation of mechanisms for peaceful settlement of labour disputes
Monitoring of SAP implementation		
	Responsible body not specified in SAP	Responsibility of SAP working group
General shortcomings and missing aspects		
	Measures are partly quite general	In various parts the SAP contains aims without definite measures Positive exemption: The SAP of Kosovo is the only one of the contracting parties with allocated budgets

Table 3.4c

Planned activities laid down in Social Action Plans

	Former Yugoslav Republic of Macedonia	Montenegro	Serbia
Promotion of social dialogue			
	Strengthening of social partners' capacities and promotion of social dialogue in the energy sector via trainings and workshops Promotion of collective agreements at the sector and company level Establishment of a tripartite Economic-Social Council also in order to promote dialogue on Energy Community issues	Round tables, workshops, etc. to develop social dialogue in the energy sector and promote collective agreements in the sector at all levels Monitoring of social consequences of restructuring Establishment of agency for peaceful solving of individual and collective labour disputes and trainings for social partners	Social partner roundtables and workshops on sector and company level to determine social dialogue problems Initiative for conclusion of collective agreements in the energy sector at all levels Meetings to develop social dialogue at local level in the energy sector Promotion of role of Agency for Peaceful Settlement of Labour disputes including trainings for social partners
Management of change			
	Training and retraining measures, activation policies	Organizing training measures for employees and forming specialized training centres Promoting reallocation of workers within and between enterprises to reduce redundancies Activation policies, promoting self-employment **Measures partly quite general**	Analysis of probable redundancies in the sector and development of reallocation plans for redundant workers Providing training for employees, e.g. via the establishment of training centres Active labour market measures, labour licensing, self-employment, mediation, etc.
Social Dimension: Improvement of working conditions, health and safety at work and equal opportunities			
	Analysis and continuation of process of harmonization of labour law with EU in the fields of health and safety at work, unemployment insurance, equal opportunities and employment agencies **No particulars on the energy sector mentioned**	Implementing amendments to labour law in the fields: protection at work, inspection of work, social and children protection Increasing the surveillance of the Labour Inspectorate	Adoption of labour inspection law, law on social welfare and amendments to labour law and law on occupational safety and health. Reinforcement of surveillance of the Labour Inspectorate
Monitoring of SAP implementation			
	No information provided	Monitoring body with stakeholder representatives foreseen but not specified in SAP	Monitoring body with stakeholder representatives foreseen but not specified in SAP
General shortcomings and missing aspects			
	All planned measures are described very general in the SAP		

Albania

The relevant Albanian authorities have in close cooperation with the social partners set up the Social Action Plan (SAP) in February 2010. In the field of promotion of the dialogue of social partners the working group mentions the need for improvements of collective agreements. In the field of managing the change of restructuring it is planned to improve the legal framework of employment according to the special needs of the energy sector and to organize tripartite seminars to raise awareness for the existing labour legislation. In the field of improvement of working conditions and living standards a national strategy on safety and health of employees should be drafted. Furthermore, collective agreements should be enhanced in order to improve working conditions, health and safety at work.

Promotion of social dialogue

In Albania the most important institution of social dialogue at the national level is the National Labour Council (NLC) having been created in 1996. From February 2010 on the council comprises 10 trade union representatives from 6 unions, 10 employer organization representatives from 7 employer organizations and 7 representatives of the council of ministers. The NLC holds consultations on the preparation and implementation of the labour legislation and respective amendments in all fields concerning employment, vocational training and labour conditions, etc. In general, in Albania tripartite social dialogue exists at the national level and collective bargaining takes place at the branch and the company level. About 85% of workers in the public sector and 23% of employees in the private sector are covered by collective agreements. In the energy sector collective bargaining first started in 2000. The collective agreement that was signed by the at that time single public energy company was taken over by the three companies that came into being in the course of split up. These collective agreements are valid until the end of 2013.

With the beginning of collective redundancies in the first half of 2010 effecting 650 workers at OSSH, the Operator of distribution of electricity to the consumers, it became clear that procedures of mediation and consultation have to be strengthened. Planned activities mentioned in this part of the SAP are the strengthening of incentives for social partners not only to hold talks on the advancement of collective agreements but to actually reach agreements at all levels. Furthermore the social dialogue shall be improved at the regional level as well as methods of peaceful settlement of labour disputes in the energy sector implemented. The content of collective agreements signed at all levels shall be improved.

Management of change

In this part of the SAP the work group lists several aims in order to improve the services of the National Employment Service and the use of the resources of the National Employment Fund, being responsible for financing active employment measures. However, a catalogue of detailed measures especially for the electricity sector based on these aims is

missing. The main objectives are an improvement of the services provided by the local employment offices, the accomplishment of efficiency gains in the provision of employment services by raising the number of service specialists, improvement of monitoring and evaluating the employment service and improving the analysis of the labour market developments. The cooperation with social partners and particularly employers should be strengthened as well as the one with universities, the National statistical institute of Albania, etc. Furthermore the services of the employment offices should be improved by investing in IT technologies. At last the SAP here mentions that vocational training is being organized by the Ministry of Labour for part of the 650 employees that were laid off in an act of collective redundancy by OSSH, operating the network of electricity distribution to consumers.

Improvement of working conditions and living standards

Regulations on working conditions and workers rights are in general set down in the Code of Labour. The Albanian institutions are at the moment working on an improvement of this law. The scope here is the transposition of EU directives, an improvement of its compliance with the European Social Charter particularly in the fields of collective agreements, collective redundancies, information and consultation procedures in cases of collective dismissals, equal pay rights, protection from several physical dangers at the workplace, etc. By the end of 2010 the consultation of the social partners on the amendments to the labour law were planned to be finalized and discussions on the government level should start. In other fields of labour legislation a harmonization with EU regulation has been enacted in recent years, especially concerning various aspects of safety and health at work and equal opportunities. Furthermore, since 2003 the Albanian law has been foreseen procedures for the peaceful solution of labour conflicts via mediation and the National Conciliation Office, which has countrywide 12 regional offices. Tripartite consultations on labour legislation take place in Albania via the National Council of Labour. In order to promote social dialogue plans are discussed to create also regional tripartite councils.

The work group created to set up the SAP is also foreseen to monitor the implementation of activities and prepare progress reports in collaboration with all parties involved. However, the work group points out that the realization of activities elaborated in the SAP and also the monitoring of those will depend upon the availability of funds, which are not secured.

Bosnia and Herzegovina

The responsibility for handling social questions related to the Energy Community in Bosnia Herzegovina is split between the entities and the Brcko district and also within the entities. In the Federation of Bosnia and Herzegovina (FBiH) it is split between the entity (FBiH), its

cantons and municipalities. In Republika Srpska (RS) these competences are divided between the entity (RS) and the municipalities; the government of Brcko District (BD) holds these competences itself, while the Ministry of Civil Affairs of BiH has a coordinative role. The institution in charge of the energy issues at the national level is the Ministry of Foreign Trade and Economic Relations of BiH. On the entity level these are the Ministry of Energy, Mining and Industry of the FBiH, the Ministry of Economy, Energy and Development of the RS and the government of the BD.

The major providers of electricity are Elektroprivreda BiH, Elektroprivreda (Electric Power Utility of the Croatian Community of Herzeg-Bosnia) and Elektroprivreda RS. In the BD all activities related to the energy sector are carried out by the public enterprise KOMUNALNO D.O.O.

In view of this great number of parties, it becomes clear that the Social Action Plans in BiH can only be successfully implemented through the cooperation of all players involved. In its coordinative role the Ministry of Civil Affairs of BiH set up a working group responsible for the development of the Social Action Plan, consisting of representatives of ministries at state and entity levels, the Directorate for European Integration, regulatory bodies as well as trade unions and representatives of consumers and employers. The SAP was published in May 2010.

Promotion of social dialogue

The working group on the SAP has elaborated ten recommendations for the improvement of social partnership in Bosnia and Herzegovina which should help to reduce harmful social effects in the course of restructuring also in the energy sector. Experts of industrial and public sector unions and employers should participate in the working groups for drafting respective laws and regulations. Joint commissions should be established to monitor the implementation and review of collective agreements. The role of Economic and Social Councils shall be strengthened and energy sub-committees established. The fundamental rights of freedom of association and collective negotiations shall be strengthened and tripartite negotiations promoted.

Management of change

The first activity of the SAP shall be a qualitative and quantitative analysis of the work force in the energy sector, which is to be performed by the governments of the two entities and the Brcko District. The analysis should help to evaluate how many and which employees may be affected by redundancies in the course of restructuring. On the basis of this examination training and retraining programmes shall be prepared as well as other measures of care for potential redundancies in the energy sectors. These measures comprise: the payment of due and unpaid pension contributions, payment of fees and measures of active

employment policy, incentives for employers to hire workers and for self-employment of workers, etc. All activities are intended to reallocate employees within the sector and improve the skills of the workforce while minimizing the number of dismissals.

In order to implement the above mentioned programs the SAP foresees the establishment of Economic and Social Committees for energy at the level of the entities and the Brcko District. The definite measures in the field of retraining and different forms of employee protection and support measures as well as the funding of these measures should be laid down in branch collective agreements. In order to strengthen the social dialogue employers shall be due to inform the representatives of workers timely about reasons and details of intended dismissals.

These activities of the SAP, the qualitative and quantitative analysis of the workforce and the development of programmes for retraining and measures of care shall be implemented by June 2010 by the governments of the entities and the Brcko district.

Improvement of working conditions and living standards

The aim is to further reform the legislation in the field of labour, protection at work, health care at work in order to comply with EU law and integrate the experience of neighbouring and EU countries. Furthermore the legislation should ensure the equal access of all vulnerable persons, improve working conditions and equal opportunities for women and men, persons with special needs and minorities.

The process of harmonization of national and entity laws with those of the EU, which Bosnia and Herzegovina already obliged to in the Stabilization and Association Agreement signed in 2008, should be completed by the end of 2011.

The monitoring of implementation and evaluation of the SAP is made by the council of ministers of Bosnia and Herzegovina, the governments of the entities and the Brcko District and in operational terms the responsible ministries and other authorities with jurisdiction over certain issues treated by the plan. The governments of the entities and the Brcko district shall develop with stakeholders operational plans to implement definite measures. The governments are also responsible to report on the implementation process of the SAP on a yearly basis to the Ministry of Civil Affairs of Bosnia and Herzegovina, which then prepares an annual report for the Council of Ministers and the Secretariat of the Energy Community.

Croatia

In Croatia in general the level of social dialogue is highly developed. The Economic and Social Council (ESC) is the tripartite body at the national level responsible to encourage

social dialogue in general, the conclusion and application of collective agreement and the peaceful solving of collective and individual labour disputes. Furthermore in all Croatian counties local ESCs have been established by the joint decisions of local governments, trade unions and employer associations. Two of the main enterprises in the Croatian energy sector, the HEP and the INA group have signed new collective agreements in 2008 and 2009, covering wide ranging areas of labour protection.

Promotion of social dialogue

However, the Croatian SAP mentions that at the moment no ESC committee is in charge of SAP issues. Therefore the Croatian authorities plan to initiate Energy and Climate Change Committees (ECC) at the national and local level within the ESCs that should be responsible for these matters. The further activities listed to promote social dialogue are rather general, which are the organization of round tables and workshops to enhance capacity building of social partners at the national and local level as well as study visits to countries that have a highly developed level of social dialogue in the energy sector. Moreover, bipartite dialogue in the energy sector should be initiated also in order to examine the existing collective agreements in the industry.

Management of change

The SAP mentions that in the course of further restructuring in the energy sector a reduction of the work force might happen and an improvement of the skills of the staff is needed. In order to ameliorate the effects of the restructuring process the authorities plan to create a task force including representatives of unions, employer organizations, the employment service, the agency for vocational education and responsible ministries. This task force should analyse the future needs concerning employment and qualification levels in the energy sector. Possibilities to redistribute workers to other adequate jobs are planned to be examined. Training should be organized to upgrade existing skills of the workforce. Mobile teams consisting of employment service, trade union and employer representatives shall be created in order to counsel workers being affected by layoffs.

Improvement of working conditions and living standards

In Croatia the National council for protection at work, a tripartite body is responsible to analyse working condition policies and regulations and to suggest improvements to the government. The State Inspector's office is in charge of monitoring the proper implementation of legal regulations in these fields. Moreover, in case of labour disputes also in the energy sector mediation has been introduced as a tool regulated in the labour legislation. Planned activities in this part of the SAP are capacity building via increasing the staff in the Labour and Labour Market Directorate, the Pension and Disablement Insurance Directorate and the Department of EU projects in the area of labour and social security within the Ministry

of Labour, the Croatian Employment Service and the State Inspector's Office. For the same reason workshops and study tours shall be organized.

The monitoring of the activities intended to accomplish the aims of the SAP should be done by a body involving all parties concerned with the implementation of these measures. In the SAP the composition of the body is not yet defined.

Kosovo under UNSCR 1244/99

In Kosovo under UNSCR 1244/99 social dialogue on labour relations, social welfare and economic policies takes place at the national level in the tripartite Social-Economic Council. In the SAP it is stated that labour legislation has to be developed in the fields of strikes, trade union organization, employment promotion and protection of jobseekers and shall be harmonized with EU regulations. There exists a general collective agreement at the national level, which was signed for the first time in 2004 (with an amendment in 2005). Furthermore there exist since 2002 and 2003 two collective agreements at the branch level.

Promotion of social dialogue

In order to develop social dialogue the SAP states quite general that the capacities of social partners should be increased. The Ministry of Labour and Social Welfare (MLSW) should develop criteria to guarantee a fair representation of social partners in the Social-Economic Council. Furthermore social dialogue should be promoted by the MLSW not only at the national but also at all other levels. For the energy sector the Social-Economic Council should develop a working agenda to monitor and discuss issues concerning the restructuring process.

Management of change

In order to implement active and passive employment policies it is planned to establish a new Employment Agency. The Ministries of Labour and Social Welfare, of Economy and Finance, of Energy and Mining as well as of Trade and Industry are responsible to develop in coordination with the social partners training programmes and identify labour market needs. In the existing 8 vocational training centres trainings for new occupations shall be established and the assignment of mobile training units shall be intensified. Proposals for the reemployment of redundant workers in other decent jobs shall be developed by employment offices and vocational training centres.

Improvement of working conditions and living standards

In 2010 in order to harmonize regulations with the EU a new labour law is being adopted and shall improve the situation of working conditions and the protection of workers' rights. Improvements of the supervision of law enforcement by the Labour Inspectorate are

planned, regarding health and safety minimum requirements, workers' exposure to risks by investing in the institutions capacities. The equal treatment of men and women as well as those of minorities should be promoted. Furthermore health and safety conditions in general should be enhanced. A mechanism for the peaceful solving of individual and collective labour disputes should have been put into legislation in 2010.

The SAP working group is responsible for monitoring the implementation of the activities and prepare progress reports. Therefore the SAP foresees the enhancement of the capacities of the working group.

The Former Yugoslav Republic of Macedonia

Promotion of social dialogue

The Ministry of Economy and the Ministry of Labour and Social Policy in coordination with the Economic-Social Council and the Working Group for social protection from energy poverty are responsible to promote the social dialogue in the field of energy with the trade unions and employer representatives. Thus capacities of the social partners and the social dialogue should be enhanced by the organization of seminars, trainings and workshops in 2010. This should also help to enhance legislation in the field of energy and strengthen the active inclusion of social partners in the process of implementation of the Social Memorandum. The planned outcome of the initiation and intensification of social dialogue should be the signing of collective agreements at the branch and the company level by the end of 2010. The regular information of the Economic-Social Council on the activities related to the implementation of the Social Memorandum is to be organized by the Ministry of Economy in cooperation with the Working Group for social protection from energy poverty.

Management of change

In the field of management of the restructuring process the Ministry of Labour and Social Policy together with the Employment Agency is responsible based on the National Employment Strategy and the National Employment Action Plan to analyse the skill needs of the energy sector and implement an operational plan for activation measures. The latter should comprise training and retraining measures for employees to overcome skill deficiencies and should also provide for education for starting businesses and employment subsidies.

Improvement of working conditions and living standards

In order to improve the working conditions and living standards of employees not only in the energy sector, the Ministry of Labour is responsible to analyse the degree of divergence of the relevant national labour laws from EU directives. This should allow for drafting amendments to those national laws guaranteeing a harmonization with the social acquis

communautaire. Since June 2008 the Ministry of Labour and Social Policy has been running a twining project together with the Ministry of Labour, Social works and Family of the Republic of Slovakia and the Agency for Regional development of the Bratislava region with the aim to perceive the degree of harmonization of the national legislation with the EU legislation in the fields of working conditions and information and consultation of workers; anti-discrimination and equal treatment; health and safety at the working place. According to this process the Ministry of Labour already delivered the list of EU directives being part of the social acquis that have already been transposed into national law and those that are planned to be transposed in the near future.

No information is available on the foreseen monitoring procedure of the implementation process of the SAP.

Montenegro

In their Social Action Plan the working group of Montenegro presents a rather general analysis of the situation of working conditions, social dialogue and labour laws approved by the country. However, the time tables in order to implement measures in the different fields of the SAP are somewhat more specified than in those of other Western Balkan contracting parties.

Promotion of social dialogue

At the national level institutionalized social dialogue takes place in the Social Council comprising of 11 government representatives and 11 representatives of labour unions and employer associations each. The Social Council has seven topical subgroups covering all relevant affairs ranging from work, social policies and gender equality on to protection and health at work. In order to further strengthen the social dialogue on the local level up to now already 17 local Social Councils where founded. One of the problems of social dialogue in the energy sector is however that an employer association exists only at the national level, while this is not the case for enterprises at the branch level.

The following activities are planned and should be realized from September 2010 onwards:

- Round tables in order to clarify expectations and problems of labour unions and employers on the way to realize an improvement of social dialogue in the energy sector.
- Organization of workshops, seminars and study visits to countries with highly developed social dialogue in the energy sector.
- Initiative for concluding collective agreements in the energy sector at all levels.
- Analysis and establishment of priority needs for the development of social dialogue at the local level.

- Continuous monitoring of the social consequences of reforms in the energy sector by the Social Council with participation of energy sector labour union representatives.
- Promotion of an agency for the peaceful settlement of disputes on collective agreements in the energy sector and trainings for members of labour unions and employer associations about methods of peaceful settlement of individual and collective work disputes.

Management of change

In order to reduce unemployment and improve the reallocation of workers in the economy the National strategy of employment and human resources development for 2007-2011 and the National action plan of employment for 2010-2011 foresee a strengthening of measures of active employment policies, which should be made available for 25-30% of the unemployed annually.
In the energy sector the SAP plans the following activities, which should be implemented in the fourth quarter of 2010:

- Organizing additional education and trainings for employed workers.
- Forming centres for the support of workers and centres for different kinds of training.
- Considering and suggesting the reallocation of employees within firms to other working places.
- Considering the needs of employers in the course of possibly necessary changes in staff numbers.
- Considering and suggesting possibilities for the stimulation of self employment and opening of small and medium enterprises.
- Promotion of reallocation of employees between enterprises in order to reduce redundancies.
- Suggesting and implementing measures of active employment policies.

Improvement of working conditions and living standards

In order to improve the situation of working conditions and harmonize regulations in this field with international and EU standards the law on changes and amendments of the law on protection at work was implemented in Montenegro in May 2010. The government further plans to introduce about 20 regulations, e.g. on minimum conditions of protection and health at temporary building sites, etc. Further amendments to the law on protection at work should strengthen the efficiency of the Labour Inspectorate.

The list of measures in the SAP to be introduced in the coming months are therefore:

- Further changes and amendments to the law on labour.
- Implementation of sub-regulations in the law of protection at work.

- Implementation of the law on work inspection.
- Changes and amendments to the law on social and children protection.
- Increased surveillance of inspection of work, applying regulations in the fields protection at work in the industry and production, transfer and distribution of electricity.

In order to monitor the implementation of the SAP in the second half of 2010 the ministries in charge of implementing the activities of the SAP, the labour unions and employer organization, the union for protection of consumers and the Social Council should form a representative body. This body should deliver reports on the realization of the activities planned.

Serbia

In June 2008, following the decision of the Minister of Labour and Social Policy a working group was set up to develop the Action Plan for application of the Memorandum, consisting of representatives of the Government (Ministry of Labour and Social Policy, Ministry of Mining and Energy, Ministry of Economy and Regional Development and Ministry of Finance) and the Energy Agency of the Republic of Serbia.

In general it should be noted that in Serbia collective agreements at the company level were concluded after the enforcement of the Labour Law in 2005 for all four public enterprises in the energy sector (e.g. Elektromreža Srbije, Srbijagas, Transnafta and Electroprivreda Srbije), as well as the majority of those newly established companies that are dependent companies of the public enterprise Electroprivreda Srbije. Currently, there are three recognized trade unions in the energy sector: Autonomous Trade Union of the workers in energy and petro-chemical sector of Serbia, Trade Union of the workers in Elektroprivreda Srbije, Branch Trade Union of Chemistry, Non-metals, Energy and Mining 'Nezavisnost'.

Promotion of social dialogue

In order to promote the social dialogue in the energy sector, the Ministry of Mining and Energy and the Ministry of Labour and Social Policy together with Trade Unions and the Union of Employers organized in 2009:

- Round tables on the sectoral and company level in order to discuss expectations and problems of trade unions and employers in enforcing social dialogue and how to solve them.
- A workshop and study visits to countries with developed social dialogue in the energy sector to share experience on collective bargaining at the sector level and company level.

- A launch initiative for the conclusion of collective agreements in the energy sector at all levels.

In order to develop the social dialogue at the local self-government level in the energy sector, the above mentioned ministries together with local self-governments and trade unions and employers at the local self-government level planned to organize from October 2009 onwards meetings to determine the priority needs for social dialogue at this level and analyse which local communities may have to face the greatest social consequences due to restructuring. Direct contacts of the above mentioned parties should be initiated in order to establish local socio-economic councils as well as activities aimed at raising awareness of social dialogue development at the local level. However, it is mentioned that the structure of social partners at the local level is insufficiently developed and also local self-governments might lack of capabilities, which could hamper the establishment of social dialogue at the local level.

Peaceful settlements of labour disputes in the energy sector should be promoted by raising awareness of the role and the capabilities of the existing Republic Agency for Peaceful Settlement of Labour Disputes. Furthermore trainings for trade unions members and employers on methods of peaceful settlement of individual and collective labour disputes have been planned.

Management of change

From December 2009 onwards throughout 2010 the Ministry of Mining and Energy together with employers and the National Employment Service should have analysed the magnitude of planned and expected redundancies in the energy sector based on the existing relevant labour laws and the decision on 'Redundant Workers Action Plan' in the process of rationalization, restructuring and preparation for privatization. In the following measures should have been developed by the Ministry of Mining and Energy together with trade unions and employers in close cooperation with the National Employment Service to encourage labour productivity and human resource development. In general additional training possibilities for skilling and reskilling of employees should be organized, inter alias by the establishment of training centres. Employers should in concordance with the National Employment Service elaborate proposals for the redistribution of workers to other adequate types of jobs. In the course of the above set mission according to the 'Employment and Employment Benefit Law' enacted in 2009 the National Employment Service is entitled to launch reskilling measures for redundant workers at employer's request or due to labour market needs and enhance the creation of self-employment and establishment of SMEs. Furthermore, options to use unutilized resources of employers by way of licensing, cooperatives, etc. shall be considered. Active employment measures in general and especially individualized placement services should be offered to redundant workers.

Improvement of working conditions and living standards

In general, following the National Programme for Integration into the EU, the Ministry of Labour and Social Policy plans to harmonize the labour law with all relevant EU regulations by the end of 2011 in accordance with the trade unions and employer's associations. Thus several by-laws are to be adopted in the fields of occupational safety and health and social welfare. With the adoption of the Labour Inspection Law by the end of 2010 the organization of a reformed and integrated labour inspection should be achieved in order to promote the reduction of injuries at work, occupational and work-related diseases, elimination of illegal work, the reduction of violations of the provisions of labour law, etc.

The monitoring of the implementation of the Social Action Plan (SAP) will be the task of a cooperative body. The competence was not yet allocated in the 2009 version of the SAP.

The involvement of stakeholders and opinions about the Social Action Plans

In the wiiw survey covering enterprise and trade union representatives, we also asked the stakeholders on their opinions about the SAPs that are being drafted and implemented in their countries. Almost 80% of trade unions in both sectors report that they have been informed about the SAPs but only two thirds say that they have been actively involved in the drafting. Especially in Montenegro and Bosnia and Herzegovina the consultation process on the SAP seems to have been insufficient. In the case of enterprises only half of the respondents in the electricity sector report that they were informed about the SAP, while in the gas sector only one enterprise representative said that they had been informed. Only in the electricity sectors of Macedonia, Bosnia and Herzegovina and Kosovo under UNSCR 1244/99 a minority of enterprises seems to have been actively involved in the process of drafting the SAP. Since only a minority of company representatives had concrete expectations about the effects of the SAPs on companies, we only present the results of the trade union questionnaires.

Asked what effects the SAPs could have on the companies' policies about half or more of the trade union representatives expect a strong influence of the SAPs in the fields of age management, equal opportunity measures for women as well as in the fields of health and safety and retraining measures. Only a minority of trade unions thinks that the SAPs will strengthen the application of equal opportunity measures for ethnic minorities, retraining measures for older and low skill workers or work-life balance measures to improve job quality. Three quarters of the trade unions claim that the drafting of the SAPs had no effect on the climate of social dialogue in their country. However, also about 17% report improvements on the company, sector or national level, while in Croatia and Montenegro the process of drafting led to a worsening of the climate in some cases.

Moreover, some trade union representatives addressed problems and shortcomings concerning their national SAPs. In their view the regulations and measures foreseen in the SAPs are not sufficient to protect vulnerable groups of workers in the course of restructuring in the energy sector. Since some trade unions expect large scale redundancies to be possible, they complain about missing collective agreements on severance payments. Finally, the provisions set up in the SAPs are mostly deemed to be positive, nevertheless some trade unions mention shortcomings in the implementation of those regulations, e.g. enterprise representatives are claimed to ignore their obligations concerning information of workers' representatives and social dialogue with trade unions.

Conclusions

Restructuring in the energy sectors of the Western Balkan contracting parties has not only quantitative effects with respect to employment levels but also effects on the qualitative aspects of work. Analysing the effects of the liberalization from 2005 onwards, one can observe a rise in work-related stress levels but no clear impact on other quality aspects such as work-related illnesses. In about one third of cases work-related accidents are reported to have been reduced in the period. About half of the enterprise and also trade union representatives interviewed for the wiiw study claim that staff satisfaction has improved compared to 2005. However, one reason for this result may be that in some of the Western Balkan countries possible reductions of the workforce have not been effected up to now. One instrument to deal with the social consequences of restructuring in a socially responsible manner is represented by the Social Action Plans (SAP) that were drafted by the Western Balkan contracting partners in cooperation with the social partners and stakeholders. The promotion of a social dialogue, training and support measures for employees affected by restructuring and the improvement of working conditions are to be coordinated and enhanced with the help of the document serving as a roadmap. However, many SAPs comprise more general objectives instead of detailed measures associated with definite timetables. At least two thirds of the trade unions interviewed in the wiiw survey reported that they were actively involved in the drafting of the SAPs. They expect that the process of implementation will result in improvements in companies' policies concerning age management (e.g. early retirement schemes), health and safety and retraining measures and equal opportunity measures for women.

4 Company responses to restructuring

This chapter comprises three parts: (i) corporate responses to restructuring, (ii) outsourcing and (iii) the impact of FDI in the sector that arises as a result of liberalization.

4.1 Corporate responses to restructuring

This part will address the impact of restructuring at the company and organizational level. Research (ECOTEC, 2007) found that liberalization is one of the key factors for restructuring in EU-27 and distinguished between three different but related impacts. Accordingly liberalization: (1) made it necessary to separate the different parts of the value chain into independent entities (2) entailed a process of corporate restructuring with mergers and acquisitions, where smaller companies had difficulties to remain competitive in the liberalized market and (3) forced electricity companies to re-organize themselves into a more competitive, profit oriented structure.

First, we will focus on structural change and dynamics at the company level: We will look at the effects of liberalization as indicated above, i.e. the process of unbundling as well as mergers and acquisitions, but also at the extent of privatization (which is not necessarily connected to liberalization but constitutes a separate process). This leads us to the type of ownership prevalent in the energy sector (state ownership versus private ownership, the role of FDI). We will also explore whether privatization and mergers & acquisitions are going to happen in the future and what are the relevant plans. Second, we will look at the organizational level of companies and see whether restructuring plans have already happened or are considered. For both points we use results from the company questionnaires. Overall, we received 46 company questionnaires from the national experts, 28 were filled in by electricity companies and 18 by gas companies (see methodological notes in the introduction).

One of the major effects of liberalization in the electricity and gas sectors is the separation of the different parts of the value chain into independent entities ('unbundling'). The 2nd Internal Energy Market Package stipulates legal and functional unbundling but does not require ownership unbundling. According to the Energy Community Secretariat (2010b), in the electricity sector, the process of legal unbundling of transmission system operators was finalized in all contracting parties. However, unbundling of distribution from supply and generation has to advance further in the vertically integrated utilities in order to comply with the respective directive. An overview of the timeframe of legal unbundling in individual countries was already presented in Chapter 1 (see Figures 1.4 -1.10). As for the gas sector, Bosnia & Herzegovina, the former Yugoslav Republic of Macedonia and Serbia still struggle with unbundling provisions of Directive 2003/55/EC according to the Energy

Community Secretariat (2010b). Separation of gas functions from oil companies took place in Croatia (2001, 2009) and Serbia (2005).

Between 2000 and 2009, mergers and acquisitions (M&As) were relatively moderate in the region for this long period, with only 20% of questionnaire respondents being active in this field (9 respondents out of 46 company questionnaires). The questions were asked from the active and passive point of view. Seven companies reported active acquisition activities; three of them were electricity companies and four gas companies. Most companies did one transaction only (mostly in 2005 or 2009), while three companies reported more transactions spreading over the whole period. Hence, counting the number of cases would point to more activities in the gas sector rather than in electricity. These transactions were mostly done domestically and not across borders. Generally, companies performing these activities were not concentrated in a particular country (except gas companies in Croatia to a certain extent). While small and medium-sized companies tend to be active in their own sector (e.g. acquiring gas distribution departments, gas networks or storage facilities), large companies acquired or formed companies outside their specific field (e.g. coal mines, glass factory, or electro-technical companies). In two cases, companies were taken over in the electricity sector (concerning small hydro-power plants and/or concessions granted to them).

In the literature (ECOTEC, 2007) it was found that merger and take-over activities lead to greater economies of scale resulting in a reduction of employment. Other negative effects of M&As were found to be an increased level of stress-related absence and worsened work-life balance of employees (ECOTEC, 2007, p. 125). Due to the small number of M&A cases in our survey and due to missing answers we can not give definite conclusions on the effects of M&As in the countries in Southeast Europe. In some companies relevant, employment increased, in some it declined. Work-related stress-levels increased in about one third of cases (in another third of cases they remained constant or declined and in another third of cases answers were missing). Indeed, each transaction would have to be analysed separately regarding its employment effects which would differ according to the nature of this transaction (e.g. taking over gas storage would lead to an increase of employment rather, while creation of a new company would have other effects).

Plans for mergers & acquisitions in the future are also modest: only 11% of all respondents foresee some plans in the future – 9% being allocated within the next two years, 2% in the longer run. About 17% of respondents say that there are no plans now, but this could change, 15% see no scope for such plans (the share of those not revealing their plans is very large and accounts for 57% of all answers, see Table 4.1). Interestingly, plans for M&As in the gas sector are concentrated within the next two years (11%), while there are no plans for the longer period. In the electricity sector 7% of respondents foresee plans in the near future, 4% in the longer period. 18% of respondents see no scope for M&As in the electricity sector compared to 11% in the gas sector.

Table 4.1

Plans for M&A activity in the future, in % of answers

	Total	Electricity sector	Gas sector
Yes, probably within the next two years	8.7	7.1	11.1
Yes, but it will probably take longer	2.2	3.6	0.0
No plans now, but this could change	17.4	10.7	27.8
There is little or no scope for such a change	15.2	17.9	11.1
Prefer not to say	56.5	60.7	50.0
Total	100.0	100.0	100.0
Total number of questionnaires	**46**	**28**	**18**

Question: Are there plans for mergers or acquisitions involving your company? (Either your company taking over another company , or the reverse)

Source: 46 Company Questionnaires

Looking at privatization in the region, three main privatization cases occurred, two of them in 2009 only:

- The former Yugoslav Republic of Macedonia: In April 2006, EVN (Austria) became the main shareholder of ESM Elektrostopanstvo na Makedonija, AD, company for distribution and supply of electricity in Macedonia. The company was renamed to EVN Makedonija AD Skopje.
- Albania: In 2009, the government privatized the distribution arm of the electricity company KESH. 76% of the State's stake was sold to the Czech company CEZ.
- Montenegro: In 2009, the State electricity company EPCG was partly privatized to Italian A2A. The state remained the main shareholder. A2A has the possibility to become the main shareholder in five years if it fulfils all contract agreements during the observed period (which include reducing the losses on distributive network, increasing the strength of production capacities to 90 MW and creating a profit of 300 million EUR).

We received 46 company questionnaires from the national experts, 28 were filled in by electricity companies and 18 by gas companies. As regards ownership of these companies, 61% were in majority state ownership[9], 33% in majority private ownership and 6% were classified under "mixed ownership" (roughly 50% state and 50% private ownership). Ownership patterns differ between the electricity and gas sectors: In the electricity sector, majority state ownership dominated with 71% of all companies belonging to this category. Only 29% were majority private owned (no companies under mixed ownership). In the gas sector, about 44% of companies are majority state owned, 39% in majority private ownership and 17% in mixed ownership. Overall, private ownership prevailed in small companies, e.g. in small hydropower plants or in small gas companies. Overall, about 85% of

[9] Those companies where the state owns 65% or more of the company; in mixed ownerhisp there is roughly 50% state and 50% private ownership; the rest is defined as majority private ownership.

electricity employees and 71% of all gas employees work in majority state owned companies.

As we have seen above, privatization was connected to the inflow of foreign direct investment into the electricity sector of the region in three major cases, whereby two of these transactions occurred only recently in 2009. Based on the company questionnaires, the share of employees working in companies with foreign capital (including those with more than 50% foreign capital, between 10% and 50% and also those with less than 10%) was 15% (the share of companies with foreign capital accounted for 22%).

Looking at privatization plans and the path of privatization, more privatization is expected in the future by the respondents to the questionnaires; however, this might take probably longer than two years. As the energy sector is highly politicized in the region and also remained mostly in state ownership in the EU countries, it can not be expected that the whole sector will be privatized. State ownership may remain in certain parts of the value chain (e.g. main utility, infrastructure). About 21% of respondents see plans for a privatization of their companies – 6% within the next two years, 15% thereafter. Hence privatization might speed up later on. Overall, 36% of respondents see no privatization plans now, with the possibility that this might change, while 24% see little or no scope for such a change (see Table 4.2). Some differences are visible between the electricity and gas sectors: 20% of respondents in the electricity sector foresee privatization plans, which will however take longer than 2 years, compared to only 8% in the gas sector. However, only 8% see no scope of privatization in the gas sector, compared to 20% in the electricity sector. As privatization may lead to restructuring and possible employment reductions, these effects might hence take place in the longer run in the region.

Table 4.2

Plans for privatization in the future, in % of answers

	Total	**Electricity sector**	**Gas sector**
Yes, probably within the next two years	6.1	5.0	7.7
Yes, but it will probably take longer	15.2	20.0	7.7
No plans now, but this could change	36.4	30.0	46.2
There is little or no scope for such a change	18.2	25.0	7.7
Prefer not to say	24.2	20.0	30.8
Total	100.0	100.0	100.0
Total number of questionnaires included1)	**33**	**20**	**13**

Question: Are there plans to privatize your company? (Please skip if not applicable)

Notes: 1) Those companies were excluded which are already privatized and hence the question is not applicable.

Source: 46 Company Questionnaires

Looking at the business activity and volume of companies in the energy sector, two questions were included in the company questionnaire: One on business activity in the last five years and the second on the outlook for the next three years regarding four key figures: the number of customers, the number of suppliers, total-turnover and pre-tax profits (see Table 4.3). These figures help to assess the general situation of energy companies in the past as well as for the future. On the one hand liberalization might influence these figures in one way or the other (e.g. creating more competition, hence increasing the number of customers/suppliers; unbundling) and as a result induce effects on employment; on the other hand figures might develop independently from liberalization as well (e.g. effects of the financial crisis) and thus lead to changes in employment.

Concerning the number of customers and suppliers, about 49% of respondents saw an increase in their number of customers in the past, 46% saw stable numbers, and these figures remained almost the same for the future (51% and 46%). For the number of suppliers 25% saw an increase in the past and about 67% saw stable figures with a slight increase in the future (28% and 72%). Interestingly, there are some differences between the electricity and gas companies: Looking at the electricity sector, the share of those companies expecting more customers and suppliers increases in the future, in the gas sector this share decreases. However, in the gas sector this share was already very high in the past: 71% of gas companies saw an increase of customers in the last five years (56% in the future).

Table 4.3

Business activity and volume in the past and future expectations

	Total			Electricity sector			Gas sector		
	Higher	Lower	Stable	Higher	Lower	Stable	Higher	Lower	Stable
Past development (2005-2009)									
Number of customers	48.8	4.9	46.3	33.3	4.2	62.5	70.6	5.9	23.5
Number of suppliers	25.0	8.3	66.7	26.3	10.5	63.2	23.5	5.9	70.6
Total turnover	69.2	7.7	23.1	68.2	13.6	18.2	70.6	0.0	29.4
Pre-tax profits	41.2	17.6	41.2	55.6	5.6	38.9	25.0	31.3	43.8
Future expectations (2010-2012)									
Number of customers	51.2	2.4	46.3	47.8	0.0	52.2	55.6	5.6	38.9
Number of suppliers	28.2	0.0	71.8	38.1	0.0	61.9	16.7	0.0	83.3
Total turnover	63.4	0.0	36.6	69.6	0.0	30.4	55.6	0.0	44.4
Pre-tax profits	44.7	2.6	52.6	52.4	0.0	47.6	35.3	5.9	58.8

Questions: Compared to 2005, how have the following key figures evolved for your business? (Higher, Lower, Stable) How will the following evolve over the next 3 years (2010-2012)? (Higher, Lower, Stable)

Source: 46 Company Questionnaires (missing answers were not included)

As regards business figures, total turnover increased for 70% of interviewed companies in the last five years or remained stable (23%). Pre-tax profits increased only in 41% of com-

panies, remained the same in another 41% and declined in 18% of companies. For the next three years expectations for turnover became more stable: only 63% of respondents expect higher total turnover figures, while 37% say that they will remain the same. Expectations for pre-tax profits became better on the other hand: 45% foresee an increase, 52% stable number and only 3% a decline. Small differences are visible for electricity and gas companies: Pre-tax profits declined more in gas (31%) than in electricity (6%), expectations for the next three years are better but still less positive than in electricity: 52% of all electricity company foresee higher pre-tax profits compared to 35% in gas.

Turning now to the organizational level, the process of restructuring may be accompanied by restructuring plans within the company in order to better guide and perform the restructuring process. Two relevant questions were included in the questionnaire, one on decisions or plans about restructuring and one on the inclusion of unions or local politicians. Overall, about 40% of all companies interviewed anticipate small employment reductions in the future (18 companies, with only one expecting strong reductions). Of these companies, in 7 companies a restructuring plan was decided and is now being carried out (39%); in 5 companies a restructuring plan is currently being discussed by the management and will then be carried out (28%). Only in another 5 companies restructuring plans are not yet prepared (one answer missing). Hence it seems that companies which foresee employment reductions are rather prepared, with two thirds of them having or discussing restructuring plans. In contrast, discussions with trade unions were held only by 5 companies (28%), while 5 did not have talks with trade union representatives and 8 answers were missing. No company had talks with local politicians (10 answers, 8 answers missing).

Trade Unions (including ministries) were asked in a separate questionnaire how companies perceive the restructuring process and how trade unions see this process themselves. Two questions were posed to the trade unions: the first one was ‘According to your view, what would be the company’s policy if they could choose freely – without influence from government or trade union?’ The following measures had to be evaluated (most preferred to least preferred): reductions in wage per hour; reductions in working time/switching some full-time employees to part time contracts; lay-offs of employees (redundancies); voluntary early retirement schemes or involuntary (accelerated) early retirement schemes. The second question was ‘From your perspective, assuming that restructuring cannot be avoided, how would you rank the various measures (from best to worst)?’ We received 21 trade union questionnaires (including answers from ministries; see also methodological notes in the introduction).

Companies – as seen by the trade unions – would most prefer voluntary early retirement schemes as well as involuntary (accelerated) early retirement schemes. They would least prefer reductions in wages per hour and reductions in working time. Lay-offs are also seen

by half of the respondents as a more preferred option for companies and less so by the other half (meaning that companies would decide for redundancies more easily).

Trade unions clearly most prefer early retirement schemes and least prefer lay-off of employees. In addition, they do not prefer reductions in wages per hour either. Reductions in working time/switching some full-time employees were ranked somewhere in the middle as were involuntary early retirement schemes (but more to the preferred side).

Conclusions: Effects of energy market liberalization on the market structure

The liberalization of energy markets had certain effects on the market structure in the region: First, formerly vertically integrated utilities were separated into independent entities along the value chain ('legal unbundling'), with the process of legal unbundling of transmission system operators in the electricity sector being finalized in all contracting parties. Second, merger & acquisition activities were rather modest in the region, with only 20% of companies in the survey being active in this field between 2000 and 2009, and being more prevalent in the gas sector. Second, privatization – although not necessarily connected to liberalization – took place only recently and included the inflow of foreign direct investment (FDI). Three major privatization cases were observed so far. While employment effects of M&As were not possible to detect in our sample, privatization of companies connected with the inflow of FDI had decisive impact on employment (as seen in this report and in the literature, e.g. Hunya, 2002). Hence, for the future, privatization plans are important for employment changes. Overall, about 20% of respondents in our survey see plans for a privatization of their companies – 6% within the next two years and 15% thereafter. These plans are more pronounced in the electricity sector. Hence, related effects on employment might take place in the longer run in the region. As regards restructuring at the company level, two thirds of companies expecting employment reductions in the future are well prepared and have already decided, or are currently discussing, restructuring plans in their companies. In this process, talks with trade unions were not frequent.

4.2 Outsourcing

Employment effects of outsourcing

The process of restructuring in energy enterprises as a consequence of the liberalization of energy markets may also include 'outsourcing' of certain functions by these enterprises. 'Outsourcing' occurs when some economic activity ceases to be performed within the company (in-house) and is instead purchased from another company[10]. This strategy is aimed at reducing overheads and creating greater flexibility in the companies concerned.

[10] If the activity is carried out by an individual person (instead of a company) on the basis of a service contract, this is not termed outsourcing but 'sub-contracting' and treated as a separate category.

More specifically, reasons for outsourcing include the need to benefit from skills, expertise and resources that cannot be provided in-house. It may also be that economies of scale are available to the company providing the service so that services of the same quality can be provided at a lower cost. Or, a company simply wants to cut costs by using an outsourcing firm that has lower labour costs (Tarren, Potter and Moore, 2008, p. 14).

Empirical studies have validated that outsourcing is a key instrument in energy companies across the European Union and is regarded to be closely linked to the privatization and liberalization process in the sector. Energy sector literature has also confirmed the trend of growing levels of outsourcing in electricity and gas industries (ECOTEC, 2007, p. 82). However, outsourcing increases not necessarily immediately after the opening of markets but a few years after liberalization. (In the longer term, 'sourcing back' of previously outsourced functions may occur as well although companies might face problems with 'lost skills' then.)

There are different forms of outsourcing[11]:

1. Outsourcing of *non-core activities:* Companies aiming to focus on the catering of core aspects of the sector only, decide to source out their 'non-core activities'. Typical examples for non-core activities in the gas and electricity sector are: Catering, cleaning, transport, security, administration, accounting, IT services and other back-office support activities.
2. Outsourcing of *core-activities.* Companies try to reduce costs by contracting out sector specific activities. Typical examples in the gas and electricity sector are: Maintenance, design & construction of power plants and distribution networks, customer services (e.g. billing, metering, sales support, customer service call centers).
3. Offshoring occurs when domestic production is replaced by foreign production.

However, sometimes the borderline between core-and non-core activities is blurred, for instance in the case of IT services and certain back office support activities like personal administration and call centers.

Quantitative and qualitative impacts on employment

– Quantitative impacts

Outsourcing will reduce employment in the outsourcing company and increase employment in the contractor's company, but probably to a lesser extent. Anecdotal evidence suggests that external contractors carry out the duties with much smaller capacity, due to specialization and tend to have less reserve staff for emergencies (ECOTEC, 2007, p. 84).

[11] According to ECOTEC (2007), p.82

Further on, when the contractor's company is classified in another sector than energy, for instance in the services sector or in the construction industry, employment losses will be reported in the energy sector but employment gains in other sectors. By measuring employment in the energy sector only, we may thus overstate the overall employment losses due to liberalization of the energy market. This will happen in particular when outsourcing affects non-core activities. In the case of offshoring, the jobs are definitely lost for the domestic economy, but may return later when 'sourcing- back' becomes an option, probably because of quality complaints or rising wage levels abroad.

– Qualitative impacts

There is ample evidence from the literature that outsourcing often holds a negative effect on employee rights, certainty of employment, working conditions and the training environment but the quality of work as well. As contractors are expected to be cheaper, training budgets are often lower and in the case of short term contracts, companies simply have no incentive to build and maintain a well trained workforce. Also, less people doing the job often means less staff for emergencies, and may imply larger workloads, increased stress levels, worsening health & safety conditions and increased risk of accidents. Also, the role of trade unions is typically weakened under this framework. However, there are also examples of contracted specialist companies regarded as good and reputable employers as well as reliable service providers and providing employment for highly skilled technicians (ECOTEC, 2007, pp. 87 and 88). Regarding the outsourcing company, we generally observe a loss of skills and competencies with respect to the outsourced activities, which could have a negative effect on remaining activities and may lead to 'sourcing-back' in some cases. However, the share of highly skilled technicians in the company typically increases.

When addressing the outsourcing activities it is important that the unions and employers consider the positive and negative impact for workers and the company. The chapter on outsourcing in the 'toolkit on restructuring' developed by the social partners in the electricity sector can be a useful tool to structure these discussions (see Tarren, Potter and Moore, 2008, Chapter 2.1.12[12]).However, as pointed out there, the possible negative impacts of outsourcing for both workers and companies could be mitigated by early information of labour representatives and consultation between the social partners. A social dialogue is considered particularly important when cost reductions are the main motive for outsourcing.

[12] This 'toolkit on restructuring' and two further 'toolkits', one on demographic change (Pillinger, 2008) and one on equality (Pillinger 2007), can be downloaded for free from the EPSU homepage: http://www.epsu.org/r/317

To shed some light on the process of outsourcing in the WBCs electricity and gas sectors, we have included some questions regarding the degree and sort of outsourcing in the questionnaires for both trade unions and energy companies.

As mentioned in methodological remarks in the introduction, we received 67 questionnaires, 46 from firms and 21 from trade unions. Among the firms, 28 come from the electricity sector and 18 from the gas sector. We will first summarize the answers from the electricity firms.

From the electricity firms 46% reported that they have outsourced at least one kind of activity (core or non-core) since the end of 2005. 39% have outsourced certain core activities and 29% certain non-core activities while 21% of the companies mentioned both, core and non-core activities (see Table 4.4). Countrywise, the question of outsourcing was most frequently answered in the affirmative in Croatia and in Macedonia (100%) and negated by all electricity firms questioned in Montenegro. Only one company from Serbia was interviewed, which reported some outsourcing of non-core activities. The core activities listed most often are the following: maintenance, construction and infrastructure - in particular networks. More special cases mentioned were: business consulting, electricity trading, design, lignite mining for electricity production (in Macedonia) and digitalization. The main non-core activities outsourced included: cleaning, catering, security and IT services, sometimes also accounting. Outsourcing took place within the home country mainly and only some off-shoring was observed in the field of electricity trading and certain IT-services.

Regarding the question, whether the electricity firms intend to outsource some of their activities over the next three years, nearly all companies which have already outsourced certain core and non-core activities plan to do so in the future as well and only one additional firm, which has not outsourced any core activity so far intends to begin with in the near future. Also the type of activities and the place (home or abroad) will not change much.

Surprisingly, when asked how many of their employees have been or will be affected by outsourcing respectively by their plans to outsource in the future, all electricity companies except one replied that there will be only a minor or no effect at all on employment[13].

In the **gas sector** the share of firms which have outsourced at least one kind of activity is more prominent in the gas sector, the difference is much larger with respect to non-core activities. Outsourcing of non-core activities was reported by 61% of all gas companies while those reporting core activities took a share of 44% only. 39% of the gas companies mentioned both core and non-core activities.

[13] The one case was a company from BiH which reported very high numbers of employees being affected by outsourcing now and in the future. As these numbers did not look plausible we asked our collaborator in BiH to investigate further; but so far our inquiries remained without any result.

Table 4.4

Outsourcing of core and non-core activities since 2005, in % of answers

	Electricity sector				Gas sector			
Outsourced activities	At least one (core or non-core)[1)]	Core	Non-core	Both core and non-core	At least one (core or non-core)[1)]	Core	Non-core	Both core and non-core
Answers in % of total	46.4	39.2	28.6	21.4	66.7	44.4	61.1	38.9
Total number of questionnaires	**28**	**28**	**28**	**28**	**18**	**18**	**18**	**18**

Question: Has your company outsourced certain activities since the end of 2005? Please fill in the respective activities.
Core activities of your industry: *design, construction, maintenance and/or operation of upstream, production, transmission, distribution, supply or sales activities.*
Non-core activities: *catering, cleaning, transport, security, administration, accounting, IT services, other back-office support activities.*

Note: 1) % of companies outsourcing core activities plus % of companies outsourcing non-core activities minus % double counts (both core and non-core activities).

Source: 46 Company Questionnaires

The largest number of affirmative answers came again from Croatian companies. In Serbia, the only company questioned reported some outsourcing, in Macedonia one out of two and in BIH one out of three companies were engaged in outsourcing activities. The type of core activities listed most often were construction, maintenance and repair of gas pipelines; some mentioned design and project engineering as well. More special cases listed were: production activities such as tank filling, the transport of bottled LPG, meter reading and encashment. The main non-core activities were virtually the same as in the electricity sector, namely cleaning, catering, security and IT services, but often included the maintenance of office buildings and back office support as well. Also, similar to the electricity sector, outsourcing in the gas sector took place within the home country only, i.e. no off-shoring was observed.

Coming to the outsourcing plans for the next three years, virtually all companies who had outsourced both core and non-core activities already will continue to do so. In addition, four companies intend to outsource activities in one of the two categories in the near future. Also, the types of activities mentioned and the location (within the home country) were very similar to the past. However, one additional non-core activity for the future was mentioned, namely legal affairs.

When the gas companies were asked how many of their employees have been or will be affected by their outsourcing activities already introduced or planned for the future, only a minor effect on employment was estimated, similar to the answers in the electricity sector. Only a few companies reported significant impacts in the range of 70-125 employees in core activities and 20-35 employees in non-core activities. Nearly the same figures were given for the two different periods, 2005-2009 and 2010-2013. These results are rather surprising, given the wide range of outsourced activities reported.

Note: ‘Sub-contracting’ of individuals who are not (or no longer) employees and who carry out work for a company on the basis of an *individual service* contract are generally not subsumed under ‘outsourcing’ and considered as a separate category instead. But as effects on employment are similar to those of outsourcing, we have also included a question on ‘subcontracting’ in our questionnaire for companies. The answers indicate that between 2005 and 2009, the total number of jobs taken by sub-contractors has decreased in the electricity industry (from 762 to 52), but increased in the gas industry (from 28 to 64). Again, the impact on employment seems relatively small and the results are in line with the observed stronger tendency towards outsourcing in the gas than in the electricity sector.

The representatives from the **trade unions** were asked to comment on the question ‘to what extent outsourcing is and will in future be playing a role in the gas and electricity sectors’. Most answers given referred to the future development. Interestingly, contrary to the firms, there was a great difference between the estimation of trade union representatives speaking for the gas and for the electricity sectors. For the electricity sector, the majority assumed that outsourcing activities will decrease in the future and in certain cases there might even occur a redirection to own staff. The main arguments were that in the electricity sector outsourcing is limited by the core activities, that the existing staff is very competent and labour costs in the case of outsourcing of core activities are not likely to be lower. The one trade union representative who assumed that outsourcing activities will expand in the future referred to non-core activities mainly, including for instance legal, business and translation services. Trade union representatives from the gas sector on the other hand argued that an expansion of outsourcing activities was very likely, but they referred to the expansion of non-core activities mainly. From the representatives of trade unions speaking for both sectors, the majority expected that outsourcing activities will gain importance in the future, but relatively more in the field of non-core activities. Nevertheless, an important core activity mentioned was maintenance.

Although not asked directly, some trade union representatives commented on the possible employment impacts of future outsourcing as well, again having non-core activities in mind mainly. Their estimations ranged from ‘not likely to affect the company’s employees’ to a 35% reduction of the company’s staff in this field. There was also one trade union representative for the gas sector, who argued that outsourcing of non-core activities was actually necessary to cover the needs for manpower.

Finally, the trade unions were asked, about their involvement in the companies’ outsourcing plans. Of the 16 trade union representatives who answered this question, the majority (9) said that they were ‘just informed’, 4 were ‘involved’ and 3 were not informed at all. Thus, compared to the results from other studies in this field, the participation of trade un-

ions in the outsourcing process of the WBC's gas and electricity sector appears to be relatively weak[14].

Conclusions: Outsourcing is important and will remain so in the future in both the gas and the electricity sectors, yet so far it is more relevant in the gas sector. This is particularly true for the outsourcing of non-core activities. In the future, there seem to exist certain limits for further outsourcing of core activities in both sectors, while outsourcing of non-core activities may still increase. However, the impact of outsourcing on employment now and in the future is considered relatively small by companies as well as by trade unions, with a few exceptions only.

4.3 Impact of FDI in the sector that arises as a result of liberalization

FDI in the electricity and gas sectors of the Western Balkan countries

Foreign direct investment (FDI) starts to trickle into the Western Balkan electricity and gas sectors rather slowly. However, not for all WBCs FDI data are provided at a sectoral level by official data sources such as the national statistical offices or the national banks, and have to be retrieved from other sources instead, e.g. national investment agencies and commercial databases, such as the 'FDI Intelligence from Financial Times Ltd.' (fDi). These data may not be complete and hence are supplemented by further information on a case-by-case basis. Nevertheless, where official FDI data are available (Albania, Croatia, the former Yugoslav Republic of Macedonia, Serbia), the share of FDI in the electricity and gas sector in the total inward FDI stock of these countries was found below 1% which is significantly lower than the sector's share in GDP, pointing to an under-proportionate direct investment activity in this sector (see Table 4.5).

For comparison, in the new EU member states (NMS), direct investment in the energy sector is typically in line with overall investment or above average. The only exception in the Western Balkans is the former Yugoslav Republic of Macedonia after the acquisition of her electricity distribution company ESM by Austrian EVN in April 2006, when the E-sectors' share in FDI jumped to 6.4%. EVN Macedonia supplies electricity to the entire Former Yugoslav Republic of Macedonia and also owns 11 hydroelectric power plants. However, recently this FDI project has got into serious trouble. EVN is in a row with the state owned power production company ELEM. The case is being transferred to the international Arbitrary Court and starts to have political implications with regard to the former Yugoslav Republic of Macedonia's EU accession process, as there are serious doubts

[14] For example, a survey carried out by the European Federation of Public Service Unions (EPSU) in 2005 found that in 24 out of 25 cases of outsourcing in the utilities sector there had been a process of information and consultation over the change (Tarren, Potter and Moore, 2008, p. 14).

about the independence of local judiciary. This is an indication for the energy sector in the WBCs being still a highly politicized sector, which may be an obstacle for further FDI.

Table 4.5

Shares of the electricity and gas sector in the total inward FDI stock and in GDP[1)]

in %

	Albania	BiH	Croatia	The former Yugoslav Republic of Macedonia	Montenegro	Serbia	Kosovo under UN-SCR 1244/99
Year[2)]	2004	n.a.	2008	2007	2007	2007	n.a.
FDI share of E	0.2	n.a.	0.9	6.4	n.a.	0.1	n.a.
GDP share of E	n.a.	n.a.	2.2[3)]	2.7	3.0	3.4	n.a.

Notes: 1) Measured in terms of NACE rev. 1 classification, section E. - 2) Latest year available. – 3) Year 2005.

Sources: wiiw Database on Foreign Direct Investment 2009, Statistical Annex.

In 2007, the former Yugoslav Republic of Macedonia also showed the highest FDI stock in the electricity & gas sector of all WBCs in absolute terms (EUR 161 million). But this amount is still low, when compared to the smaller NMS, such as the Baltic countries or Bulgaria, where FDI in the electricity & gas sector ranged between EUR 300 million and EUR 1000 million in 2007.

Apart from the Austrian EVN, CEZ Group from the Czech Republic seems to be the most active foreign investor in the region. According to the CEZ homepage, the company's 'strategic goal is to become the leader of the Central and Southeastern European electricity market'(http://www.cez.cz/en/home.html). CEZ Group belongs to the ten largest energy companies in Europe, both in terms of installed capacity and number of customers. It occupies a leading position on the electricity market in Central Europe, following the acquisition of three distribution companies in Bulgaria, one in Romania, two Polish and one Bulgarian power plant. Further on, in December 2007, CEZ and MOL (Hungary) created a strategic alliance focusing on gas fired power generation. The countries in which MOL is active correspond to the area targeted for foreign expansion of the CEZ group. CEZ investment activities in the WBCs includes the acquisition of 76% of the shares in the Albanian electricity distribution power utility OSSH. The privatization process proved to lack transparency and included a transfer of debts from OSSH to the state power production company KESH. As part of the sales agreement, the electricity prices are expected to be raised in 2010 by between 8% and 15%. CEZ promised to invest EUR 200 million over a period of four years. CEZ has also established firms in Kosovo under UNSCR 1244/99, Serbia and BiH, with the aim to search for acquisition possibilities. In the latter country, CEZ came close to a EUR 1400 million deal with the power company of the Serb-dominated Bosnian entity of Republika Srpska on the reconstruction of the existing 250 MW thermal power plant (Gacko) and a construction of two 330 MW units. But finally, the deal failed.

Another foreign energy company which is strongly interested and active in the region is the London based Energy Financing Team (EFT), which is owned by a Serbian business man. EFT already runs several smaller projects in the former Yugoslav Republic of Macedonia and Montenegro. But its principal project is a big lignite–fired thermal power plant in Bosnia's Serb Republic. The company was awarded a 30-year concession for construction and operation of the project in February 2008. EFT estimates the project would cost upwards of EUR 650 million, including EUR 100-12 million to be spent on increasing production capacity of the adjacent coal mine, which will feed the new plant. EFT is also keen on the 70 MW Boskov Most project in the former Yugoslav Republic of Macedonia and another hydropower project in Albania. Also, plans to invest in the operation of the Cukara coal mine and the construction of a 132 MW power plant in central Serbia exist, but according to the EFT management, this investment has been reduced in rank lately, due to the present economic climate. Recently, in October 2009, EFT was awarded a 30 year concession by the government of Republika Srpska to build a 35 MW hydropower plant on the Neretva River (http://www.eft-group.net/news_latest/en/2009_09_10.htm).

Further examples of investments in the WBCs energy sector can be drawn from the fDi database. According to this source, recent energy projects in operation or in the process of planning, involve different foreign energy companies such as Technor Energy ASA (Norway) in BiH; Electricite de France (EDF) in the former Yugoslav Republic of Macedonia, RWE (Germany) and Enel (Italy) in Albania.

Finally, a tender for the privatization of the power utility of Montenegro (EPCG) was initiated, with the company being partly privatized to Italian A2A in 2009. The state remained, however, the main shareholder. The Serbian power utility EPS announced the start of restructuring of its own company and its interest in the tender for EPCG. Notably, the head of EPS as well as the President of Serbia have dismissed the possibility to privatize EPS.

Looking at employment effects of FDI, experience in Hungary in the period 1997-2000 showed for instance that almost all the reduction of the labour force in the electricity & gas sector during this period took place in foreign owned enterprises, due partly to the shrinking of the sector but mainly to rationalization in the companies (Hunya, 2002).

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Annex A

(Trade Union Questionnaire, Company Questionnaire)

Trade Union Questionnaire

GUIDELINES TO THE QUESTIONNAIRE

Instructions to interviewer:

1. Please fill in the header (A) before meeting the contact person at the trade union. That header will enable you to re-contact the respondent at a later stage.
2. Please then choose a unique ID code for the trade union which you will type under the heading (B) below and on the first page of the questionnaire.
3. The interview must be conducted face to face with a person who has the appropriate experience at the trade union.
4. Some questions in Sections 2 and 3 referring to 'Further information/exceptions' – should specify the activities related to the gas sector (might differ by countries).
5. Please edit the text of question 12 according to the main ethnic group (majority) and others in Serbia, Croatia and Albania. For BiH we suggest: Serbs, Croats, Bosniaks and others; for Kosovo: Albanians, Serbs and others; for Macedonia: Macedonians, Albanians and others; for Montenegro: Montenegrins, Serbs and others.
6. There are some questions that the interviewee may not be able to answer right away. Therefore we suggest the following procedure: Take two questionnaires for each interview. Fill out one yourself and leave one to the interviewee. Fill out as many questions as possible while you are there. If some questions may not be answered right away or need input from another person at the trade union leave the blank questionnaire at the trade union and call back or return after the time you agreed with the interviewee (at the latest 2 weeks after the interview).
7. Please type the answers received into the original word-file and send it back to us by e-mail.

A – Personal and trade union contact information

Please write in block capitals

Name and job title of respondent:
Name of the trade union:
Address of the trade union:
Date of legal establishment of the entity:
Telephone number of the respondent:
Email address of the respondent:

B – Questionnaire Identifier (ID)

ID: QID-000-001

SECTION 1 – GENERAL QUESTIONS

1 – Please identify the areas of economic activity covered by your trade union

Please indicate with a cross whether yes or no for each category

	Yes	No
Natural gas: upstream activities		
Natural gas: transmission and distribution		
Natural gas: sales and trading		
Electricity: generation		
Electricity: transmission and distribution		
Electricity: sales and trading		
Water supply		
Mining and quarrying		
Other (please specify) …… …… …… ……		

SECTION 2 – COLLECTIVE AGREEMENTS AND WAGES

2.1 – What is the total number of employees who are represented by your organization?

2.2 – What is this as percentage of the total labour force?

2.1 Number	**2005**	**2009**
In the electricity sector		
In the gas sector		
2.2 Percentage (%)	**2005**	**2009**
In the electricity sector		
In the gas sector		

Further information / exceptions (please specify)

……

……

……

3.1.1 - What is the total number of employees who are covered by company level collective agreements?

3.1.2 – What is this as percentage of the total labour force?

3.1.1 Number	**2005**	**2009**
In the electricity sector		
In the gas sector		
3.1.2 Percentage (%)	**2005**	**2009**
In the electricity sector		
In the gas sector		

Further information / exceptions (please specify)

……

……

……

3.2.1 - What is the total number of employees who are covered by industry level collective agreements?

3.2.2 – What is this as percentage of the total labour force?

3.2.1 Number	**2005**	**2009**
In the electricity sector		
In the gas sector		
3.2.2 Percentage (%)	**2005**	**2009**
In the electricity sector		
In the gas sector		

Further information / exceptions (please specify)

……

……

……

4 – What is the gross monthly <u>minimum wage</u> according to collective agreements?

National currency / month	**2005**	**2009**
In the electricity sector		
In the gas sector		

Further information / exceptions (please specify)

……

……

……

5 – What is the typical gross monthly wage for a full-time employee in your sector? (Based upon average characteristics in terms of skills, education and experience – an approximation or range is sufficient)

National currency / month	2005	2009
In the electricity sector		
In the gas sector		
For comparison: in another industry which you know about (please specify which one) ……		

Further information / exceptions (please specify)
……
……
……

SECTION 3 – CURRENT STRUCTURE OF EMPLOYMENT

6.**1 – What was the total number of full-time employees in your sector?**

6.2 – What was the total number of part-time employees in your sector?

6.3 – What was the total number of male employees in your sector?

6.4 – What was the total number of female employees in your sector?

For questions 6.1 – 6.4: If you do not have the total number for the entire sector, please indicate the total number for the companies which you work with.

6.1 Full-time employees	**2005**	**2009**
In the electricity sector		
In the gas sector		
In the companies you work with		

6.2 Part-time employees	**2005**	**2009**
In the electricity sector		
In the gas sector		
In the companies you work with		

6.3 Male employees	**2005**	**2009**
In the electricity sector		
In the gas sector		
In the companies you work with		

6.4 Female employees	**2005**	**2009**
In the electricity sector		
In the gas sector		
In the companies you work with		

Further information / exceptions (please specify)

……

……

……

7 – What was the total number of part-time employees in your sector?

Number of persons	2005	2009
In the electricity sector		
In the gas sector		

Further information / exceptions (please specify)
……
……
……

8 – What was the number of employees in your sector by gender and age groups?

Number of persons	2005	2009
Female up to 30		
Female 31-50		
Female 50+		
Male up to 30		
Male 31-50		
Male 50+		

9 – Employees by activity in the electricity sector?

Share of employees (%)	2005	2009
Upstream / production / generation		
Transmission		
Distribution		
Supply		
Auxiliary services		
Other (please specify) ……		

10 – Employees by activity in the gas sector

Share of employees (%)	2005	2009
Upstream / production / generation		
Transmission		
Distribution		
Supply		
Auxiliary services		
Other (please specify) ……		

11 – Employees by ethnic group in your sector?

(Grouping differ by country)

Share of employees (%)	2005	2009
Majority		
Others		

SECTION 4 – RESTRUCTURING

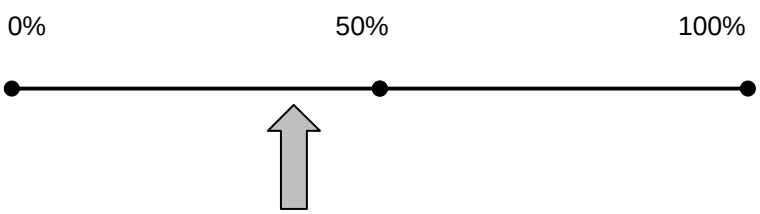
Preamble

A relatively strong degree of employment restructuring including staff reductions has been expected in the gas and electricity sectors in your country, in part due to liberalization following the adoption of EU directives and regulations. Some of that restructuring may already have occurred, while further restructuring could happen in the future.

12 – Taking 2005 as a starting point, and 2015 as an end point (when full opening of the market should occur), what approximate proportion of employment restructuring do you believe had occurred <u>until the end of 2009</u>?

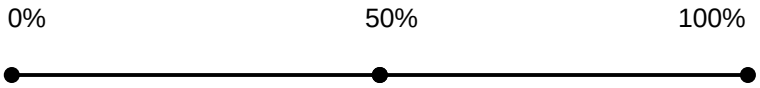
Please respond by marking the (approximate) proportion with an arrow on a line ranging from 0% (restructuring hasn't started yet) to 100% (all the restructuring has already happened).

EXAMPLE: (indicating approximately 40%)

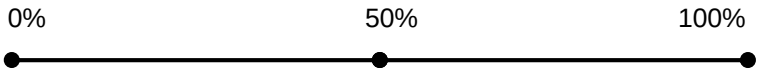


Proportion of restructuring reached at the end of 2009:

In the electricity sector:



In the gas sector:



Further information / exceptions (please specify)

……

……

……..……..

13 – How will total employment evolve in your sector over the next 3 years (2010-2012)?

Do you foresee any of the following?	Yes	No
There will be strong reductions		
Reductions will be necessary, but will be small		
Most or all necessary staff reductions have already happened		
Staff numbers will stay roughly the same		
Staff numbers will increase		

Further information / exceptions (please specify)

……

……

……

14 – According to your view, what would be the company's policy if they could choose freely – without influence form government or trade union?

Please rank the following measures from 1 = most preferred to 5 = least preferred

Measures	Rank (1 to 5)
Reductions in wage per hour	
Reductions in working time / switching some full-time employees to part-time contracts	
Lay-offs of employees (redundancies)	
Voluntary early retirement schemes	
Involuntary (accelerated) early retirement schemes	

15 – From your perspective, assuming that restructuring cannot be avoided, how would you rank the various choices (from best to worst)?

Please rank the following measures from 1 = most preferred to 5 = least preferred

Measures	Rank (1 to 5)
Reductions in wage per hour	
Reductions in working time / switching some full-time employees to part-time contracts	
Lay-offs of employees (redundancies)	
Voluntary early retirement schemes	
Involuntary (accelerated) early retirement schemes	

16 – Please describe how you believe restructuring may affect female employees in particular

In your own words
…… …… …… …… …… …… ……

17 – Please describe how you believe restructuring may affect older employees (above 50) in particular

In your own words
…… …… …… …… …… …… ……

18 – Please describe the extent to which outsourcing is and will in future be playing a role in the gas and electricity sectors

In your own words
…… …… …… …… …… …… ……

SECTION 5 –JOB QUALITY, SOCIAL DIALOGUE AND SOCIAL ACTION PLANS

19 – How have the following evolved since 2005?

	Increased	Decreased	No change
Overall staff satisfaction (e.g. autonomy of work, work intensity, work organization,)			
Paid overtime			
Unpaid overtime			
Occupational or work-related illness			
Accidents at the work-place			
Work-related stress levels			
Working days lost due to strikes			
Training measures, general			
Training measures for older workers (> 45 years)			
Training measures for low skilled workers			

20 – What restructuring activities exist?

– What is the general involvement of trade union representatives in restructuring?

	Measures exist	Involvement of union		
		Actively involved	Just informed	Not informed
Redundancy plans				
Age management, e.g. early retirement				
Hiring plans				
Equal opportunity plans for women				
Equal opportunity plans for ethnic minorities				
Health and safety measures				
Retraining measures				
Outsourcing Plans				

21 – Outlook for training of staff over the next 3 years?

How will the following training-related measures evolve?	Increase	Decrease	Stay the same
Share of workers to undergo training, general			
Share of older workers to undergo training (> 45 years)			
Share of low skilled workers to undergo training			

SOCIAL ACTION PLANS

A Social Action Plan IN THE CONTEXT OF THE ENERGY COMMUNITY has been discussed at Ministerial level in your country. Please describe the extent to which your organization was involved in helping to define its contents and whether your organization was satisfied with the process of consultation with the government.

22 – Are you informed about the Social Action Plan?

Yes **No**

23 – Were you involved in drafting the Social Action Plan?

Yes **No**

24 – In what fields are measures implemented or are going to be implemented (on the company or sectoral level) based on the Social Action Plan that will improve job quality?

Measures	Yes	No
Age management measures, e.g. early retirement		
Equal opportunity measures for women		
Equal opportunity measures for ethnic minorities		
Health and safety measures		
Work-life balance measures to improve job quality		
Retraining measures, general		
Retraining measures for low skilled workers		
Retraining measures for older workers (> 45 years)		

For the fields you answered yes, please specify the measures, if possible
……
……
……
……
……
……
……

25 – What are missing aspects / problems concerning the Social Action Plan of your country?

In your own words
…… …… …… …… …… …… ……

26 – Effect of the Social Action Plan on the social dialogue

Is the social dialogue improving due to the implementation of the Social Action Plan?	**Strongly improved**	**Slightly improved**	**No change**	**Worsened**
On the company level				
On the sectoral level				
On the national level				

THANK YOU FOR YOUR PRECIOUS INPUTS!

WE WILL CONTACT YOU CONCERNING THE RESULTS OF OUR STUDY

Company Questionnaire

GUIDELINES TO THE QUESTIONNAIRE

Instructions to interviewer:

1. Please fill in the header (A) before meeting the contact person at the company. That header will enable you to re-contact the respondent at a later stage.
2. Please then choose a unique ID code for the company which you will type under the heading (B) below and on the first page of the questionnaire.
3. Please edit the text of question 13 according to the main ethnic group and others in Serbia, Croatia and Albania. For BiH we suggest: Serbs, Croats, Bosniaks and others; for Kosovo: Albanians, Serbs and others; for Macedonia: Macedonians, Albanians and others; for Montenegro: Montenegrins, Serbs and others.
4. The interview must be conducted face-to-face with a person who has the appropriate experience at the company.
5. There are some questions that the interviewee may not be able to answer right away. Therefore we suggest the following procedure: Take two questionnaires for each interview. Fill out one yourself and leave one to the interviewee. Fill out as many questions as possible while you are there. If some questions may not be answered right away or need input from another person in the company leave the blank questionnaire at the company and call back or return after the time you agreed with the interviewee (at the latest 2 weeks after the interview).
6. Please type the answers received into the original word-file and send it back to us by e-mail. (For question 29, please type in your estimate of the graphical answer.)

A – Personal and company contact information

Please write in block capitals

Name and job title of respondent:
Name of the company:
Address of the company:
Date of legal establishment of the entity:
Telephone number of the respondent:
Email address of the respondent:

B – Questionnaire Identifier (ID)

ID: *QID-Type-COUNTRY-Number* (for example: QID-Firms-Croatia-002)

SECTION 1 – GENERAL QUESTIONS

1 – Please identify the current areas of activity of your company

Please indicate with a cross whether yes or no for each category

Natural Gas	**Yes**	**No**
Upstream activities *including the construction or operation of upstream supply pipelines or the construction or operation of LNG terminals*		
Transmission of natural gas *through high-pressure pipelines that are not up-stream (cross-border) pipelines*		
Distribution of natural gas *through local or regional pipelines*		
Supply of natural gas *sale or resale of gas to wholesale or retail custom-ers*		
Other (please specify) ……		

Electricity	**Yes**	**No**
Production (generation) of electricity *i.e. thermal using lignite, coal, gas or oil; nuclear; hydro-electric; wind; solar; other.*		
Transmission of electricity *Through extra-high voltage and high voltage com-ponents of the interconnected grid*		
Distribution of electricity *Through high, medium and low voltage distribution systems*		
Supply of electricity *Sale or resale of electricity to wholesale or retail customers*		
Other (please specify) ……		

2 – Ownership status of your company

Please indicate with a cross for each year

Ownership status	**2005**	**2009**
State-owned		
Majority privately owned		
Other		

3 – If your company took over another company in the last ten years (since 2000) please provide the following information:

Year(s) of the change:
Former name of your company (if different) :
Former name(s) of the other firm(s) (if different) :

4 –If your company was taken over by another company in the last ten years (since 2000) please provide the following information:

Year of the change:
Former name of your company (if different) :
Former name of the other company (if different) :

5 –If your company was privatized in the last ten years (since 2000) please provide the following information:

Year of the change:
Former name of your company (if different) :

6 – If your company separated from a larger entity in the last ten years:

Please indicate	
Name of original company:	
Date of separation:	
Type of separation: *separate ownership; or common ownership but separate legal status*	

7 – What is the share of foreign capital in your company?

Instructions / categories	
More than 50%	
Between 10% and 50%	
Less than 10%	
Zero	

8 – Are there plans to privatize your company? *(Please skip if not applicable)*

Please choose one answer	
Yes, probably within the next two years	
Yes, but it will probably take longer	
No plans now, but this could change	
There is little or no scope for such a change	
Prefer not to say	

9 – Are there plans for mergers or acquisitions involving your company? (Either your company taking over another company, or the reverse)

Please choose one answer	
Yes, probably within the next two years	
Yes, but it will probably take longer	
No plans now, but this could change	
There is little or no scope for such a change	
Prefer not to say	

SECTION 2 – CURRENT EMPLOYEE STATISTICS

10 – Employees by type of contract (at end of year)

Number of persons	2005	2009
Full-time permanent employees		
Part-time permanent employees		
Temporary employees (full-time and part-time)		

11 – Employees by gender and age group (permanent only – at end of year)

Number of persons	2005	2009
Females (all ages)		
Males (all ages)		
Aged up to 30 (both genders)		
Aged 31-50 (both genders)		
Aged over 50 (both genders)		

12 – Employees by activity (permanent only – at end of year)

Number of persons	2005	2009
Upstream / production / generation		
Transmission		
Distribution		
Supply		
Auxiliary services		
Other (please specify) ……		

13 – Employees by ethnic group (at end of year)

Number of persons	2005	2009
Majority		
Others		

14 – What share of your employees belongs to a trade union? (at end of year)

	2005	2009
Share in %		

15 – Employees by educational background (at end of year)

Number of persons	2005	2009
University degree		
Non-university college degree		
Secondary school education		
Basic school education		
Highly skilled		
Semi-skilled		
Unskilled		

SECTION 3 – SUB-CONTRACTORS AND OUTSOURCING

16 – Sub-contracted workers (at end of year)

Number of persons	2005	2009
Sub-contracted individual workers Note: individuals who are not (or no longer) employees and who carry out work for your company on the basis of an individual service contract. This category is not the same as outsourcing, the latter referring to services delivered by incorporated businesses to your company.		

17 – Has your company outsourced certain activities since the end of 2005?

Please fill in the respective activities and indicate the geographical area with a cross.

Type	Description of activity	Nationally	Abroad
Core activities			
Non-core activities			

Core activities of your industry: *design, construction, maintenance and/or operation of upstream, production, transmission, distribution, supply or sales activities.*
Non-core activities: *catering, cleaning, transport, security, administration, accounting, IT services, other back-office support activities.*

18 – Which activities do you intend to outsource in the next three years?

Please fill in the respective activities and indicate the geographical area with a cross.

Type	Description of activity	Nationally	Abroad
Core activities			
Non-core activities			

19 – How many employees have been or will be affected by outsourcing?

Please give an approximation of the numbers of staff affected in the two periods given.

Type	2005-2009	2010-2013
Core activities		
Non-core activities		

SECTION 4 – INFLOWS AND OUTFLOWS OF EMPLOYEES

20 – Departures of members of staff from your company in recent years

Number of persons:	In 2008	In 2009
Voluntary termination		
Involuntary termination (redundancy)		
Ordinary retirement		
Early retirement		
Other (please specify) ……		

21 – Hiring of new members of staff

Number of persons:	In 2008	In 2009
Permanent full-time		
Permanent part-time		
Temporary (full-time or part-time)		

SECTION 5 – BUSINESS CLIMATE AND EMPLOYMENT OUTLOOK

22 – Business activity and volume

Compared to 2005, how have the following key figures evolved for your business?	Higher	Lower	Stable
Number of customers			
Number of suppliers			
Total turnover			
Pre-tax profits			

23 – Outlook for your business activity and volume over the next 3 years (2010-2012)

How will the following evolve?	Higher	Lower	Stable
Number of customers			
Number of suppliers			
Total turnover			
Pre-tax profits			

24.1 – How will total employment evolve in your company over the next 3 years (2010-2012)?

Do you foresee any of the following?	Yes	No
There will be strong reductions (more than 10% of the total)		
Reductions will be necessary, but will be small		
Most or all necessary staff reductions have already happened		
Staff numbers will stay roughly the same		
Staff numbers will increase		
Other (please specify) ……		

24.2 – Outlook for employment at your company over the next 3 years (2010-2012)

By type of contract

How will the following evolve?	Higher	Lower	Stable
Number of permanent employees			
Number of temporary employees			
Number of sub-contracted workers			

25 – <u>If you answered Yes to either the first or the second answer in Question 24.1</u> please provide answers to the following questions:

Which of the following applies?	Yes	No
A restructuring plan was decided and is now being carried out		
A restructuring plan is currently being discussed by management and will then be carried out		
A restructuring plan has not yet been prepared		
Other (please specify) ……		

26 – <u>If you answered Yes to either the first or the second answer in Question 24.1</u>, please provide answers to the following questions:

Which of the following applies?	Yes	No
Discussions on restructuring are being held with trade union representatives		
Discussions on restructuring are being held with local politicians		
Other (please specify) ……		

27 – How will employment change due to the following factors?

Number of employed persons:	Higher	Lower	Stable
Opening of the customer market			
Third party access rules			
General economic conditions			
Technological change			
Other (please specify): ……			

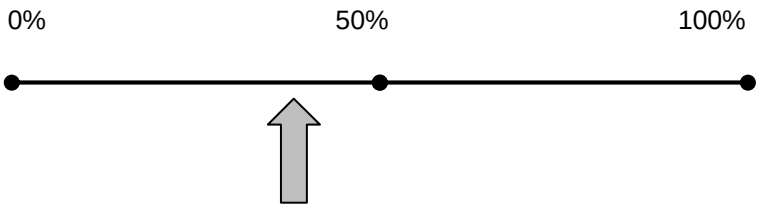
28 – Outlook for balance of employees by skills

Do you expect any new skill requirements as a consequence of market liberalization?	Yes	No	Do not know
Financial skills			
Legal skills			
Technical skills			
Marketing and sales skills			
Other skills (please specify) ……			

29 – Taking the end of 2005 as a starting point, and 2015 as an end point (when full opening of the market should occur), what approximate proportion of employment restructuring do you believe had occurred <u>until the end of 2009</u>?

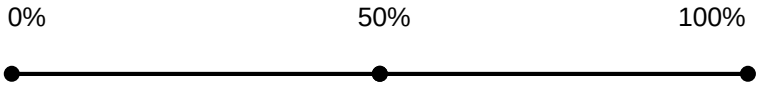
Please respond by marking the (approximate) proportion with an arrow on a line ranging from 0% (restructuring hasn't started yet) to 100% (all the restructuring has already happened).

EXAMPLE: (indicating approximately 40%)

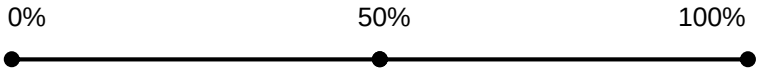


Proportion of restructuring reached at the end of 2009:

In the electricity sector:



In the gas sector:



Further information / exceptions (please specify)

……

……

……

SECTION 6 – EMPLOYEE SATISFACTION AND JOB QUALITY

30 – How have the following evolved since the end of 2005?

	Increased	Decreased	No change
Overall staff satisfaction (e.g. autonomy of work, work intensity, work organization,)			
Paid overtime			
Unpaid overtime			
Occupational or work-related illness			
Accidents at the work-place			
Work-related stress levels			
Working days lost due to strikes			
Training measures, general			
Training measures for older workers (> 45 years)			
Training measures for low skilled workers			

31 – What is the general involvement of employee and/or trade union representatives in restructuring?

	Actively involved	Just informed
Redundancy plans		
Age management, e.g. early retirement		
Hiring plans		
Equal opportunity plans for women		
Equal opportunity plans for ethnic minorities		
Health and safety measures		
Retraining measures		
Outsourcing plans		

32 – Outlook for training of staff over the next 3 years?

How will the following training-related measures evolve?	Increase	Decrease	Stay the same
Share of workers to undergo training, general			
Share of older workers to undergo training (> 45 years)			
Share of low skilled workers to undergo training			

SOCIAL ACTION PLANS

A Social Action Plan in the context of the Energy Community has been discussed at Ministerial level in your country.

33 – Are you informed about that Social Action Plan?

Yes **No**

34 – Were you involved in drafting that Social Action Plan?

Yes **No**

35 – The impact of that Social Action Plan on company policy? (if you are informed about it)

	Strongly	Weakly	No effect
Redundancy plans			
Age management, e.g. early retirement			
Hiring plans			
Equal opportunity plans for women			
Equal opportunity plans for ethnic minorities			
Health and safety measures			
Retraining measures			
Social dialogue at the company level			
Social dialogue at the sector level			

THANK YOU FOR YOUR PRECIOUS INPUTS!

WE WILL CONTACT YOU CONCERNING THE RESULTS OF OUR STUDY

Annex B

List of interviewed companies/trade unions (in the order of their arrival)
(Abbreviations: F = firm/company questionnaire; TU = trade union questionnaire;
E = electricity sector; G = gas sector; ALL = electricity and gas sector)

Albania

- Statkraft Albania SH.P.K. (F/E)
- Balkan Green Energy (F/E)
- KESH sha (F/E)
- Operator of the Distribution System (OST) (F/E)
- OST (Operator of Power Transmission) (F/E)

Bosnia and Herzegovina

- Visokogas d.o.o. Visoko (F/G)
- State Electricity Regulatory Commission SERC (not included in the analysis)
- ISO - Independent System Operator in Bosnia and Herzegovina (F/E)
- Regulatory Commission for Electricity in Federation BiH – FERK (not included in the analysis)
- Elektroprivreda RS (F/E)
- BH-GAS D.O.O. SARAJEVO (F/G)
- JP Elektroprivreda Hrvatske zajednice Herceg Bosne dd Mostar (F/E)
- Sarajevo Gas (F/G)
- Elektroprenos-Elektroprijenos BiH A.D. Banja Luka(F/E)
- Sindikat elektroenergetskih radnika (TU/E)
- Sindikat komunalnih radnika (Union of municipal workers) (TU/G)
- Union of "mixed holding ERPS, parent company AD Trebinje" (TU/E)
- JP Elektroprivreda BiH (F/E)

Croatia

- Termoplin d.d. Varazdin (F/G)
- Proplin Ltd. (F/G)
- HEP Operator Prijenosnog Sustava d.o.o. (HEP Transmission System Operator Ltd.)(F/E)
- Prirodni Plin d.o.o. (Natural Gas Ltd.)(F/G)
- HEP-Operator Distribucijskog Sustava d.o.o. (HEP Distribution System Operator Ltd.)(F/E)
- Plinacro d.o.o.(F/G)
- Gradska Plinara Zagreb (GPZ) (Zagreb City Gasworks)(F/G)

- HEP-Plin d.o.o., Osijek (HEP-Gas Ltd.)(F/G)
- Samostalni Sindikat Energetike, Kemije i Nemetala (Independent Trade Union of Energy, Chemistry and Non-metal Industry) (TU/G)
- Hrvatski Elektrogospodarski Sindikat – HES (Croatian Power Sector Trade Union – HES)(TU/ALL)

The former Yugoslav Republic of Mazedonia

- MEPSO(F/E)
- Trade Union for Energy, Mining and Quarrying and Industry(TU/E)
- AD ELEM (F/E)
- GA-MA(F/G)
- Trade Union of EVN Makedonija (TU/E)
- Ministry of Labour and Social Policy (TU-ministry/ALL)
- EVN Makedonija (F/E)
- Makpetrol A.D. - Skopje, Macedonia (F/G)

Montenegro

- Montenegro Petrol Doo (F/G)
- Montenegro Bonus (F/G)
- Prenos AD (F/E)
- Trade Union of Prenos AD (TU/E)
- Sindikalna orgnizacija EPCG AD Niksic (Trade Union of Montenegrin Electric Enterprise) (TU/E)
- Montenegrin Electric Enterprise AD Niksic (EPCG) (F/E)
- Euro Pact doo, Podgorica (F/G)
- Fab Live (F/G)
- Senic Petrol doo, Podgorica (F/G)
- Jugopetrol AD Kotor (F/G)
- Trade Union Organization Montenegro Bonus (TU/G)

Serbia

- Ministry of Labour and Social Policy (TU-ministry/ALL)
- Serbijagas (F/G)
- The Energetic Agency (TU- agency/ALL)
- Trade Union of Serbijagas (TU/G)
- EPS trade union (Trade union of Elektroprivreda Srbije) (TU/E)
- The Serbian Ministry of Labour (TU-ministry/ALL)
- Chemistry, quarrying, energetic and mining sector trade union (TU/ALL)

- Ministry for work and social policy (TU-ministry/ALL)
- Ministry for energy and mining (TU-ministry/ALL)
- Energetic sector trade union(TU/ALL)
- The Electric power industry of Serbia (EPS) (F/E)

Kosovo under UNSCR 1244/99

- WMC Sh.p.k. (F/E)
- Independent Trade Union of Energy of Kosova (TU/E)
- KEK - Coal Division (F/E)
- HPP Burim, Triangle GC Inc, Branch Kosova (F/E)
- HPP Dikanc - Frigo Food Energy Invest Sh.p.k. (F/E)
- HPP Lumbardh, Kozner Decan (F/E)
- HPP Radac, Triangle GC Inc, Branch Kosova (F/E)
- Hydro Economic Enterprise Iber-Lepenc J.S.C. (F/E)
- KEK, Network division (F/E)
- Kosovo Energy Corporation J.S.C. (F/E)
- Transmission, System, and Market Operator KOSTT JSC (F/E)

Austria

- E-Control (Interview)
- VERBUND-Austrian Power Grid AG (Interview and conducted tour)
- VERBUND (Pilot interview)

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