BOSNIA AND HERZEGOVINA

FOLLOW-UP IN-DEPTH REVIEW
of the Investment Climate and Market Structure in the Energy Sector

Energy Charter Secretariat
2011
Disclaimer

Information contained in this work has been obtained from sources believed to be reliable. However, neither the Energy Charter Secretariat nor its authors guarantee the accuracy or completeness of any information published herein, and neither the Energy Charter Secretariat nor its authors shall be responsible for any losses or damages arising from the use of this information or from any errors or omissions therein. This work is published with the understanding that the Energy Charter Secretariat and its authors are supplying the information, but are not attempting to render legal or other professional services.

© Energy Charter Secretariat, 2011
Boulevard de la Woluwe, 56
B-1200 Brussels, Belgium
ISBN: 978-905948-098-8 (English, PDF)

Reproduction of this work, save where otherwise stated, is authorised, provided the source is acknowledged. All rights otherwise reserved.
# Table of Contents

I. **Introduction** .................................................................................................................................................. 8

II. **Policy Conclusions Adopted by the Energy Charter Conference** ................................................................. 9

III. **Summary of the Main Findings of the Secretariat** ......................................................................................... 11

IV. **General Indicators** ........................................................................................................................................ 14
   IV.1. General Country Information ..................................................................................................................... 14
       IV.1.1. General Information .......................................................................................................................... 14
       IV.1.2. Constitutional Structure .................................................................................................................. 16
   IV.2. Macroeconomic Development .................................................................................................................. 17

V. **Legislative Framework For Energy Investment** ........................................................................................... 23
   V.1. Brief Description of the Contents of Legislation Relevant to Investment in the Energy Sector ................. 23
       V.1.1. Constitutional Provisions and Legal System in Relation to International Treaties ................................. 23
       V.1.2. Establishment of Enterprises (National and Foreign Companies) ..................................................... 23
       V.1.3. Entrepreneurship and Corporate Laws ............................................................................................... 25
       V.1.4. Foreign Investment Legislation, Including Definitions and Forms of Investment ............................... 25
       V.1.5. Legislation on Land / Immovable Property / Real Estate ................................................................. 26
       V.1.6. Competition Legislation ..................................................................................................................... 27
       V.1.7. Corporate Taxation .............................................................................................................................. 28
       V.1.8. Legislation Regulating Conditions for Entry, Stay and Work of Foreign Natural Persons ................. 29
       V.1.9. Foreign Exchange and Securities Laws / Regulations ....................................................................... 30
       V.1.10. Legislative Basis Regulating Compensation for Losses and Expropriation ....................................... 31
       V.1.11. Legislative Framework for Privatisation .............................................................................................. 31
       V.1.12. Legislation Regulating the Publishing of Laws and Other Legal Acts ............................................. 33
       V.1.13. General Measures for Ensuring Observance at Sub-National Levels – Competence of Sub-National Authorities ................................................................................................................................. 33
       V.1.15. Environmental Protection .................................................................................................................... 35
V.2. Summary of Laws / Regulations Relevant to Making Investments in the Energy Sector ................................................................. 35
  V.2.1. List of All Laws and Regulations Relevant to Making Investments in the Energy Sector ................................................................. 35
  V.2.2. Plans for Amendments of Existing or Development of New Legislation Concerning the Energy Sector ........................................ 38
V.3. Summary of Participation in International Organisations and / or Conventions, Treaties, Agreements, etc ............................................. 38
  V.3.1. Bilateral Investment Treaties (Agreements) on the Protection and Promotion of Foreign Investments ........................................ 38
  V.3.2. Bilateral Treaties (Agreements) on Avoidance of Double Taxation .... 38
V.4. Exceptions to National Treatment ................................................................................................................................. 39

VI. Energy Sector – Supply and Demand Side .......................................................................................................................... 41
  VI.1. Renewable Energy ........................................................................................................................................................................ 43
    VI.1.1. Biomass .................................................................................................................................................................................. 43
    VI.1.2. Wind Energy ............................................................................................................................................................................. 44
    VI.1.3. Solar Energy ............................................................................................................................................................................. 44
    VI.1.4. Geothermal Energy .............................................................................................................................................................. 44
    VI.1.5. Small Hydro ........................................................................................................................................................................... 45

VII. Market Structure by Sector ......................................................................................................................................................... 46
  VII.1. Oil Sector ........................................................................................................................................................................................ 46
    VII.1.1. Physical Features .............................................................................................................................................................. 46
    VII.1.2. Legislation Specific to the Sector ........................................................................................................................................... 47
    VII.1.3. Market Structure – Monopolies, Privatisation ..................................................................................................................... 49
    VII.1.4. Current Opportunities for Private Investors ....................................................................................................................... 49
    VII.1.5. Future Investment Opportunities in the Oil Sector .............................................................................................................. 49
  VII.2. Natural Gas Sector ...................................................................................................................................................................... 50
    VII.2.1. Physical Features .............................................................................................................................................................. 50
    VII.2.2. Legislation specific to the Sector ........................................................................................................................................... 51
    VII.2.3. Market Structure – Monopolies, Privatisation ..................................................................................................................... 51
    VII.2.4. Current Opportunities for Private Investors ....................................................................................................................... 52
    VII.2.5. Future Investment Opportunities in the Gas Sector .............................................................................................................. 54
  VII.3. Coal Sector .................................................................................................................................................................................. 54
    VII.3.1. Physical Features .............................................................................................................................................................. 54
    VII.3.2. Legislation Specific to the Sector ........................................................................................................................................... 56
    VII.3.3. Market Structure – Monopolies, Privatisation ..................................................................................................................... 56
VII.3.4. Current Opportunities for Private Investors ............................................. 57
VII.3.5. Future Investment Opportunities in the Coal Sector ............................. 58

VII.4. Electricity Sector .......................................................................................... 58
VII.4.1. Physical Features ....................................................................................... 58
VII.4.2. Legislation Specific to the Sector ............................................................... 60
VII.4.3. Market Structure – Monopolies, Privatisation ........................................ 62
VII.4.4. Current Opportunities for Private Investors ............................................. 63
VII.4.5. Future Investment Opportunities in the Electricity Sector ....................... 63

VII.5. Nuclear Power Sector .................................................................................... 64

VII.6. District Heating Sector .................................................................................. 64
VII.6.1. Physical Features ....................................................................................... 64
VII.6.2. Legislation Specific to the Sector ............................................................... 66
VII.6.3. Market Structure – Monopolies, Privatisation ........................................ 67
VII.6.4. Current Opportunities for Private Investors ............................................. 68
VII.6.5. Future Investment Opportunities in the District Heating Sector ............. 69
List of Figures

Figure 1: Map of Bosnia and Herzegovina ........................................................................................ 14
Figure 2: Geophysical Map of Bosnia and Herzegovina ................................................................... 15
Figure 3: GDP Evolution in Recent Years (€ bln) ............................................................................... 17
Figure 4: Evolution of the Unemployment Rate ................................................................................ 18
Figure 5: Evolution of Inflation Rate in Bosnia and Herzegovina and Central and Eastern Europe .... 19
Figure 6: Total Inflows of FDI in BiH (€ mln) .................................................................................... 19
Figure 7: FDI Stocks by Country (May 1994 - December 2008) ......................................................... 20
Figure 8: Business Registration Process and Estimated Time Required for Foreign Companies in the FBiH and the RS .............................................................................................. 25
Figure 9: Oil Consumption in BiH, by Sector (2000-2005) ................................................................ 46
Figure 10: Oil Product Consumption in the Transport Sector in BiH (2000-2005) ............................... 47
Figure 11: Evolution of Gas Consumption, by Sector (mcm/year) ....................................................... 50
Figure 12: Gas Pipeline System Development of FBiH ..................................................................... 53
Figure 13: Gas System Development in the RS .................................................................................. 53
Figure 14: Map of BiH with Sites of Coal Mines ............................................................................... 55
Figure 15: Main Coal Reserves in BiH and their Basic Categorisation (tons) ...................................... 55
Figure 16: Coal Production in BiH, the FBiH and the RS in 1990 and 2000-2006 ............................... 57
Figure 17: HV Diagramme of Connections and Lines of BiH ............................................................. 60
Figure 18: District Heating Prices in 2005 ......................................................................................... 68
List of Tables

Table 1: Primary Energy Consumption in BiH ................................................................. 41
Table 2: Primary Energy Supply in BiH (ktoe) ................................................................. 42
Table 3: Final Energy Consumption in BiH (ktoe) ........................................................... 42
Table 4: Energy Driven to Conversion Units ................................................................. 42
Table 5: Final Energy Consumption, by Sector ............................................................. 43
Table 6: Final Energy Consumption in the BiH Entities and District Brčko .................. 43
Table 7: Planned Coal Sector Investments in BiH ........................................................... 58
Table 8: Presentation of District Heating Systems in BiH .............................................. 65

List of Annexes

Annex 1: Types of Companies in BiH (FBiH and RS) ..................................................... 70
Annex 2: List of Bilateral Investment Treaties on the Protection and Promotion of Foreign Investments to which BiH is a Party ................................................................. 71
I. INTRODUCTION


The current follow-up report of ICMS is second report for the country and its preparation is motivated, among others, by the need to reflect all relevant changes that have taken place in the country since 2002. The document covers mainly the period 2002-2009 and is based on the latest publicly available data for BiH.

Undertaken on a peer review basis, this report serves the purpose of information sharing and cooperation among the member states. The report contains updated information on development of the national economy; basic statistics on foreign direct investments (FDI); analysis of the legal framework; review of the investment climate and market structure in the energy sector of BiH.
II. **POLICY CONCLUSIONS ADOPTED BY THE ENERGY CHARTER CONFERENCE**

The Energy Charter Investment Group reviewed country report of Bosnia and Herzegovina at its meeting on 18 June 2010. It agreed upon a number of policy conclusions with regard to the report that was subsequently approved by the Charter Conference on 24 November 2010. These conclusions read as follows:\(^1\)

The Charter Conference,

*Having heard the report from the Investment Group with respect to the Report on Investment Climate and Market Structure from Bosnia and Herzegovina*

**NOTED**

a) **That the review has shown some progress in the legislative framework, in particular by adopting a number of energy-related laws and regulations and further steps towards restructuring and privatisation of the energy sector in the country.**

b) **In particular:**

- Took note with satisfaction of the significant improvement in the investment climate of the country and underlined the importance of continued efforts towards decisive implementation of existing reform programmes while in pursuit of further reforms;

- Paid special attention to the increased investor confidence in the country thanks to stability brought into the country in recent years; and acknowledged the importance of providing investors positive signals through continued stability in the country which may be enhanced further by the new political climate following the elections this year;

- Underlined the huge potential for an important role by international community in contributing to investment climate through entering into dialogue with all stakeholders and cooperation in the energy sector, together with a perspective in ensuring better integration toward regional energy market;

- Welcomed the extensive efforts to ensure an efficient energy market in the country while trying to cope with practical and structural difficulties resulting out of the constitutional framework and the features of multi-polar dimensions in daily management of energy sector activities;

- Encouraged taking further steps toward achieving a more cohesive governance structure accompanied with confidence building measures that may be realised through effective contributions by the international community;

- Emphasised the huge hydro potential in the country that remains untapped which presents an important and sizeable export potential for transboundary energy trade in the region and EU;

---

\(^1\) Adopted at the 21st Meeting of the Energy Charter Conference on 24 November 2010.
• Drew attention to introducing a more efficient system towards ensuring effective public expenditures and more streamlined efforts for maintaining an effective regime of social contributions;

• Supported the promotion of market economy driven reforms and speeding up of efforts to alleviate bureaucratic obstacles and to continue reforming of the judiciary;

• Encouraged to continue endeavours aimed at integration within the regional energy market, while acknowledging further the active role of the country toward integration of regional markets especially in the north-south electricity networks, and appreciated that it has actively participated in trans-boundary electricity cooperation initiatives;

• Took note that new supply sources could help diversify supply, enhance market performance, efficiency and transparency;

• Encouraged to promote the adoption of demand-side measures that contribute to more efficient energy use and improved use of existing infrastructure, and to support use of the renewable potential;

• Encouraged to establish cost-reflective tariffs and to implement phasing-out of cross-subsidies;

• Encouraged enactment of the natural gas law to realise the potential in increased use of natural gas, together with attaching priority to develop further the gas distribution and transmission networks.
III. SUMMARY OF THE MAIN FINDINGS OF THE SECRETARIAT\(^2\)

The Government of Bosnia and Herzegovina (BiH) is working on removing the obstacles to investments. A number of institutions in the country underline that there is slow but steady progress on improving the business environment. The Government established State level Foreign Investment Promotion Agency (FIPA) which provides assistance to foreign investors, but is constrained by lack of harmonised regulations at entities level, thus its services are limited to certain extend.

The State-level “Law on Foreign Direct Investment” provides a broad framework for foreign investment. The law accords foreign investors the same rights as domestic investors. With the exception of the armament and media sectors, where foreign control is limited to 49%, there are no restrictions on foreign investment. Investors are also protected from changes in laws regarding foreign investment. Should the government make changes, the investor may choose the most favourable set of rules to apply. The law prohibits expropriation and nationalisation of assets, except under special circumstances for public interest purposes and not without due compensation. Finally, because of the requirement for equal treatment, the law also treats foreign investors the same as domestic investors with respect to bidding on privatisation tenders. Foreign investors may own real estate in BiH and they enjoy the same property rights in respect to real estate as BiH citizens and legal entities.

The country accepts international arbitration as a means for settling investment disputes between private parties if the parties agreed to do so in a contract, and also by way of recourse to investment arbitration in accordance with the Energy Charter Treaty (ECT) and several bilateral investment treaties (BITs). In the energy sector there have been no cases that applied the international dispute resolution schemes but one case is evolving and might opt for an international arbitration.

The shared principles underpinning both the ECT approach and that of the World Trade Organisations (WTO) are non-discrimination, transparency and a commitment to the progressive liberalisation of international trade. The recent entry into force of the Trade Amendment of the Energy Charter Treaty represents an important mile stone for BiH which has not yet acceded to the WTO. The Trade Amendment allows BiH to familiarise with the practices and disciplines that WTO membership entails, through application of its rules “by reference” to trade in energy materials and products and energy-related equipment. At present BiH applies Trade Amendment on a provisional basis, yet the full fledge ratification by BiH would be another important step within the Energy Charter Process.

In BiH, the Department for Energy under the Ministry of Foreign Trade and Economic Relations of BiH (MoFTER) is responsible of carrying out tasks and discharging duties which are within the competence of BiH and relate to defining policy, basic principles, coordinating activities and harmonising plans of the Entities’ authorities and bodies at the international level in the energy sector. The State cannot impose any policy or strategy on Entities, but can recommend, suggest and adjust Entities’ policies and strategies for the energy sector. This lack of the jurisdiction on State energy policy resulted that both Entities have different energy

\(^2\) These findings were submitted by the Energy Charter Secretariat to the regular session of the Investment Group in June 2010.
sector strategies (indeed both entities are currently working on a new strategy document to be produced in the near future) that needs to be coordinated and merged in a unique country-energy-strategy in the near future. This strategy should be backed by adequate institutional structure and regulatory framework.

The medium-term priorities in the area of energy consist of:

- Accelerate the reform of energy utilities, in particular in the power and gas sectors, implement the Entities’ action plans for restructuring the power sector, develop and implement concomitant plans regarding reform of the coal sector, establish a transmission system operator and distribution system operators in the gas sector and develop the internal gas market; and
- Ensure a consolidated system of regulation of power and gas, ready to include other energy sectors, in line with the Energy Community Treaty and, in parallel, ensure that issues related to socially vulnerable customers are addressed.

The country has a huge hydro potential that can be tapped in the future. Currently electricity production from hydro sources is significant. It is estimated that approximately up to 45% (estimated 6,000 GWh in 2010) of total generation may come from hydro plants. As for small hydro there is again a big potential; with 300 MW of planned small hydro that may reach 1,000 MW in the future. Other renewable sources such as wind also present good development prospects, estimated at 900 MW and up to possible 2,000 MW as an upper limit.³

BiH’s energy import dependency is low at 38%, reflecting significant domestic production of coal, wood and hydropower.⁴ However, the country is 100% import dependent for oil and gas, and import volumes are increasing. Import sources and routes are diversified for oil products; however, there are no regulations on minimum oil stock levels and no gas storage facilities.

The coal sector is a very important part of the energy sector and of the economy of BiH. It accounts for approximately 50% of the country’s primary energy supply. Coal is also the main energy source for electricity production. Mining in BiH currently faces a huge challenge in the form of industrial restructuring. The government plans to merge coal mines and power plants, which would be extremely healthy for the mining sector, bringing in fresh investment and improving the production process in the country.

In line with the Energy Community Treaty, preparations towards opening the electricity market to competition have been focused on setting regulatory conditions for third-party access to the grid and allowing large customers to choose their suppliers on the free market.

The review has shown that overall the country suffers from the lack of coordinated actions between extremely fragmented administrative and constitutional structures. In general assessment investment climate has been improved significantly in the recent years and ongoing efforts are expected to further lead to removal of current obstacles in the near future.

Energy sector has certain challenges but developments are going ahead in the right direction to tap the high potential of the country with an important export capacity to neighbouring

---

⁴ IEA, Energy in the Western Balkans, 2008.
energy-thirst countries in the region. There are needs to improve the investment climate, ensure fair competition and promote the RES and energy efficiency. Activities of the major International Financial Institutions (IFIs) that are currently operating in the country play an important contributing factor in streamlining all efforts in establishing a more investor-friendly atmosphere for future investments. Energy markets are still at the level of infancy, yet with sound policies to be implemented they might turn out to be providing the right signals to attract investors into the country.
IV. GENERAL INDICATORS

IV.1. General Country Information

IV.1.1. General Information

Bosnia and Herzegovina (BiH) has a land area of 51,209 km², is situated on the Balkan Peninsula in south-eastern Europe and belongs to the “Western Balkan” countries, as shown in the map of Figure 1. The country is bounded to the north, west, and southwest by Croatia and to the east and southeast by Serbia and Montenegro. The country also has a short coastline (21.2 km) along the Adriatic Sea around the town of Neum and Peninsula Klek.

Figure 1: Map of Bosnia and Herzegovina

Bosnia is a mountainous country with 62% of the land lying at height of more than 700 m above sea level, as shown in Figure 2. The Dinaric Alps cross the country from its western border with Croatia to the southeast. The north is heavily forested, while the south has flatter areas of fertile soil used primarily as farmland.

The country is situated between the continental and Mediterranean climatic zones, which creates three local climatic areas. The northern inland territory has a moderate continental climate with warm summers and cold, snowy winters. The mountain areas of above 700 m have a mountain climate with short, cool summers and long, severe winters with snow. The south has an Adriatic-Mediterranean climate with sunny, warm summers and short, mild, rainy winters. The average temperature in Sarajevo, in the continental zone, is -1 °C in January and 20 °C in July.
Bosnia and Herzegovina has significant water resources, which should be a key factor in the economic development of most areas in the near future. The longest river is Sava (331 km), which runs along the northern border. Sava and its tributaries, Bosnia passing by Sarajevo, Una, Drina and Vrbas all flow to the north. Few rivers, notably Neretva (218 km), flow towards the Adriatic Sea. Rivers also define the country’s two historical provinces; Bosnia lies between the rivers Una (on West), Sava (on North and Drina (on East) and Herzegovina is crossed by the Neretva river.

Forest and woodland cover 39% of the country, whereas meadows and pastures cover 20%. About 14% of the land is arable, with 5% under permanent crops. Before the war Bosnia and Herzegovina produced specialty agricultural products, such as fruit and tobacco, but it had to import more than half its food, including essential staples. Its natural resources include deposits of minerals such as salt, manganese, silver, lead, iron ore, chromium, and coal.

In the latest census (1991), Bosnia and Herzegovina (BiH) had 4,377 million inhabitants and the population density was 85.5 inhabitants/km². Current figures vary depending on the source but population is estimated to be around 4 million (estimation of some international organisations The World bank, UNDP—from 2006). The largest cities include the capital Sarajevo, which is also an important cultural and commercial centre (estim. population 420,000), Banja Luka (estim. pop. 250,000), Tuzla (estim. pop. 200,000) Mostar (140,000) and Zenica (135,000). Between 1991 and 2002 migration from rural areas to cities increased the urban population from 40% to 60%. BiH has three major population ethnic groups: Bosniaks, Serbs and Croats.

In 2006 the country’s human development index, measured by the United Nations Development Programme (UNDP), was 0.800 (on the scale of 0.0 to 1.0). BiH was 62nd out of 177 countries reviewed, which puts it in the group of countries with medium human development.
IV.1.2. Constitutional Structure

According to the Constitution of BiH (Annex IV of the General Peace Agreement in BiH), Bosnia and Herzegovina (BiH) is a composite state consisting of two Entities, namely the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS), and the Brčko District of Bosnia and Herzegovina, which was created in 2000 by the High Representative for BiH as a unique administrative unit with local autonomy under direct sovereignty of BiH. The Constitution of BiH, laws and decisions of the BiH Institutions directly apply to the territory of the Brčko District. It has a mayor who represents the District and is responsible for enforcement of the laws of BiH of the District.

The Constitution stipulates free movement of persons, goods, capital and services in the territory of BiH. The Constitution also stipulates the division of competencies between the institutions of the Governments of BiH and of the Entities.

The jurisdiction of the BiH Institutions includes:

- Foreign policy;
- Foreign trade policy;
- Customs policy;
- Monetary policy;
- Financing of the Institutions and of international obligations of BiH;
- Immigration, refugee and asylum policy and passage of relevant regulations;
- International and inter-Entity criminal law enforcement, including relations with Interpol;
- Establishment and operation of common and international communications facilities;
- Regulations of the inter-Entity transportation; and
- Air traffic control.

All government functions and powers not expressly assigned to the institutions of BiH in the Constitution shall belong to the Entities and are defined in the Constitution of the FBiH and by the Constitution of the RS. The Entities may consent by an agreement to transfer specific government functions assigned to them to the competency of the institutions of BiH.

The Parliamentary Assembly has two chambers, the House of Representatives and the House of Peoples. The Parliamentary Assembly adopts laws and decides on the budget of the State institutions. The Presidency of Bosnia and Herzegovina ratifies international treaties after approval of the Parliamentary Assembly. All legislation requires the approval of both houses.

The FBiH has its own constitution, a bicameral parliament, president and two vice presidents of the Federation and a government headed by a Prime Minister, who is nominated by the Parliament. The significant centres of political power in the Federation are ten cantons, which have their own parliaments and governments.

The RS has a unified governmental structure, a unicameral People’s Assembly and a directly elected president.
The Office of the High Representative (OHR) was established as a result of the Dayton Peace Agreement to oversee the implementation of its civilian aspects and to coordinate the activities of the civilian organisations and agencies operating in BiH. Initially the OHR was a significant player in the governance of BiH, however, as time progresses OHR is reducing its visibility and influence.

IV.2. Macroeconomic Development

BiH started accession negotiations with the EU in November 2005 and wide ranging political, social and economic reforms have already been accomplished. BiH’s accelerated economic reform process has greatly improved the business climate and the country has the fastest growing economy in SE Europe.

BiH has signed CEFTA (Central European Free Trade Agreement) with neighbouring countries and is negotiating its entry into the WTO. Companies operating in the country further benefit from the preferential trade regime with the Europe Union. This agreement allows for all goods that fulfil EU standards to be exported to each of the 27 member states without quantitative restrictions, and free of customs or other duties, until the end of 2010.

The economy has grown at a steady pace of 5-7% per year since 2002, a trend that is expected to be maintained in the future. This sustained annual increase of GDP, combined with rapidly rising production levels and export volumes, provides a clear indicator that the economy is in full expansion.

GDP is continuing fast growth with real growth rate of GDP per capita at around 7%, for two consecutive years 2007 and 2008, reaching at 3,648€. BiH has not directly suffered repercussions from the financial crisis and it is expected that in 2009 it will experience positive GDP growth rate. The recent evolution of the country’s GDP is presented in Figure 3.

Unemployment, as one of the most serious problems of domestic economy, indicates a modest trend of decrease. Registered unemployment in 2004 and 2005 was estimated at around 43%; though with the grey economy included might be in the order of 25-30%. The Labour Force Survey, which is regularly conducted from 2006 according to the international methodology, provides a real picture of labour market in BiH with unemployment rate at 23.4% in 2008. Figure 4 indicates the evolution of the unemployment rate in the country.

**Figure 3: GDP Evolution in Recent Years (€ bln)**

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (€ bln)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>5.5</td>
</tr>
<tr>
<td>2001</td>
<td>5.9</td>
</tr>
<tr>
<td>2002</td>
<td>6.6</td>
</tr>
<tr>
<td>2003</td>
<td>7.4</td>
</tr>
<tr>
<td>2004</td>
<td>8.1</td>
</tr>
<tr>
<td>2005</td>
<td>8.7</td>
</tr>
<tr>
<td>2006</td>
<td>9.8</td>
</tr>
<tr>
<td>2007</td>
<td>11.1</td>
</tr>
<tr>
<td>2008</td>
<td>12.6</td>
</tr>
<tr>
<td>2009</td>
<td>12.2*</td>
</tr>
</tbody>
</table>

*Note: GDP for 2009 is estimated by Central Bank of BiH*

*Source: Agency for Statistics of BiH and FIPA*
Figure 4: Evolution of the Unemployment Rate

Source: Agency for Statistics of BiH

Big industrial conglomerates that dominated BiH’s pre-war economic structure remain largely unchanged and are operating at a fraction of their production capacity. While 90% of registered companies are in private hands, big conglomerates remain under state ownership. However, since 1999 average annual growth rate of industrial production was more than 9%. With commissioning of the Oil Refinery Bosanski Brod, the growth rate of energy production in 2008 comparing to 2007 is 50% higher and therefore it is expected that real production growth rate in BiH for 2010 will be also higher than the estimated 9.2%. Considering the main industrial product groups, the highest growth rate has been realised in production of energy, durable-consumer goods and capital products.

For years BiH had extremely low inflation rate thanks to the fixed exchange rate of its currency (convertible mark KM) to EURO. Oil prices in world market in previous period recorded enormous growth and led to an increase in prices of all products and services in 2008. The evolution of inflation rate in comparison to the evolution respective rate in Central Eastern Europe is presented in Figure 5.

The Central Bank of BiH maintains monetary stability by issuing domestic currency according to the Currency Board arrangement with full coverage in freely convertible foreign exchange funds under fixed exchange rate pegged to the Euro (1 KM=0.51129€). The Central Bank defines and controls implementation of the monetary policy of BiH and supports and maintains appropriate payment and settlement systems.

In the period 2000-2007, foreign exchange reserves had a trend of increase year-after-year with a rate higher than 25%. At the end of 2008 foreign exchange reserves were €3.2 bln, which indicates a decrease of 6% comparing to 2007. This is a result from undertaken interventions to ease the negative repercussions of the financial crisis.

High foreign trade deficit (€4.9 bln in 2008) is a significant problem. Contribution of 90.7% in total exports of BiH has been realised in processing industry (production of basic metals). In case of imports, nominally the highest item is imports of petroleum products. Activation of domestic capacity will certainly lead to significant reduction of foreign trade deficit. Thus, start of production in Oil Refinery Bosanski Brod (Q4 2008) might cover major part of oil market needs of BiH and make exports to the neighbouring countries; therefore leading to the reduction of annual foreign trade deficit by about €500 mln.
It is worth considering the founding and operation of the Foreign Investment Promotion Agency (FIPA), which is a state agency established by the Council of Ministers of BiH with the main objective of creating a more conducive business environment, retaining the existing foreign investment, as well as Foreign Direct Investment (FDI) policy advocacy. Its estimation, in consistency with data coming from the Central Bank of BiH, about the amount of the FDI inserted in the country the recent years is presented in Figure 6.

A largest share of the investments came from Austria and followed by Serbia and Croatia, as demonstrated in Figure 7 below.


EU accession is a strategic priority for BiH energy sector reform with the purpose of integrating BiH in the single energy market of the South-East (SE) European countries, as well as approximation to the EU, subjecting BiH to a viable economic development. Energy sector reform is followed by realisation of the activities from the list of priorities of the
Follow-up Report on the Investment Climate and Market Structure in the Energy Sector of Bosnia and Herzegovina

European Partnership. Therewith, the state clearly defined energy as the key segment of the development of the country.

Figure 7: FDI Stocks by Country (May 1994 - December 2008)

<table>
<thead>
<tr>
<th>Country</th>
<th>FDI Stocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1446</td>
</tr>
<tr>
<td>Serbia</td>
<td>832</td>
</tr>
<tr>
<td>Croatia</td>
<td>626</td>
</tr>
<tr>
<td>Slovenia</td>
<td>610</td>
</tr>
<tr>
<td>Switzerland</td>
<td>364</td>
</tr>
<tr>
<td>Germany</td>
<td>294</td>
</tr>
<tr>
<td>Russia</td>
<td>268</td>
</tr>
<tr>
<td>Netherlands</td>
<td>134</td>
</tr>
<tr>
<td>Italy</td>
<td>114</td>
</tr>
<tr>
<td>USA</td>
<td>99</td>
</tr>
<tr>
<td>Turkey</td>
<td>68</td>
</tr>
<tr>
<td>All other Countries</td>
<td>487</td>
</tr>
</tbody>
</table>

Source: Central Bank of BiH and FIPA

BiH is endowed with basic energy resources, especially solid fuels, other fossil fuels and hydropower, as well as natural forest biomass and other renewable energies. Indigenous coal, lignite and hydropower are still predominating sources of primary energy consumption and they will retain a dominant long-term position in the future, although the share of natural gas is expected to grow.

BiH is currently exporting energy with potential for producing more and becoming the main exporter in the region. Progressive requirement for energy will have influence on the energy sector of BiH. In BiH, coal currently accounts for about 45% of the primary energy supply, oil and oil products 21%, hydro electricity 10%, gas 6% and fuel wood/biomass 21%, according to the country’s energy balance of 2005. These percentages will change significantly over the next few years. It is expected that the shares of oil and gas will increase, and those of coal and fuel wood to decline, because of factors such as rising incomes, increased mobility and demand for transport and environmental policies.

BiH generates electric power from two types of sources, namely thermal power, burning local lignite and brown coal, and hydropower plants. Total generating capacity of these plants exceeds BiH’s domestic electricity demand. Before the war, the excess power was exported to other countries in Europe. Currently, excess power is primarily exported to Croatia, Slovenia, and SE Europe. However, due to a significant demand growth after privatisation, construction of power stations is necessary and the “Elektroprivreda’s” (EP’s), therefore, have plans to expand production capabilities.

There are two existing oil refineries in the country at Bosanski Brod and Modriča, which have been privatised. Bosanski Brod refines a wide range of products from imported crude oil. The
nominal capacity is 4,320,000 tons per year from two production lines of 3.0 million tons and 1.32 million tons.

Gas sector accounts for approximately 6% of primary energy consumption in BiH. Various projections or forecasts of future gas consumption have been made. A high case scenario envisages 3,000 mcm (3 bcm) in 2020, compared with just 400 million cm (0.4 bcm) that is approximately the current consumption. The need to diversify gas supply in BiH is well acknowledged and there are various proposals for connections with new gas pipelines passing through South Eastern Europe. The development of the gas sector in BiH is unquestionable in terms of strategy, but the issue remains about the pace of the gas sector development.

In BiH, the current priority is on rehabilitation of existing power generation facilities including large hydro power plants. The hydro generation operates as cascades on three different rivers and their tributaries: Neretva/Rama, Trebišnjica, and Vrbas/Pliva. There is one individually operated power plant on Drina River and one pumped storage power plant. Development of small hydro power plants (HPPs) is most promising at the moment. The recent report of EBRD estimates technical potential in the order of 23,400 GWh/a, of which 2,600 GWh/a are in small HPPs. Both entities have prepared Action Plans that outline how and when the electric sector will be restructured.

In the areas of wind, solar, biomass and geothermal energy, certain opportunities and potentials have been evaluated and development is planned as well.


A mid-term development strategy for the energy sector of Bosnia and Herzegovina was adopted in 2004 for the period between 2004-2007. The major goals of the energy sector reform were stated as:

- standards and at lowest prices;
- join the international market through a single market of electric power and gas in BiH;
- enhance cost-effectiveness and rational use of energy sources and improve energy efficiency;
- implement liberalisation and introduce competition and transparency;
- ensure protection of environment in accordance with national and international standards;
- protect interests of the system users;
- increase the use of renewable energy sources;
- meet the conditions of the European Energy Charter Agreement, as well as other international contracts and agreements.

There is also Power Sector Restructuring Action Plan that envisages multiple generation and (cross-Entity) distribution companies and a single transmission company at state level. The Action Plans were adopted by the respective parliaments in 2002 (RS) and 2004 (FBiH) and have been in force since 2003 (RS) and June 2005 (FBiH).

These plans involve different stages of i) Reallocation of assets; ii) Corporatisation; and iii) Commercialisation. The central issue in the Action plan is the unbundling of the vertically integrated EPs into separate structures for generation, distribution and transmission.
The updated RS Action Plan states that hydro and thermal power generation plants (thermal plants include coal mines) have been formed into independent organisations with separate accounting and are now shareholder companies. Five companies have been formed in power distribution. The generation and distribution companies are majority owned by a joint holding company EP RS.

Among others, the Action Plan of FBH envisages establishment of subsidiary companies of EP BH and EP HZHB in generation and distribution. In particular, EP BH will create separate companies for two TPPs and one company for HPPs on the Neretva. EP HZHB will create three HPP companies. In addition, the two EPs will establish several 100% subsidiaries for distribution and supply of electricity. EP BH will be the sole owner of two distribution companies, and EP HZHB the owner of one company, while two distribution companies will be in joint ownership of the EPs.

Besides the action plans, electricity sector reform priorities are highlighted in the Poverty Reduction Strategy Paper (PRSP), as well as in European Partnership, which sets out the goals for creating a competitive environment for an electric power market and integration with regional markets. Specifically, it identifies the need to set up institutions responsible for managing the electricity sector.

BiH made a lot of changes in its law and on the structure of its energy sector to be in accordance with EU laws, in particular in the electricity sector. The electricity market has been opened to competition for professional customers since 1 January 2008 (57.5% of the market) and will be opened to all customers on 1st January 2015. An electricity regulator has been established in 2003: the State Electricity Regulator Commission (SERC). The transmission system has been unified; assets and authorities moved into two Entity-owned joint stock companies operating at the state level (Transco and ISO). However a lot of work is still to be done, in particular the generation and the distribution assets of the three electricity companies are to be unbundled.
V. LEGISLATIVE FRAMEWORK FOR ENERGY INVESTMENT

V.1. Brief Description of the Contents of Legislation Relevant to Investment in the Energy Sector

V.1.1. Constitutional Provisions and Legal System in Relation to International Treaties

The former SFR Yugoslavia ratified the Vienna Convention on the Law on Treaties. On the basis of accepted Notification on succession / accession, BiH, as the one of the states successors of former SFR Yugoslavia, has applied this Treaty since 1994.

The Constitution of BiH contains the commitment under which general principles of international law shall be an integral part of the law of BiH and its entities. International treaties that BiH has ratified and which have entered into force become a part of the BiH legal system and their provisions prevail over those of domestic legislation that may contradict them.

By the State Law on the “Procedure of Conclusion and Implementation of International Contracts” (Official Gazette (OG) of BiH No. 29/90 dated 39 November 2000), all aspects and procedures for conclusion, process of ratification and implementation of international contracts and other activities related to the international contracts that are concluded by BiH, are regulated.

With respect to foreign investments, Article 24 of the Law on Policy of Foreign Direct Investments of BiH (OG BiH 21/98) provides that, in case of conflict, provisions of international agreements and treaties to which BiH is a party prevail over the provisions of this Law.

Laws on Foreign Direct Investments passed in the FBiH (OG FBiH 61/01 and 50/03) and in RS (OD RS 25/02) did not derogate principles and provisions of the State Law. On March 26, 2006 Brčko District enacted the Law on Stimulating the Economic Development in the Brčko District of BiH. Basically, this Law regulates foreign direct investments on the territory of the District.

V.1.2. Establishment of Enterprises (National and Foreign Companies)

Under the Constitution of BiH, the establishment of enterprises in the country is in the jurisdiction of the BiH Entities (FBiH and RS).

The “Framework Law on Registration of Business Entities in Bosnia and Herzegovina” (Official Gazette of BiH No. 42/04), adopted by the Parliamentary Assembly (both House of People and House of Representatives) of BiH in July 2004, regulates “establishment of method of registration of business entities in both Entities: the FBiH, the RS and the Brčko District of BiH, and harmonisation of this law and the laws of entities and Brčko District with the EU regulations through the creation of single identification of business entities”.

This law is structured in such a manner to determinate uniform procedure of registration of business entities in the territory of BiH, and therefore it is applicable to all business entities (local, international and/or with mixed capital) established by both domestic and foreign legal and physical persons. The Legislation on registration of business subjects in the Entities implements principles and provisions of the State Framework Law (OG FBiH 27/05; OG RS 42/05).

The Company Law of the FBiH (Official Gazette of the FBiH No. 23/99, 45/00, 2/02, 6/02, 29/03, 68/05, 91/07 and 85/08), the Company Law of the RS (Official Gazette of RS No. 127/08) and the Law on Enterprises of Brčko District of BiH (“Brčko District OG”, Vol.:
follow-up report on the investment climate and market structure in the energy sector of bosnia and herzegovina

11/01, 10/02, 14/02, 8/03, 4/04) regulate the establishment, operation and termination of businesses in BiH.

Those three laws are general in nature. Specific entities’ legislation is in force for companies performing activities in public interest (OG FBiH 8/05 and OG RS 75/04 81/08). The vast majority of enterprises in energy sector (except in oil distribution industry) belong to this group. Consequently, corporate governance and business decisions making issues in energy sector are rather under the special than general legal regime.

The establishment of companies/enterprises (business entities) in the FBiH is regulated by the “Law on registration of business entities in the FBiH” (OG FBiH No. 27/05, 68/05; 50/09) while in the RS it is regulated by the “Law on Company of the RS” (OG of the RS, No. 127/08). Both entities’ laws distinguish between individual entrepreneur and enterprise.

Any new established company must be registered in the authorised court register of its seat location (the Competent Registration Court(s) in the FBiH, the RS and the Brčko District). A company, once established in one of the entities, may perform its activities in the whole territory of BiH without limitations.

These laws distinguish business companies in two major groups: companies of persons (partnerships) and companies of capital (limited liability company, joint stock company). Business companies can be established by natural or legal persons. A natural person can establish: General Partnership, Limited Partnership, Limited Liability Company, and/or Joint-Stock Company. A legal person can establish: Limited Liability Company, Joint-Stock Company and/or Limited Partnership as a general partner. The FBiH and the RS Entity authorities, the authorities of the Cantons of the FBiH and the local community units (municipalities) may establish public enterprises.

The types of companies and their main characteristics are presented briefly in a compact table (see Annex 1).

In practice and according to the Foreign Investment Council (FIC) of BiH (source: The White Book for 2009) it takes 5 to 25 days for a foreign-owned company to register their company, starting from the day a company initiates the process to the moment it is allowed to legally operate. The figure below shows the steps needed and the institutions involved in the process, the deadlines defined by law, and the time needed in practice to complete all steps in both entities.

The registration process is mainly delayed by municipal court procedures, and in Sarajevo the Cantonal Inspectorate is identified as a major cause of delay. The main weaknesses in the procedure of enterprise establishment are the following:

- Law on electronic signature is not applied in practice;
- Administration and courts do not respect deadlines defined by laws. Different practices applied even within the same institution with enormous variance in the time taken;
- No central place (one-stop-shop) where all information on the registration process can be obtained;
- No availability of information in electronic form in local and/or a foreign language: Forms, respective laws, samples of documents, list of notaries, list of attorneys, frequently asked questions, etc.
According to Brčko District Law on Stimulating the Economic Development from 2006, approval procedure for foreign investment should not last longer than 90 days starting from the receipt of the request.

**Figure 8: Business Registration Process and Estimated Time Required for Foreign Companies in the FBiH and the RS**

![Business Registration Process Diagram](image)

*Source: Foreign Investors Council (FIC) in BiH, White Book for 2008*

**V.1.3. Entrepreneurship and Corporate Laws**

In the FBiH and in the RS were adopted the following laws for the support of the development of small and medium size enterprises (SMEs):

**V.1.3.1. Federation BiH**

- Law on incentive for development of small business (Official Gazette of the FBiH No. 19/06; 32/09),
- Law on handcrafts and related business (Official Gazette of the FBiH No. 37/09).

**V.1.3.2. Republika Srpska**

Law on incentive for development of small and medium size enterprises (Official Gazette of RS No. 23/09).

**V.1.4. Foreign Investment Legislation, Including Definitions and Forms of Investment**

Foreign investment legislation in BiH is based on the “Law on the policy of foreign direct investment in BiH” (Official Gazette of BiH No. 17/98 and 13/03). This Law is regulating the basic policies and principles of the participation of foreign investors in the economy of BiH.

Subject to the provisions of this Law, foreign investors shall be entitled to invest and also to reinvest profits of such investments into any and all sectors of the economy of BiH, and in the
same form and under the same conditions as defined for the residents of BiH under the applicable laws and regulations of BiH and the Entities.

The general policy of free admission of foreign direct investment (FDI) into BiH is provided in Article 3 of this Law. Exceptionally, foreign equity ownership of an enterprise engaged in the production and sale of arms, ammunition, explosives for military use, military equipment and public information shall not exceed 49% of the equity of the enterprise.

Foreign investors in BiH must currently register their respective investment with the competent body of the State that is the Ministry of Foreign Trade and Economic Relations (MoFTER). Currently, there is under final procedure of adoption an Amendment to this Law by which existing legal limitations for FDI in BiH will be modified and the procedure for registration of foreign investments in BiH will be amended and simplified.

The particular Entities’ laws on FDI that are subject to the provisions of the Law on Foreign Direct Investment Policy in BiH and consequently are harmonised with the state law, are:

- The ‘Law on Foreign Investment’ of the FBiH (Official Gazette of the Federation BiH, No. 61/01), and
- The ‘Law on Foreign Investment’ of the RS (Official Gazette of RS, No. 25/02).

In both of these laws the main provisions are as follows:

- Foreign investors shall have the same rights, obligations and benefits from the investment done as domestic investors-natural persons, implying that there will be no discrimination against foreign investors on any ground, including, but not limited to, their citizenship, residence, religion or state origin of investment.
- Foreign investors shall have the right to invest and reinvest the profit made from such investment in any area of commercial and non-commercial activities in both Entities in the same manner and under the same terms and conditions as domestic investors in accordance with the provisions of these laws.

The following forms of foreign investment in BiH (in both Entities) are subject to these laws:

- Establishment of legal Entity/person fully owned by foreign investor;
- Establishment of legal Entity/person as a joint venture by domestic and foreign investors;
- Investment in existing legal Entity/person equity purchase;
- Special forms of investment.

V.1.5. Legislation on Land / Immovable Property / Real Estate

The real estate acquisition issues and legal rights of foreigners buying and possessing immovable property in BiH are regulated by the above-mentioned foreign investment laws and the Law on Stimulating the Economic Development regarding the District Brčko of BiH.

The crucial provisions of these harmonised laws regarding this issue are:

- Foreign investors shall have the same property rights in respect to real estate as the citizens, legal persons and legal business entities of BiH;
- Foreign investment shall not be subject to any act of nationalisation, expropriation, requisition or measures having similar effects, except regarding public interest in
accordance with applicable laws and regulations, without any type of discrimination and against the payment of appropriate compensation.

V.1.6. Competition Legislation

Competition issues, generally in business activities, and particularly in trade and foreign investment, in the territory of BiH is regulated by the Law on Competition of BiH (Act on Competition, adopted on June 2005 – Official Gazette of BiH No. 48/05) and Act on Amendments to the Law on Competition of BiH (OG BiH 80/09), adopted in September 2007.

More detailed legal issues are defined by the by-law acts, as specified below.

The Council of Competition is established by the Council of Ministers of BiH in May, 2004 as an independent public body mandated to ensure consistent implementation of the Act on Competition, enacted in 2001. This Authority has exclusive competence to decide on the presence of prohibited competition activities in the market of BiH. This Act establishes the competition policy as one of the most important instrument and pillar in creation and strengthening the single economic market in the country.

The Act on Competition comprises of basic rules of competition within the meaning of Article 81 and 82 of the EC Treaty, but it doesn’t apply to practices and resolutions of the modern European legislation (“Acquis”) in this area. Therefore, a new law is passed (“Official Gazette BiH”, No. 48/05 and 80/09) and it has been in effect since July, 2005. The compatibility of the new Act on Competition with stipulations and regulations of the relevant EU legislation (i.e. Regulations adopted in 2003 and 2004 – EC Council No 1/2003, 139/2004, 773/2004, 802/2004, etc.) ensures the effective and transparent application of the law, simple procedures, reduced duration of the proceedings, and in general, reduced level of the state intervention in this field.

The Council of Competition consists of six (6) members who are appointed for a six-year term of with the possibility of one more reappointment. Three members of the Council of Competition are appointed by the Council of Ministers of BiH, two members by the Government of the FBiH and one member by the Government of the RS.

Decisions, regulations and competition rules adopted in BiH and relevant to trade and investments in the local market are the following:

- Regulation on the Definition of a Relevant Market (adopted in Jan. 2006);
- Regulation on Definition of the Periodic Fine Payment (Feb. 2006);
- Regulation on Agreements of Minor Importance (Oct. 2005);
- Regulation on the Procedure for Granting Immunity from Fines (Leniency Policy) (Jan. 2006);
- Regulation on Block Exemption Granted to Insurance Agreements (Dec. 2005);
- Regulation on Block Exemption Granted to Certain Categories of Horizontal Agreements (Between Undertakings Operating on the Same Level of Production or Distribution Chain) Relating Particularly to Research, Development and Specialisation Agreements (Dec. 2005);
- Regulation on Block Exemption Granted to Certain Categories of Vertical Agreements (Between Undertakings Operating on the Different Level of Production or Distribution) (Jan. 2006);
• Regulation on Definition of a Dominant Position (Feb. 2006);
• Regulation on Block Exemption Granted to Certain Categories of Technology Transfer Agreements (License and Know-how Agreements) (Dec. 2005);
• Regulation on Block Exemptions Granted to Agreements on Distribution and Servicing Motor Vehicles (Jan. 2006);
• Regulation on Amount of Administration Taxes Relating to the Practices Before the Council of Competition (Jan. 2006);
• Regulation on Notification and Criteria for Assessing a Concentration (Oct. 2006).

V.1.7. Corporate Taxation

The corporate taxation legislation in BiH is on entities’ level and level of Brčko District only; thus there are not applicable and unified legislative acts on state level in this regard.

The Law on Profit Tax of the FBiH (Official Gazette FBiH, No. 97/07 adopted in December 2007 and the Law Amendment adopted in July 2009 (Official Gazette FBiH, No.42/09, the Profit Tax Law of the RS (Official Gazette RS, No. 51/01) and Tax Law of BiH-applied in the District Brčko) provide for corporate income tax rate 10% on the whole territory of BiH.

In the RS, the tax base includes all revenues from whatever source derived whether in cash related or un-related to the legal person’s economic activity, except for revenues specified in the Law on Profit Tax. In case the revenues are received in the form of property (other than cash) or services, the amount of revenue is equal to the market price of the property or services received.

In the FBiH the tax base is the taxable profit of a taxpayer that is determined in the tax balance. The taxable profit is determined by calculating the profit of the taxpayer in a way determined by the applicable law. Profit determined in the process of taxpayer liquidation is included in the tax base and also the tax base includes capital gain determined in the tax balance.

Regarding tax incentives, there are different approaches in both BiH Entities, as explained below.

The FBiH Law on the Corporate Income Tax enables the taxpayer who, in the year for which the corporate income tax is being determined, has achieved 30% of its total revenue by export is exempted from the tax payment for the year. Taxpayer who in the period of five consequent years invests into production in the value of minimum 20 million KM, on the territory of the FBiH, is being exempted from the payment of corporate income tax for the period of five years beginning from the first investment year, in which a minimum of four million KM must be invested. If the taxpayer referred to in the paragraph above, in the time period of five years, does not achieve the contracted census for investment, he loses the right of tax exemption, and the unpaid corporate income tax is being determined in accordance with the provisions of the Law on the Corporate Income Tax augmented for penalty interest due for untimely paid public revenues.

In the FBiH, the taxpayer who employs more than 50% of disabled persons and persons with special needs longer than one year is being exempted from the payment of corporate income tax for the year in which such group of people were employed.
In the RS the tax base for taxpayers investing into machinery and equipment for performing of their own registered production activity is reduced by the amount of the respective investment.

In the Brčko District, the Corporate Income Tax Law allows offsetting losses over a five year period.

Overall, the main weaknesses of the existing taxation system are:

- Lack of harmonisation between state, Entity, and cantonal level legislation;
- Corporate Income Tax Law – balanced rates, not the principles (dual taxation between the FBiH, the RS and the Brčko District present in practice, withholding tax, tax relieves, etc.);
- Unequal contributions rates for social insurance throughout the country;
- Divergent interpretation and treatment under the same tax laws by tax authorities in different administrative units; and
- Lack of a central electronic database, which would store all tax laws, changes to laws, rulebooks, frequently asked questions, and applications through the practice.

V.1.8. Legislation Regulating Conditions for Entry, Stay and Work of Foreign Natural Persons

Residence and movement of foreign nationals in BiH is regulated by the Law on Movement and Stay of Aliens and Asylum (OG BiH 36/08).

A temporary permit is issued by the authorised Ministry of Interior Affairs for a period of up to one year, which can be extended. If the residence permit is issued on the basis of an employment agreement, its validity is directly linked to the work permit. Since the first residence permit can be issued for one year only, a foreign employee needs to extend both his/her work and residence permits once the period expires.

A permanent residence permit can be issued to a foreign national on the basis of temporary residence of at least 5 years of continuous residence in BiH.

Foreign investors are entitled to employ foreign nationals. Work permits are issued on the basis of a residence permit. Work permits are issued by the authorised Employment Offices for a maximum period of up to one year and can be extended.

The employer should apply for work permits for his foreign employees. Work permits are issued for a person for a specified position and with a specified employer for a certain period. The employment of a foreign national will be permitted, if he/she is qualified for the position and if no unemployed citizen of BiH can be found to fill the vacancy. With the termination of employment, the corresponding work permit is invalidated.

The Law on Movement and Stay of Aliens and Asylum was adopted in May 2008 at the state level. Some articles in the Law are not clearly defined or are in conflict with the FBiH Law on Employment of Aliens and with procedures for obtaining a work permit with the employment services. In addition, the state law is also in disharmony with the RS Law on Employment of Aliens and Persons without Citizenship. Difficulties occur in BiH practice due to uncoordinated instructions from the RS Employment Bureau and the Aliens’ Service within the Ministry of Security.
Another issue mentioned by the FIC is the lack of understanding for large investors and lack of support during the process of issuing temporary residence and work permit. The Law defines that the Government (Council of Ministers) is titled to grant incentives for issuing work permits; however, it nowhere defines who is entitled to such benefits.

V.1.9. Foreign Exchange and Securities Laws / Regulations

The Central bank of BiH acts as the currency board. Pegging of KM to Euro in the fixed-rate regime enabled entry into the liberal foreign exchange regime. Technical rules are set forth in Entities’ Laws on Foreign Exchange (OG FBiH 35/98; OG RS 96/03, 123/06 and 92/09).

The State Law on FDI reflects the liberal approach to foreign exchange. Foreign investors, with respect to all payments related to their investments in BiH, have the freedom to convert national currency into any other freely convertible currencies and to transfer abroad, freely and without delay, in foreign currencies, proceeds resulting from their investment in BiH, including, but not limited to:

- income from investments received in the form of profit, dividends, interest, and other forms of profit;
- funds received by investors after partial or full liquidation of their investments in BiH, or disposal of invested property or proprietary rights; and
- appropriate compensation received for having their investments nationalised, expropriated or confiscated.

In order to make these rights effective, the Law on FDI policy contains provisions under which foreign investors, for the purposes of their investments, have the right to open on the territory of BiH accounts in any commercial bank denominated in the national or any freely convertible currency. Disposal of deposited sums is absolutely free. The technique of payment transactions are regulated by the Codes of Obligations and several Entities’ banking laws.

Recently, the Entities passed new, modern and comprehensive laws on securities market (OG FBiH 85/08; OG RS 92/06). They enumerate kinds of securities which are subject to these laws, contain general rules on those securities, determine competent bodies and subjects and regulate the manner of issuing, and rules on trading securities, competences and responsibilities of the securities exchange participants, and protection of interests of investors.

Responsibility for the implementation of the Laws on Securities’ Market rests with the Commission for Securities in each Entity (OG FBiH 36/09 and 33/04; OG RS 92/06). Their competences are:

- to approve issuance of emission of the shares and other securities of companies and banks;
- to approve issuance of emission of securities to corporation funds’ management;
- to the investment funds, to mutual funds and to other persons dealing with issuance of emission of securities;
- to regulate and supervise the application of the standards in managing joint stock companies; and
- to regulate conditions for giving work permission, execution of supervision over professional mediators and other participants in the trade of securities and other activities related to trade of securities.
Each Entity established its Register of Securities (OG FBiH 39/98; OG RS 24/98) who operates the following activities:

- registration of securities;
- keeping and maintenance of data on securities;
- transfers that, according to the Law, arranges emissions and trade of securities.

Foreign investors have the right to trade with securities at the stock exchange and other regulated markets.

The laws on FDI and on concessions do not specifically regulate the transfer of returns in kind. It means that such transfers should be treated as export transactions and submitted to customs laws and regulations.

**V.1.10. Legislative Basis Regulating Compensation for Losses and Expropriation**

The State Law on FDI Policy contains general provisions about compensation. Details are enshrined in: the State Regulation on Compensatory Standards in the Case of Expropriation (Official Gazette BiH 18/98), FBiH and RS Laws on Foreign Investment. Additionally, in the FBiH there is government’s order on conditions and the procedure for compensation to foreign investors in case of expropriation (OG FBiH 30/02).

The key provisions of the above-mentioned foreign investment legislative acts concerning compensation for nationalisation and/or expropriation of investment property, as well as application of international standards for such compensations are prescribed in these laws as follows:

- Foreign investment shall not be subject to any act of nationalisation, expropriation, requisition or measures which have similar effects, except in cases of public interest in accordance with the applicable laws and regulations ensuring absence of any form of discrimination and considering of the payment of appropriate compensation.
- Such compensation will be deemed as appropriate only if it is adequate, effective and prompt.
- Compensation in case of nationalisation, expropriation, requisition or such similar acts relating to this issue shall meet international standards and shall be spelled out in the implementing regulations referred to in Article 21 of the Law on the Policy of Foreign Direct Investments of BiH.

**V.1.11. Legislative Framework for Privatisation**

The privatisation process, which began in both BiH constitutional entities in 1997, is still incomplete. In general, only small and medium-sized companies in both Entities have been subjected to privatisation. Only some of big (strategic) companies like Telekom of Srpska, and Oil Refineries in Bosanski Brod and Modriča in the RS have been privatised up to now, while most of the bigger companies in the FBiH, including those from the energy sector are still under public ownership.

The voucher-based privatisation process is being implemented by twelve agencies, one for each of the two Entities and for each of the ten cantons of the FBiH.
The competent agency in the FBiH which is responsible to manage the whole privatisation process for the FBiH and to proclaim strategic business entities is the Privatisation Agency (PA) of the FBiH. Under the Government’s auspices the PA conducts the privatisation process for the strategic public enterprises.

In the RS, since June 2006 the privatisation process has been implemented by the authorised Investment-Development Bank of Republika Srpska, which is functioning in this regard as the Agency for Privatisation of the RS (Law on Investment-Development Bank of Republika Srpska).

The process of privatisation of enterprises and banks in BiH is currently conducted under the following main laws and secondary legislative acts.

**V.1.11.1. State Level (BiH)**

Framework Law on Privatisation of Enterprises and Banks in Bosnia and Herzegovina (Official Gazette BiH No. 18/00).

**V.1.11.2. Republika Srpska**

- Law on privatisation of state-owned capital in enterprises (Official Gazette RS No.: 51/06, 1/07, 53/07, 41/08);
- Law on Investment-Development Bank of Republika Srpska (56/06);
- Rules for tender sales (97/06);
- Rules for sale in the stock-exchange (97/06, 22/08);
- Rules for sale to employees in enterprises (97/06);
- Rulebook on determining of structure and value of the fixed capital of enterprises (18/08); and
- Decision on determining of a strategic significance enterprises (28/08).

**V.1.11.3. Federation of BiH**

- The Law on Agency for Privatisation (Official Gazette FBiH No.: 18/96, 2/02);
- The Law on Privatisation of Enterprises (27/97, 8/99, 32/00, 45/00, 54/00, 27/01, 27/02, 61/01, 33/02, 28/04, 44/04, 42/06, 4/09);
- The Law on Public Enterprises in the Federation BiH (Official Gazette FBiH No. 49/04, 19/05, 52/05, 94/05, 8/06, 24/06, 70/06, 84/08, 24/09);
- The Ordinance on methodology for preparation of Privatisation Programme and Opening Balance Sheets for enterprises envisaged for privatisation (10/98, 26/98, 49/99 and 40/00);
- The Regulations on Procedure for sale of assets and shares, or Equities in an Enterprise 864/02);
- Decision on the list of enterprises in the fields of Power Distribution, Transport (except for road transport), Communications, Water Supply, Exploitation of Mines and Forests, Public Information, Lottery and Military Industry (41/98);
- Decision on methods, deadlines and authorised Agency for Privatisation of enterprises in the field of Power, Transport (except for road transport), Communications, Water Supply, Exploitation of Mines and Forests, Public Information, Lottery and Military Industry (11/99, 37/00 and 49/01);
Follow-up Report on the Investment Climate and Market Structure in the Energy Sector of Bosnia and Herzegovina

- Ordinance on Registration of enterprises of Real Estate and their Parts in the Land Registers during the process of enterprise privatisation (45/98, 45/99);
- Rules on the sale procedure of enterprises by Public Invitations of Bids (Tenders) in large scale privatisation (21/00, 36/00, 54/00 and 50/01); and
- Instructions on supervisory control in executing obligations for purchase agreements in privatisation procedure in FBiH. (14/03).

V.1.11.4. Cantons of the FBiH

Laws of Cantonal Agencies for Privatisation for each of the ten particular Cantons.

V.1.12. Legislation Regulating the Publishing of Laws and Other Legal Acts

The governance organisation of BiH is complicated. Most of the BiH legislative acts (laws, regulations, decrees and decisions) are adopted at Entity(ies) levels, while at the state level only the framework legislation and legislative acts concerning international affairs and international cooperation of BiH are promulgated. In the FBiH each Canton has its own legislation, which is mainly based on legislative acts of the FBiH.

All adopted legislative acts are coming into force upon their publishing in the related Official Gazette of:

- State level: Official Gazette of Bosnia and Herzegovina ("Službeni glasnik Bosne i Hercegovine");
- FBiH: Official Gazette of the FBiH ("Službene novine Federacije Bosne i Hercegovine");
- RS: Official Gazette of the RS ("Službeni glasnik Republike Srpske"); and
- Cantons in the FBiH: Official Gazette of each Canton ("Službene novine Kantona…")

The international agreements/contracts concluded by the State of BiH and ratified by the State Presidency are coming into force upon their publishing in the “Official Gazette of Bosnia and Herzegovina – International Agreements”

Tenders for procurement of public services, supply of goods and execution of public construction works are implemented at different administration levels and invitations for domestic or international bidders are to be announced and published in the related Official Gazette. Any public procurement procedure of each administrative or state-owned business Entity follows the stipulations of the State “Law on Public Procurement for Bosnia and Herzegovina” (Official Gazette BiH No. 49/04).

V.1.13. General Measures for Ensuring Observance at Sub-National Levels – Competence of Sub-National Authorities

The State architecture of BiH is decentralised and complicated. In such an organisational structure, the Constitution attributes policy making (predominantly by enactment of laws), implementation of policies and laws and cooperation to different levels of government. Using Article III.5 of the Constitution, Entities transferred a number of responsibilities to the State. In order to cope with duties arising from the new division of labour and from the process of Euro-Atlantic integrations, the State formed new institutions, sometimes with operative and sometimes with coordinative functions.

The intellectual property related legislation, harmonised with the TRIPS Agreement, ensures effective protection of intellectual property rights in the country. The relevant institution responsible for intellectual property protection and enforcement in BiH is the Institute for Intellectual Property of BiH which is an independent state agency.

Furthermore, BiH is a member of the World Intellectual Property Organisation (WIPO) and also a member of the European Patent Organisation (EPO) through the Agreement on Cooperation and Extension, as an extension state. So, extended European patent applications and patents enjoy the same protection in BiH as the patent granted by the EPO for the currently 30 member states of the EPO.

Foreign natural and legal persons enjoy, in respect of protection of industrial property rights in BiH, the same rights as domestic legal or natural persons, or other domestic nationals, if these results from international contracts and conventions acceded by BiH or from the application of the principle of reciprocity.

The intellectual property rights in BiH are regulated by the following legislation:

- Industrial Property Law of BiH;
- Law on Copyright and Related Rights in BiH;
- Regulation on Trademark;
- Regulation on Patent protection;
- Regulation on Industrial Design;
- Regulation on Geographical Indication;
- Law on administrative fees;
- Decision on special procedural charge, and
- Regulation of competence criteria for performing the collective Copyright and related Rights administration.

The international treaties in the area of intellectual property signed and ratified by BiH are:

- Paris Convention for the protection of industrial property;
- Madrid Agreement concerning the international registration of marks;
- Nice Agreement concerning the international classification of goods and services for the purposes of the registration of marks;
- Locarno Agreement establishing and international classification for industrial designs;
- Bern Convention for the protection of literary and artistic works;
- Patent Cooperation Treaty (PCT);
- Brussels Convention Relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite;
- World Convention on Copyright; and
V.1.15. Environmental Protection

In order to improve and standardise environmental legislation, both entities drafted new sets of environmental laws that are harmonised each to the other and with the legislation of the European Union. Each Entity of BiH has adopted a set of six new environmental laws, which build a legal framework for the introduction of efficient environmental management in the country.

The following six (Entities’) laws are harmonised with the EU Environmental Legislation:

- The Framework Law on Environmental Protection;
- The Law on Air Protection;
- The Law on Water Protection;
- The Law on Waste Management;
- The Law on Nature Protection, and
- The Law on the Fund for Environmental Protection

These laws represent a framework for the legal protection of the environment, setting forth basic principles of the protection, defining basic notions and terms, as well as authorities responsible for policy implementation. They also lay down basic rules for drafting specific measures in the function of environmental protection policy implementation, as well as that of environment conservation and improvement.

V.2. Summary of Laws / Regulations Relevant to Making Investments in the Energy Sector

V.2.1. List of All Laws and Regulations Relevant to Making Investments in the Energy Sector

The basic legal framework relevant for power sector in BiH consists of the following laws at State and Entity levels.

V.2.1.1. At State Level

- Law on concessions (Official Gazette BiH 32/02);
- Law on Transmission of Electric Power, Regulator and System Operator of BiH (Official Gazette BiH No. 7/02 and 13/03);
- Law on Administrative Procedure (Official Gazette BiH 29/02);
- Law on Establishing Company for Transmission in BiH (Official Gazette BiH No. 35/04); and

V.2.1.2. At Entity Level

Federation BiH:

Law on Electricity of the FBiH (Official Gazette FBiH No. 41/02, 24/05, 38/05).
Republika Srpska:
- Bases of Energy Policy of Republika Srpska (Official Gazette RS No. 117/08);
- Law on Electricity of the RS (Official Gazette RS No. 61/02, 66/02, 29/03, 86/03, 111/04, 60/07, 08/08; 92/09);
- Law on Energy (Official Gazette RS No. 49/09);
- Law on Petroleum and Petroleum Products (Official Gazette RS No. 36/09); and
- Law on Gas (Official Gazette RS 86/07).

Legislation which regulates issues of renewable energy in BiH -established at Entity level only (its production, product quality, pricing and concessions for the use of renewable energy sources) – is presented as follows.

Federation BiH:
- Decision (of the FBiH Government from 2002) on Methodology for the Determination of Purchase Prices for Electricity from Renewable Sources with installed capacity up to 5 MW (Official Gazette FBiH No. 32/02); and
- Decree (of the FBiH Government from 2008) on Types, Content and Quality of Biofuels in Motor Vehicle Fuels.

Republika Srpska:
Decree (of the RS Government from 2007) on Types, Content and Quality of Biofuels for Motor Vehicles.

Other legislation and legal documents indirectly related to energy issues and for investment proposes in the two Entities of BiH are listed in the following sections.

V.2.1.3. Republika Srpska
- Law on Public Partnership in the RS (Official Gazette RS No. 59/09);
- Law on Waters of Republika Srpska (Official Gazette RS No. 50/06; 92/09);
- Law on Environment Protection (Official Gazette RS No. 28/07, 41/08);
- Law on Air protection (Official Gazette of RS No. 53/02);
- Law on Nature Protection (Official Gazette RS No. 50/02, 34/08);
- Law on Concessions (Official Gazette RS No. 25/02 and 91/06, 92/09);
- Document on Concession Granting Policy (Official Gazette RS No. 31/06);
- Concessions in the provisions of other sectoral laws (24 items covering concession matters);
- Rules of Procedure on the work of Commission for Concessions (Official Gazette RS No. 77/04);
- Instructions for the Evaluation of the Existence of Public Interest (Official Gazette RS No. 103/05);
• Rulebook on the Establishment of Criteria for Determination of the Amount of Compensation for Concession (Official Gazette RS No. 45/07, 63/07, 101/07);
• Rulebook on Transfer of Concession Agreement and/or Change of Ownership Structure – in procedure for adoption;
• Law on Spatial Planning (Official Gazette RS No. 84/02);
• Decree on projects and installations for which Environmental Impact Assessment (EIA) is mandatory, and the criteria for determining the obligation and extent of EIA (Official Gazette RS No. 7/06);
• Decree on installations and facilities whose operation may be commenced only if the environmental permit has been granted (Official Gazette RS No. 7/06);
• General Conditions for Electricity Supply (Official Gazette RS No. 66/06), and
• Action Plan of Electricity Sector of Republika Srpska.

V.2.1.4. Federation BiH:
• Law on Concessions (Official Gazette of FBiH No. 40/02, 61/06);
• Cantonal laws on concessions (separately for each of the ten Cantons);
• Water Law (Official Gazette of FBiH No. 60/07);
• Law on Environment Protection (Official Gazette of FBiH No. 33/03, 39/09);
• Law on Protection of Nature (Official Gazette of FBiH No. 33/03);
• Cantonal Laws on Environment Protection (harmonised with the Law on Environment protection of FBiH and separate adopted by the Cantonal Assemblies, for each particular canton);
• Law on Spatial Planning and Land Utilisation at the FBiH Level (Official Gazette of FBiH No. 2/06);
• Cantonal Laws on Spatial Planning and Construction (also harmonised with the related Law of the FBiH);
• Law on Electricity (Official Gazette of FBiH No. 41/02, 24/05, 38/05);
• Law on Administrative Procedure (Official Gazette of FBiH No. 2/98, 48/99);
• Rules on Procedure for Concession Awarding (Official Gazette of FBiH No. 68/06);
• Rules on Determination of Concession Royalty Amounts (Official Gazette of FBiH No. 67/06);
• Decision on Enacting the Document on Concession Award Policy – Part I, Electricity Generation (Official Gazette of FBiH No. 64/05);
• Rulebook on the Contents, Form, Conditions and Methodology of Issuance and Keeping of Water Acts (Official Gazette of FBiH No. 6/08);
• Rulebook on the Conditions and Criteria for Legal Persons Drafting Documentation based on which Water Acts are Issued (Official Gazette of FBiH No. 17/08);
• Rulebook on installations and facilities for which Environmental Impact Assessment (EIA) is mandatory, and on installations and facilities whose operation may be commenced only if the environmental permit has been granted (Official Gazette of FBiH No.19/04);

• Decree on buildings and undertakings of importance for the FBiH and buildings and undertakings which can have considerable impact on the environment, lives and health of people in the FBiH and wider, for which the urbanism agreement is issued by the Federal Ministry of Physical Planning, (Official Gazette of the FBiH No. 85/07), and

• Decree on Amendments to the Decree on buildings and undertakings of importance for the FBiH etc. (Official Gazette of the FBiH No. 29/08).

V.2.2. Plans for Amendments of Existing or Development of New Legislation Concerning the Energy Sector

It is not expected in the near future that significant pieces of legislation shall be promulgated. Only amendments on the existing legislation, especially regarding the FDI law, are under consideration and are envisaged to be issued in the not-distant future.

V.3. Summary of Participation in International Organisations and / or Conventions, Treaties, Agreements, etc.

V.3.1. Bilateral Investment Treaties (Agreements) on the Protection and Promotion of Foreign Investments

BiH has so far concluded many bilateral international treaties towards mutual promotion and protection of foreign investments. A complete list of these treaties that are currently in force (i.e., ratified by both parties) are provided in Annex 2.

BiH also has signed and ratified some bilateral trade agreements with the following countries:

• Byelorussia (Off. Gazette BiH No.11/05). In force from: 01.01.2006,
• Islamic Republic of Pakistan (Off. Gazette BiH No.06/02). In force from: 25.06.2009,
• India (Off. Gazette BiH No.8/03). In force from: 25.06.2003,
• Indonesia (Off. Gazette BiH No.7/03). In force from: 22.06.2007,
• Kuwait (Off. Gazette BiH No. 6/96). In force from: 03.01.1997,
• Ukraine (Off. Gazette BiH No.8/03). In force from: 22.12.2003,
• Egypt (Off. Gazette BiH No.2/01). In force from: 12.03.2003.

V.3.2. Bilateral Treaties (Agreements) on Avoidance of Double Taxation

The following bilateral agreements on avoidance of double taxation that BiH has concluded with some countries, and which are in the force (ratified by both partners countries) are:

• Agreement between United Arab Emirates and BiH on avoidance double taxation concerning income taxes and taxes on property (January 2004);
• Contract between BiH and Islamic Republic of Pakistan on avoidance double taxation prevention on avoidance taxes obliges concerning income taxes;
• Contract between BiH and Serbia and Montenegro on avoidance double taxation concerning income and property taxes (February 2005);
• Contract between BiH and Republic of Croatia on avoidance double taxation concerning income taxes and property taxes;
• Agreement between Republic of Slovenia and BiH on avoidance double taxation and tax evasion concerning income and property taxes.

Membership of international economic or environmental organisations, or economic integration agreements, custom unions or free trade areas and membership of, or relations with, other major international organisations or groupings or donor organisations

BiH has become a member of the following main international economic, financial and regional (free trade) organisations:
• World Bank Group (Feb. 1993);
• EBRD (June 1996);
• IMF (1996);
• CEFTA (Dec. 2006).

BiH is also in the final stage of negotiations with the World Trade Organisation (WTO).

BiH has ratified / accessed to (by way of succession to international treaties ratified by the former SFR Yugoslavia or accessed in the after-war period – since 1995) the following international environmental treaties, related to or involved in energy relevant issues:
• Geneva Convention on Long-Range Transboundary Air Pollution – LRTAP (1992);
• United Nations Framework Convention on Climate Change –UNFCCC (2000); and
• Kyoto Protocol to the UNFCCC (2007).

BiH is a signatory of the Energy Charter Treaty – ECT and of the Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) (which were ratified by the BiH in 2000).

BiH is also one of the signatory countries to the Stockholm Convention on Persistent Organic Pollutants – POPs (2001), but this Convention is still not ratified.

BiH is a signature to another legally binding document: Energy Community Treaty which was ratified by BiH in July 2006. The Treaty creates a gas and electricity market without internal frontiers and calls for implementation so-called acquis communautaire on energy, environment, competition, renewable energy and energy efficiency.

V.4. Exceptions to National Treatment

BiH identified two potential violations of national treatment principle in its legislation and considered their eventual inclusion into the Energy Charter’s Blue Book of non-conforming measures.
The first is relating to the reciprocity clause contained in Article 12 of the Law on the Policy of Foreign Direct Investments in BiH under which foreign investors, who are citizens of one of the successor states to the former Socialist Federal Republic of Yugoslavia (SFRY), in respect to real estate have the same rights with the BiH citizens and legal Entity status having like rights in the respective successor state.

Having in mind that BiH has already signed and ratified bilateral agreements on the reciprocal promotion and protection of investments with all countries as successor states of the former SFRY in which BiH, Slovenia, Croatia, FYR Macedonia and FR Yugoslavia (now divided in two independent states: Serbia and Montenegro) particularly accord each other to investments of investors of the other country treatment which in any cases shall not be less favourable than that it accords to investments of its own investors. That provisions of these agreements prevail over the reciprocity clause under the FDI law, this clause can be considered as non-applicable and accordingly there is no need for its inclusion into the Blue Book.

The second exemption to the national treatment could be the obligation of foreign investors to register their respective investment simultaneously with the Ministry of Foreign Trade and Economic Relations at state level and with the competent body of the respective Entity (Ministry of Trade of Federation BiH or Ministry of Foreign Economic Affairs of the RS).

As the BiH authorities in charge of registration do not have discretion ary rights in approving the respective foreign investment, but only to record them into the state or Entity registry for statistical purposes, this measure cannot be considered as of discriminatory nature for foreign investors and as a non-conforming measure as regards the principle of national treatment.
VI. ENERGY SECTOR – SUPPLY AND DEMAND SIDE

In general, at the state level the Ministry of Foreign Trade and Economic Relations in BiH (MoFTER) is responsible for energy issues. MoFTER works very closely with the two Entity Ministries of Energy and Industry in the field of the energy sector. The production and distribution of energy is under the jurisdiction of the Ministries at the Entity levels.

The FBiH and the RS governments place high priority on continued restructuring of the power system as one of the primary means to revitalise economic activity. USAID, World Bank, EU and other international donors have been supporting this restructuring plan, mainly through various initiatives launched after the civil war and recently in compliance with the post-war reconstruction programme.

Total primary energy supply in BiH for the years 1990 and 2000-2005 following the IEA and EUROSTAT methodology is presented in the table below. The breakdown of production, imports and exports is also provided. The comparison between total primary energy production and total energy consumption indicates that BiH has covered 71% to 79.1% of its total energy demand by its own primary energy production in the period 2000-2005. There are no current researches and related verified data for the period after 2005. Energy exports, also, ranged from 8.4% to 12.7% of total primary energy consumption.

Table 1: Primary Energy Consumption in BiH

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy supply (PJ)</td>
<td>247.98</td>
<td>142.65</td>
<td>151.19</td>
<td>127.28</td>
<td>164.10</td>
<td>165.24</td>
<td>170.55</td>
<td>165.50</td>
<td>134.34</td>
</tr>
<tr>
<td>%</td>
<td>2.8</td>
<td>3.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import</td>
<td>197.58</td>
<td>77.55</td>
<td>85.91</td>
<td>69.35</td>
<td>62.38</td>
<td>76.58</td>
<td>86.96</td>
<td>12.6</td>
<td>2.8</td>
</tr>
<tr>
<td>Export</td>
<td>-79.33</td>
<td>-19.22</td>
<td>-16.79</td>
<td>-20.18</td>
<td>-20.39</td>
<td>-25.11</td>
<td>-29.32</td>
<td>5.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Stock change</td>
<td>0.73</td>
<td>0.51</td>
<td>-0.46</td>
<td>-0.40</td>
<td>1.31</td>
<td>-1.41</td>
<td>0.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total primary energy supply</td>
<td>365.88</td>
<td>203.85</td>
<td>199.22</td>
<td>196.96</td>
<td>207.48</td>
<td>218.20</td>
<td>230.47</td>
<td>5.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: The WB-Energy Sector Study in BiH (ESS BiH), March 2008

Furthermore, Table 2 gives a breakdown of primary energy supply by fuel, according to the statistics for 2005 and 2006 of the International Energy Agency (IEA). It is interesting to concentrate on the growth of primary energy, indicating recent trends in the country. Total primary energy supply (TPES) has increased by 6.8%.

Table 3 gives a breakdown of final energy consumption by final energy form in BiH in the years 2005 and 2006, again, using the IEA statistics. The evolution of contribution of final energies and especially of electricity and heat is worth considering.

It should be noted in this respect that the actual figures of oil quantities in the tables below are most probably higher than the official ones. This happens because there is believed to be a lot of illegal imports of oil products.

The part of primary energy driven to conversion units, namely electricity, heat generation, coke ovens and refineries, in the year 1990 and the period 2000-2005 is presented in Table 4. Energy forms that are used for energy transformations in the area of BiH are solid, liquid and gaseous fuels, fuel wood, and hydro power. It is worth considering that the main energy form used in energy conversion plants is coal and in the observed period, its share varies from 63.9% up to 78.3%.
Table 2: Primary Energy Supply in BiH (ktoe)

<table>
<thead>
<tr>
<th>Energy form</th>
<th>2005</th>
<th>2006</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid fuels</td>
<td>3,030</td>
<td>3,363</td>
<td>+11.0</td>
</tr>
<tr>
<td>Crude oil</td>
<td>149</td>
<td>149</td>
<td>+0.0</td>
</tr>
<tr>
<td>Crude oil and oil products</td>
<td>1,134</td>
<td>1,212</td>
<td>+6.9</td>
</tr>
<tr>
<td>Gas</td>
<td>302</td>
<td>320</td>
<td>+6.0</td>
</tr>
<tr>
<td>Hydro</td>
<td>516</td>
<td>504</td>
<td>-2.3</td>
</tr>
<tr>
<td>Other combustibles</td>
<td>182</td>
<td>182</td>
<td>+0.0</td>
</tr>
<tr>
<td><strong>Total Primary Energy Supply</strong></td>
<td>5,046</td>
<td>5,389</td>
<td>+6.8</td>
</tr>
</tbody>
</table>

Source: International Energy Agency

Table 3: Final Energy Consumption in BiH (ktoe)

<table>
<thead>
<tr>
<th>Energy form</th>
<th>2005</th>
<th>2006</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid fuels</td>
<td>420</td>
<td>428</td>
<td>+1.9</td>
</tr>
<tr>
<td>Oil products</td>
<td>1,076</td>
<td>1,124</td>
<td>+4.5</td>
</tr>
<tr>
<td>Gas</td>
<td>246</td>
<td>260</td>
<td>+5.7</td>
</tr>
<tr>
<td>Other combustibles</td>
<td>182</td>
<td>182</td>
<td>+0.0</td>
</tr>
<tr>
<td>Electricity</td>
<td>667</td>
<td>670</td>
<td>+0.4</td>
</tr>
<tr>
<td>Heat</td>
<td>87</td>
<td>91</td>
<td>+4.6</td>
</tr>
<tr>
<td><strong>Total Energy Consumption</strong></td>
<td>2,677</td>
<td>2,755</td>
<td>+2.9</td>
</tr>
</tbody>
</table>

Source: International Energy Agency

Final energy consumption by sector (industry, transport, households, services and agriculture) is presented in Table 5, for the same period.

Finally, final energy consumption in each Entity of the country is presented in Table 6 for the same period. The share of final energy consumption in the FBiH ranged from 66.3% to 70.6% over the total of the country. At the same time, the share of the RS was between 27.4% and 32.0% with the District of Brčko share at around 2%.

Table 4: Energy Driven to Conversion Units

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006/07</th>
<th>2005/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydro power plants</td>
<td>12.51</td>
<td>17.48</td>
<td>21.07</td>
<td>18.51</td>
<td>18.84</td>
<td>22.22</td>
<td>22.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal power plants</td>
<td>122.27</td>
<td>75.19</td>
<td>72.39</td>
<td>77.41</td>
<td>81.22</td>
<td>82.71</td>
<td>82.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public heating plants</td>
<td>32.77</td>
<td>3.54</td>
<td>4.35</td>
<td>4.23</td>
<td>4.60</td>
<td>4.61</td>
<td>4.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial power plants</td>
<td>9.72</td>
<td>0.61</td>
<td>0.49</td>
<td>0.40</td>
<td>0.33</td>
<td>0.51</td>
<td>0.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil refining</td>
<td>56.14</td>
<td>22.53</td>
<td>11.23</td>
<td>0.44</td>
<td>3.45</td>
<td>7.58</td>
<td>8.21</td>
<td>-20.6%</td>
<td>-22.7%</td>
</tr>
<tr>
<td>Coke oven coke</td>
<td>66.66</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total input</strong></td>
<td>329.97</td>
<td>119.78</td>
<td>109.49</td>
<td>108.07</td>
<td>108.44</td>
<td>126.05</td>
<td>133.72</td>
<td>6.1%</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Source: ESS BiH
Table 5: Final Energy Consumption, by Sector

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>92.26</td>
<td>27.84</td>
<td>25.41</td>
<td>23.93</td>
<td>23.70</td>
<td>29.96</td>
<td>34.45</td>
<td>15.0%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Transport</td>
<td>32.48</td>
<td>28.34</td>
<td>27.59</td>
<td>25.47</td>
<td>26.78</td>
<td>29.66</td>
<td>29.27</td>
<td>-1.3%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Households</td>
<td>83.88</td>
<td>67.93</td>
<td>71.44</td>
<td>68.68</td>
<td>73.53</td>
<td>72.84</td>
<td>73.57</td>
<td>9.2%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Services</td>
<td>10.64</td>
<td>8.09</td>
<td>8.44</td>
<td>8.75</td>
<td>8.75</td>
<td>9.96</td>
<td>9.70</td>
<td>7.0%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>5.79</td>
<td>2.94</td>
<td>2.82</td>
<td>2.71</td>
<td>2.80</td>
<td>3.23</td>
<td>3.15</td>
<td>-2.5%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Total demand</td>
<td>224.37</td>
<td>134.60</td>
<td>135.65</td>
<td>129.54</td>
<td>135.56</td>
<td>144.76</td>
<td>156.14</td>
<td>7.9%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Source: ESS BiH

Table 6: Final Energy Consumption in the BiH Entities and District Brčko

<table>
<thead>
<tr>
<th>Entity</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006/07</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federation of BiH</td>
<td>89.27</td>
<td>94.39</td>
<td>91.51</td>
<td>91.72</td>
<td>95.66</td>
<td>103.56</td>
<td>6.3%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Republic of Srpska</td>
<td>42.72</td>
<td>38.54</td>
<td>35.47</td>
<td>41.10</td>
<td>46.50</td>
<td>49.64</td>
<td>7.2%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Brčko District</td>
<td>2.61</td>
<td>2.76</td>
<td>2.56</td>
<td>2.74</td>
<td>2.80</td>
<td>2.94</td>
<td>4.7%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Total demand</td>
<td>134.60</td>
<td>135.69</td>
<td>129.54</td>
<td>135.56</td>
<td>144.76</td>
<td>156.14</td>
<td>7.9%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Source: ESS BiH

Regarding final energy the average annual growth rate of demand in BiH is expected to be around 3.4% in the period 2005–2020. According to the World Bank Energy Sector Study in BiH (ESS BiH), the period up to 2020, solid fuels are expected to maintain the largest portion in total energy consumption (47.8% in 2020). The shares of hydro power and fuel wood will decrease (5.8% and 14.4% in 2020). Gas will have the highest growth rate while renewable energy sources being the lowest. Liquid fuels will have the highest share in final energy demand in 2020 (29.2%). The shares of electricity and renewable energy sources follow (22.2% and 20.5% respectively). The share of gas will reach 17.2%, while heating energy will keep approximately the same share (3.3%). Regarding the future breakdown of final energy by sector, the highest growth rate is expected in industry and the lowest in households. The highest share in final energy demand will be allocated to households (40.4%), followed by industry (28.9%), transport (20.7%), services (7.6%) and agriculture (2.5%).

BiH has a number of options in the development of alternative energy sources. These are dominated by hydro potential but also can include wind, solar, geothermal and biomass, none of which is developed to a large extent. At present there is no elaborated action plan on the promotion of renewable energy sources within the legal framework in BiH. Furthermore, there is no strategic goal to be fulfilled within a certain period. The use and perspectives of renewables are presented in the following section.

VI.1. Renewable Energy

VI.1.1. Biomass

Biomass contributes to the primary energy supply in BiH by around 8.5%, mainly in the form of fuel-wood and wood waste.

Biomass in the form of fuel wood is in significant use in BiH especially in the household sector, with total consumption estimated at 1.5 million tonnes. It is estimated that fuel wood is used by approximately 60% of households in non-urban areas. Furthermore, BiH has a well developed wood industry with over 1600 sawmills in operation. The annual cut is estimated at 7.4 million m³ with over 30% of it becoming waste, either left on the forest floor or as waste...
in the wood industry. Wood industry waste and agricultural biomass could be also collected and used either as a fuel, or as feedstock for bio fuel.

Agricultural waste is the other potentially significant source of biomass, though it is relatively small in comparison with the wood waste.

Traditional use of biomass is as a fuel for space heating, hot water production and for electricity generation in cogeneration plants. However, due to the increasing commercial interest, attention should be paid to using biomass for conversion into bio fuels. Furthermore, according to the assessment of the sector development of the ESS BIH, it is expected that an increase of 12% in fuel wood use will take place until 2020 and that the major part of this increase will be absorbed by the heating demand of the domestic sector.

VI.1.2. Wind Energy

At present wind energy is not used in BiH since no commercial wind power plant has yet been constructed. Taking into account technological development and global trend in wind energy, potential generation is likely to be launched till 2015. According to an analysis prepared in 2004 by the German Company for Sustainable Development (GTZ), the economic wind potential under current conditions is estimated at 600 MW. This potential might increase in the future, depending on further wind capacity measuring, technological development and financial support incentives to be launched in BiH. An assessment by the ESS BIH estimates the economic potential in the order of 900 MW.

Wind energy potential has been evaluated for a number of sites which are close to the Croatian border, being also the more promising of those evaluated so far.

VI.1.3. Solar Energy

BiH has a very difficult topography which strongly modifies spatial distribution of solar radiation. The area around Posavina can expect annual global horizontal irradiation between 1.25 and 1.3 MWh/m^2. Irradiation increases towards the south, and Southern Herzegovina receives irradiation between 1.5 and 1.55 MWh/m^2.

There is theoretically a large potential for solar energy applications in BiH. However, photovoltaic market cannot be developed without particular subsidy schemes. Solar thermal systems penetration can be increased with suitable actions undertaken by the state and constitutional Entity governments, although certain support campaigns are necessary.

VI.1.4. Geothermal Energy

The whole country has about 30 deep wells, out of which only few have been investigated regarding heat parameters of geothermal fluids from the well. The heat characteristics of rocks are not examined so far.

Investigations into geothermal potential to date indicate negligible potential for electricity production, though some use could be made for space heating and recreational use. Total potential of capacity installations based on geothermal sources on 42 locations that were assessed, amounts to around 9.25 MWt to cover space heating demand in principle.
VI.1.5. Small Hydro

Currently there are several small hydro power plants in operation with total installed power of 14 MW. The potential for small hydro development is also significant. The ESS BIH Study identified an economic potential close to 300 MW of planned small hydro projects. Future measurements and hydro potential exercises might indicate it to be as high as 1000 MW. A number of small hydro projects have been identified and were given as concessions. However, relatively few have proceeded to the construction phase.

The relative lack of progress in developing generally hydro plants, and small hydro in particular, points out to the need for a clearly defined process for project development in terms of concessions, permits, environmental terms, etc.
VII. MARKET STRUCTURE BY SECTOR

VII.1. Oil Sector

VII.1.1. Physical Features

BiH has no domestic production of oil at present, although there have been explorations in the past. The country is therefore 100% dependent on imports for both refined oil products and crude oil up to 2008. After successful privatisation of the domestic refinery in Bosanski Brod, production of oil products restarted in November 2008. According to available data, oil product consumption in BiH ranged from about 800,000 tons in 2000 to about 1.3 million tons in 2005. Oil products are mostly imported from neighbouring countries Croatia, Serbia and Hungary.

There is one oil refinery, at Bosanski Brod, and a lubricants plant at Modrica. Bosanski Brod refinery operation will increase its products’ share in the local market and is expected to result in a corresponding decline in imports of oil products.

Figure 9 presents the evolution of oil consumption by sector, as it is assessed by the World Bank Energy Sector Study for BiH (ESS BiH). Oil products are the main source of energy for the transport sector in BiH, including freight transport and personal transport (both public transport and private cars). According to the IEA statistics transport accounted for 72.6% of the consumption of oil products in 2006. Figure 10 presents the consumption by fuel in transport and for the years 2000-2005. As the economy grows, demand for transport will grow and as income levels rise, so will the ownership of private cars. Thus, there should be a relatively high rate of growth in oil consumption in BiH in the near future. Industry follows with 12% share in consumption, households with 10%, agriculture with 8% and services with only 2%.

Significant explorations of oil and gas reserves were carried out since the 1960s until the early 1990s by the companies Energoinvest, Sarajevo and INA-Naftaplin, Zagreb in the cooperation with the foreign companies such as AMOCO, EXLOG, GECO, ECL, and others. Extensive geochemical, geomagnetic, and geoelectrical explorations were conducted as well as reflective seismic studies and magnetic telluric probing. Based on the current level of explorations it is considered that there are reserves estimated at 50 million tons of crude in four priority areas.

Figure 9: Oil Consumption in BiH, by Sector (2000-2005)

Source: ESS BiH
A significant issue for BiH is the non-existence of security (compulsory) oil stocks. Till now BiH has not adopted and implemented a compulsory oil stockholding system as it happens in the EU and the IEA countries. There is particular oil storage capacity in the two main Entities of the country that is not properly maintained and repaired. This capacity is fairly used at present for market operational or security purposes. Throughout activities under Energy Community BiH will have legal obligation to implement compulsory oil stockholding system.

VII.1.2. Legislation Specific to the Sector

Under the Custom Tariffs of BiH, the import tax rate for crude oil and products usually is 0%, and it is defined by the multilateral and bilateral free trade agreements. The most important agreements are the Central European Free Trade Agreement (CEFTA) and the Stabilisation and Association Agreement with European Commission.

Pursuant to the Law on Value Added Tax VAT is paid on trading of goods and services which tax payers carry out for compensation, in the frame of their activities, in the territory of BiH. The regular VAT rate on taxable goods and services and imported goods in BiH is 17%.

In September 2002 the Council of Ministers of BiH made the Decision on required quality of liquid fuels, which was amended several times following the development of the market. Decision laying down the quality requirements has to be met by liquid fuels used in internal combustion engines and for direct heat energy generation in the territory of BiH. Also, the standards for the physical-chemical properties of liquid oil products were set out, as well as limit values of basic characteristics of fuels, procedure and methods of testing these properties and marking and compliance verification. The Decision applies to unleaded motor gasoline, leaded motor gasoline, kerosene for heating and lighting, diesel oil and heating gas oil (extra light, light special, medium, and heavy).

The Entities RS and FBiH are responsible for determining the policy, strategy, planning, regulation, control system and implementation as regards the oil sector. Thus, several laws at the level of entity is developed and influence oil market, such as law on energy, trade, oil and oil products etc.
All the oil sector activities must comply with principles of competition, non-discrimination, effectiveness, transparency, protection of business secrets and environment protection. Combination of license-free regime, the Ministry of Trade as the competent administrative supervisor and free competition in the trade with oil and derivatives has two important consequences: the State Law on Competition applies and Competition Council is responsible for the protection of competition.

Entities have enacted certain general environmental legislation which is also crucial for oil industry sector. In BiH protection of the air is regulated by appropriate laws at Entity level and the Brčko District level.

For the purpose of defining the compulsory stocks system the organisational and institutional discussions, which will conclude to the proper legal document, at state and Entity level have started in 2009 among Ministries and market actors under the initiative of MoFTER. This initiative is timely regarding the incorporation of oil security issues in the Energy Community activities.

The legal framework relating to concessions is structured at three levels. At the state level the Law on Concessions of BiH addresses the granting of concessions to domestic and foreign persons if the subject of concession is within the constitutional competence of BiH or if the subject of concession comprises territories of both Entities. It is important to emphasise that this Law refers to the explanation natural resources, including oil reserves. At the same time the two BiH Entities have their separate laws on concessions that determine conditions under which concessions may be granted if the subject of concession is within their competence and territory.

Among others the sectors of research and/or usage of energy and other mineral resources, exploration of crude oil or gas and construction, use and management of pipelines for transportation and storage of crude oil and gas as mentioned in the Law are the sectors which may be subject of concessions.

The State and Entity laws on concessions established the state and Entity commissions, as independent regulatory bodies for granting concessions. In case the subject of concession comprises territory of both Entities, a Joint Commission is established. These commissions are in charge of making – at the state and Entity level – a Document on Policy of granting concessions, describing all economy branches and industrial sectors that may be granted to domestic or foreign persons as concession. Depending on the level, Council of Ministers of BiH or relevant Entity governments adopt this document. After its adoption, the procedure for granting a concession includes the following steps:

1. Making a feasibility study by the conceding (relevant State or Entity Ministry) for each project prepared for granting concession;
2. Launching a tender procedure for choosing the concessionaire;
3. Concluding the concession contract.

A concession is granted for a term of 30 years, starting with the effective date of concession contract. In exceptional circumstances requiring investments for longer period of time, the concession contract may be prolonged but can not exceed 50 years.

There are no specific provisions in the legislative framework regarding transit of oil, especially when it happens via pipelines.
VII.1.3. Market Structure – Monopolies, Privatisation

The main characteristic of the BiH oil market is full liberalisation and the great number of wholesale-retail companies.

In BiH there are currently more than 870 service gasoline stations belonging to around 550 distribution companies. Some of these private stations were put into business after the adoption of the Law on Self-employment in 1990, and a great number after the BiH war ended in the period from 1996-2008.

About 65% of gasoline stations in BiH are owned by private owners, holding less than five stations. This indicates that the retail and distribution network, seen through a number of trade operators, is highly fragmented, although in recent years several private companies have developed a large number of service stations and thus gained a considerable share in the wholesale business. By number of retail stations in 2005, the leading companies were Energopetrol Sarajevo with 65 service stations, Petrol Banja Luka with 80 stations and Krajinapetrol Banja Luka with 14 stations. The last two companies are predominantly state-owned. Foreign oil companies have a substantial share in the retail and distribution business, such as Holding Ina BH, Sarajevo with 36 service stations, Petrol BH Oil Company Sarajevo with 30 stations and OMV BH, Sarajevo with 12 stations.

The oil market is completely liberalised but it should be noted that there is strong price instability caused by changes at the world market. It must be noted that in BiH there is a so-called “free price forming regime”, which means that prices are determined by the market. Compared to the EU countries, the oil product retail prices in BiH are significantly lower.

VII.1.4. Current Opportunities for Private Investors

Establishment of new enterprises in the oil sector follows the existing legal framework that is in compliance with the international practice. Regarding the assignment of concessions for oil field research, specific legislation has been promulgated and presented above. Relevant tendering procedures may be launched soon.

There are no obstacles for deals between private companies on existing investments, when implemented in accordance with the commercial law. Joint ventures with established investors are equally possible, however it should be mentioned that in case the public sector is involved, it has to follow particular procedures ensuring the public interest. The most significant investment is related to privatisation of the two refineries.

VII.1.5. Future Investment Opportunities in the Oil Sector

After the privatisation of the two refineries of the country the main areas for private investors are expected to be:

- Rehabilitation of existing and construction of new installations of oil storage tanks to be used for the compulsory oil stockholding activity;
- Consolidation and takeover of existing small trading and retail selling companies to create larger economically viable schemes.
VII.2. Natural Gas Sector

VII.2.1. Physical Features

The gas sector accounted for just over 6% of primary energy consumption in BiH in 2005, it therefore accounts for only a small proportion of energy industry in the country at the present time, although there is potential for future expansion.

BiH does not have its own sources of natural gas so its supply is exclusively based on imports. For the time being, gas is imported only from one source, Russia, and uses only one transport direction, which is the Beregovo-Horgos-Zvornik. There is a single contract with the Russian company Gasexport for gas delivery.

BiH is served by a 16-inch pipeline which crosses the Serbian border at Šabac. This pipeline passes through Zvornik, Kladanj, and Sarajevo, terminating at Zenica. The ownership is shared between three companies. The transport system of natural gas in BiH has been designed with the following main characteristics:

- Length of gas pipeline 192 km;
- Projected pressure 50 bar; and
- Projected capacity 1 bcm/year.

Four gas distributors are active and make also retail sales. In total, distribution customers consumed around 40% of total gas consumption in 2006. Large industrial consumers located along the main gas pipeline are direct high pressure industrial consumers.

The consumption of natural gas in BiH in 1990 amounted to 610 million cubic meters (0.61 bcm/year). The industry had the biggest share in total consumption (73%), followed by energy conversion (18%) and the residential sector (7%). During the war time (1992-1995), natural gas consumption in the industrial sector was considerably reduced. In 2005 natural gas consumption reached peak in last 15 years, amounted to 380.5 mcm/year, with the industrial sector’s share being at 64%, energy conversion at 17% and residential sector at 15%. Figure 11 presents the evolution of gas consumption in the main sectors.

Figure 11: Evolution of Gas Consumption, by Sector (mcm/year)

Source: ESS BiH
The consumption of natural gas in 2006 was in the order of 364 mcm/yr, that is below the level of 2005, due to the facts that the year 2006 was an exceptionally warm year and the reduction of consumption of industry consumers. The decline of consumption continued in 2007, 2008 and in 2009 was 230 mcm. Fall of consumption is mainly related to the reduction consumption of the major industrial consumers and an overall impact of economic crisis.

Seasonality of gas consumption has influence on the gas transmission price. In BiH, final prices of natural gas are regulated by the authorities or by the gas supplier.

VII.2.2. Legislation specific to the Sector

The natural gas sector is still in the process of regulation according to the principles of the EU and the Energy Community principles. The Decree on organisation and regulation of gas sector is adopted by the FBiH, whereas the Gas Law is in force in the RS. Further work is necessary on the institutional and legislative frameworks within the country.

The existing Energy Regulatory Commission in the RS (REERS) is assigned the regulatory role in the RS. According to the Gas Law the following gas activities are defined within the gas sector: Production, transmission, distribution, storage, supply and trade. All activities are regulated by the REERS. Among others, it regulates costs for all gas sector activities, adopts tariff systems for production, transmission, distribution and storage of natural gas, as well as the tariff system of supply price for costumers under public service obligation. All the activities are subject to a licence.

Permission to develop new gas systems can be obtained according to the Concession Law. Third Party Access is regulated and all customers, except for households, became eligible customers on January 1, 2008. They are buying gas on the “free market”. Households will become eligible costumers on January 1, 2015. The model of Public-Private-Partnership (PPP) is promoted for new projects. The RS ministry responsible for energy performs administrative control.

The Decree on organisation and regulation of the gas sector of November 2007 of the FBiH defines the following gas activities: Supply, transmission, distribution, storage and LNG operator. The Ministry is responsible for security of supply and planning new transmission capacity. The Ministry also provides the energy sector activity licenses.

Both legislations should be revised regarding the articles dealing with activities of unbundling of supply (trade) and TSO activity in order to comply with the EU and the Energy Community provisions. Furthermore, BiH should take advantage of the experience acquired in the regulation and operation of the electricity sector to proceed to the development of the secondary legislation of gas sector that is missing and is necessary for a restructured market operation.

VII.2.3. Market Structure – Monopolies, Privatisation

Natural gas consumption in BiH is very low, both in absolute and relative terms. The areas of market are the city of Sarajevo, city of Visoko and Mittel Steel Plant, Zenica, Alumina Plant “Birač”, Zvornik and, potentially, a narrow corridor through which the gas transport pipeline has been installed. Gas market restructuring is in progress in both entities. The two legal acts of the two main constitutional entities consider the timely obligation of gas market liberalisation, although certain legislative amendments are required.
The relationship of different participants in the natural gas sector seems quite complicated. The main institutions and companies dealing with gas activity in the country are presented below:

- **Energoinvest, Sarajevo** and **BH-Gas, Sarajevo** are companies importing natural gas from Russian company Gazexport.

- **BH-Gas**, a limited liability company founded by the Government of the FBiH. The core lines of business of the company are:
  - Import of natural gas into BiH;
  - Transportation of natural gas across FBiH 132 km;
  - Natural gas sales to large customers; and
  - Research and development of transmission gas pipelines.

- **Sarajevo Gas, Sarajevo** is a mainly owned by the Sarajevo Canton government whose main activities are natural gas distribution, management, maintenance and construction of the gas system for Sarajevo Canton.

- **Sarajevo Gas, Istocno Sarajevo** is a gas transportation (40 km) and distribution company serving the city Istocno Sarajevo.

- **Gaspromet, Pale** is the TSO of the gas system in RS approximately 23 km.

### VII.2.4. Current Opportunities for Private Investors

There is possibility for establishing new gas suppliers who will be active in the market of eligible customers. Licensing procedure is established in the FBiH and the RS.

Gas distribution activity of new areas should be performed on a concession basis. The concession would be acquired on a competitive public tender procedure. Size and number of areas have to be determined in a way that they have equal possibility of gas supply.

FBiH is planning the development of the gas transport system mostly on the basis of modified results of existing studies of international consultancies. Gas supply to Central Bosnia and supply routes (Bosanski Brod – Zenica) and the link to the transport system in Croatia are the most significant components. Figure 12 presents the development plans of BH-Gas.

The RS is planning to develop the transport system based on the layout of the Sava gas pipeline. This plan anticipates construction of gas pipeline from Bijeljina to Banja Luka, covering mainly district heating needs of crossed cities and gas distribution to Bijeljina through a municipality PPP.

Both, FBiH and RS plans should be optimised in an effort to avoid overlapping. Such exercises have been carried out in an effort to integrate future gas supply development in BiH, for example ESS BIH has tried to assess a reasonable development of gas sector in the most attractive energy consumption regions of the country. Furthermore, the gas storage needs have been estimated in order to increase security of supply, as well as connections to projected major gas pipelines (Nabucco, South Stream, TAP, etc.) transporting gas to Western Europe via Serbia and Croatia have also been considered.

It is worth mentioning that foreign direct investment in gas development projects is welcome, however, at present there is no harmonised policy on gas supply expansion. The small size of the existing market implies that somewhat a long-term investment viewpoint is necessary.
Figure 12: Gas Pipeline System Development of FBiH

Source: BH-Gas

Figure 13: Gas System Development in the RS

Source: BH-Gas
VII.2.5. Future Investment Opportunities in the Gas Sector

The main opportunities for future investment in the gas sector are as follows:

- Expansion of domestic gas transportation pipelines to cover major part of the country and to connect them with new major pipeline systems transporting gas to western Europe;
- Development of new distribution grids and new gas supply businesses, especially through PPP with municipalities;
- Development of security of supply projects and services, e.g. gas storage facilities.

VII.3. Coal Sector

VII.3.1. Physical Features

Coal is one of the most important energy resources in BiH. Major deposits of lignite and brown coal are sited all around the FBiH and the RS. Most of the existing coal mines fuel Thermal Power Plants (TPP) in both entities. Coal mines situated in Northeast and Central Bosnia serve two TPPs, Kakanj and Tuzla, operated by the company Elektroprivreda Bosne i Hercegovine (EP BiH), whereas Ugljevik Coal Mine and TPP, and Gacko Coal Mine and TPP are operated by the company Elektroprivreda Republike Srpske (EP RS). A map of the sites of the most significant coal mines is illustrated in Figure 14.

There are significant differences between the coal mines in BiH, but with similarities as far as geological and technological conditions are concerned. In the FBiH there are both underground and surface mining operations, exploiting brown coal and lignite, whereas in the RS there are only surface mining operations. Surface mines are located at various ground configurations (flat to hilly areas), exploiting coal from relatively low to steep inclined deposits, using continuous (bucket-wheel excavators) or discontinuous (excavator-truck) equipment to extract lignite and brown coal and to remove waste rock.

Some mines still have huge coal reserves, whereas reserves of others are almost depleted beyond economic exploitability. The quality of coal varies in a wide range of heating value, content of moisture, ash and sulphur. All mines are facing numerous particular problems, but what they suffer in common is a time lag of funding required primarily for land remediation, infrastructure and equipment maintenance and replacement.

Figure 15 presents the main coal reserves and their basic categorisation as defined by the Mining Regulation, based on degree of explorations (drilling network, proven quality, etc.). Balance reserves are currently exploitable and economically viable reserves, whereas out-of-balance reserves are currently not viable and potential reserves are insufficiently explored reserves.

Total geological reserves of coal in BiH are estimated at 5,763 billion tons, of which balance reserves account for 2,625 billion tons; 1,437 billion tons of lignite and 1,187 billion tons of brown coal. This clearly indicates that significant funding is required for further explorations of potential reserves and in order to convert them into balance reserves. Balance reserves account for only 45.5%, out-of-balance 10.8%, and potential reserves 43.7%, thus showing a low degree of exploration. Brown coal deposits are of relatively good quality, with an average heating value of 16,750 kJ/kg. However, it contains significant percentage of sulphur (2-6%), ash (10-45%) and moisture (10-25%), thus narrowing the scope of usage, especially when it requires long transportation distances, and creates significant environmental impact. Lignite is
of high quality, pure, with heating value averaging between 7,500-12,600 kJ/kg, containing 0.2 to 1.0% of sulphur, ash 5-9%, and moisture 35-53 %. Such a quality allows a broad range of applications, as production costs enable transport to longer distances.

**Figure 14: Map of BiH with Sites of Coal Mines**

![Map of BiH with Sites of Coal Mines](image)

*Source: ESS BiH*

**Figure 15: Main Coal Reserves in BiH and their Basic Categorisation (tons)**

![Main Coal Reserves in BiH](image)

*Source: ESS BiH*
BiH coal mines produced approx. 9.2 million tons of coal in 2005 (of which 5.8 million tons in the FBiH mines and 3.4 million tons in the RS mines) corresponding to 50% of production achieved in 1990. The effective demand of thermal power plants is the major driver of coal production, since they consume around 85% of total coal production.

The future growth of commercial coal demand will depend on the operation plans of individual mines scattered at numerous locations and generally related to the future growth of electricity generation and industrial sector.

There are also some significant coal deposits in BiH that are not included in the existing reviews and considered as potential, namely Duvno and Kongora deposits, where two thermal units of 275 MW each are planned to be constructed based on preliminary plans. Major coal reserves, that are not fully explored, exist in the Bugojno area, estimated at 1,294.7 million tons of geological reserves, of which 130 million tons are mine able by surface mining under very favourable conditions. The government of Central Bosnia Canton (Srednjebosanski Kanton) and the local community express special interest for the development of this project.

VII.3.2. Legislation Specific to the Sector

BiH and entities’ legislation on concessions, entities’ laws on mining (OG RS 107/05; OG FBiH 24/93, 13/94, 6/08), FBiH law on financial consolidation of coal mines (OG FBH 81/08), and BiH law on geological research constitute the basic legal context for business development in coal sector. Furthermore, the law on privatisation of state equity, the law on bankruptcy, as well as the legal framework on license and authorisation acquisition and environment protection are also necessary and applicable in the case of coal development investments.

The key stakeholders in the coal development sub-sector of BiH are the following institutions:

- BiH Ministry of Foreign Trade and Economic Relations (MoFTER)
- FBiH Ministry of Energy, Mining and Industry
- RS Ministry of Industry, Energy and Mining

VII.3.3. Market Structure – Monopolies, Privatisation

There are two main markets for the BiH coal: Coal required to fuel the four TPPs operated by EP BiH and EP RS, and coal used by various industries, district heating and households, in BiH and in the neighbouring countries. Therefore, planned capacities are based on the needs of these markets.

Coal mines in the FBiH supply coal to EP BiH thermal power plants in Tuzla and Kakanj, then to industrial market, both domestic and foreign, and to nearby households and district heating stations. Currently the Kamengrad Mine is idle (recently privatised), while the Livno Mine operates at very low production level due to coal marketing problems, even though its deposit has significant coal reserves and is exploited under favourable mining conditions. Recently there is in force the Decision of the Government of the FBiH, by which all coal mines in the FBiH were integrated within the EP BiH corporate business. The coal mines in the RS are mainly linked to the two TPPs, and just minor quantities of coal are supplied for broad consumption. The Stanari Mines, which currently supply coal to industrial market and for broad consumption, with small deliveries to the Tuzla TPP, will be tied to the future Stanari TPP that is planned to be built until year 2013.
Coal mining in BiH is currently performed under 12 horizontally or vertically integrated companies that are generally not connected to market conditions for their product. Some of them own more than one coal mine operations. Coal capacities in Ugljevik and Gacko are incorporated, from the very beginning, with the relevant thermal power plants, whereas other coal mines (especially in the FBiH) are organisationally separated, from the thermal power plants which are the main consumers of their production.

Generally, productivity in BiH coal mines is very low in comparison with global coal mining norms, even though there are significant differences amongst local coal mines. Analysis of cost structure of coal production in BiH indicates dominancy of labour costs (more than 40%), and then come energy costs, depreciation, etc. However, current international price of coal is generally higher than coal production price averaging between 4.69 KM/Gj (Kakanj coal mines) and 8.1 KM/Gj (Breza coal mines). Coal cost for Ugljevik and Gacko coal mines is much lower and it is incorporated in the relevant cost of electricity generation.

Apart from direct and indirect operating costs, a high level of indebtedness affects the operations of BiH coal mines. There are dominating liabilities concerning contributions to pension funds, health insurance, etc., and liabilities toward banks. The solution to these financial problems is one of crucial reasons related to the future process of BiH coal mining restructuring.

VII.3.4. Current Opportunities for Private Investors

BiH coal mines can be divided into three groups:

- Coal mines that are not likely to expect to operate viably without minor investments;
- Coal mines requiring significant investments to secure viable operations and long-term adaptation to energy policy of the country; and
- Coal mines that require complete economic evaluation as a basis for future business decisions.

For most of these cases, short-term development plans have no economic or rational technical, technological justification. Thus, it is absolutely reasonable to seek for investments in coal mines in the forthcoming years, required to secure sufficient quantities of coal for thermal power plants, at least.
Coal production price in BiH depends more on non-economic factors, as it was the case with electricity as well, than on operating costs that varied significantly depending on the exploitation method, technology, labour costs, etc. It is worth considering that future coal price should lead to rational allocation of economic resources. It is implied that coal production is getting more expensive without additional investments, while reduction of cost requires investments in sector restructuring. The prime objective of such policy aims at long-term security of energy supply, but it should be in compliance with the international environmental obligations of the country.

The accomplishment of an ambitious plan of coal development activities anticipates that coal mines in BiH shall invest mostly in new equipment and rehabilitation of the existing equipment based on the capital amounts presented in Table 8.

Major part of the required investment is addressed to foreign investors, who may participate in privatisation and concession tenders as well.

**Table 7: Planned Coal Sector Investments in BiH**

| Source: ESS BiH |

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FBiH</td>
<td>225.400</td>
<td>233.500</td>
<td>158.800</td>
<td>€27.700</td>
</tr>
<tr>
<td>RS</td>
<td>183.000</td>
<td>400.000</td>
<td>190.000</td>
<td>763.000</td>
</tr>
<tr>
<td>BiH</td>
<td>408.400</td>
<td>633.500</td>
<td>348.800</td>
<td>1.390.700</td>
</tr>
</tbody>
</table>

**VII.3.5. Future Investment Opportunities in the Coal Sector**

In summary foreign investors could be involved in the following business opportunities:

- Restructuring and modernisation of existing coal mines to provide competitive fuel to the market;
- Combined modernisation of coal mines with power stations to provide competitive electricity to domestic and regional markets;
- Development of new coal mines combined with efficient coal-fired power stations; and
- Development of coal market products for industry and tertiary/domestic sectors.

**VII.4. Electricity Sector**

**VII.4.1. Physical Features**

The governance of the electricity sector provides that the Ministry of Foreign Trade and Economic Relations (MoFTER) is responsible for the coordination of policy formulation of the electricity sector and has the task of coordinating energy sector activities in BiH, including relationships with international and regional bodies.

Power generation in BiH is carried out by three electricity companies, EP BIH, EP HZHB and EP RS, which are independent in decision making, especially on construction of new power plants, and responsible for customer supply in their respective areas of operation. All three electricity companies are in majority owned by the entities (FBiH, RS). In addition, there are other privately-owned companies and initiatives for construction of new generation capacities.
BiH is relatively favoured regarding hydro resources with total available power of 2100 MW, and annual generation of 13,784 GWh (in 2008). Total available power of hydro power plants (HPPs) in the FBiH amounts to 1,256 MW, with expected annual production of around 3,150 GWh. Electricity company EP BIH operates three large HPPs and several small hydro power plants with total power of 509 MW and EP HZHB six HPPs totalling 747 MW. Total available power of hydro power plants in the RS is 735 MW with expected annual production of around 2,660 GWh. Depending on hydrological conditions, up to 45% (estimated 6,000 GWh in 2010) of total generation may come from hydro plants with installed hydro capacity close to 57% of total installed capacity. Future expansion of the hydro system can be expected as not all hydro sites have been developed to full capacity. It is estimated that around 40% of exploitable hydro potential is now in service.

With regard to conventional generation, it is based on solid fuels. The indigenous resources of BiH used for are lignite and brown coal. Over 85% of the coal produced in BiH is for electricity generation; this implies that coal sector policy is inherently related to electricity policy. Total installed capacity in TPPs in BiH is 1745 MW, with annual generation in 2008 of 8843 GWh. The existing thermal power plants in the RS, operated by the EP RS, amount to around 580 MW. The thermal power plants in the FBiH are operated by EP BIH and amount to around 1,165MW.

BiH has been an electricity exporter in the recent years (in 2008 it exported 4,176 GWh) and it is most probable that the same situation will continue as far as the investment plans on HPPs and coal based units will be implemented in the forthcoming years.

The BiH transmission network comprises of overhead lines and cables at 400 kV, 220 kV and 110 kV voltage levels. Total length of all transmission lines within the BiH power system is 6,262 km. In total, the percentage of 400 kV lines is 14 %, of 220 kV lines is 24 %, and of 110 kV lines is 62 %. The high voltage lines were built in late 1970s and early 1980s, when the transmission network was developed within the framework of the Yugoslavian system. The newest line is Ugljevik, Sremska Mitrovica, built in 2004. There are good connections with the neighbouring systems, enabling significant power export, import and transit, thus making BiH one of the most important transit regions of SE Europe. In Figure 17 the HV interconnections with neighbouring countries and the connections of major generation units are shown.

In the electricity system of BiH the electricity distribution activity is performed by eight distribution system operators: Elektroprivreda Bosne i Hercegovine (EP BIH), Elektroprivreda Hrvatske Zajednice Herceg Bosne (EP HZHB) in FBiH, Elektroprivreda Distrikta Brčko (EDBD) in Brčko discrit and five users of electricity distribution licences owned by Elektroprivreda Republike Srpske (EP RS): Elektrokrajina, Elektro Doboj, Elektro Bijeljina, Elektroprivreda Pale and Elektrohercegovina. In BiH there are about 1,331,000 registered electricity customers. Total gross consumption, including losses, of electricity at the level of BiH distribution amounts to 8,954 GWh (2008), under the following shares of individual distribution system operators: EP BIH 45%, EP HZHB 15%, EP RS 37% and EDBD 3%. The losses and unregistered consumption of electricity are at acceptable levels only in EP BIH.
VII.4.2. Legislation Specific to the Sector

Power sector reform in BiH commenced in 2000 when Entity governments signed the Electricity Policy Statements, which were followed by the adoption of the state Law on Transmission of Electric Power, Regulator and System Operator of Bosnia and Herzegovina (OG BiH 7/02, 13/03), Law on Electricity in the FBiH (OG FBiH 41/02, 24/05, 38/05), Law on Electricity in the RS (Official Gazette RS 61/02, 66/02, 29/03, 86/03, 111/04, 60/07, 8/08 and 92/09) and in 2004 the Law Establishing the Company for the Transmission of Electric Power in BiH (OG BiH 35/04) and Law Establishing Independent System Operator for the Transmission System of Bosnia and Herzegovina (OG BiH 35/04). In case of conflict, the Laws of the State shall prevail over entities’ legislation.

These laws determine key subjects for carrying out power sector reform in BiH and their competences in the field of energy policy, regulation and performance of energy activities. Further progress of the reform, namely the institutional, structural, and normative changes in the sector and the pace of market opening are largely determined by the obligations under the Energy Community Treaty which was signed in Athens in 2005 and entered into force in the middle of 2006.
In 2003 and 2005 the Action Plan of the RS for restructuring and privatisation of power sector in BiH (OG RS 69/03) and the Action Plan of the FBiH were adopted. Three regulatory commissions were founded in 2002. In 2005 the ISO BiH and in 2006 a single Power Transmission Company (Transco) were established.

The Action Plans of the two entities consist of two parts: The first part deals with restructuring of the electricity companies as to prepare their privatisation, while the second part refers to privatisation of distribution and production companies. According to the Action Plans it is necessary to:

- establish independent transmission system operator and state-run company for electricity transmission;
- ensure functioning of the entities’ regulatory commissions in compliance with the law on electricity;
- carry out restructuring of thermal power plants and hydro power plants into appropriate subsidiary companies;
- reorganise distribution areas in to subsidiary companies for distribution and supply;
- create wholesale electricity market using contracts between producers, traders, suppliers, and eligible customers (contracting market);
- create balancing market and market operator to operate the balancing market;
- commercialise the companies for production, distribution, and supply of electricity;
- draw up plans for privatisation of these companies.

A major part of the planned activities of the first part of the Action Plans has been realised.

In general, the electricity market restructuring is based on the EU *acquis* and the relevant provisions of the SEE Energy Community Treaty, although there are issues still requiring harmonisation, e.g., in unbundling of distribution. Therefore, the three Regulatory Commissions of the country have elaborated and promulgated a set of necessary rules for the restructured electricity market. This procedure is in progress to complete and harmonise the legislative framework with the EU model.

BiH had ratified the UN Framework Convention on Climate Change (UNFCCC) in December 2000, and accessed to the Kyoto Protocol in 2008. BiH is not a Party to Annex 1 to the UNFCCC, and not the Party to Annex B to the Kyoto Protocol and does not have a quantified obligation to reduce greenhouse gas emissions in the first commitment period, i.e., 2008-2012.

The regulations and rules referring to Environment Impact Assessment were brought in force at Entities level: in 2004 in the FBiH and in 2006 in the RS and such adopted procedures are being implemented in both Entities. The rules on requirements and timeline for environmental permits issuance for construction projects/plants/installations, for which the permits had been issued under the (Entities’) Laws on Environmental Protection, were adopted in 2006.

Rule-book for air emission upper values from combustion plants in the FBiH (OG FBiH, 12/05), and the respective Rule-book for air emission upper values from combustion plants in the RS (OG RS, 39/05) determine the allowed values of air pollutants from fossil fuels combustion plants. Both regulations are identical and common harmonised, however they are not in compliance with the EU Directive 2001/80/EC on limiting pollutant emissions from
large combustion plants. The air emissions are limited for all new plants and for the existing plants with thermal input below 50 MWt. Thus, the existing large combustion plants (over 50 MWt) are exempted.

VII.4.3. Market Structure – Monopolies, Privatisation

The key actors in implementation of the electric power sector reform in BiH are:

- Ministry of Foreign Trade and Economic Relations (MoFTER); in accordance with the Law, MOFTER’s responsibility is “for activities and tasks within the jurisdictions of Bosnia and Herzegovina and which are related to policy defining, basic principles, coordination of activities and harmonisation of entities’ authoritative bodies and institutions on the international level in the field of agriculture, energy, environment protection, development and usage of natural resources and tourism”;
- Ministry of Energy, Mining and Industry of the FBiH;
- Ministry of Industry, Energy and Mining of the RS;
- State Electricity Regulatory Commission (SERC) competent for regulation of electricity transmission activity and international trade investment electricity;
- Regulatory Commission for Electricity of Federation of Bosnia and Herzegovina (FERC) competent for regulation of production, distribution and supply of electricity in the FBiH;
- Regulatory Commission for Energy of Republic Srpska (RERS) competent for production, distribution and supply of energy in the RS;
- Independent System Operator BiH;
- Electricity Transmission Company BiH;
- Power utility Elektroprivreda BiH;
- Power utility Elektroprivreda HZHB;
- Combined holding Elektroprivreda RS.

In both the FBiH and the RS the privatisation of the EPs is considered as a strategic issue, thus it is not carried out through the privatisation institutions but by the Entity governments which have to decide on the form of privatisation and the procedures to be followed. Especially in the FBiH a first step must take place that is the corporate integration of thermal power stations with the feeding coal mines. The first phase of this process is over: The FBiH transferred its shares in coal mine companies to Elektroprivreda BiH and coal mine companies are now organised as dependent limited liability companies.

Electricity is regulated sector. Consequently, any company, foreign or domestic, willing to participate in production, distribution, supply of and trade with electricity must obtain appropriate licenses. However, the ultimate goal of each piece of relevant legislation is the “creation and maintenance of the competitive market” based on principles of non-discrimination, customers protection against monopolies, continuity in supply, efficiency and transparency. Three Regulatory Commissions are well equipped guardians of said principles.
VII.4.4. Current Opportunities for Private Investors

BiH has comparative advantage in relation to its regional neighbours in that it is an exporter of electricity. With the right policies in place it can remain as such. The opening of the regional electricity market in SEE and the policies being developed in the EU such as “20/20/20” constitute an opportunity for BiH to take advantage of its strong regional position in electricity generation, including renewable energy sources, notably conventional hydro, small hydro, wind and biomass.

The other indigenous energy resources in BiH are lignite and brown coal. These are important assets, contributing significantly to energy security of supply and to employment opportunities. However, the development of these resources has to take into account the dimension of the EU energy market, into which BiH will be increasingly connected, both technically and commercially. Emission trading scheme (ETS) and limits on greenhouse gas emissions need to be taken into account while developing coal projects, especially those built for electricity exports.

The coal reserve is significant; but as pointed out in the ESS BIH study, coal sector restructuring and revitalisation is required to make the sector efficient. The strong link between coal production and power generation points to the need for coordinated policy in this area, including social aspects. Coal investment requirements are significant, estimated at least €700 mln by 2020. The same study identifies 1,824 MW of hydro candidates in the FBiH and 1,177 MW in the RS for a total of about 3,000 MW. This is a considerable resource and many of these plants have pre-feasibility studies, preliminary design or financial studies prepared. Existing studies would need to be upgraded to feasibility level, including environmental impact assessment (EIA). Estimates of total investment required in the electricity sector by year 2020 indicate a total investment of around €4 bln. The bulk of this investment is for new generation capacity.

For the RS the priority is placed upon exploration of hydro energy projects, both of large and small ones. A number of such projects have already been launched to tendering procedures or evaluated to bidders’ concession awarding and a second group is prepared to follow in due time. The need of adequate completion of secondary legislation shaping the economic environment for potential investors is considered as the most significant obstacle towards implementation of investments. Other problems that are faced are related to the non-existence of specific legal environment for the environmentally protected zones and the unclear regime of electricity network connection of new hydro projects, due to the weak transmission grid in some regions (eastern part of the RS). The required legal amendments are prepared and in drafting phase, and soon will be promulgated.

Foreign investors are welcome to participate and under no discrimination conditions in tendering procedures either for privatisation of existing companies or for new greenfield projects. All potential schemes of participation under opportunities arising at Entity level are considered.

VII.4.5. Future Investment Opportunities in the Electricity Sector

Privatisation of existing electricity companies is not considered as a short-term opportunity. Therefore, the main areas of investment opportunities in the electricity sector of BiH are expected in the following areas:

- Projects of construction of new hydro power plants;
• Projects of construction of new thermal power plants;
• Projects of rehabilitation of existing thermal (coal, lignite) power plants;
• Projects of construction of new wind power plants;
• Projects of air emission mitigating technologies;
• Projects of construction of new and renovation of existing lines and transformation stations of the transmission network;
• Projects of transmission system operation development; and
• Projects of construction of new and renovation of existing lines and transformation stations of the distribution network.

VII.5. Nuclear Power Sector

Nuclear power is not a priority of BiH energy policy due to its electricity capacity based on conventional resources domestically available, which may cover base load needs and significant contribute to export.

VII.6. District Heating Sector

VII.6.1. Physical Features

District heating systems were and are still in place in major cities. Before the war most of urban population was connected to district heating systems as source of heating. Today most of these systems are in bad conditions, they are poorly maintained and obsolete, and require considerable modernisation. Most systems, with the exception of Sarajevo which was renovated, suffer serious losses amounting to as much as 60%. In the territory of BiH the district heating companies in operation are presented in Table 9. This table illustrates population in the towns and municipalities covered by the district heating systems.

A common characteristic of the companies in the FBiH is that, most of the companies do not have their own heat production units, but are connected to local heat production facilities. The reason lies in the pre-war development model when affluent domestic deposits of energy sources – brown coal and lignite – were used as feedstock for heavy industry and the surplus of thermal capacities was suitable for supply of municipal district heating networks. War events posed extensive difficulties to operation of district heating companies, primarily because of economic debts which, combined with technical damages and the age of installations, were a serious obstacle to recovery of the district heating sector.

Present collection rates are relatively high, but losses are still accruing. This is the major obstacle for market based operation and investments in quality of service development. In situations where collection from citizens is difficult, public and commercial entities (mostly regional, cantonal and state administration institutions) are the main source of revenue for district heating companies.

All district heating systems in the territory of BiH are used only for space heating, in rare cases as industrial processing heat, and not for warm water heating. Opening of this segment in the future would significantly influence the expansion of district heating market.
Sarajevo district heating system is in a specific situation. The relevant company is the only one in the FBiH that uses gas (also in Zvornik in the RS) as a fuel. Also, in the FBiH only Sarajevo district heating has its own local boiler units and separate heating network. This system also received the largest modernisation investments. Experimental consumption metering is introduced locally as a basis for future consumption-based billing. The other district heating systems also consider this billing scheme. The price of natural gas is high and Sarajevo district heating system approximates real market costs and prices.

On the contrary, in Konjic the district heating system, which has its own heating installation of relatively large capacity, “inherited” from a pre-war industrial installation, due to the poor bill collection situation cannot launch infrastructure renovation, modernisation and expansion of the heating network.

Unlike most of the district heating systems in the FBiH, the district heating systems in the RS rely on their own boiler facilities. Main fuels are heavy fuel oil and coal. Operation and possible investments regarding reconstruction and development continue to depend on the bill collection rate, which varies.

**Table 8: Presentation of District Heating Systems in BiH**

<table>
<thead>
<tr>
<th>ID</th>
<th>Name</th>
<th>Town</th>
<th>Town population</th>
<th>Municipality population</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JP „KOMUNALAC“</td>
<td>Banovici</td>
<td>26.344</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>2</td>
<td>JP „RAY“</td>
<td>Lukavac</td>
<td>57.070</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>3</td>
<td>„CENTRALNO GRIJANJE“ d.o.o</td>
<td>Tuzla</td>
<td>130.402</td>
<td>FBiH</td>
<td>RS</td>
</tr>
<tr>
<td>4</td>
<td>„JP. TOPLANE“</td>
<td>Breza</td>
<td>14.618</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>5</td>
<td>„JP. GRUJANJE“</td>
<td>Sarajevo</td>
<td>47.230</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>6</td>
<td>„JP. TOPLANE“ d.o.o</td>
<td>Zenica</td>
<td>40.924</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>7</td>
<td>„JP. GRUJANJE“</td>
<td>Zenica</td>
<td>122.838</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>8</td>
<td>„KHP. TOPLANE SARAJEVO“ d.o.o</td>
<td>Sarajevo</td>
<td>785.000</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>9</td>
<td>„KHP. VIK“</td>
<td>Konjic</td>
<td>43.878</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>10</td>
<td>„KHP. SANA“</td>
<td>Sanski Most</td>
<td>46.466</td>
<td>FBiH</td>
<td>FBiH</td>
</tr>
<tr>
<td>11</td>
<td>TOPLANE AD BANJA LUKA</td>
<td>Banja Luka</td>
<td>176.948</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>12</td>
<td>„JP. GRADSKA TOPLANA“</td>
<td>Brijuni</td>
<td>87.698</td>
<td>FBiH</td>
<td>RS</td>
</tr>
<tr>
<td>13</td>
<td>„METAL BROD“</td>
<td>Bosanski Brod</td>
<td>30.866</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>14</td>
<td>ODP „GRADSKO GRIJANJE“</td>
<td>Čelinac</td>
<td>16.921</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>15</td>
<td>AD „TOPLANA“</td>
<td>Donja Vrlika</td>
<td>51.078</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>16</td>
<td>„GRADSKA TOPLANA“</td>
<td>Doboj</td>
<td>92.726</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>17</td>
<td>„JP. TOPLANA“</td>
<td>Gradiška</td>
<td>54.229</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>18</td>
<td>„KHP. TOPLANA“</td>
<td>Istočno Sarajevo</td>
<td>13.497</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>19</td>
<td>„JP. GRADSKA TOPLANA“</td>
<td>Pale</td>
<td>16.355</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>20</td>
<td>„CENTRALNA TOPLANA“</td>
<td>Prijedor</td>
<td>101.783</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>21</td>
<td>„JP. TOPLANA“</td>
<td>Sokolac</td>
<td>13.457</td>
<td>RS</td>
<td>RS</td>
</tr>
<tr>
<td>22</td>
<td>„ZVORNIK STAN“</td>
<td>Zvornik</td>
<td>73.508</td>
<td>RS</td>
<td>RS</td>
</tr>
</tbody>
</table>

*Source: ESS BiH*
VII.6.2. Legislation Specific to the Sector

Legislation relevant for district heating sector is set along the constitutional division of power and on laws regulating local self-governance. Republika Srpska (RS) has one Law on Local Self-governance (OG RS 101/04). In the FBiH there is federal Law on the Principles of Local Self-governance (OG FBiH 49/06) and ten cantonal laws regulating the same matter. Cantonal laws need to be harmonised with the federal legislation. All of the legislation follows the European Charter on Local Self-governance.

In Article 12 of the RS Law on Local Self-governance regulation and procurement of communal services, including district heating, is the duty of municipalities, and respectively of towns. Federal Law on the Principles of Local Self-governance does not include district heating in the array of communal activities to be provided for by municipalities or towns (Art. 8). The decision to authorise local communities with district heating regulation and service provision was left over to cantonal laws on local self-governance.

The legislation on communal activities, including district heating, follows the path of the legislation on local self-governance. The RS has one Law on Communal Activities (OG 11/95, and 51/02). Passing this legislation in the FBiH is of exclusive cantonal competence. Thus there are ten laws of the kind valid within a limed territory. However, comparative analysis of afore-mentioned acts demonstrates considerable harmonisation of legal principles and norms.

Common features of the legislation in the area of district heating may be depicted as follows: Classification of district heating activities into the group of services for individual consumption, district heating as a public service, detailed regulation of condition and procedures under which public services must be rendered, openness for public-private partnership, and supervision by administrative bodies of the community, canton and Entity. Last but not the least, another important common characteristic is the structure of the price for communal services. It should enable normal functioning and development of these activities but it does not directly aim at producing a profit for their providers (the so-called “continental” public service theory inherited from the French administrative law principles). Mildly put, such a solution may be viewed as contradicting the idea of public-private partnership.

Notwithstanding unity on the level of principles, the procedure of setting the price for district heating is subject to different solutions. In the RS municipal assembly, not the mayor, prescribes measurement unit and criteria for price calculation. The price itself is set by service providers (Art. 13). Cantonal laws on communal activities provide for disharmonised solutions. We will discuss only those which are the most interesting for this study.

In Canton Sarajevo legislation (OG CS 31/04 and 21/05) district heating provider makes detailed calculation and proposes the per unit price. Methodology used and the price as its outcome is evaluated by the independent professional body attached to the government of Canton, town or municipality. Assessed proposal is submitted via government to the assembly in charge. The final decision belongs to the assembly. If it opts for lower than real economic price, the assembly has to provide for subsidies form its budget. It is worth mentioning that the 2009 draft of amendments to the Law on Communal Activities proposes introduction of cantonal Regulatory Commission for all the communal activities.

In Tuzla Canton Law on Communal Activities (OG CT 11/05) criteria for the calculation of the price are set forth in the law (Art. 21). Using those criteria service providers propose the
price and payment modes to municipal assembly. If the assembly approves the price, it can then be charged. If not, further accommodations and negotiations are necessary.

Interpretation of Zenica Canton legislation (OG ZC 17/08) envisages the following system: Municipal assembly adopts the tariff. Based on this system and its own Rules, service provider proposes the price to the competent municipal assembly, which may or may not adopt it.

The required legal restructuring of district heating in BiH has surely to adapt to international acts, such as EU Directives, provisions of the Energy Charter Treaty, etc. It is necessary for BiH to adjust to the following aspects:

- Removing the barriers in heat trading, trading of services and technology, modernisation regarding reconstruction and rationalisation of equipment for heat production, transport, distribution and utilisation of heat, and the access to capital through corresponding financial institutions; and
- Advancement of policy for energy efficiency in accordance with sustainable growth, creation of framework conditions that incentivises consumers and producers for rational energy utilisation.

It is also necessary to determine all issues of the rights of users, the quality of supply, the tariff system and the conditions for connecting, measuring etc.

**VII.6.3. Market Structure – Monopolies, Privatisation**

Business difficulties, which most heating companies are facing, are primarily the result of the inherited situation and the post-war period, where practically the main motivation was the survival of companies as independent entities. It is only lately that conditions for direction towards market principles are adopted. Heating companies in most cases act as an instrument of social policy, suffering low levels of bill collection, insufficient revenue and other economic difficulties.

A variety of schemes serving district heat to consumers have been followed in BiH. All these schemes have some characteristics implying the concept of heat supply to be offered to citizens as a social commodity. Therefore, all the above-mentioned district heating companies act under the Entity, and even under municipal rules, and offer heat to consumers in a monopolistic manner. The ownership of the companies belongs to the public sector as a majority shareholder in principle.

The bill collection rate varies from case to case being critical for the viability of the companies. Fuel cost also varies since gas and fuel oil used in some cases are more expensive than local lignite and brown coal used intensively in most cases. In Figure 18 the range of district heating prices per square meter in the BiH systems is presented. The difference between domestic sector and tertiary/industrial sectors prices is also remarkable.

Great variation in prices is visible in general too, out of which it can be concluded that each heating company do their business activities in locally specific circumstances that are difficult to compare. A joint characteristic is dependence on legal entities as users, given that revenue from them is significant for the economic viability of the district heating companies.

Under the existing legal framework privatisation sounds a difficult task, especially considering the obstacles and problems that have arisen from the past and present operation of district heating
companies. The most significant obstacles towards following a privatisation policy should be considered the improper specific legal framework, the vague regime of ownership of installations and the poor viability of district heating operations under current regulations.

Figure 18: District Heating Prices in 2005

Source: ESS BiH

VII.6.4. Current Opportunities for Private Investors

Having identified the situation, needs and development potential of district heating in BiH, certain measures for reconstruction and upgrade towards increasing energy efficiency, improving functioning, economic performance and competitiveness of district heating companies are under consideration and will be launched in the coming years. The applicability and extent of these measures depend on specific situations in district heating systems, structure and development level.

In the forthcoming period, investments are necessary to be made also in the development of district heating, in accordance with the growth of consumption and the expansion of thermal networks. Consumption measuring will be also introduced and corresponding equipment will be installed with newly connected users. Furthermore, infrastructure and management improvement projects are assessed and some of them will be driven to implementation.

According to recent investment analyses it is estimated that the required investment for all the above areas of district heating is in the order of €410 mln. Foreign investors are welcome to participate in tendering procedures either for privatisation of existing companies or for new projects. All potential schemes of participation under opportunities that have arisen at the district heating company level are considered.
VII.6.5. Future Investment Opportunities in the District Heating Sector

The main investment opportunities in the district heating sector of BiH are briefly presented below:

- Projects on expanding heating networks to new town districts;
- Projects on replacement of old transport and distribution pipeline network;
- Projects on improving transport and distribution systems by replacing duct-laid pipes by pre-insulated pipes;
- Projects on improvement of transmission, distribution, and supply system operation; and
- Projects on installation of new heat metering equipment and generally on improvement of installations at the building section of district heating systems.
### Annex 1: Types of Companies in BiH (FBiH and RS)

<table>
<thead>
<tr>
<th>Type of company</th>
<th>Federation of BiH</th>
<th>Republika Srpska</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unlimited Joint Liability Company</strong></td>
<td>Founded by the establishment contract of two or more partners, domestic or foreign, but natural persons only. Founders are liable to use all their assets, including personal property. There are no requirements for minimum or maximum contributions.</td>
<td>Founded by the establishment act of two or more domestic/foreign natural and/or legal partners who commit to do certain activity under the same company name, with their own unlimited individual liability for company commitments. There are no requirements for minimum or maximum contributions.</td>
</tr>
<tr>
<td>(d.n.o./o.d.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Limited Liability Company</strong></td>
<td>Founded by the establishment act or establishment contract by one or more domestic/foreign natural or legal entities with initial capital divided in parts. A member in a limited company is liable for the value of his investment in that company. Minimum initial capital is approximately €1,000.</td>
<td>Founded by the establishment act of one to fifty domestic/foreign natural or legal entities. If the number of members grows up to 100, Ltd. must be transformed into the closed joint/stock corporation. A shareholder in a limited company is not personally liable for any of the debts of the company, other than for the value of his investment in that company. Minimum initial capital is approximately €1,000.</td>
</tr>
<tr>
<td>(d.o.o.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Limited Partnership</strong></td>
<td>Company founded by the establishment contact of two or more domestic/foreign natural and/or legal entities. There must be at least 1 partner with full liability (including private property) and at least 1 partner with limited liability, to the amount of his share. There are no requirements for minimum or maximum initial capital.</td>
<td>Founded by the establishment act of two or more domestic/foreign natural and/or legal entities. One person at least has unlimited liability for the company, and one person at least has liability to the amount of his/her investment in the company. There are no requirements for minimum or maximum initial capital.</td>
</tr>
<tr>
<td>(k.d.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Joint-Stock Company</strong></td>
<td>Legal entities founded by the establishment contract of one or more domestic/foreign natural or legal shareholders with initial capital divided into shares. Open joint-stock company is a legal Entity (banks and insurance companies or company with min. initial capital of €2 mln, and 40 shareholders at least) whose shares may be publicly listed. Closed joint-stock company is a legal Entity, whose shares are distributed among a limited number of shareholders, minimum initial capital is €25,000.</td>
<td>Legal Entity founded by the establishment act of one or more domestic/foreign natural and/or legal entities with initial capital divided into a defined number of shares. Open joint-stock company is a legal Entity, whose shares may be publicly traded, minimum initial capital is €25,000. Closed joint-stock company is a legal Entity, whose shares are distributed among a limited number of shareholders, maximum number of shareholders is 100, minimum initial capital is €10,000.</td>
</tr>
<tr>
<td>(d.d./a.d.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 2: List of Bilateral Investment Treaties on the Protection and Promotion of Foreign Investments to which BiH is a Party

ALBANIA (Off. Gazette BiH No.1/09). In force from: 6.4.2009,
AUSTRIA (Off. Gazette BiH No.3/02). In force from: 20.10.2002,
REPUBLIC BYELORUSSIA (Off. Gazette BiH No.11/05). In force from: 22.01.2006,
CZECH REPUBLIC (Off. Gazette BiH No.7/03). In force from: 30.05.2004,
DENMARK (Off. Gazette BiH No.6/05). In force from: 13.6.2008,
EGYPT (Off. Gazette BiH No.6/01). In force from: 29.10.2001,
FINLAND (Off. Gazette BiH No.6/01). In force from: 08.12.2001,
GREECE (Off. Gazette BiH No.6/02). In force from: 15.06.2007,
HOLLAND (Off. Gazette BiH No.7/01). In force from: 01.01.2002,
CROATIA (Off. Gazette BiH No.6/96). In force from: 04.08.1997,
HUNGARY (Off. Gazette BiH No.7/03). In force from: 3.1.2005,
INDIA (Off. Gazette BiH No.:4/07). In force from: 13.02.2008,
ITALIA (Off. Gazette BiH No.3/02). In force from: 10.02.2005,
IRAN (Off. Gazette BiH No.7/96). In force from: June 2009,
QATAR (Off. Gazette BiH No.7/01). In force from: 5.2.2009,
CHINA (Off. Gazette BiH No.17/03). In force from: 01.01.2005,
KUWAIT (Off. Gazette BiH No.3/02). In force from: 23.12.2002,
LITHUANIA (Off. Gazette BiH No.11/07). In force from: 16.03.2009,
REPUBLIC OF HUNGARY (Off. Gazette BiH No.17/03). In force from: 31.08.2005,
MACEDONIA (FYR) (Off. Gazette BiH No.7/01). In force from: 25.04.2004,
MALTA (Off. Gazette RBiH No.1/95). In force from: 27.05.1995,
MOLDOVA (Off. Gazette BiH No.17/03). In force from: 09.06.2008,
GERMANY (Off. Gazette BiH No.2/03). In force from: 26.08.2004,
OPEC (Off. Gazette BiH No.13/03). In force from: 16.12.2003,
PORTUGAL (Off. Gazette BiH No.7/03). In force from: 3.2.2009,
ROMANIA (Off. Gazette BiH No. 7/01). In force from: 3.12.2001,

SLOVENIA (Off. Gazette BiH No. 3/02). In force from: 1.7.2002,

FEDERAL REPUBLIC OF YUGOSLAVIA (Off. Gazette BiH No. 3/04). In force from: 25.08.2004,

SPAIN (Off. Gazette BiH No. 4/03). In force from: 21.05.2003,

SWEDEN (Off. Gazette BiH No. 6/01). In force from: 01.01.2002,

SWISS CONFEDERATION (Off. Gazette BiH No. 7/04). In force from: 21.05.2005,

TYRKEY (Off. Gazette BiH No. 9/01). In force from: 10.2.2009,

UKRAINE (Off. Gazette BiH No. 8/03). In force from: 22.01.2004,