

Notes on the The Upstream Oil Market in South East Europe

on the occasion of the
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in cooperation with



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Albania

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

Albania has many mineral resources, most notably: copper, iron-nickel and coal, as well as petroleum. There is located one of the largest onshore oil fields in Europe: Patos-Marinza, for which an increasing number of international oil companies today are securing oil prospecting licenses.

Over the last decade, the country has awarded drilling licenses to a number of American, Austrian, Canadian, Croatian, Greek, and Swedish companies, and an increasing number of international companies are now seeking prospecting licenses. This has led to a growing workforce and an influx of investment in the oil, mining and gas sectors, which provides optimism for a long term recovery in the extractive industries.

In the areas of exploration foreign companies prevail and operate on the basis of PSCs entered into with the Albanian state.

In addition to minerals, Albania also holds considerable oil and natural gas, and the government is currently in the process of promoting increased production to international oil and gas firms in the wake of its program of privatization. This is enhanced by Albania's developed petroleum infrastructure, with three commercial refineries as well as modern port facilities located on the Adriatic Sea. There is also a well developed road system to facilitate access to drill sites and the natural gas infrastructure is also currently being expanded. However, while there has been considerable interest in securing oil prospecting licenses in recent years, natural gas is yet to be exported.

The Albanian Government has reported interest in cooperating with foreign companies for the exploration and development of hydrocarbons in all Albanian territory. This has resulted in some promising discoveries, for example: in 2008, Switzerland-based Manas Petroleum (MNAP) announced it had discovered an estimated 3 billion barrels of oil and 3 trillion cubic feet of natural gas at depth.

From 1991 to present, contracts have been signed and the following foreign companies have been involved in petroleum operation for oil and gas exploration:

Offshore:

Deminex, OMV, Beach Petroleum, Agip, Edison Gas, Chevron, BHP Petroleum, Svenska Petroleum Exploration, Occidental, Cairn Energy, Island International Exploration.

Currently the offshore blocks are divided between: Capricorn Albania (Cairn Energy Plc), Emanuelle Adriatic Energy Limited and San Leon Energy.

Onshore:

Ina Naftaplin, Coparex, Lundin Petroleum, Enterprise, Clyde Expro PLC, MOL, Hellenic Petroleum, Anschutz, IPC, Premier Consolidated Oilfields, DWM Petroleum AG, Shell. Currently all of Albania's production is consumed in the local market or shipped to Italy, 50 km to the west. In addition to local markets, Albania sits in the cross roads of several planned major gas pipeline projects from the Black Sea region to Western Europe.

Currently the onshore blocks are divided between: Bankers Petroleum, Petromanas, Stream Oil, Sky Petroleum, which lost two blocks following an international arbitration award lately.

Crude Petroleum:

Production of crude petroleum was estimated to have increased to about 3,970,000 barrels (bbl) in 2008 – an increase of about 25% compared with that of 2007.

The increase was the result of the increased production by Bankers Petroleum Ltd. The company increased crude petroleum production at the oil field Patos Marinza to an average of 5,875 barrels per day (bbl/d) from 4,724 bbl/d in 2007. By the end of 2008, Bankers Petroleum was producing up to 6960 bbl/d from the Patos Marinza field and increased the amount of proved and probable reserves by 22% to 180 million barrels (Mbbbl).

Meanwhile, the state-owned company Albpetrol reported the production of 281,147 t (1.9 Mbbbl) of crude petroleum in 2008, the same reported amount as in 2007.

Refined Petroleum:

In February 2008, the Albanian Government privatized 85% of the shares in the oil refinery named Albanian Refining and Marketing of Oil Sh.a. (ARMO) to Anica Enterprises and Mercuria Energy Group Ltd., and United States-based Refinery Associates of Texas Inc. against \$193.4 million.

Albanian Oil statistics:

- Oil - production: 6,425 bbl/day (2007 estimated)
- Oil - consumption: 30,900 bbl/day (2006)
- Oil - exports: 748.9 bbl/day (2005)
- Oil - imports: 24,860 bbl/day (2005)
- Oil - reserves: 199.1 million bbl (1 January 2008)

Albanian Natural Gas statistics:

- Natural gas - production: 30 million³ (2006)
- Natural gas - consumption: 30 million cu m³ (2006)
- Natural gas - exports: 0 m³ (2007)
- Natural gas - imports: 0 m³ (2007)
- Natural gas - reserves: 849.5 million m³ (1 January 2008)

Overall, in 2008 natural gas production increased by about 20%, crude petroleum production increased by about 25%, and production of petroleum refinery products decreased by about 14% compared with production data for 2007.



What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

Albanian oil fields:

Field	Year of Discovery	Type of Reservoir	Reservoir Depth (m)	O/G Gravity (API)	Sulphur Content (%)
Drashovica	1918	Oligo.flysch	100-200	Oil<10o	?
Patos	1927	Mess-clastics	Surf. To 1200	Oil (12-24oAPI)	2.5-6
Kuçova	1928	Mess-clastics	Surf. To 1500	Oil (13-16oAPI)	4
Marinza	1957	Mess-clastics	1200-1800	Oil (12-35oAPI)	4-6
Visoka	1963	Cret/Eoc.Carb	800-1000	Oil (5-16oAPI)	5-6
Gorisht-Kocul	1965	Cret/Eoc.Carb	1000-2500	Oil (17oAPI)	6
Ballsh-Hekal	1966	Cret/Eoc.Carb	1000-3000	Oil (12-24oAPI)	5.7-8.4
Cakran-Mollaj	1977	Cret/Eoc.Carb	3000-4500	Oil (14-37oAPI) Cond, 52 oAPI	0.9
Finiq-Krane	1973	Cret/Eoc.Carb	800-2000	Oil (<10oAPI)	3.7-4,3
Delvina	1989	Cret/Eoc.Carb	2800-3400	Oil (31oAPI) Cond, 53 oAPI	0,7
Divjaka	1963	Tort/clastics	2400-3000	Gas&Condens	Na
Ballaj-Kryevidh	1983	Plioc/clastics	300-1700	Gas	Na
Frakulla	1965	Mess/clastics	300-2500	Gas	Na
Povelca	1987	Mess/clastics	1800-3500	Gas&Condens	Na
Panaja	1988	Mess/clastics	2500	Gas	Na
Ad-4 (në det)	1994	Mess/clastics	2500-3100	Biogenic Gas & Cond, 54,3 oAPI	Na
Sqepuri	2001	Cret/Eoc.Carb	4950	Oil (37oAPI)	2,3

Currently the free onshore areas are around Southeast (Korca region) and also in the High Albania (Upnorth), while the only free offshore area is Rodoni Cape.

The table below gives detailed information about active companies in the upstream oil activities:

Albpetrol	Oil and gas production	100 % state-owned	The largest oil company in Albania, with monopoly in the oil and gas industry until 1993, when foreign companies were authorized to operate. In July 2010 it was announced that Albpetrol would begin selling its own crude freely on the market. In October 2010,
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			the government complained that management of the company was ineffective and announced plans to privatise Albpetrol, but these plans didn't succeed.
Bankers Petroleum	Oil and gas exploration/ Production	n/a	<p>Holds full rights to develop the Patos heavy oilfield with 25 year licence agreements; has obtained a Petroleum Agreement with Albpetrol. This 44,000-acre heavy oil field is the largest onshore oil field in continental Europe with 7.7 billion barrels of original oil in place.</p> <p>Since they took over operations in June 2004, production has increased from 600 barrels of oil per day (bopd) to an average of 14,120 bopd in the first quarter of 2012.</p> <p>Bankers also holds full rights to the Kuçova oilfield in Albania, which has 297 million barrels of original-oil-in-place. Bankers will be focused on creating a plan of development for this field, incorporating many of the extraction techniques utilized in the Patos-Marinza field.</p> <p>Bankers also holds a 7 year exploration licence on a 185.000 acre block named Block F, which is both contiguous to the Patos-Marinza field and is also prospective for natural gas.</p>
Stream Oil and Gas	Oil and Gas production And exploration	n/a	Stream is currently focused on the re-activation and re-development of its currently producing Albanian projects: three on-shore heavy oil fields, Cakran-Mollaj, Ballsh-Hekal and Gorisht-Kocul and one onshore producing gas field, Delvina.
Transoilgroup AG (ex IEC Visoka)	Oil Exploration/pr oduction	Transoilgroup AG	<p>Held a Petroleum Agreement with Albpetrol to develop the Visoka oilfield. Average production from the oilfield is 40 tpd of heavy oil. Under the deal, IEC Group would use a new method to intensify the extraction process through catalytic fluids.</p> <p>Currently TRANSOILGROUP, under a production sharing agreement, produces crude oil at the Visoka oil field which is located in Albania. The agreement is valid for 25 years beginning February 2012 and is extendable for an additional five years. Production commenced in February - March 2012 with the take over of 243 existing wells of which 13</p>



			were producing.
Sherwood International	Oil exploration/ Production	Bankers Petroleum: 100 % interest	In 2008, Bankers Petroleum Ltd acquired the remaining 50 percent interest in the Kucova oil field, held by Sherwood Intl.
Capricorn Albania	Oil and Gas production	Cairn Energy Plc: 100 % interest	Holds a Petroleum Agreement for the Joni 5 block offshore.
San Leon Energy (UK) (Ex - Island International Exploration)	Oil and Gas Exploration/pr oduction	San Leon Energy	In February 2011 Island International acquired a 50% equity interest Durresi oil and gas block offshore Albania from Lundin Albania BV. It has also agreed a joint venture deal with Beach Petroleum Limited for the Durresi Block. Currently is San Leon which holds a 100 % participating interest in the Durresi Block, offshore Albania. The licence area covers 4.200 square kilometers, contains the A4-1X gas/condensate discovery and several undrilled gas prospects.
Sky Petroleum	Oil and Gas Exploration/pr oduction	n/a	Sky Petroleum had been granted exclusive rights to 3 exploration blocks totalling c. 5,000 km ² , representing roughly 20% of the land mass of Albania. Block Four is located in southeast Albania, bordering on Greece; Block Five is located in SW Albania next to the Adriatic Sea; & Block Dumre is located immediately north of the Kucova oil field. Upon commercial discovery of gas, the agreement allows for development and production periods of 25 years plus extensions at the Company's option. It lost two blocks following an international award last week.
Petromanas Energy Inc	Oil exploration	Petromanas acquired 100 % of Manas Adriatic GmbH from DWM Petroleum, a wholly-owned subsidiary of Manas Petroleum.	Petromanas holds three Production Sharing Contracts with the Albanian government. Under the terms of the PSCs, Petromanas has a 100 % working interest in six onshore blocks (Block A and B (not any more since June 2013), D, E, 2 & 3) that comprise more than 1,4 million acres across Albania's Berati thrust belt. PMI has signed agreements with Shell to farm out a 50 % working interest in Blocks 2-3.



		The company's shares are listed on the TSX Venture Exchange under the symbol "PMI"	
Emanuelle Adriatic Energy Limited	Development/ production/ and sell of hydrocarbons	ILDC Energy	The company has signed a PSA (Production Sharing Agreement) with the Government of Albania about receiving rights to develop, produce and sell hydrocarbons (oil & gas) in 3 maritime blocks in the Adriatic Sea , spanning a total area of some 5,070 square kilometers off the Albanian shore and under Albanian control, subject to the signing of a detailed agreement and receiving regulatory permits.

Organisational Structure of Governance of Petroleum Sector

- Parliament of the Republic of Albania

The body determines and enacts primary energy related legislation including for the Oil & Gas sector. It also has the power to appoint and dismiss members of Electricity Regulatory Authority (ERE) from which it receives reports.

- Council of Ministers

The Council of Ministers is the Cabinet of Albania, the executive branch. The chairman, the Prime Minister, is appointed by the President and the ministers are nominated by the President on the basis of the Prime Ministerial recommendation. The Assembly of the Parliament of the Albania must give the final approval of the composition of the Council of Ministers. Such Council is responsible for drawing up both foreign and domestic policies, and directs and controls the activities of the ministries and other state organs. This Council of Ministers is responsible for approving and thus giving legal effect to San Leon PSCs and any amendments made thereto.

- The Ministry of Economy, Trade and Energy (METE)

METE is responsible for the energy sector and is responsible for the preparation of the national strategy for the energy sector, calculating demand forecasts and drafting the legal framework to support the strategy. METE oversees energy market reforms and energy security.

METE is also the representative sole shareholder of the state owned companies in the field of energy, including KESH (Korporata Elektroenergjetike Shqiptare, the Albanian Power Company), Albpetrol (Albanian Petroleum Company), and SERVCOM (State Oil Service Company). It is responsible for the

privatisation procedures of these companies. METE also appoints the members of the supervisory councils, i.e. the key company decision-making bodies, for these state owned companies.

METE is composed of four main divisions: (i) the Energy Policy Division deals with electricity; (ii) the Hydrocarbons; (iii) the Mining Division covers all areas of mining, including coal; and (iv) the Competition Division which oversees all aspects of the general reform of the energy and mining market.

METE has authority over the following agencies: (i) the National Agency for Natural Resources (NANR); (ii) the Institute for Product Quality of Oil and Gas; (iii) the Institute for Pressurized Vessels and Electricity Appliances; and (iv) the Energy Efficiency Centre Albania-EU.

- **National Agency for Natural Resources (NANR)**

The NANR was established in 2006 through the merger of five previously existing bodies, which were the National Energy Agency (NEA), the National Petroleum Agency (NPA), the Oil and Gas Institute, the Design Research Institute of Metallurgy, and the Institute of Technology extraction and processing of minerals and Research and Design Institute of Mechanics and Wood. The NANR's main mandate is to advise the government on energy issues.

Key competences and responsibilities include:

- a) Preparing the energy strategy and evaluating its implementation.
- b) Drafting primary and secondary regulation related to the energy sector.
- c) Gathering, assembling and analysing data to maintain a database, which it uses to prepare analysis and development scenarios of the energy sector and energy efficiency.
- d) Preparing annual energy balances, according to Eurostat/IEA/UNECE formats.
- e) Proposing action plans for energy efficiency and to promote renewable energy.
- f) Regulating exploration and production of hydrocarbons (upstream), including licensing; carrying out research on the exploitation of hydrocarbons.
- g) Preparing development plans for the oil and natural gas sector.

- **The Ministry of Environment, Water and Forest Management (MEWFM)**

MEWFM is responsible for the design and enforcement of state policy for environmental protection, including reasonable use of natural resources and nuclear/radioactive safety.

- **The Central Technical Inspectorate (IQT)**

The Central Technical Inspectorate was established in 2006 and is directed by the Head Inspector, who is appointed and dismissed by the Minister of METE. The structure, organization and internal functioning of the Central Technical Inspectorate are approved by the Prime Minister upon the proposal of the Minister of METE.

Its main objectives are: (i) to provide, through market surveillance, that products launched into the market are safe. This supervision is intended to protect consumers and ensure that legitimate businesses are able to compete in a fair and equitable market; (ii) to ensure that if unsafe products are found, appropriate and proportionate measures are taken in order to remove these products from the

market and, if necessary, to ensure the removal of these products from use; (iii) Ensure the proportional implementation of law, in particular, with regard to continued discrepancies found in the same business.

Are there any research or exploration activities taking place currently? If yes, by whom? Are there any exploitation/production activities taking place currently? If yes, by whom?

The licensing situation for oil exploration in Albania on February 1st, 2008 was as following:

- a) Durrës Block (offshore), awarded in 2004. Contractor and operator is Island International Exploration BV and Beach Petroleum;
- b) Block Joni 5 (offshore) awarded in 2007. Contractor and operator Cairn Energy Ltd;
- c) Blocks A and B (onshore), awarded in 2007. Contractor and operator is DWM Petroleum AG;
- d) Blocks D and E (onshore), awarded in 2007. Contractor and operator is DWM Petroleum AG.

Moreover, AKBN issued licenses to and signed agreements with Albpetrol (National Petroleum Company) for the development and production of hydrocarbons in a series of fields.

For the research of oil and gas in Albania are entered some Petroleum Agreements, under which some companies develop their activity, as follows:

For the research of oil and gas offshore:

- Production Sharing Agreement for the Block of Durrës with the company San Leon Energy, which entered into force in August 2004;
- Production Sharing Agreement for the Block of Jon 5 with the company Capricorn Albania, which entered into force in September of 2007.

For the research of oil and gas onshore:

- Production Sharing Agreement for the Blocks A + B with the company Petromanas Albania GmbH, which entered into force in December of 2007; Based on the information gathered during the logging operations at the Juban-1 well, which indicated the presence of negligible quantities of hydrocarbons, the Company has elected to not enter the third exploration phase on Blocks A-B;
- Production Sharing Agreement for the Blocks D + E with the company Petromanas Albania GmbH, which entered into force in December of 2007;
- Production Sharing Agreement for the Blocks 2 + 3 with the company Petromanas Albania GmbH, which entered into force in July of 2009;
- Production Sharing Agreement for the block F with the company Bankers Petroleum Albania, which entered into force in November of 2010;
- Production Sharing Agreement with Sky Petroleum for three blocks each: Block Four, Block Five and Block Dumre. Upon commercial discovery of gas, the agreement allows for development and production periods of 25 years plus extensions at the company's option. But it lost two blocks following an international award last week;

- Production Sharing Agreement between Emanuelle Adriatic Energy Limited with the Government of Albania about receiving rights to develop, produce and sell hydrocarbons (oil & gas) in **3 maritime blocks in the Adriatic Sea.**

Licensing status in the field of development of sources and the production of oil and gas:

- License-Agreement issued by the Ministry of Economy, Trade and Energy and the Petroleum Agreement for the source in Patos-Marinze and Kuçova oilfield between Albpetrol and Bankers Petroleum Albania, which entered into force in July 2004;
- License-Agreement issued by the Ministry of Economy, Trade and Energy and the Petroleum Agreement for the oil source Ballsh-Hekal between Albpetrol and the company Stream Oil & Gas, which entered into force in August 2007;
- License-Agreement issued by the Ministry of Economy, Trade and Energy and the Petroleum Agreement for the oil source Cakran-Mollajt between Albpetrol and the company Stream Oil & Gas, which entered into force in August 2007;
- License-Agreement released from the Ministry of Economy, Trade and Energy and the Petroleum Agreement for the oil source Gorisht – Kocul between Albpetrol and the company Stream Oil & Gas, which entered into force in August 2007;
- License-Agreement released from the Ministry and the Petroleum Agreement for the oil field Ballsh – Hekal between Albpetrol and the company Stream Oil & Gas, which entered into force in August 2007;
- License – Agreement accorded from the Ministry of Economy, Trade and Energy and the Petroleum Agreement, for the evaluation and the development of the discovery made in the Delvina Block and the production of Hydrocarbons in it, between Albpetrol and the company Stream Oil & Gas, which entered into force in August 2007;
- License – Agreement accorded from the Ministry and the Petroleum Agreement for the oil source of Kucova between Albpetrol and the company Sherwood, which has entered into force in November 2007;
- License – Agreements accorded from the Ministry and the Petroleum Agreement for the oil source of Visoka between Albpetrol and the company Transoilgroup AG.

Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

Local production of crude oil is significantly increasing in Albania, with explorations and productions being carried out with the involvement of foreign investors. The refinery business sector is 85% privatized, with 15% being retained by the State. Over the recent years there have been many changes and amendments to the hydrocarbons legislation including both laws and secondary legislation; Albania's legislation on oil exploration is harmonized with the EU Hydrocarbons Directive.

The Government of Albania has declared a National Strategy for Energy and has set key objectives for the energy sector for both the medium and long term. The sectors of electricity and hydrocarbons are the two main areas that carry the most weight in the Albanian energy system.

Under the National Strategy of Energy (2008-2020) document it is proposed that the potential investments in the hydrocarbon sector will focus on:

- (i) Investments for connecting the sector with the regional system of oil and gas.
- (ii) Increasing the domestic production of oil and gas, which will require a restructuring of the manner of management of current assets and raising expectation of the public administrative responsibility for its implementation and achievement in the petroleum sector. Also requiring investments for enhancing existing methods and using new technologies in the extraction of oil and gas are necessary.

Noteworthy is the fact, that in addition to local markets, Albania sits in the cross roads of several planned major gas pipeline projects from the Black Sea region to Western Europe. There is currently no natural gas infrastructure system in Albania. However Albania is currently envisaged to be part of the TAP (the Trans-Adriatic-Pipeline project which is currently competing with the Nabucco pipeline project) the preparation of which is underway. The TAP project would allow gas to flow directly from the Caspian region to the Albanian (besides the European markets in general) market, which will lead to lower energy prices, especially gas prices for heat and other uses by Albanian households.

How are the research, exploration and/or exploitation rights conceded? Through a tender process, direct assignment or other?

There are no express competitive or tender procedures to follow for the acquisition of PSC and license for either on-shore or off-shore blocks. The Petroleum Law simply makes reference to its obligation to submit an application and negotiate the terms and conditions of the PSC.

The Petroleum Law fails to provide for the situation where two or more applicants apply for exploration rights over the same area. Officials from the NANR have advised (orally) that a competitive procedure cannot be avoided in the case where the applications are proposed from at least two different applicants; NANR shall consider the best applicant (but not based on any published criteria).

The Albanian Concessions Law no. 9663, dated 18.12.2006 (as amended) provides for those sectors that are subject to competitive tender procedures and granted under concession, and the exploration and production within the petroleum sector is not part of the list. However under the same Law, upon proposal of the Minister of Economy, the Council of Ministers reserves the right to authorize the applicability of concession procedures in other sectors; hence could apply for new applicants in the future though there appear no indications of this.

What types of contracts are used? Product sharing, lease agreements?

In accordance with the "Petroleum Law", No. 7746, date 28.7.1993, as amended, which authorizes the Ministry to enter into a Petroleum Agreement with foreign and local oil companies, in order to grant them exclusive rights to invest for petroleum exploration and production in the territory of Albania, the Ministry of Economy, Trade and Energy offers free areas for exploration. It has declared free onshore and offshore areas open for petroleum operation and invites applications for Production Sharing Agreements.

Petroleum agreements will be in the form of **Production Sharing Contracts** signed between the Ministry of Economy, Trade and Energy represented by the National Agency of Natural Resources (AKBN) and the Contractor. The most important items of PSA are given in the "Petroleum Law" and other documents issued by Council of Ministers and Ministry of Economy, Trade and Energy.

The legislative framework offers considerable flexibility to the government in negotiating acceptable terms with oil companies, whilst at the same time these laws give incentives and enough flexibility to attract international oil companies and thus stimulate oil exploration in the country. The Petroleum Law defines the general legal framework for the performance of upstream petroleum activities, but is rather skeletal in its construction. Much is left to the negotiation of parties to a PSC.

Under the Petroleum Law the Albanian State retains title to all the petroleum deposits existing in their natural condition in strata lying within the jurisdiction of the Republic of Albania, including maritime areas. A contractor must obtain authorization from METE in order to explore for, develop or produce petroleum in Albania under terms and conditions of a Petroleum Agreement.

Under the Petroleum Law, petroleum operations in Albania may be conducted based on:

- A Petroleum Agreement entered into by the Ministry authorizing a contractor to conduct petroleum operations in the contract area, and may take the form of a Production Sharing Contract or other form. The Albanian Government has opted to use the form of PSCs
- A Reconnaissance Permit authorizing exploration by means of aerial, geophysical, geochemical, paleontological, geological topographic and seismic surveys and their interpretation. Reconnaissance Permits are non-exclusive, expire after two years, do not authorize the drilling of exploration wells, and do not confer upon the holder any preferential right to enter into a Petroleum Agreement

METE can enter into agreements with any person or company, provided that it is satisfied that the person with whom the agreement is to be made has or can acquire the financial resources and technical competence required to discharge the obligations under the agreement.

The Petroleum Agreement grants to the contractor the exclusive right to explore for a five year period which can be extended in special circumstances up to seven years, and the exclusive right to develop and produce the reserves for a period of 25 years with the right of renewal at the expiry of this period. The Government's objective is to negotiate terms with the oil industry which are fair and balanced taking into consideration the usual risks associated with exploration and the State's legitimate right for revenues as owner of natural resources.

Bulgaria

General information

The number of operative oil and gas extraction concessions is still small (below 20, most of them located in Northern Bulgaria and Black Sea shelf). The total quantities of the deposits subject to concessions are calculated at circa 2 billions m³ of gas and 139,000 tons of oil.

The upstream sector is currently facing certain problems ensuing from the moratorium on the use of fracking technologies adopted by the Parliament about a year ago for indefinite term. The wording of the moratorium has been vaguely drafted in a way which prohibits in practice (apparently not intentionally) the activities under many exploration permits already issued and not targeting specifically shale gas. Another issue faced by foreign companies are the long lasting appeal procedures initiated by local competitors against the decisions for granting of an exploitation license or extraction concession, which prevents their entry into force.

1. Oil Extraction

Local production of oil in Bulgaria is negligible. Currently production activities are being carried out by Oil and Gas Exploration and Production AD, a former state owned company which was privatised in 2004 – currently the major shareholder (holding more than 51%) is a local holding company Chimimport Group EAD.

2. Gas Extraction

The main players holding concessions are Melrose Resources, Oil and Gas Exploration and Production AD and Direct Petroleum Bulgaria EOOD. Melrose Resources is currently exploiting the fields of Kavarna – East (with gas deposits of circa 773,000,000 m³) and Kavarna and Kaliakra (with total gas deposits of circa 2,500,000,000 m³). Oil and Gas Exploration and Production AD operates concessions for extraction of natural gas in three deposits, and Direct Petroleum Bulgaria EOOD – in one deposit.

3. Prospecting and exploration licenses

Main players are: Moesia Oil and Gas plc., Rusgeocom BG EAD, Oil and Gas Exploration and Production AD, Direct Petroleum Bulgaria EOOD, Scientific Research and Services Group AD (with Iskander Energy Corp., Canada, as majority shareholder), Total E&P Bulgaria B.V. together with OMV Offshore Bulgaria GMBH and Repsol Bulgaria B.V., Overgaz Inc. AD together with Balkan Explorers Bulgaria Ltd. and JKK Bulgaria Ltd.

Legal Framework

Exploration activities may be carried out only on the basis of prospecting and exploration license issued by the Council of Ministers (“CoM”) after a proposal by the Ministry of Economy and Energy. For that

purpose, the CoM institutes a tender procedure and the bidder ranked in first place is granted an exploration license with a term of up to 5 years (with an option for up to three extensions and the total duration of all extensions can be up to 5 years, i.e. maximum 10 years in total).

Based on results from the exploration activities, the holder of the license has the right to register geological discovery (confirming geological deposits) and commercial discovery (confirming deposits suitable for commercial exploitation) of oil and gas deposits.

Extraction rights are granted by way of a concession, which entitles the holder to exploit commercially the deposit against commitment for completion of certain agreed investment program and payment of concession fees (calculated on the basis of the extracted quantities with certain minimum amount).

Following the registration of a commercial discovery the exploration license holder may submit an application for direct (i.e. without conduction of any tender procedure) granting of oil and gas concession within 6 months as of the registration. If no commercial discovery has been registered or if the license holder does not apply for a concession within the 6 month term, the CoM is competent to issue a new exploration license or to provide an extraction concession for the respective territory following a tender procedure.

The concession agreement may be concluded with a maximum term of 35 years (which term may be prolonged with up to 15 years).

Croatia

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

Yes, there have been activities of research (exploration) and exploitation of hydrocarbons in Croatia in the last 10 years. The only company that has ever held approvals for exploration of hydrocarbons and concessions for exploitation of hydrocarbons in Croatia is Industrija Nafta (INA) d.d., a Croatian company with a leading role in Croatian oil business and a strong position in the region in the oil and gas exploration and production, oil processing, and oil and oil products distribution activities, with the Hungarian MOL and the Croatian Government as its biggest shareholders. There is a risk however, that MOL may sell all or part of its stake, particularly if it is criticized for its management of INA, since Croatia has proposed talks with Hungary 's MOL over the ' future and history ' of jointly owned INA.

Meanwhile, the country is planning a licensing round for 2014 in an effort to boost exploration activity. Question marks still hang over the proposed liquefied natural gas (LNG) terminals, although Croatia is keen both to diversify the import supply and potentially build a gas trading hub. OMV has exited the country's downstream segment, and other international oil companies (IOCs) may pull out Croatian downstream activities.

Exploration activities in the North Adriatic are carried out through cooperation between INA , d.d. and its Italian partners. The Izabela Contract Area has been explored together with EDISON GAS through a joint operating company EDINA . Exploration activities in the North Adriatic and Aiza - Laura Contract Areas are carried out in partnership with ENI through the INAgip joint operating company.

In 2011 majority of exploration activities was undertaken in the North Adriatic Contract Area i.e. in the IVANA gas field neighbouring area (Ivana Block). INA launched a new cycle of exploration activities by acquiring high resolution 3D seismic in South Adriatic and 2D seismic in both Middle and South Adriatic.

What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

At the moment, there is no exploration activity of hydrocarbons in Croatia. According to the information provided by the head of the mining department of the Ministry of Economy, INA has lost all its approvals for exploration. Also, at the moment, it is only INA who holds all concessions for exploitation. According to the same source, there is a total of 60 exploitation fields (of hydrocarbons) – 57 on shore and 3 off-shore. According to the Annual Energy Report – Energy in Croatia for 2011 (the “Report”) prepared and issued by the Energy Institut Hrvoje Požar (the 2011 report is the latest available one), crude oil was

produced from 33 oil fields and gas condensation products from 8 gas-condensation fields. Natural gas was produced from 17 on-shore and nine off-shore gas fields meeting 69.9% of total domestic demand. More than half of total gas production has been gained from Adriatic seabed whilst the largest share of gas produced in Panon area is coming from the fields of Molve and Kalinovac. Gas from the Adriatic and onshore fields should deliver useful domestic volumes over the next few years. We believe output will peak at around 3.0bn cubic metres (bcm) in 2013/14. Consumption is forecast to rise from an estimated 2.9bcm in 2012 to 3.7bcm by 2017, then to 4.7bcm by 2022, requiring end-period annual net imports of up to 3.4bcm - possibly met by liquefied natural gas (LNG) imports.

Also please find herein below information on the amount of crude oil and natural gas produced in Croatia per each year. The Report does not provide for information related to each particular field. Such information is held by INA or possibly the Ministry of Economy. However, when contacted, the Ministry of Economy was reluctant to share any information save for the information on the total number of exploitation fields.

Oil and Condensate	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Production (1000t)	1 108,5	1 052,1	1 001,0	946,0	917,4	879,1	835,4	776,2	720,4	664,4
Natural Gas in 10 ⁶ m ³	1990	1995	2000	2005	2006	2007	2008	2009	2010	2011
Production	1 982,3	1 966,4	1 658,5	2 283,4	2 713,5	2 892,1	2 729,4	2 704,8	2 727,2	2 471,4

In addition, the Ministry of Economy's website contains a list of approved exploration areas and exploitation fields of minerals in Croatia. Some of them refer to hydrocarbons. Please find below a table referring to those related to hydrocarbons. We have provided you with a name of the county where the area/field is located, the number of fields in each county and the respective area covered.

HYDROCARBONS				
COUNTY	Exploitation field (numbers of fields)	Area (ha)	Exploration area (number of areas)	Area (ha)
BJELOVARSKO-BILOGORSKA	8	20.509,47	/	/
KOPRIVNIČKO-KRIZEVACKA	12	37.621,25	1	480.300,00
MEĐUMURSKA	4	9.234,50	1	304.700,00
OSJECKO-BARANJSKA	7	28.681,20	1	385.130,00



POZESKO-SLAVONSKA	1	500,00	1	68.400,00
PRIMORSKO-GORANSKA	/		2	2.146.300,00
SISACKO-MOSLAVACKA	9	13.243,50	/	
SPLITSKO-DALMATINSKA	/		2	2.070.500,00
VIROVITICKO-PODRAVSKA	4	10.399,00	/	/
VUKOVARSKO-SRIJEMSKA	3	5.900,00	/	/
ZAGREBACKA	9	21.983,80	2	1.152.500,00
CONTINENTAL SHELF	3	231.934,50	3	3.783.300,00

Please note that the production of hydrocarbons, i.e., exploitation falls under the competency of the Ministry of Economy. In addition, a new Agency for Hydrocarbons and a state owned company (the latter is a company whose primary activity would be to explore and exploit energy mineral sources) are supposed to be established with the adoption of the new law regulating exploration and exploitation of hydrocarbons.

Are there any research or exploration activities taking place currently? If yes, by whom?

According to the information provided by the head of the mining department of the Ministry of Economy, at the moment, there is no exploration activity of hydrocarbons in Croatia.

Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

According to the information provided by the head of the mining department of the Ministry of Economy, the plans are to announce tenders for exploration at the beginning of 2014, with the expectation that the first concessions will take place within 2015. Although still not confirmed the intention is to announce the tenders for 14 on shore exploration fields and 9 to 12 on shore exploration fields. Economy Minister of Croatia announced the country's intention to further open acreage for exploration, and hopes to 'secure several hundred millions of US dollars' from new contracts signed. This is likely to take place after the government maps out prospects both onshore in the central and northern areas, and offshore in the southern Adriatic Sea. The Croatian Minister also suggested that Croatia would offer 15 to 20 fields in the Adriatic that is at least 2,000 square kilometres (sq km) large to meet the request of interested parties. To our best knowledge, the last tender procedure for exploration of hydrocarbons on on-shore fields in northern Croatia was announced at the end of 2011. However, the same tender was annulled by the Government at the beginning of 2012. According to the press, four candidates purchased tender documentation for this tender - Ina, Zarubežnjeft, Vis-Viridis i CEOC. Also, few other companies were interested - Geofizika, Naftna industrija Srbije (NIS) (owned by GazpromNjeft), three Hungarian and one Canadian company. Other than this, and according to the Press, Exxon Mobil seems to be interested in the off shore (Adriatic Sea) exploration activities.



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Currently, Croatia is in talks with Exxon Mobil Co. (XOM), ConocoPhillips (COP) and General Electric Co. (GE) on investment in oil and gas exploration in the Adriatic Sea; The interested parties are expecting however the implementation of the new legislation on oil and gas research through the enactment of special legislative acts.

Are there any exploitation/production activities taking place currently? If yes, by whom?

Yes. Please refer to our answers under questions 1 and 2.

How are the research, exploration and/or exploitation rights conceded? Through a tender process, direct assignment or other?

Please note that a new Mining Act was adopted and has come into force on 18 May 2013. The main difference between the new and the old one was in the fact that the new one unifies procedures for acquisition of exploration approval and exploitation concession whereas the old one stipulated separation of the two procedures. According to the old one, whoever won the approval for exploration activities was not guaranteed to be awarded with the concession for exploitation of hydrocarbons on that particular exploration area/exploitation field. This was a big set-back for the investors and the new law has changed that.

Furthermore, please note that the adoption of a new Act on Exploration and Exploitation of Hydrocarbons (the “draft Hydrocarbons Act”) is currently undergoing a parliamentary discussion. However, it is not certain when this act will be adopted (before the end of the current session of the Croatian Parliament or in the fall of 2013). The Hydrocarbons Act is going to be a *lex specialis* of the new Mining Act in the area of exploration and exploitation of hydrocarbons. We are in a possession of a draft Hydrocarbons Act that we have acquired from the Croatian Parliament’s website. However, one must be careful when discussing the draft act as it is not certain that the final content of the adopted act will correspond to the full extent to the current draft. At this moment, there is no point to discuss the tender procedures as regulated under the Mining Act since the whole procedure for obtaining exploration approval and exploitation concession will be regulated with the new Hydrocarbons Act and according to the information obtained from the Ministry of Economy, there will be no new tender procedures before the adoption of the Hydrocarbons Act.

The draft Hydrocarbons Act stipulates unified procedure for the issuance of the exploration approval and conclusion of an agreement for commercial usage of hydrocarbons. The issuance of the approval will be executed by way of a public tender procedure which will be regulated by the decision of the Croatian Government. To our best knowledge, such decision has not yet been adopted. The Croatian Government will announce the public tender procedure if it finds necessary to determine individual hydrocarbons’ reserves. The content and the conditions for public tender as well as criteria for choosing the best bidder will be determined by the Croatian Government on the proposal of a Professional

committee. The awarding of the approval provides to its holder a right to explore hydrocarbons and automatic awarding of the exploitation concession provided that the respective exploration area shows to be commercially viable. Upon being awarded with the approval for exploration, the investor will enter into an agreement with the Croatian Government which will regulate all rights and obligations of the contractual parties. When the investor who has been awarded with the approval for exploration proves that the exploration field is commercially viable (and provided that all conditions from the agreement have been fulfilled up to that date), an annex to the agreement is going to be concluded, and such annex will be the basis for awarding the concession for exploitation of hydrocarbons.

What types of contracts are used? Product sharing, lease agreements?

The draft Hydrocarbons Act recognizes three types of the agreements:

- (i) Agreement on exploration and exploitation with obligation to pay the fee and taxes (i.e., this is a standard concession agreement; we can only assume that this type of the agreement corresponds to the lease agreement from your question);
- (ii) Agreement on exploration and division of exploitation of hydrocarbons (i.e., according to the information provided by the Ministry, this is a production sharing agreement); and
- (iii) A mix of the two above mentioned agreements.

The agreement is going to be entered into between the investor and an authorized representative of the Croatian Government, in the name and for the account of the Republic of Croatia. This agreement must be concluded within six months as of adoption of the decision on the best bidder in the public tender procedure for awarding the approval for exploration. According to the “Definitions” part of the draft Hydrocarbons Act, the fee payable by the investor in line with the draft Hydrocarbons Act and the subject agreement is the fee payable for usage of extracted hydrocarbons and the fee is determined by the Government. Please note that at the moment, certain decrees regulating the fee are in place (adopted in 2011), however these fees relate only to the standard concession (lease) type of the agreements and apparently these are also going to be amended. According to the information obtained from the Ministry of Economy, the plan is to adopt all decrees, regulations and other acts necessary to (among other) define and regulate the fee and the payment of the fee before the announcement of any public tender procedure (this includes the payments payable under the production sharing agreement).

Please note that the above is stipulated by the draft act only, and not by the final text of the Hydrocarbons Act.

FYROM

Market Overview

The energy sector in the Republic of Macedonia is marked by a total lack of activity on the upstream market for oil and gas prospecting and extraction. No concession has been issued for exploration and/or exploitation activity in the last 10 years and no such activities are taking place currently.

Legal Framework

Notwithstanding the market situation, the general legal framework for minerals provided by the Law on Minerals does include the possibility for concessions to be granted for the exploration and/or exploitation of oil and gas.

Namely, explorations may be conducted only on the basis of a concession for detailed geological explorations awarded by the Government. Any legal entity, including also foreign legal entities having a branch office registered in the Republic of Macedonia, shall have the right to be awarded such concession, under the conditions set out in the law, and shall have the right to submit an initiative for the start of such procedure to the Ministry of Economy. The concession shall be awarded on the basis of a public call by means of an auction. By exemption, the concession shall be awarded on the basis of a request where such request is submitted by public sector entities. The period for which the concession is awarded depends on the type of the minerals and it shall be up to six years for energy minerals.

The right to exploit minerals is acquired by obtaining a concession for exploitation of minerals, which is also awarded by the Government. The concession for mineral exploitation can be awarded on the basis of a public call and on the basis of a request. The concession is awarded on the basis of a request submitted by the holder of the concession for detailed geological explorations, as the owner of the results thereof, to the Ministry of Economy within a period of 120 days as of the day of expiry of the term of the concession for detailed geological explorations. Based on the Government's decision on awarding a concession for exploitation of minerals, the Government shall conclude with the concessionaire an agreement on concession for exploitation of minerals. Such concession shall be awarded for a period of 30 years, and depending on the determined ore reserves of minerals presented in the detailed report of the conducted geological explorations, there is a possibility of extension for another period of 30 years.

GREECE

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

Even though Greece has had legislation concerning the research, exploration and exploitation of hydrocarbons for many years, it only recently started taking more advanced steps to improve its productivity in this area. The research, exploration and exploitation activities for hydrocarbons are regulated by Law 2289/1995, which was significantly revised by the Energy Law, introduced in August 2011 (Law 4001/2011). The main companies that are active in the upstream activity are Hellenic Petroleum and Energean Oil and Gas.

What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

Following enactment of the Energy Law and by virtue of Presidential Decree 14/2012 the state company Hellenic Hydrocarbons Resource Management S.A. (HHRM S.A. or EDEY S.A. as per its Greek initials) was established to deal with certain matters relating to the management of the process of research, exploration and production of hydrocarbons. The existing oil fields in Greece are located in the areas of Prinos and Kavala.

Are there any research or exploration activities taking place currently? If yes, by whom? Are there any exploitation/production activities taking place currently? If yes, by whom?

Along with the exploitation/production activities which are performed by Energean Oil and Gas, there are research or exploration activities taking place in the areas of Ioannina (onshore), Katakolo and Patras Gulf (offshore), and the south of Crete.

Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

The Greek government recently awarded exploration and exploitation rights of hydro-carbon fields in Ioannina and the Patras Gulf, with estimated oil reserves of around 250-280 million barrels. More particularly, the Ministry of Environment, Energy and Climate Change announced in July 2013 the two consortiums led by Energean Oil (Energean Oil and Gas - Petra) and ELPE (ELPE - Edison - Petroceltic) which won the tenders for the research and exploitation of hydrocarbons in the areas of Ioannina and

the Gulf of Patra in western Greece respectively. Evaluation of another tender for the off shore region of Katakolo will continue with results expected in the next few days or weeks.

Meanwhile, the first results from the seismic surveys by the Norwegian company Petroleum Geo-Services (PGS) in the Ionian Sea and south of Crete have created some reserved optimism for the location of hydrocarbon reserves. PGS believes that, given the enthusiasm and the expectations found in relation to other fields in the Mediterranean, this region that constitutes the object of the next round of concessions shows great potential. Earlier reports pointed to the interest expressed by major names in the oil industry, such as France's Total and US giant ExxonMobil, along with Delek from Israel and Statoil from Norway. PGS will complete the processing of the data collected by the end of the year, so that in early 2014 Greece will be able to divide the region into blocks and announce the tenders.

How are the research, exploration and/or exploitation rights conceded? Through a tender process, direct assignment or other?

HHRM S.A. shall grant the research licence to third parties following an open tender procedure, with a decision approved by the Minister of Environment, Energy and Climate Change, for a period of up to eighteen (18) months. HHRM S.A. shall also grant, on behalf of the State, the right to explore and produce hydrocarbons in accordance with the procedures specifically described in Law 2289/1995 and more particularly either (a) upon an invitation to tender, (b) upon an application by the interested party for an area not included in the invitation to tender or (c) with an open door invitation for the expression of interest.

What types of contracts are used? Product sharing, lease agreements?

The State's rights of exploration and production of hydrocarbons are granted to third parties either (a) by the conclusion of a lease agreement; or (b) by the conclusion of a production sharing agreement, and in either case both the stages of exploration and production shall be provided for. Each agreement shall concern one or more adjacent onshore or seabed which shall comprise the initial exploration area for the discovery of hydrocarbon deposits ("Contract Area"). The Contract Area shall eventually be restricted to the area where commercially exploitable hydrocarbon deposits have been discovered ("Production Area").

Under both agreements the contractor assumes the obligation to plan and perform the exploration and production of hydrocarbons and their by-products and has the exclusive right to do so. The contractor provides, at its own expense, the necessary technical equipment, materials, personnel and funds required for the performance of the project, and bears the entire financial risk in all events, particularly if no commercially exploitable deposit is discovered or if the profit made on the yield from a deposit is insufficient. The contractor manages the project, which shall be carried out in accordance with the international models for the exploration and production of hydrocarbons and pursuant to work programme and budget

which has been approved by the employer or the lessor, as the case may be, and bears the risk throughout the entire term of the agreement.

Under the production sharing agreement, in the event of the discovery and production of hydrocarbons, the contractor shall retain part of each calendar year's total production of Hydrocarbons and by-products of each Production Area in order to cover the relevant expenses specified in the Law. The remainder of the production from the Production Area in question together is shared between the employer and the contractor on the basis of a fixed and agreed upon percentage (production sharing).

Under the lease agreement, in the event of the discovery of a commercially exploitable deposit, the contractor, by notification to the lessor, becomes lessee of the right of production of the deposit. As a result, it is obliged and entitled to produce hydrocarbons and their by-products and to market the same for his own benefit, either in their crude state or following the processing thereof, excluding refining, by paying to the lessor the rent and the relevant tax. The rent is due to the lessor under any circumstances, irrespective of whether the contractor realises a profit or not. It is agreed that the rent will be paid in kind or in cash, at the lessor's option. In the first case, the rent shall be determined as a percentage of the quantity of hydrocarbons produced and in the second case as a percentage of their value, as provided under the agreement.

Presidential decrees, which are issued following a proposal of the Minister of Environment, Energy and Climate Change specify in detail the terms and conditions of the agreements such as the contents and the timetable for the submission for approval of the exploration and production programs and the expenditure budgets.



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MONTENEGRO

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

There was no serious research/exploration/exploitation in this field, within the territory of Montenegro in the last 20 years. Last official explorations were performed in 1990's, whereas the exploration of the American company "*Chevron*" is considered as the most serious one, when they have made a dozen test wells in the southern Adriatic sea.

Total surface area of exploration blocks (explored so far in Montenegro) amounts to 21,500 km², whereas 13,000 km² belong to the land and remaining 8,500 km² is located under the sea. All those exploration activities were performed by the state-owned company "*Nafta Crne Gore*", whose activities were taken over by the middle of 1970's, by another formerly state/owned company "*Jugopetrol Kotor*". In cooperation with various foreign oil companies, Jugopetrol Kotor have performed the most serious exploration ever performed (until that time) installing several wells, both on the land and at the sea. **However, none of these explorations have resulted in finding of oil or gas in explored territory.**

What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

Pursuant to data stated in draft of the Energy Strategy of Montenegro until 2030 (public discussion ongoing), **Montenegro does not have its own production, has no refineries and no plans to build them.** Petroleum products are fully imported from abroad, mostly from Greece, as the Greek oil company "*Hellenic Petroleum*" has acquired major quota of total share capital of the Jugopetrol Kotor and now represents the most significant company operating in this field.

Are there any research or exploration activities taking place currently? If yes, by whom?

There are no research or exploration activities currently being performed, but a tender procedure for the exploration and exploitation of oil was recently announced by the Government of Montenegro.



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Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

Upon adoption of relevant legislation in 2010 and 2011, which sets forth the legal framework for exploration and production of oil and gas (i.e. adoption of Law on Exploration and Production of the Hydrocarbons, Decision on Determination of the Blocks for Exploration and Production of the Hydrocarbons, Decision on Determination of the Blocks for Production of the Hydrocarbons in Seabed, etc.) the Ministry of Economy of Montenegro published on 7th of August, 2013 the First Round for the Production Concession Contract, under the Law on Exploration and Production of Hydrocarbons, according to which the deadline for submission of applications/bids expires on 28 February 2014. The First Round includes 13 off shore exploration blocks in the Adriatic Sea near Ulcinj covering area of a total surface of 3.191 sq km. The Government of Montenegro organized the event for the First Offshore Bid Round for Hydrocarbons Exploration and Production in Montenegro. The inauguration event for the First Offshore Bid Round for Hydrocarbons Exploration and Production took place on 1st of November 2013 and was attended by companies from oil and gas industry, representatives of the international development community and Montenegrin officials at the highest level.

Other exploration blocks are located northern of Budva, towards Kotor Bay and Prevlaka (located on border between the Montenegro and Croatia, which is the subject of a territorial dispute between these two countries). Pursuant to unofficial information, it is possible that Montenegro and Croatia organize a joint tender procedure for the exploration and production activities within the disputed area.

The Government of Montenegro has recently adopted the fiscal policy which envisages that the state shall gain around 65-75% of total profit, accomplished by the concessionaire company gained in performing of exploration/production activities. In the same time, state plans to provide full and sole responsibility of the concession company for all exploration costs and for risks of possible failure of the research, i.e. failure in finding oil and gas.

Are there any exploitation/production activities taking place currently? If yes, by whom?

Starting from October 2011, when official access to the Montenegrin exploration data was opened, many oil companies visited Data Room such as, Noble Energy inc. (U.S.), Edison (Italy), Exxonmobil (U.S.), Novatek (Russia), Eni (Italy), Anadarko Petroleum Corporation (U.S.), INA – Industrija Nafta (Croatia), Ix Nippon Oil & Energy corporation (U.K.), Total s. a. (France), Hess corporation (U.K.), Hellenic Petroleum (Greece), Energean Oil & Gas (Greece), NIS (Serbia), Statoil (Norway), Wintershall (Germany), Woodside Energy (Germany), RWE DEA A.G. (Germany), Marathon Oil (U.S.), Petroceltic (Ireland) and Romgaz (Romania).

Please see also comments under points 3 and 4 above.



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How are the research, exploration and/or exploitation rights conceded? Through a tender process, direct assignment or other?

Pursuant to the Law on Exploration and Production of the Hydrocarbons (*Zakon o istraživanju i proizvodnji ugljovodonika*, Official Gazette of Montenegro no. 41/10 and 40/11) (the “**Law on Hydrocarbons**”), exploration and exploitation of hydrocarbons explicitly excludes the application of any other law that is generally applicable to exploration and production of minerals other than hydrocarbons, such as the general Concessions Law, the Law on Mining and the Law on Geological Exploration.

Key stakeholder in Montenegro, in the domain of hydrocarbons, is the Ministry for Economy in charge of all legal, administrative and technical issues related to the application of the Law on Hydrocarbons. According to the Law on Hydrocarbons, the administrative regulatory body supposed to be incorporated in order to perform all of the mentioned functions (such as preparation of the public invitation, receipt of the bids, ranking of the bidders etc.).

The activities of exploration and production of hydrocarbons may be performed only based on a **concession** awarded by the Government of Montenegro (for exploration) or the Parliament (for production). Concession is granted **under the special rules and procedure of the Law on Hydrocarbons** but not under the general rules of concessions laid down in the MNE’s general concession law.

What types of contracts are used? Product sharing, lease agreements?

The regulatory framework prescribes for both possibilities since the fees payable by the concessionaire are the surface fee and the royalty fee, the latter may be payable as a pecuniary amount or in-kind. Currently, there is no concession agreement in place so there is no practice to discuss.

Romania

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

There has been rather significant research, exploration and exploitation activity in Romania during the past 10 years. We would note, in this respect, the several concession rounds which lead to the granting in concession of a rather significant number of oil fields.

Among the most relevant active companies in the upstream part we would note, by example: Petrom (the largest oil company in Romania), Romgaz, Rompetrol Group, ExxonMobil, Zeta Petroleum, Melrose Resources, Regal Petroleum, Amromco etc.

What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

The authority regulating and supervising the Romanian petroleum sector is NAMR, which grants the concessions and permits based on which the exploration and exploitation & production activities are carried out in the oil sector. The Ministry of Economy also has some limited competencies in the field.

Please note that there is no consolidated official list of the existing oil fields currently available, only some limited information being provided in this respect. We would note that a large part of the exploration oil fields and most of the exploitation & production oil fields are currently concessioned to Petrom and Romgaz, state companies. However, the concession of oil activities is opened to all companies meeting the required conditions and currently there is also a significant number of Romanian and foreign companies engaged in this sector. For exemplification in this respect, please refer to the answer provided at number 3 below.

As regards the overall oil capacity, there is insufficient official data available, however, pursuant to the Energy Strategy for the period 2007 - 2020 (approved by Government Decision no. 1069/2007), there are some estimations regarding the evolution of the oil reserves until 2020, according to which the estimated oil reserve appears to be of 52 million tons at the level of the year 2013.

Are there any research or exploration activities taking place currently? If yes, by whom?

The research and exploration activities are currently carried out by the relevant titleholders of concession agreements as well as by the holders of prospecting permits.

Pursuant to the information available on the website of NAMR, the companies carrying out exploration activities in Romania on the basis of concessions in force appear to be: Petrom, Romgaz, Rompetrol, Zeta Petroleum, Petro Ventures Europe, Lukoil Overseas, Vanco International, Melrose Resources, Petromar Resources, Chevron Rom Exploration & Production, Universal Premium, Winstar, Stratum Energy Romania, Sterling Resources, Regal Petroleum, Raffles Energy, Moesia Oil & Gas, Midia Resources, Transatlantic WWW Resources, ExxonMobile, Europa Oil & Gas, CNH, Carpathian Energy, Amromco, Amro Gold Oil.

Other concessions are expected to enter into force, the titleholders of such being, pursuant to public available information on the website of NAMR: Audax Resources, Mol Hungarian Oil & Gas, Expert Petroleum, East West Petroleum Group and Clara Petroleum.

Please note that the list of entities carrying out exploration activities on the basis of prospecting permits is not publicly available.

Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

Pursuant to our knowledge, after the 10th concession round initiated in 2009 it would appear that it is expected the start of an 11th concession round. No official information is available at this stage as regards the oil fields envisaged to be concessioned, nevertheless, pursuant to some limited information in the media, it would appear that such oil fields will be mainly exploitation & production ones, which had been concessioned to other companies in the past.

Also, it is rumored that NAMR will organize a separate concession round for 10 oil fields which were not awarded during the 10th concession round.

However, please note that this is unofficial information, which was not verified/ confirmed.

Finally, the Prime Minister of Romania recently announced that the state company Romgaz will enter into partnership with OMV Petrom and Exxon Mobil in the Black Sea, without however making any reference to any details regarding the area of exploitation in which Romgaz will be partner with OMV Petrom / Exxon Mobil.

Are there any exploitation/production activities taking place currently? If yes, by whom?

The exploration and production activities are currently carried out by the relevant titleholders of concession agreements.

Pursuant to the information available on the website of NAMR, the companies carrying out exploitation and production activities in Romania on the basis of concessions in force are mainly Petrom and Romgaz.

Unfortunately, an official list of all titleholders of exploration & production concessions is currently not available.

How are the research, exploration and/or exploitation rights conceded? Through a tender process, direct assignment or other?

All natural resources are the exclusive property of the state and the legal entity interested in obtaining the right to perform oil related operations must be granted with specific oil concessions/ permits/licenses.

NAMR is in charge of granting concessions for petroleum activities (such as exploration, development, exploitation, storage, transmission, transit, etc.) and public assets related thereto. The concession is awarded by way of public tender, for a term of 30 years, with the possibility of extension for another 15 years.

NAMR may also grant prospecting permits allowing the titleholder to undertake exploration activities in a specific concession block, for a maximum period of three years.

The concession takes the form of a petroleum agreement ("acord petrolier", in Romanian), concluded between NAMR and the Romanian or foreign legal entity being awarded the public tender. The concession enters into force subject to specific governmental approval.

What types of contracts are used? Product sharing, lease agreements?

Only concession agreements are used, on the basis of which the titleholder is granted the right to carry out petroleum activities and in exchange it must pay a petroleum royalty to the state budget for the entire duration of the concession, the percentage of the royalty payable by the titleholder of the petroleum agreement being determined in consideration of the type of activity undertaken by the titleholder (i.e. production, transit and transport, underground storage of natural gas).

The Prime Minister of Romania recently announced that the government will increase the royalties that will be paid by the companies that have exploration licenses for all mineral resources. The Prime Minister also said that the negotiations with Petrom about the royalties paid by the company have already started.



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Serbia

Has there been any research, exploration and/or exploitation activity in the last 10 years? Which companies are active in the upstream activity?

Based on the publicly available information, a former state-owned company Naftagas was the only concessionaire accredited for researching, exploration, exploitation and production activities in the field of oil and gas within the Republic of Serbia for more than 60 years. As of 1991 Naftagas operates as a part of Naftna Industrija Srbije (“NIS”), the former state owned oil and gas monopoly. In 2009 Republic of Serbia sold the majority ownership in NIS to Gazprom Neft, as a part of a wider Inter-Governmental Treaty on Cooperation in the Energy Sector concluded between the Republic of Serbia and Russian Federation.

NIS holds the license for geological explorations of oil and gas in the exploration area south of Sava and Danube river valid until 31.12.2019. In the territory of Vojvodina, NIS holds the license for geological explorations of oil and gas valid until 31.12.2015, whereas the extension of its validity until 2020 is under way.

There are no precise data on research/exploration/exploitation activities limited to the period of last ten years. However, during this long period of exploration tradition in Serbia, more than 2200 exploratory, outpost and development wells for oil and gas and 75 hydrothermal wells have been drilled. 99 oil and gas fields have been discovered with 271 defined reservoirs. 2D seismic explorations were conducted in the range of 54.000 km in the period between 1956 and 2011 in the exploration area of Serbia. The implementation of 3D seismic explorations started in 1991. So far 3D seismic explorations have been conducted in the total area of about 1500 km². In 2011, four exploratory wells were drilled and 1160 km of 2D seismic explorations and 3D seismic explorations were conducted in the territory covering 532km².

What is the current state in the upstream market (existing oil fields + capacity, names of active companies, State organizations involved, etc)?

The whole territory of Republic of Serbia is divided into two major oil sectors. An area located below Sava and Danube river (central Serbia) and the north area in the Autonomous Province of Vojvodina. Pursuant to the energy balance of the Republic of Serbia for 2013, oil and gas production in Serbia is carried out in 59 oil fields with 815 wells (with undefined capacity) with different methods of exploitation. As mentioned, NIS is the only company in Serbia authorized to perform oil and gas exploration and production. NIS owns two refineries one in Pancevo and another in Novi Sad with total processing capacity of 7.3 million tons of crude oil per year. Total planned production of petroleum for 2013 in Serbia amounts to 3,273,000 tones. NIS’ projected investments in oil exploration and production



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for 2013 amounts to approximately EUR 250,000,000, while it is planned to produce around 1,2 million tons of crude oil from the fields in Vojvodina.

According to official data, it is estimated that in 2013, 43% of crude oil will be from domestic production while 57% will be imported. Both domestic and imported crude oil will be processed in NIS's refineries into oil derivatives.

It is estimated that 80% of domestic needs for oil derivatives will be settled by production in NIS's refineries, while the remaining 20% will need to be imported.

Are there any research or exploration activities taking place currently? If yes, by whom?

NIS performs drilling activities on sites around Srbobran (near Turija) and in central and northern Banat, while geological surveys are carried out in the northern Backa, Srem and in central region of Serbia. Most recent activities relate to fields in Majdan (located in Banat, Vojvodina) and on the mountain Jelica where the drills are installed at a depth of 3,500 and 2,000 meters and the results of exploration are still awaiting.

Are there plans for research or exploration activities (ex. tenders, bid offers etc.)? Who are the players involved in this process (prospective bidders etc.)?

NIS performs its geological explorations in accordance with the adopted Strategy of geological exploratory activities 2011-2020. The strategic plan defines potential localities for 2D and 3D seismic explorations and exploratory drilling and a preliminary plan of investments for this period has been set up, as well as preliminary budgets for oil and gas exploration projects by 2020. It is planned to invest about 450 million EUR in geological exploratory works in the territory of Vojvodina and central region of Serbia by the end of 2020.

It is also expected announcement of tender procedure for exploration and production of oil shale within the territory of the Republic of Serbia.

NIS has shown a public interest to enroll in this procedure, as the part of consortium which may be formed, as intended, with the most significant global companies, such as "Shell", "Chevron", etc.

Are there any exploitation/production activities taking place currently? If yes, by whom?

Besides the pre-exploitation activities described under point 3 above, the production in Serbia is conducted in the NIS' production units located in Zrenjanin (a unit called "Srednji Banat"), Kikinda



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("Severni Banat") and Becej ("Backa"). The production is carried out on 53 oil and gas fields i.e. 20 oil fields, 7 oil and gas fields and 26 gas fields on 650 wells currently in operation.

**How are the research, exploration and/or exploitation rights conceded?
Through a tender process, direct assignment or other?**

NIS has exclusive and sole right to research, explore and exploit oil and gas within the territory of Republic of Serbia until the end of 2019. These rights were acquired in the past, before the opening of the Serbian market, outside of tender procedure.

What types of contracts are used? Product sharing, lease agreements?

NIS does not have a specific exploitation contract in place. According to the law there is no product sharing and the concessionaire is obliged to pay annual exploitation fee. This fee amounted to 3% of the annual revenues but has been increased in 2011 to 7%. However, Gazprom Neft as the owner of NIS claims that they were guaranteed stability of fee and tax system and require implementation of the lower exploitation fee of 3%.