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Southeastern Europe

The countries of Southeastern Europe-- Romania, Bulgaria, and Moldova-- occupy a strategic location on the Black Sea, exporting electricity through the Balkans and transporting Russian natural gas to Western Europe and Turkey. Southeastern Europe is also a potentially significant transit region for Caspian oil exports to Europe.

Note: Information contained in this report is the best available as of March 2005.



GENERAL BACKGROUND

Although the countries of Southeastern Europe-- Romania, Bulgaria, and Moldova-- have been independent democracies since the 1991 fall of the Soviet Union, each has had problems transitioning from a centrally-planned economic system to a market-based economy. Both Bulgaria and Romania were significantly affected by the economic embargo placed on [Yugoslavia](#) in the 1990s, suffering billions of dollars in losses due to disrupted trade, transport, and investment.

While Moldova was less affected economically by the wars in the former Yugoslavia, its own civil war began soon after its independence, paralyzing

the country's already stagnant economy. Armed conflict has subsided, but [Russian](#) settlers and Moldovans on the left bank of the Dnistr River still maintain the secessionist Trans-Dniestr Republic, created when the fighting reached a stalemate.

Both Romania and Bulgaria joined the North Atlantic Treaty Organization (NATO) in March 2004 and aspire to European Union (EU) accession in 2007. Romania concluded energy negotiations necessary to EU membership in June 2004, and in October 2004, the European Commission (EC) designated Romania a "functioning market economy," a prerequisite to EU membership. In February 2005, Bulgaria announced that its energy sector was 66 percent privatized in accordance with EU directives. Both Romania and Bulgaria are working with the International Monetary Fund (IMF) to bolster their economies, showing solid gross domestic product (GDP) growth rates of 8.5 percent in Romania and 5.5 percent in Bulgaria in 2004. Although Moldova's economic progress

has been hindered by its unresolved civil conflict, some privatization has occurred since independence.

OIL

Romania, Bulgaria, and Moldova are all net oil importers, depending primarily on Russia for most of their supply. Although Romania is the largest oil producer in Central and Eastern Europe with reserves of 956 million barrels, its oil production has fallen from 252,000 barrels per day (bbl/d) in 1980 to 114,000 bbl/d in 2004. Neither Bulgaria nor Moldova produces significant quantities of crude oil.

Romania

Romania dominates Southeastern Europe's downstream petroleum industry, with ten of the region's eleven refineries. Because its refining capacity far exceeds domestic demand, Romania exports a wide range of oil products and petrochemicals. The World Bank has pressured Romania to reduce its refining capabilities, as nearly all of its refineries operate below capacity due to a lack of crude

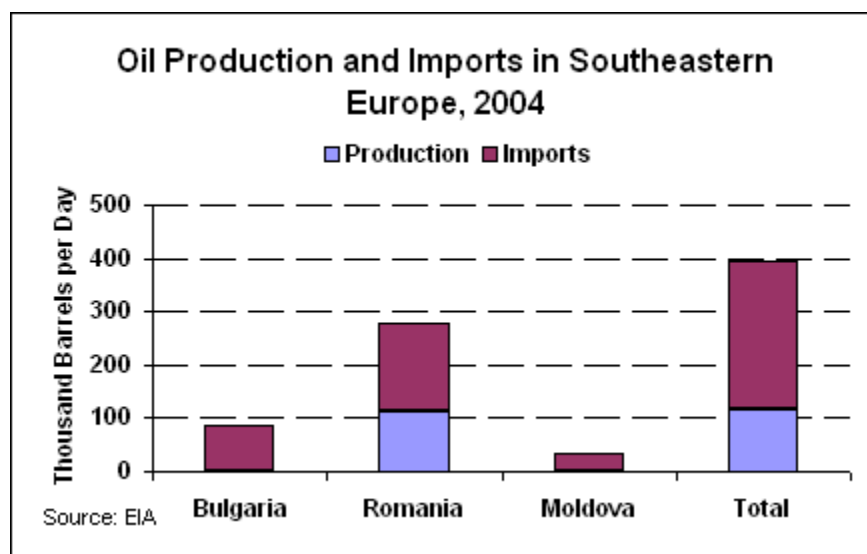
oil supplies and a need for equipment repair. Romania recently privatized several refineries, including Petrotel (majority owned by Russia's LUKoil) and Petromidia (controlled by Dutch Rompetrol Group). LUKoil restarted the 104,000-bbl/d Petrotel refinery in October 2004, after two years of necessary upgrades to meet EU fuel standards. The Arpechim and Petrobarzi refineries are currently seeking additional investment. In March 2004, South Korean LG International announced an agreement with SNP Petrom (Petrom), the state oil company, to build a 24,000-bbl/d refinery at Pitesti near Bucharest. Construction is expected to begin in April and take 21 months.

In December 2004, the Romanian government finalized the \$1.5 billion sale of a 51 percent stake in Petrom to Austria's OMV. In January 2005, the Romanian government announced plans to sell an additional 10 percent stake in Petrom on the Bucharest Stock Exchange (BSE). Petrom accounts for the majority of all Romanian oil production at approximately 120,000 bbl/d of oil and 6.1 billion cubic feet (Bcf) of gas in 2004.

In September 2004, Rompetrol announced plans to spend \$9 million over three years for exploration in the Zegujani and Satu Mare blocks in western Romania. Plans include spending an additional \$12 million if reserves prove to be commercially recoverable. In October 2004, OMV announced plans to sell its 25.1 percent stake in Rompetrol to Swiss-based Rompetrol Holding.

Romania imports oil via the Black Sea through two major ports, Constanta and Tulcea, giving the country the capability to be a major energy transport point. Because of its perceived strategic importance, the Romanian government has no plans to privatize Conpet, the state-owned oil transport company, which operates the national pipeline system.

Bulgaria



Bulgarian oil and gas exploration occurs predominately in the northern part of the country and the Black Sea. In January 2005, the Bulgarian government offered the offshore Shabla block in the northern Black Sea shelf under a three-year exploration license. Potential reserves are expected at 200 million barrels. Interest in exploration around Pleven on the Bulgarian-Romanian border has also increased. Melrose Resources (Melrose) began its latest offshore Bulgarian oil and gas search in September 2004. In December 2004, the IMF earmarked \$25 million for Melrose's exploration in Bulgaria and Egypt.

Bulgaria's geographic location on the Black Sea gives it the ability to serve as a transit route for Caspian Sea oil exports headed to European refineries, as well as a transit point for Russian gas exports to Turkey. Oil is imported through Bulgaria's main port at Burgas, where both the oil terminal and refinery are connected by pipeline to several Bulgarian cities.

Actual Bulgarian refining capacity is estimated at 115,000 bbl/d. In February 2005, LUKoil announced renewed plans to acquire the 6.75 percent stake that it does not own in Bulgaria's largest refinery, Neftochim (named capacity of 140,000 bbl/d), on the BSE. LUKoil has also pledged \$408 million by 2005 to modernize the refinery, located in Burgas. In February 2005, LUKoil stopped shipments of petroleum products to Petrol, Bulgaria's leading fuel retailer, claiming that the Bulgarian company has an unpaid debt to the Russian oil major.

Moldova

In October 2004, the Moldovan government announced plans to build a \$220 million refinery linked to the Ukraine's 180,000-bbl/d Brody-Odessa oil pipeline. The refinery will allow Moldova to import crude oil and process it domestically. In February 2005, Azerbaijan's AzPetrol Moldova Company purchased the unfinished Giurgiulesti Oil Terminal in southern Moldova on the Danube River. Plans include the construction of a sea/river port and another oil refinery for completion within seven years.

OIL TRANSIT

Located on the western shores of the Black Sea, a major thoroughfare for world oil exports, the countries of Southeastern Europe hope to grow as transit centers, carrying Russian and Caspian Sea Region oil to market in Europe. Several pipelines are currently in various stages of construction and development.



The Albania-Macedonia-Bulgaria Oil Pipeline (AMBO)

Because oil exports from the Caspian Sea region are projected to increase rapidly in the next decade, several oil pipeline proposals to bypass Turkey's increasingly congested Bosphorus and Dardanelles straits (see map) are under consideration or in development. The 570-mile, 750,000-barrel-per-day (bbl/d) AMBO pipeline will connect the Bulgarian Black Sea port of Burgas with the Albanian Adriatic port of Vlore, allowing seaborne oil exports from Russia and the Caspian Sea region to flow overland between the Black Sea and the Adriatic. In December 2004, AMBO announced that front-end engineering and design (FEED) on the \$1.2-billion pipeline would be completed in early 2005 following the December 28, 2004 signing of a memorandum of understanding (MOU) by ministers from Bulgaria, Albania, and Macedonia. Construction is expected to begin within the next 12 months for operation within three years.

Burgas-Alexandroupolis Pipeline

In January 1997, Bulgaria, Greece, and Russia agreed to build a \$700-million oil pipeline linking the Bulgarian Black Sea port of Burgas with Alexandroupolis on the Mediterranean coast of Greece (see map). As originally conceived, the proposed 178-mile underground pipeline would allow Russia to export oil (up to 300,000 bbl/d) via the Black Sea while bypassing the Bosphorus. The project has been stalled for several years by a wide range of technical and economic issues. Although Russia, Greece, and Bulgaria signed a memorandum on the commencement of pipeline construction in November 2004, the countries did not complete an MOU by the end of the year as promised due to Russian's support of AMBO as an alternative to the Burgas-Alexandroupolis pipeline. Greece continued to lobby for construction of the pipeline in early 2005, with the final signing of an MOU expected on April 15, 2005. Concerns about whether the southern Balkans need both the AMBO and Burgas-Alexandroupolis pipelines may inhibit investment necessary to the construction of one of the pipelines in the future.

South-East European Line (SEEL)

The SEEL proposal entails development of a pipeline connecting the Romanian Black Sea Port of Constanta with Italy's Adriatic port city of Trieste. The Romanian-proposed crude oil pipeline (previously known as the Constanta-Omisalj-Trieste Pipeline) will extend across Romania to the Serbian town of Pancevo (near Belgrade) where it will connect to an existing branch of the Adria pipeline that runs across Serbia and Montenegro, Bosnia and Herzegovina to Trieste. Although a

previous proposal planned for the pipeline to end at the the Croatian Adriatic port of Omisalj, Croatian environmental concerns forced a revision in the route. Countries along the route plans to incorporating existing connections between Constanta and regional refineries into the SEEL pipeline. In November 2004, the governments of Romania, Serbia-Montenegro, Croatia, Slovenia, Italy, and Austria agreed to endorse SEEL and its connection with the TransAlpine pipeline, which supplies refineries in Austria, Germany and the Czech Republic. In February 2005, Hill International Company completed a feasibility study on the pipeline. Construction is scheduled to commence in late 2005, with inflows of 480,000 bbl/d expected by 2007.

NATURAL GAS

Romania

According to 2005 *Oil and Gas Journal* estimates, Romania contains natural gas reserves of 3.6 trillion cubic feet (Tcf). Although it is central and eastern Europe's largest producer of natural gas (470 Bcf in 2002), Romania's production has fallen significantly in recent years. Because the country's domestic demand of 646 Bcf (2002E) is the highest in the region, imports of Russian natural gas are delivered via the south-bound Progress pipeline.

Romania's offshore Galata field, with proven reserves of 65 Bcf and proven plus probable reserves of 90 Bcf, is the country's largest natural gas field. The Galata field began commercial production in June 2004 following the completion of a 36-mile pipeline linking it with Varna. Initial deliveries were estimated at 26.5 million cubic feet per day (Mmcf/d).



Attempts to privatize two regional gas distribution companies culminated in August 2004 when the Romanian government announced the sale of a 51 percent stake in Distrigaz Nord to Germany's Ruhrgas and a 51 percent stake in Distrigaz Sud to Gaz de France (GdF). Although the Romanian natural gas market is still heavily regulated, the government has gradually opened the market since 2001, reaching a 40 percent opening in 2004. The government plans to fully open its natural gas markets by July 2007 in accordance with EU directives on a common gas market. In October 2004, both Ruhrgas and GdF announced interest in purchasing shares in Romgaz, the Romanian gas company, when the government decides to sell its stake in the company.

In August 2004, a joint venture (JV) between Gazprom (Russia) and Wintershall (Germany) signed an MOU with Romgaz and Transgaz to build a natural gas pipeline from the Seceava region of Romania to the Ukraine. The JV will operate under the name Wintershall Erdgas Handelshaus (WIEH).

Bulgaria

Bulgaria is dependent on imports for virtually all of its domestic natural gas consumption. In 2002, the country produced only 0.1 Bcf of natural gas, while consuming 174 Bcf. Although Bulgaria's long-term gas supply agreement with Russia's Gazprom officially expires in 2010, Bulgaria and Russia tentatively agreed in October 2003 to extend the agreement for another 10-15 years. The majority of Russian natural gas piped to Bulgaria through the Progress pipeline moves on to other markets. The two countries expect the volume of transit gas to grow to 0.66 Tcf by 2010 as a result of Gazprom pledges to invest in Bulgaria's natural gas infrastructure.

Negotiations concerning the Nabucco project between the natural gas companies of five countries--

Bulgaria's Bulgargas, Romania's Transgas, Turkey's Botas, Hungary's MOL, and Austria's OMV--concluded in February 2004 when Nabucco Company Pipeline Study GmbH was formed to undertake construction of the methane-transfer pipeline network. The Nabucco project aims to transport methane from the Caspian Sea and Central Asia, including Iran, Adjerbadjan, Turkmenistan, and Kazakhstan, to the countries of Central and Eastern Europe. Completion of the 2,100-mile pipeline is slated for 2010. Bulgaria expects to collect up to \$100 million annually from the 250-mile stretch through its territory.

In August 2004, Bulgarian natural gas company Overgas, Dor Gas Elran Infrastructures, and Africa-Israel Investments signed an agreement to build a gas transportation network in Bulgaria. Construction on a main gas pipeline and smaller distribution pipelines to supply half of Central Bulgarian households will take approximately four years.

Moldova

Moldova has no natural gas resources and is entirely dependent on Russia to meet its consumption (78 Bcf in 2002). Russia's gas monopoly, Gazprom, has reduced supplies to Moldova in recent years as a result of the country's delinquent debt. Moscow has suggested that Moldova surrender its oil, gas and electricity assets to Russia in exchange for a debt write-off. In June 2004, Gazprom also announced plans to stop natural gas supplies to Moldova's break-away republic of Trans-Dniester until its debt to the Russian company has been addressed.

COAL

Bulgaria and Romania have coal reserves of 3.0 billion short tons (Bst) and 1.6 Bst, respectively. Both countries produce low-quality lignite (brown coal) and import anthracite (black coal) for use in thermal power plants. Bulgaria produced 28.4 million short tons (Mmst) in 2002, importing 4.0 Mmst; Romania produced 33.6 Mmst in the same year, importing 2.7 Mmst. Bulgaria's Maritsa Iztok coal basin, the largest in the country, accounts for up to 80 percent of Bulgarian coal production. Much of the coal from the Maritsa Iztok coal basin is used at three coal-fired power plants at the Maritsa Iztok complex, all of which are specifically designed to operate using low-quality coal.

Moldova has no known coal reserves, importing 0.2 Mmst for domestic use in 2002.

ELECTRICITY

Bulgaria

Two nuclear plants, one with four working reactors in Bulgaria and one with a single working reactor in Romania, account for approximately one fourth of all the electricity generated in Southeastern Europe. The Bulgarian facility, Kozloduy, has allowed the country to become a significant power exporter, with the Bulgarian national electric company, Natsionalna Elektricheska Kompania (NEK), planning to export 100 MW of electricity in 2005. The Bulgarian government agreed to decommission Kozloduy's reactors No. 3 and No. 4 by 2006 due to EU safety concerns. Although Bulgaria has announced that it will seek monetary compensation from the EC for the closure of the plant, the decision has been met with court battles indicating the closure of the reactors is in violation of Bulgarian law. In June 2004, German firms GNB and RWE Nukem were awarded a contract to build a nuclear waste facility at the Kozloduy plant for operation in 2008. In January 2005, Bulgaria announced plans to have its second nuclear plant, Belene, operational by 2011. Design and construction will be supervised by Parsons Europe Ltd.

**Electricity Generation by Type in
Southeastern Europe**

Adhering to EU standards, Bulgaria expects to fully liberalize its power market by

2007, most notably by privatizing NEK after 2007. Privatization will allow all consumers to purchase electricity supplies directly from the producers. In September 2004, Bulgaria's Privatization Agency (PA) completed the sale of 67 percent of the country's electricity distribution companies. In January 2005, the PA announced that 11 international energy companies are eligible to place bids in the privatization of the Varna, Babov Dol, and Rousse power plants (total capacity 2,000 MW). Bids must be submitted by March 30, 2005.

The Maritsa Iztok complex, consisting of three coal-fired plants (2,950 MW capacity), produces approximately 65 percent of power generated by Bulgarian coal-fired facilities. Coal used in the plants comes from the adjacent Maritsa Iztok basin, which accounts for 80 percent of the coal produced in Bulgaria. Enel (Italy) and Entergy (United States) are currently modernizing Maritsa Iztok-III for completion in 2006. The \$645 million project anticipates increasing the capacity of the plant, extending its operating life, and reducing its level of pollution in accordance with EU standards. In December 2004, the European Bank for Reconstruction and Development (EBRD) announced that it would finance an 11-year loan for the purchase of smokestack "scrubbers" to reduce sulfur dioxide emissions at Bulgaria's Matitza East II power plant. In January 2005, US-based AES Corp. announced plans to begin construction of the 640-MW Maritsa Iztok-1 plant by the end of 2005. The plant is expected to begin producing electricity in 2008.

Bulgaria has 64 hydropower plants (2,729 MW of installed capacity), accounting for 19 percent of the country's overall generation. In April 2004, Bulgaria and Austria began construction on the 85-MW Tsankov Kamuk hydropower plant on the Vacha River, scheduled for completion in 2007.

In June 2004, Bulgaria and Greece began talks on the construction of a 440-KW capacity line to carry Bulgarian electricity to Greece. Bulgaria is also in talks with Macedonia over a similar project. Both projects are part of the EU Corridor 8 scheme to link the electricity supplies of Bulgaria, Macedonia, Albania, and Italy.

Romania

Romania's sole nuclear plant, Cernavoda, currently maintains one working reactor. In April 2004, Euratom, the European Atomic Energy Community, approved a \$278 million loan to help Romania complete construction on a second reactor, expected to begin generating commercial power in 2006. Romania has also proposed a public-private partnership to finance the construction of Cernavoda's third reactor.

Romania is working to privatize state-owned energy assets to meet loan conditions outlined by the IMF and EU membership requirements. The government has unbundled its state power utility, RENEL, splitting it into separate companies responsible for power generation, transmission, and distribution. In July 2004, Romania agreed to sell majority stakes in regional power distributors Electrica Dobrogea and Electric Banat to Italy's Enel, which pledged to invest \$1 billion in Romania over 20 years. In February 2005, the Romanian government approved plans to sell 24.6 percent stakes in Electrica Moldova and Electrica Oltenia to Germany's E.ON and the Czech Republic's CEZ, respectively. Each is required to take a majority stake in the power distributors through a capital share increase.

In June 2004, a consortium led by Israel's Bateman was awarded a build-own-operate (BOO) contract for Romanian electric power stations in Iernut (400 MW) and Bucharest (223 MW). Construction of both natural gas-fired stations began in July 2004 and will take eight months, with connection to the national grid occurring in 2007.

In December 2004, Transelectrica, the Romanian state power transmission company announced receipt of a \$31 million loan from EBRD to fund construction of a 400,000-volt power line from Romania's Oradea to the Romanian-Hungarian border. EBRD intends for the aid to help integrate the southeastern and western European electricity markets.

Moldova

Moldova generates and consumes little electricity, obtaining the majority of its power from domestic thermal plants and regional imports. In June 2004, Itera announced plans to build a \$200 million gas-fired power plant in Burlaceni, Moldova. The plant, which has an expected capacity of 450MW, is part of a plan to decrease Moldovan electricity imports.

Moldova's electricity sector is partially privatized, with Spain's Union Fenosa holding two Moldovan power companies. In April 2004, Moldova cancelled plans to privatize two power distribution companies, RED Nord and RED Nord-Vest, when Russia's Unified Energy Systems (UES) was the only bidder. In January 2005, however, the Moldovan government announced that it would privatize the Chisinau Thermoelectric power plant by the end of the year due to the large losses accruing from inadequate modernization.

Oil	Proven Reserves (1/1/05E)	Production (2004E)	Consumption (2004E)	Net Imports (2004E)
	<i>Million barrels</i>	<i>Thousand barrels per day (bbl/d)</i>		
Bulgaria	15	1	86	85
Moldova	0	0	33	33
Romania	956	114	277	163
Total	971	115	396	281
Natural Gas	Proven Reserves (1/1/05E)	Production (2002E)	Consumption (2002E)	Imports (2002E)
	<i>Trillion cubic feet (Tcf)</i>	<i>Billion cubic feet (Bcf)</i>		
Bulgaria	0.2	0.1	174	174
Moldova	0	0	78	78
Romania	3.6	470	646	176
Total	3.8	470	898	428
Coal	Recoverable Reserves (2002E)	Production (2002E)	Consumption (2002E)	Imports (2002E)
	<i>Million short tons (Mmst)</i>			
Bulgaria	2,988	28.4	32.4	4.0
Moldova	0	0	0.2	0.2
Romania	1,606	33.6	36.3	2.7
Total	4,594	62.0	68.9	6.9

Electricity	Installed Capacity (2002E)	Generation (2002E)	Consumption (2002E)
	Gigawatts (GW)	Billion kilowatthours (Bkwh)	
Bulgaria	11.8	43.1	32.7
Moldova	1.0	3.9	4.6
Romania	22.4	53.6	47.0
Total	35.2	100.6	84.3

Sources for this report include: Agence France Presse, Associated Press, BBC Monitoring International Reports, Central Asia & Caucasus Business Report, Caspian News Agency, Caspian Business Report, CIA World Factbook, The Economist, The Financial Times, Global Insight, Hart's European Fuel News, Interfax News Agency, The International Herald Tribune, International Petroleum Finance, ITAR-TASS News Agency, Mining & Metals Report, The Moscow Times, Oil and Gas Journal, Petroleum Economist, Petroleum Report, Platt's International Coal Report, Platt's Oilgram News, PR Newswire, Project Finance, Radio Free Europe/Radio Liberty, Reuters, Russian Economic News, The Russian Oil & Gas Report, Turkish Daily News, US Department of Energy, US Energy Information Administration, US Department of State, and World Research Centre.

LINKS

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[EIA: Country Information on Moldova](#)

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Links to other US government sites:

[US Agency for International Development](#)

[CIA World Factbook](#)

[US Department of Commerce, Business Information Service for the Newly Independent States \(BISNIS\): Moldova](#)

[US Department of Commerce, International Trade Administration: Energy Division](#)

[US Department of Commerce, Trade Compliance Center: Market Access Information](#)

[Library of Congress Country Study on Romania](#)

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[Radio Free Europe/Radio Liberty](#)

[Radio Free Europe/Radio Liberty: Energy Politics in the Caspian and Russia](#)

[US Department of Energy, Fossil Energy Overview of Bulgaria](#)

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[US State Department: Background Notes](#)

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