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July 2004

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Colombia

Colombia is an important petroleum and coal producer, although political unrest and stagnant reserves have led to decreased exports in recent years. Colombia aims to boost hydrocarbon exploration to preserve its status as a net oil exporter in the longer term.

Note: information contained in this report is the best available as of June 2004 and is subject to change.



BACKGROUND

Colombia has faced decades of political and economic struggles, much of it linked to narcotics trafficking and civil war. Since taking office in August 2002, President Alvaro Uribe has enacted political, fiscal and social reform policies, combined with increased security measures in order to promote economic growth and stability. In 2003, Colombia's real gross domestic product (GDP) growth was nearly 4%. Since economic recovery began in 2003, inflation has eased and interest rates have been low in the short term. However, Colombia still faces many challenges both externally and internally, including debt management, sagging oil production and unemployment.

Measures to spark economic growth and increase investor confidence included five reform bills passed by Congress in January

2003. These reforms, focusing on tax, pension, labor, public administration and banking, are to be implemented through 2006. (A controversial public-sector reform bill failed in October 2003). In addition, the International Monetary Fund (IMF) has shown support for reforms, and is expected to renew a two-year, \$2.1 billion stand-by agreement when it expires in January 2005. Colombia has an export-oriented growth strategy, with the country taking part in recent bilateral Free-Trade agreement talks with delegates from the United States, Ecuador and Peru in May and June 2004. Separate from the ongoing 34-nation Free Trade Area of the Americas (FTAA) talks, Colombia is looking to maintain access and privileges garnered under the 1991 U.S. Andean Trade Preferences Act (now known as the US Andean Trade Promotion and Drug Eradication ACT, ATPDEA), due to expire in 2006.

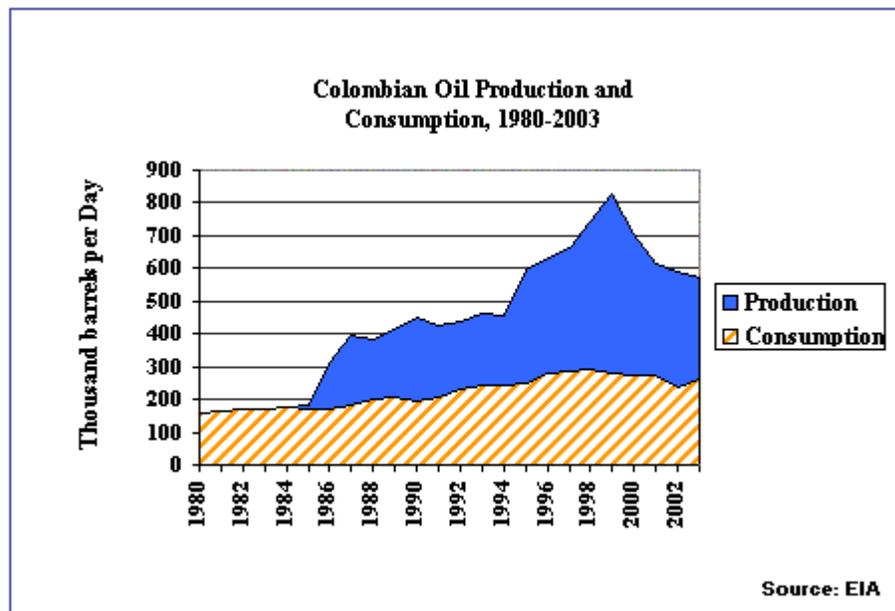
Regaining authority over rural territory, of which rebel groups control 40%, was a major tenet of Uribe's 2002 presidential campaign. Rebel groups are known to use guerrilla warfare tactics (with oil industry infrastructure a popular target), such as high-profile kidnappings, hijackings, bombings, attacks on civilians, and political assassinations. Since 2002, Uribe's "democracy security" strategy is believed to have contributed to the containing of two leftist insurgent groups, the *Fuerzas Armadas Revolucionarias de Colombia* (FARC) and the *Ejército de Liberación Nacional* (ELN); as well as a growing right-wing paramilitary organization, the *Autodefensas Unidas de Colombia* (AUC). A tentative agreement to demobilize the AUC by 2005, proposed peace talks with the ELN (the country's second-largest guerilla group), and an increased security presence across the country, have helped to reduce the number of urban and rural attacks, especially on energy infrastructure.

ENERGY OVERVIEW

Colombia's longstanding civil conflict has taken its toll on the country's energy sector, particularly on the oil industry. Rebels have targeted oil pipelines, electricity transmission infrastructure, and trains transporting coal. As oil reserves and production decline, the government has been boosting its security efforts in order to attract critical new investment in replacement fields. In addition, Colombian officials warn that if no significant new oil reserves are discovered in the near future, the country soon will become a net importer of petroleum. In the short-term, coal and natural gas are being considered to fill in growing energy needs.

OIL

Oil is the major legal export commodity of Colombia, comprising 28% of export revenues and 10% of government revenues in 2003. As of January 2004, Colombia reported an estimated 1.84 billion barrels of proven oil reserves. Colombia's oil production has declined steadily over the past five years, to 560,206 barrels per day (bbl/d) in 2003, after reaching an all-time high of 830,000 bbl/d in 1999. In the first quarter of 2004, Ecopetrol announced a 6% decline in production, to 520,000 bbl/d, compared with the same period in 2003. Much of the decline is due to depletion of Cusiana, Cupiagua, and Caño Limon fields (the largest of the three) as well as infrastructure sabotage from guerrilla groups. During 2003, Colombia exported 195,000 bbl/d to the United States; down 25% from 260,000 bbl/d in 2002. Still, Colombia's oil market outlook is tenuous. Recently, President Uribe announced that inability to discover and exploit new reserves by 2010 could force Latin America's fifth largest oil producer to become a net petroleum importer in the medium term.



Sector Organization

All hydrocarbon reserves in Colombia are state-owned enterprises. Development and operation of oil and natural gas resources is regulated by state oil company Empresa Colombiana de Petroleos ([Ecopetrol](#)) and the [Ministry of Energy and Mines \(MEM\)](#). Private companies operate in joint

ventures with Ecopetrol. Britain's [British Petroleum](#) (BP) and [U.S. Occidental](#) are the most active foreign companies in the Colombian oil sector.

In July 2003, Ecopetrol was reorganized into two separate entities as a cost-cutting and transparency-increasing measure meant to meet conditions of the IMF stand-by agreement. Concessions, royalties, oil demand projections and promotion of foreign investment are now controlled by the National Hydrocarbon Agency (ANH), reporting to the [MEM](#), as of January 2, 2004. Exploration, production, transportation, refining, and marketing remain under Ecopetrol's control, while reporting to finance ministry. According to the MEM, the split was intended solely to eliminate what was a conflict of interest for Ecopetrol acting as both regulator and partner. However, Colombia's oil workers' union initially interpreted the split as a precursor to privatization. A month-long union worker strike took place shortly after the split was announced. Production was unaffected and terms of agreement were soon reached.

Since 1999, Colombia's government has taken measures to make the investment climate more attractive to foreign oil companies. The goals are to boost domestic oil production, increase revenue and reverse the trend toward becoming a net importer of petroleum. The first measure was a reduction in Ecopetrol's mandatory share in joint ventures from 50% to 30%. The second measure was a new law passed in June 2002, which eliminated the flat 20% royalty in favor of a sliding scale from 8% to 25%. The rate is based on production levels, such that royalties of 8% will be assessed on fields producing 5,000 bbl/d or less and 20% to 25% for production between 400,000 bbl/d and 600,000 bbl/d. The sliding scale aims to improve the financial viability of smaller producing fields.

In April 2004, the ANH introduced additional measures aimed at enhancing the attractiveness of Colombia's hydrocarbon sector, eliminating Ecopetrol's mandatory 30% royalty share as well as its obligatory participation in all developments. Under the new terms: 1) the government share of production revenue through royalties and taxes has decreased from 73% to 50%-55% (the state will receive royalty payments only when prices rise above a specific level); 2) twenty-four year production contracts, set to expire by 2008, will automatically be extended by ten-year increments, if criteria such as a 10% production payment to the ANH are met; and 3) contracts will be awarded on a block-by-block basis. According to the ANH, Colombia's terms will be the third most competitive in the world, after the United Kingdom and Pakistan.

Since introducing the new terms, the Colombian government has issued an increased number of exploration and production contracts. More than twenty-five firms, including smaller outfits, have submitted proposals since January 2004.

Oil Pipelines

Colombia has five major oil pipelines, four of which connect production fields to the Caribbean port town of Coveñas. These include the 500-mile Ocesa pipeline, which transports 615,000 bbl/d from the Cusiana and Cupiagua fields; the 460-mile Caño Limón pipeline; and the smaller Alto Magdalena and Colombia Oil pipelines. The fifth pipeline, the TransAndino, transports crude from Colombia's Orito field in the Putumayo basin (as well as Ecuadorian crude) to Colombia's Pacific port at Tumaco. A 36-mile pipeline, the Guaduas-La Dorada, was built to connect the Guaduas oil field to the existing pipeline structure in 2001.

Exploration and Production

Vast unexplored and potentially hydrocarbon-rich territories remain in C



Venezuela. In particular, the Llanos and Magdalena basins are thought to have great potential. Much of Colombia's crude oil is lighter and sweeter than that of other major Latin American oil producers, with its three export crude oils (Cusiana, Cupiagua and Orito) ranging between 28° and 36° API.

Colombia's largest producing oil fields are Cusiana and Cupiagua in the eastern Andes foothills, and Caño Limón in the Arauca province, near the Venezuelan border. BP operates Cusiana and Cupiagua, while U.S.-based Occidental operates Caño Limón. Much of the fields' crude oil is exported to the U.S. Gulf Coast, with about 90% of light, sweet Cusiana and Cupiagua crude is bound for the U.S. market.

Ecopetrol and the Colombian MEM officials hope that new regulations will lead to more active exploration and production (E&P) in Colombia, increasing the country's oil reserves by as much as one billion barrels over the next four years. While several companies have signed exploration contracts with Ecopetrol, even more investment and activity is needed. In order just to replace reserves in Colombia, an average of 50-70 exploration wells must be drilled annually. In contrast, only an estimated 28 wells were drilled in 2003. As of March 2004, nine exploratory wells had been drilled and another 21 were in progress.

During the last several years, some of the companies that signed E&P contracts with Ecopetrol include, Chile's Sipetrol; Colombian-based [Argosy Energy International](#); Petrominerales, a subsidiary of Canada's Petrobank; [Petrobras](#); Nexen; US-based Mercantile Oil & Gas; [Occidental](#); and Russia's [Lukoil](#). Much of the hydrocarbon exploration conducted in 2003 and 2004 has been focused on the Caribbean offshore region.

In December 2002, the Colombia Energy Consortium (Petrotesting Colombia, Holsan Chemicals and Russia's Rosneft) began pumping oil at the Surorienté field in the southwestern Putumayo department. In March 2003, the Consortium signed a contract to sell oil produced at the field to Ecopetrol. In April 2004, Rosneft decided to withdraw from all overseas contracts and is seeking a buyer for its 45% share.

In June 2002, production began in the Guando field, located in the upper Magdalena Valley. The field is operated by Brazil's [Petrobras](#) and Canada's [Nexen](#). Nexen estimates that with 24 planned development wells in the Boqueron Block alone, its production share will grow to 4,900 bbl/d by the end of 2004. This estimate is lower than original forecasts of 10,000 bbl/d in 2003, ramping up to a peak of 20,000 and 30,000 bbl/d between 2005-2007. However, the field is still estimated to have at least 200 million barrels of the highest quality crude, and is considered the most significant discovery since the 1980s. Nexen is working out the terms for future exploration in other Blocks, including the offshore Boqueron Deep and El Queso.

In 2003, Canada's [Petrobank Energy and Resources](#) invested \$45 million in Colombia, primarily developing the Orito block. Petrobank also has operations at the Neiva block. In addition, in December 2003 the Canadian firm Adulis purchased the Salinas block in the natural gas-rich Guajira peninsula and a partial share in the Guachiria block of the Llanos basin.

In April 2004, Ecopetrol extended Occidental's contract for Caño Limón under the recently announced ANH contract terms, until the field is no longer commercially viable. Under terms of the contact, Ecopetrol's share of production will increase to 55% by 2008, with Occidental investing \$263 million over a period of six years. In addition, Ecopetrol is targeted to take over the Deep Dindal Prospect, abandoned in 2003 by the bankrupt E&P firm, Seven Seas Petroleum.

Setbacks in Exploration

In 2003, the Colombian government's plan to increase oil production and reserves experienced a setback. In March, Ecopetrol officials announced that they had discovered one of the largest oil deposits in over a decade, the Gibraltar-1 in the Sirirí Block. They estimated that the area contained 200 million barrels of oil. A preliminary study, however, showed that Gibraltar-1 contained mostly water. U.S. Occidental carried out the original drilling, but turned it over to the Colombian government in May 2002 after drilling 12,000 feet and finding only water and gases. Occidental explained that its decision was based solely on the economics of that particular field, as it was not showing the projected commercial quantities of oil. The company claimed that its decision was unrelated to conflicts with the indigenous U'wa tribe living near the field or attacks on company investments elsewhere in Colombia. The U'wa continue to resist the Colombian government's continued exploration of the region.

In other news, BP's exploration at the Niscota block was unsuccessful in November 2003, after spending \$45 million drilling to 19,000 feet. Other exploratory projects in 2003 and 2004, including exploratory wells in Putumayo Basin in southwest Colombia, failed to yield significant results.

Security Issues

Security problems continue to affect the Colombian oil industry and infrastructure, although less severely than in years past. Rebel groups have repeatedly attacked the Caño Limón pipeline, known as "the flute," including a record 170 times in 2001. However, in 2003 attacks on the pipeline fell dramatically, below two dozen, allowing for increased exports of Caño Limón crude to the U.S. Gulf Coast. Aid in the form of financial support and military training from the U.S. government has helped improve security and avert attacks on infrastructure. Security measures also aim to decrease oil theft, much of which is turned into revenue for rebel groups.

The TransAndino pipeline and BP's Cusiana/Cupiagua Ocesa pipeline experienced only a handful of attacks in 2003. Although the Ocesa pipeline carries more oil than the Caño Limón pipeline, most of the structure is underground and is less exposed than Caño Limón.

In addition to pipeline bombings, security problems also contribute to labor unrest. An estimated 165 union members were killed in Colombia in 2001. Right-wing paramilitary organizations have claimed responsibility for abductions of oil union (USO) members, charging those abducted with left-wing ELN affiliations. Ecopetrol strikes in February, March, and April 2003 protested the abduction and killings of oil union workers.

Oil disputes have not been limited to the domestic arena. In July 2002, Nicaragua opened a tender process for offshore oil exploration contracts in the Caribbean. Colombia claimed that some of the area included acreage near the islands of San Andres and Providencia, which have belonged to Colombia since 1928. To date, Nicaragua has failed to attract bidders for exploration acreage in offshore territories. Colombia has also stated that it would not rule out military intervention if oil exploration takes place in its territory.

Refining

Colombia's current refining capacity is about 285,850 bbl/d. All refineries are 100% owned and operated by Ecopetrol, although private firms are permitted to participate as well. Currently there is a private initiative, backed by the US Export-Import Bank and the International Finance Corporation (IFC) of the World Bank, to construct a refinery at Sebastopol to process BP's oil from Cusiana and Cupiagua. The government has stated that it will not construct new refineries, and any new construction must be undertaken by the private sector. Although Colombia is a net oil exporter, gasoline and diesel fuel are imported to meet domestic product demand.

NATURAL GAS

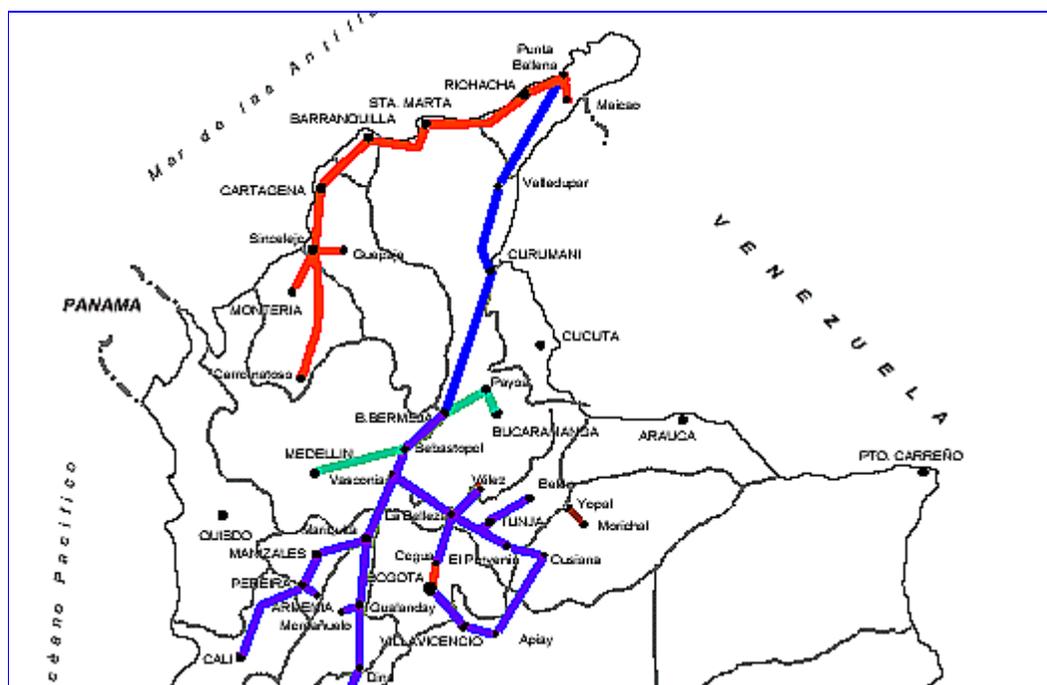
Colombia's proven natural gas reserves stood at an estimated 4.5 trillion cubic feet (Tcf) as of January 2004. This figure is up slightly from the January 2002 estimate of 4.3 Tcf. Both production and consumption in 2003 totaled 218 billion cubic feet (Bcf). Consumption is expected to grow significantly over the next decade. The government's *Plan de Masificación de Gas Natural* (Natural Gas Mass Consumption Plan) aims to increase natural gas use, especially for electricity generation and public transportation, while decreasing domestic dependency on hydropower and moving toward establishing the sector as a “gas hub” for the Andean region.

Sector Organization

Colombia's natural gas industry is controlled by three key players: Ecopetrol, which manages exploration and development of natural gas reserves; the Energy and Gas Regulatory Commission (CREG), which oversees regulation and distribution markets; and Empresa Colombiana de Gas (**Ecogás**), a state-owned company tied to the MEM and controlled by Ecopetrol, in charge of managing the country's transmission system and operating most transportation pipelines. Privatization of Ecogás is scheduled to be completed by the end of 2004, as there are already an estimated 20 important upstream and downstream private operators in Colombia's gas sector, with **ChevronTexaco** having the largest presence. CREG has segmented the industry into production, transmission, distribution, and marketing sectors. The National Hydrocarbons Agency (AHN) new contract model that reduces the state share of production in hydrocarbon developments, aims to attract greater foreign investment in natural gas, as well.

Ecogás owns and operates 1988 miles of Colombia's major pipeline and ducts network. The three main transport lines are the state-owned Mariquita -Cali, the Ballena-Barrancabermeja, and the Barrancabermeja-Nevia-Bogotá pipelines. The Ballena-Barrancabermeja line runs from from ChevronTexaco's Ballena field on the northeastern coast, to Barrancabermeja in central Colombia. The Barrancabermeja-Nevia-Bogotá pipeline extends the natural gas transportation network from Barrancabermeja southwest to Neiva and southeast toward Cusiana, near Bogotá. There are other small stretches of pipeline and ducts owned by private firms. Promigas, a former subsidiary of the now-bankrupt Enron, operates a pipeline that runs along the Atlantic coast. Promigas also operates a small duct that connects the capital to the main pipeline network.

In April 2003, Colombia and Venezuela agreed to build a \$120 million pipeline that would allow Colombia to export natural gas from the Guajira basin to Venezuela's Maracaibo region. The pipeline could eventually be extended to Panama and Ecuador. The



end of controlled gas prices in 2003 has made the possibility of gas trade more attractive.

Production

Colombia's natural gas reserves are located in 18 basins, seven of which are under development or currently used for commercial production (including the Magdalena Valley, Catatumbo, Putumayo, Llanos Orientales and La Guajira). Seven basins are located offshore. Natural gas production is centered along the Northern Coast and Barranca regions; other areas of production are in the south and in basins to the east of Bogotá. The Guajira basin is thought to have the most potential for large new discoveries. Within the Guajira basin, three fields – Chuchupa, Ballena and Riohacha – are already under development. Despite government efforts to jumpstart the Colombian natural gas sector, development has been slow.

Over 80% of Colombia's natural gas is produced at the Chuchupa offshore field and the Ballena onshore field by [ChevronTexaco's](#) Colombian subsidiary, Texas Petroleum Company, which has an association contract with Ecopetrol through 2016. In December of 2003, an extended deal was signed between the two parties to continue development in the Guajira basin with the U.S.-based company taking a 43% share and the remainder going to the state (royalties will remain at 20%). This contract replaces the controversial Catalina project agreement, rejected by Colombia just months earlier, which was an incremental production contract with unfavorable implications for royalty fees received by the their government. As an incremental project, royalty fees would amount to \$25 million, while a new contract would have cost ChevronTexaco upwards of \$125 million. The increased natural gas production, about 1 Tcf per year, was to have been distributed in northern Colombia and possibly Venezuela. The failure originally to achieve approval was a blow to the Uribe government's natural gas plan that centers on increased production and exports. Without the contract, ChevronTexaco's rights in Colombia would expire at the end of 2004 and the company would be reduced to a contractor, operating the fields for a fee, with Ecopetrol receiving 100% of the output.

In May 2004, Ecopetrol, Petrobras and [ExxonMobil](#) signed a memorandum of understanding (MOU) to explore the 11- million-acre Tayrona Block in the offshore Caribbean. Petrobras will be the operator during the exploration phase with ExxonMobil stepping in for the development phase, should exploration prove successful. Petrobras, known for its expertise in deep-sea drilling, has an established presence in Colombia's natural gas sector, with stakes in 15 blocks. More significantly, is the return of ExxonMobil as an upstream operator in Colombia following nine years of inactivity.

In June 2004, British Petroleum (BP), with partners Total and Triton, won a natural gas production contract in the Cusiana-Cupiagua fields. This concession is aimed at lengthening the life of these fields as oil production declines.

In recent years, Columbia's natural gas sector has been a target of guerillas and saboteurs, but increased security measures have lead to a reduction in attacks, costs associated with repairs, and lost production. Although guerrillas destroyed a natural gas line in the north of the country last year, Ecopetrol announced in March 2004 that a reduction in natural gas theft contributed to the company's highest annual profits in its 53-year history.

COAL

Colombia is the largest coal producer in Latin America (see graph), and its proven reserves - 7,328 million short tons in 2004 - consist of high-quality bituminous coal and a small amount of metallurgical coal. Colombia's reserves are amongst the largest in Latin America, second only to Brazil. The majority of reserves are found in the Guajira peninsula in the north. Colombia's coal is

relatively clean-burning, with a sulfur content of less than 1%. Over the past decade, production has more than doubled, to an estimated 48 million short tons in 2002. It is likely that Colombia's coal production will continue to increase in coming years, as exploration and profitable developments continue throughout the north and interior of the country.

The Colombian government has recently increased investment in and promotion of coal exportation. In January 2003, the Colombian Mining Association ([Asomineros](#)) and the Colombian government launched a campaign to promote coal exports to other Central and South American countries and to improve transportation capacity constraints. In April 2003, the government also earmarked \$320 million for infrastructure development to increase coal export capacity. Part of the investment will go to the construction of a second rail line linking the Cesar region with Santa Marta port on the Atlantic coast. Colombia is already one of the largest coal exporters in the world, with about 90% of domestic coal production going to export. Traditionally, coal has been Colombia's third largest export. However, low coffee prices since 2001 have allowed coal to take second place since that year.

Sector Organization

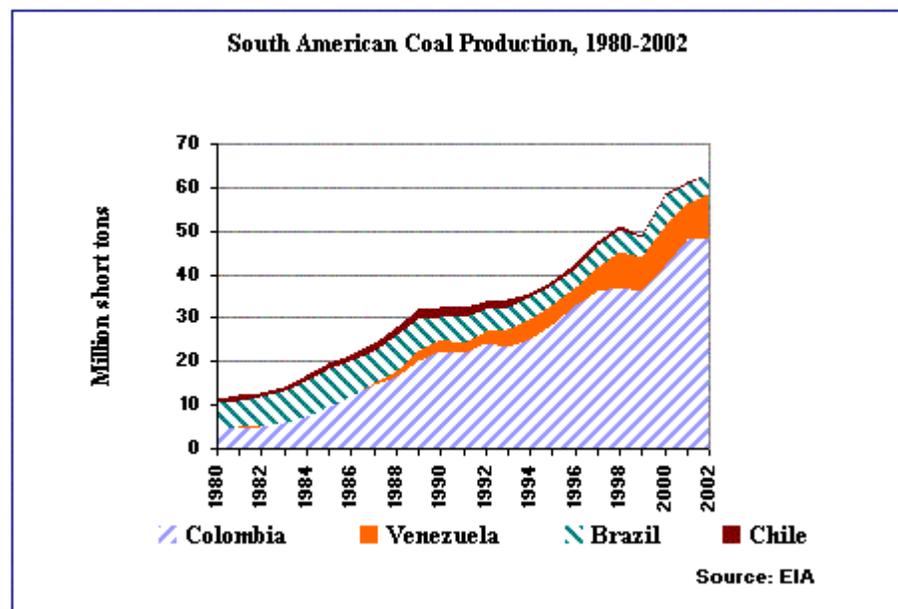
Colombia's coal mines are fully privatized and handled by foreign companies, with the state mining company, Minercol, being shut down on January 28, 2004. In 2001, as part of the IMF stand-by agreement, the Colombian government sold off the state-run coal company Carboles de Colombia (Carbocol) to the Carboles del Cerrejon consortium. The consortium, including South Africa's Anglo-American, the UK/Australian BHP

Billiton, and Switzerland's Glencore, owns and operates the massive [Cerrejón Zona Norte Project \(CZN\)](#), which is the largest coal mining operation in Latin America and the largest open-cast coal mine in the world. The consortium plans to invest \$130 million over several years to increase production.

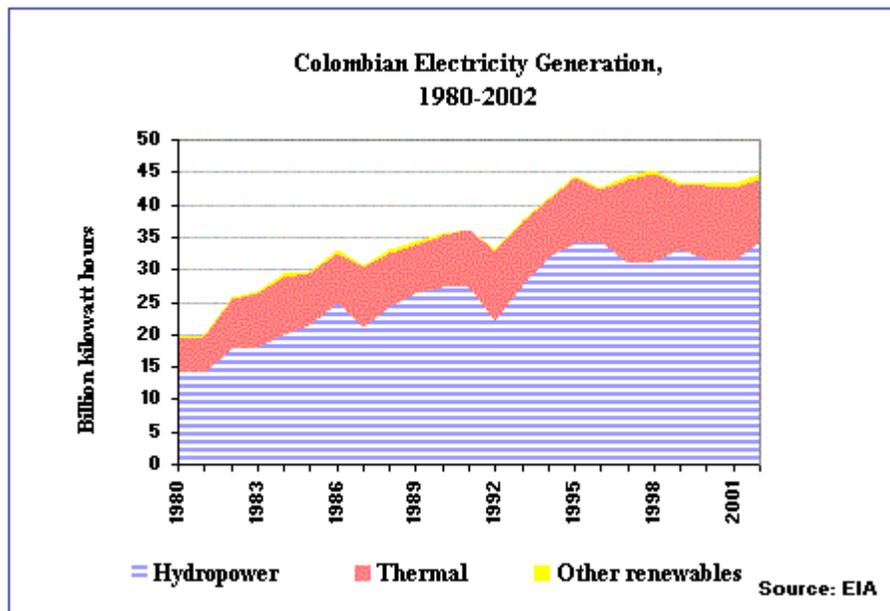
U.S.-based [Drummond](#) is active in Colombia, operating the country's second largest mine, La Loma, in the department of Cesar. In May 2004, the company avoided a strike at La Loma by agreeing to pay raises of nearly 9%. The company also owns El Descanso, another coal property located in the same area, and is planning to invest \$1 billion over the next five years in order to increase coal exports.

ELECTRICITY

In 2002, Colombia's electric generation capacity increased slightly, to 13.1 gigawatts (GW), up from 12.8 GW in 2001. There are currently over 90 power plants in the country, with the largest being the San Carlos (1,240 MW), Guavio (1,000 MW) and Chivor (1,000 MW) hydroelectric plants. Compared to other Latin American nations, Colombia's electricity generation per capita is



low, although excess production now capacity exists. In 2002, the country consumed 41.1 billion kilowatt-hours (Bkwh) and generated 44.9 Bkwh. Approximately 85% of Colombians have access to electricity. An estimated 63% of generation in 2002 was hydroelectric, down from nearly 70% in recent years. Colombia's hydropower sector has weathered difficult times since the early 1990s, including a severe drought in 1992. As a result of the 1992 drought, hydroelectric plants were unable to meet electricity demand in that year. Power was rationed and periodic blackouts increased. As a result, the government has encouraged new capacity to be brought online through the construction of coal and natural gas-fired power plants over the medium to long term. Hydropower's share of electric generation is therefore expected to decline in coming years compared to coal and natural gas-fired generation, although there are some new hydroelectric developments in progress (including the Pescadero-Ituando plant, scheduled for 2008 and the Porce III plant in 2009).



Colombia benefits from regional electricity interconnections with Venezuela and Ecuador. In January 2003, a 131-mile transmission line between Ecuador and Colombia came online. A second 130-mile line was inaugurated in March 2003. These interconnections have come about as a result of electricity power agreements between the five Andean Community (CAN) members, signed in December 2002. Bolivia, Colombia, Ecuador, Peru,

and Venezuela agreed to integrate their power markets to create a regional power market, planned for 2006 as part of CAN's [Initiative for South American Regional Infrastructure Integration \(IIRSA\)](#).

In April 2003, Colombia and Panama also signed a memorandum of understanding (MOU) on energy integration. The goal of the so-called *Puebla-Panama Plan* is to encourage the integration of power grids through Central and South America. State-owned [Interconexión Eléctrica \(ISA\)](#), the largest distributor in Colombia (75% of the national transmission system) is taking a lead in regional projects by improving domestic infrastructure by connecting Colombia's Atlantic Coast and its capital city, Bogotá, by transmission cable. The project is scheduled to be completed by October 2007. The MEM suggests that the project could reduce consumer tariffs by 3-5% in the long term.

In March 2004, the MEM announced an increase in consumer electricity tariffs, following the initiation of a new CREG regulatory model. The new regulations aim to improve the investment climate through improved transparency, while reducing financial difficulties within the sector in the short term.

Sector Organization

The Colombian electricity sector is managed by both private enterprises and parastatal companies,

including generating companies, traders, transmission firms, and distribution operators. A 1994 electricity reform law deregulated the sector, offering consumers a choice between privately and publicly-owned power suppliers. The reform law also established the Regulatory Body for Gas and Electricity (CREG) and the Wholesale Electricity Market, which began operations in 1995. Privatization of the sector progressed throughout the late 1990s; however, a recent initiative to privatize 12 publicly owned distribution firms has stalled due to lack of private investment. Of the 36 generation companies on the national grid, several large companies remain publicly owned, including ISAGEN and EEPM. EMGESA, the largest (with 22% of Colombia's electric generation capacity) is already privately controlled. It is uncertain if President Uribe will revive privatization initiatives in the near future.

Colombia's electricity sector continues to face serious supply and financial challenges due to lack of investment, security risks and power theft. Repeated attacks on electricity infrastructure, including destruction of grid interconnections, fragment the national power system, increase the risk of blackouts, and raise cost of operation for the electricity sector. Currently, talks are being held to discuss a \$93.3 million release of funds to alleviate public-sector debt to state-owned distributors, especially Boyaca, Urra, and Corelca. There have been signs of improvement recently, including 11 utilities that decreased losses, and two large Atlantic region distributors that posted profits during 2003.

Sources for this report include: Argus LatAm Energy and Latin American Power Watch; Business News Americas; Cambridge Energy Research Associates; CIA World Factbook; Dow Jones News wire service; EcoPetrol; Ecogás; Global Insight; Economist Intelligence Unit ViewsWire; Financial Times; Latin America Economic Outlook; Latin Finance; Ministerio de Energía y Minas; New York Times; Nexen Inc.; Oil and Gas Journal; Oil Daily; Petroleum Economist; Petroleum Intelligence Weekly; Reuters; U.S. Department of Commerce; U.S. Energy Information Administration; World Markets Online.

COUNTRY OVERVIEW

President: Alvaro Uribe Veléz (Since 7 August 2002)

Independence: July 20, 1810 (from Spain)

Population (2003E): 44.6 million

Location/Size: NW South America/1.1 million square kilometers (440,000 square miles), about the size of New Mexico, Texas, and Louisiana combined

Major Cities: Bogotá (capital), Cali, Medellin, Barranquilla

Official Language: Spanish

Ethnic Groups: Mestizo (58%), White (20%), Mulatto (14%), Black (4%), Black-Amerindian (3%), Amerindian (1%)

Religion: Roman Catholic (90%)

ECONOMIC OVERVIEW

Minister of Finance and Public Credit: Alberto Carrasquilla Barrera

Currency: Colombian Peso

Exchange Rate (6/16/04): US\$1 = 2725 Colombian pesos (COP)

Nominal Gross Domestic Product (2003E): \$77.4 billion

Real GDP Growth Rate (2003E): 3.8% **(2004F):** 3.9%

Inflation Rate (consumer prices) (2003E): 7.1% **(2004F):** 5.7%

Unemployment Rate (2003E): 14.1% **(2004F):** 13.0%

Merchandise Exports (2003E): \$13.0 billion

Merchandise Imports (2003E): \$13.0 billion

Total Foreign Debt (2003E): \$36.2 billion
Current Account Balance (2003E): -1.8% of GDP
Major Trading Partners: United States, Germany, Venezuela, Japan, Peru, Brazil
Major Exports: Petroleum, coal, coffee, nickel, agricultural exports (bananas, flowers, cotton)
Major Imports: Capital goods (machinery and transportation equipment), industrial inputs (chemicals, minerals, metals), consumer goods (processed foods)

ENERGY OVERVIEW

Minister of Energy and Mines: Luis Ernesto Mejía
President of Ecopetrol: Dr. Issac Yanovich
Proven Oil Reserves (1/1/04E): 1.84 billion barrels
Oil Production (2003E): 560,206 barrels/day (bbl/d), of which 538,000 bbl/d was crude oil
Oil Consumption (2003E): 261,000 bbl/d
Net Oil Exports (2003E): 299,206 bbl/d
Oil Exports to the U.S. (2003E): 195,000 bbl/d (of which 166,000 bbl/d was crude oil)
Crude Refining Capacity (1/1/04E): 285,850 bbl/d
Natural Gas Reserves (1/1/04E): 4.5 trillion cubic feet
Natural Gas Production (2002E): 218 billion cubic feet (Bcf)
Natural Gas Consumption (2002E): 218 billion cubic feet (Bcf)
Recoverable Coal Reserves (2004E): 7.3 billion short tons
Coal Production (2002E): 48.3 million short tons (Mmst)
Coal Consumption (2002E): 5.1 million short tons Mmst
Electric Generating Capacity (2002E): 13.1 gigawatts (63.3% hydroelectricity, 36.7% thermal)
Electric Generation (2002E): 44.9 billion kilowatthours (Bkwh) (34.5 Bkwh hydroelectricity, 9.47 Bkwh thermal, 0.9 Bkwh other)
Electric Consumption (2002E): 41.1 Bkwh

ENVIRONMENTAL OVERVIEW

Minister of Environment, Housing & Land Development: Sandra Suárez Pérez
Total Energy Consumption (2002E)*: 1.2 quadrillion Btu (0.3% of world total energy consumption)
Energy-Related Carbon Dioxide Emissions (2002E): 58.9 million metric tons (0.2% of world carbon dioxide emissions)
Per Capita Energy Consumption (2002E)*: 27.9 million Btu (vs. U.S. value of 339.1 million Btu)
Per Capita Carbon Dioxide Emissions (2002E)*: 1.35 metric tons (vs. U.S. value of 20.0 metric tons)
Energy Intensity (2002E): 4,527 Btu/ \$ nominal-PPP (vs. U.S. value of 9,348 Btu/ \$ nominal)**
Carbon Dioxide Intensity (2002E): 0.22 metric tons/thousand \$ nominal-PPP (vs. U.S. value of 0.55 metric tons/thousand \$ nominal)**
Fuel Share of Energy Consumption (2002E): Oil (44.0%), Natural Gas (17.0%), Coal (10.0%)
Fuel Share of Carbon Dioxide Emissions (2002E): Oil (61.0%), Natural Gas (20.0%), Coal (19.0%)
Status in Climate Change Negotiations: Non-Annex I country under the United Nations Framework Convention on Climate Change (ratified March 22, 1995). Accession to the Kyoto Protocol as of November 30, 2001 (to become party to the treaty negotiated by other states; same legal implication as ratification).
Major Environmental Issues: Deforestation due to road construction and development; soil and water quality degradation by overuse of pesticides and sewage; air pollution, especially in Bogota, from vehicle emissions; loss of biodiversity.
Major International Environmental Agreements: A party to the Antarctic Treaty, Desertification

UNCCD), Biodiversity, Climate Change, Endangered Species (CITES), Hazardous Wastes, Marine Life Conservation, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution, Tropical Timber 83 and Tropical Timber 94. Has signed, but not ratified, the Antarctic-Environmental Protocol, Law of the Sea and Marine Dumping (London Convention, non-contracting party)

* The total energy consumption statistic includes petroleum, dry natural gas, coal, net hydro, nuclear, geothermal, solar, wind, wood and waste electric power. The renewable energy consumption statistic is based on International Energy Agency (IEA) data and includes hydropower, solar, wind, tide, geothermal, solid biomass and animal products, biomass gas and liquids, industrial and municipal wastes. Sectoral shares of energy consumption and carbon emissions are also based on IEA data.

** GDP figures from CIA Factbook estimates based on purchasing power parity (PPP) exchange rates

ENERGY INDUSTRY

State Organizations: *Oil:* Empresa Colombiana de Petróleos (Ecopetrol); *Natural gas:* Ecopetrol, Energy and Gas Regulatory Commission (CREG), Empresa Colombiana de Gas (Ecogás)

Major Ports: Barranquilla, Buenaventura, Cartagena, Leticia, Puerto Bolívar, San Andres, Santa Marta, Tumaca, Turbo

Major Oil-Producing Fields: Cupiagua and Cusiana (Operator - BP Amoco); Caño Limón (Operator- Occidental Andina)

Major Gas-Producing Fields: Guajira

Major Oil Pipelines: Oleoducto Central (497.1 miles from Cusiana/Cupiagua to Coveñas, 615,000 bbl/d capacity, controlled by Ocesa,); Caño Limón (480.9 miles from Caño Limón to Coveñas); Transandino (OTA, from Ecuador to Tumaco); Alto Magdalena (from the Upper Magdalena Valley); Colombia Oil Pipeline (298.9 miles from Vasconia Station to Coveñas); Guaduas-La Dorada (36.1 miles from Guaduas)

Major Natural Gas Pipelines: Mariquita-Cali (211.3 miles, TransGas Occidente); Ballena-Barrancabermeja (357.3 miles); Barrancabermeja-Neiva-Bogotá (484.7 miles, Centro Oriente)

Refineries (1/1/04E Crude Capacity): Total capacity of 285,850 bbl/d at five refineries, all run by state-run Ecopetrol. Two main refineries: Barrancabermeja - Santander (205,000 bbl/d) and Cartagena - Bolívar (75,000 bbl/d). Other refineries: Tibu - N. de Santander (1,800 bbl/d), Orito - Putumayo (1,800 bbl/d), and Apiay (2,250 bbl/d).

LINKS

For more information from EIA on Colombia, please see:

[EIA - Country Information on Colombia](#)

Links to other U.S. government sites:

[CIA World Factbook, Colombia](#)

[Library of Congress Country Study on Colombia](#) (September 1987)

[U.S. Census Bureau, U.S.-Colombian Trade](#)

[U.S. Embassy in Colombia](#)

[U.S. Department of Energy, Office of Fossil Energy, Colombia](#)

[U.S. State Department Background Notes, Colombia](#)

[U.S. State Department Consular Information Sheet, Colombia](#)

[U.S. State Department Country Commercial Guide, Colombia](#)

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[Colombia Government Trade Bureau in Washington, D.C.](#)

[Colombian Embassy in the United States](#)

[Departamento Administrativo Nacional de Estadística \(Statistical Office\)](#)

[Ecopetrol, Colombian National Oil Company](#)

[The Latin American Integration Association \(ALADI\)](#)

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