Equatorial Guinea

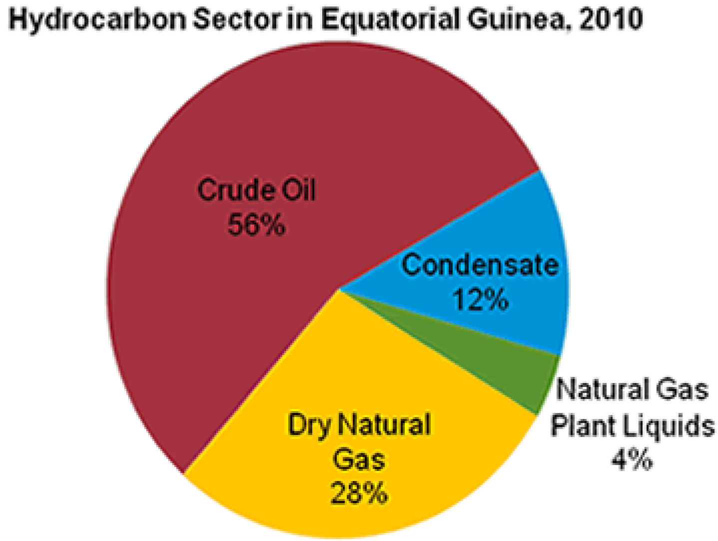
Last Updated: Feb. 28, 2012

Background

Equatorial Guinea's oil production has been declining, but the recent start-up of the Aseng oil and gas-condensate field is expected to revive liquids production in 2012.

Equatorial Guinea became a significant oil and natural gas exporter with the discovery and development of large offshore oil reserves in the 1990s. As production increased, the country grew by an average real annual growth rate of 26.2 percent from 2001 to 2005, according to the World Bank. Hydrocarbon production is the basis of the country's economy and consists of crude oil, condensate, natural gas plant liquids (NGPLs), and dry natural gas. According to the International Monetary Fund's latest data, the hydrocarbon sector represented over 90 percent of government revenue and about 98 percent of export earnings.

Equatorial Guinea's hydrocarbon production is concentrated offshore its main island of Bioko, which is also home to the capital city, Malabo. Hydrocarbon production also occurs offshore the country's mainland, Rio Muni, which is nestled between Cameroon and Gabon. Production of the country's dominant hydrocarbon, crude oil, has been declining as a result of maturing oil fields. However, the recent start-up of the Aseng oil and gas-condensate field and the anticipated start-up of the Alen gas-condensate field in late-2013 are projected to revive liquids production in the near term.



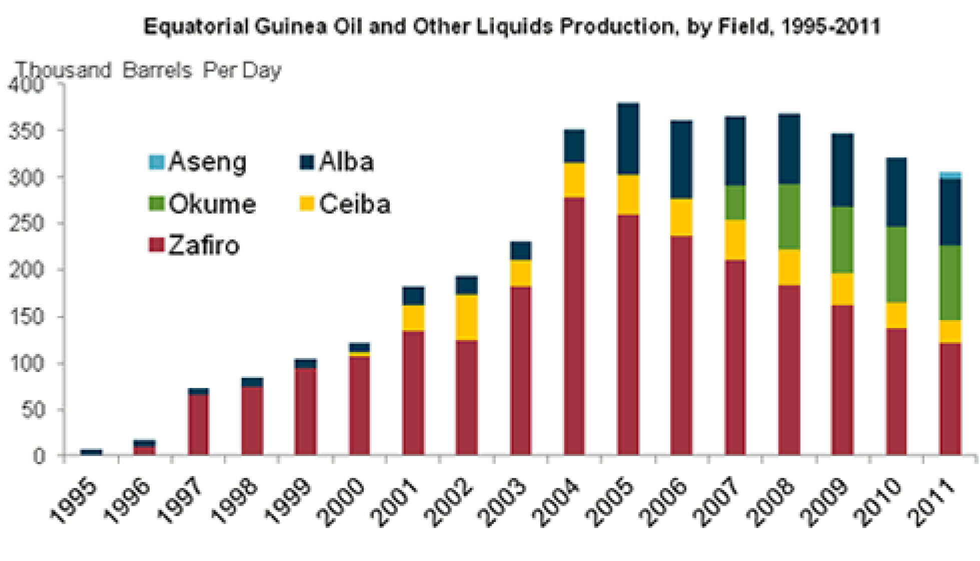
Source: U.S. Energy Information Administration, *International Energy Statistics*
Note: Share of condensate derived from Wood Mackenzie data.

Oil

The Zafiro field has been the backbone of the country's oil production, but its current output has more than halved since its peak, leaving the country eager to start production from new finds.

According to the Oil & Gas Journal, Equatorial Guinea had proved oil reserves of 1.1 billion barrels as of January 2012. Latest EIA estimates show that Equatorial Guinea's total liquids supply was about 320,000 barrels per day (bbl/d) in 2011. Equatoguinean oil production originates almost entirely from the Zafiro, Ceiba, and Okume fields, while condensate production comes from the Alba field. A detailed map of oil and gas licenses and activities is available through the Ministry of Mines and Energy Website.

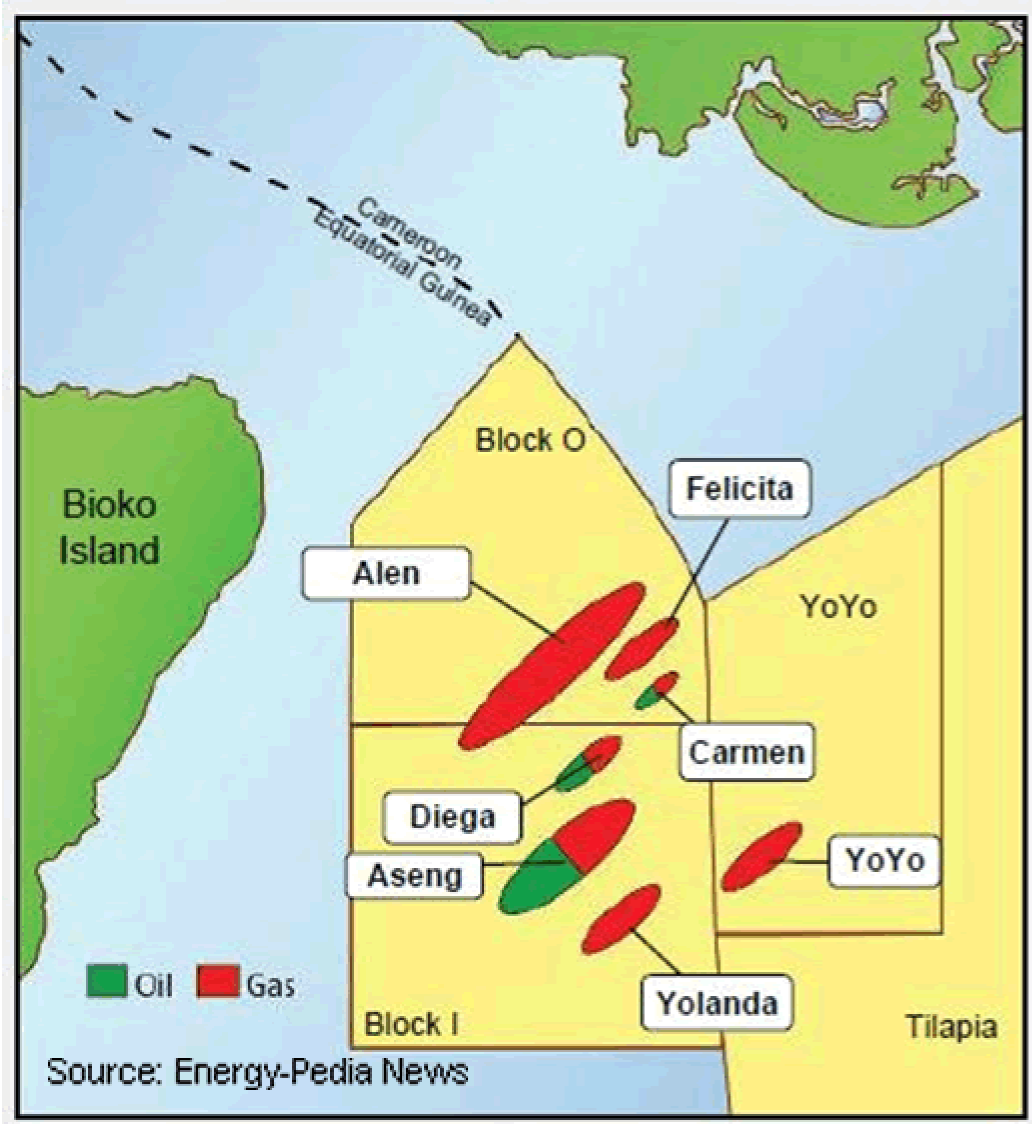
Since the 1995 discovery of the Zafiro field, Equatorial Guinea's oil supply increased dramatically, peaking at 376,000 bbl/d in 2005. At peak, roughly 65 percent of total output came from the Zafiro field. However, over the last decade, the Zafiro field has gradually matured and output at the field has nearly halved. In turn, liquids production in Equatorial Guinea has steadily declined for the last few years.



Source: Wood Mackenzie
Note: Aseng production estimate from U.S. Energy Information Administration.

Production

Equatorial Guinea's declining output is expected to reverse in 2012, driven by new production from the Aseng field that came on-stream November 2011. Shortly after its start, the field reached around 50,000 bbl/d as four subsea wells were brought online. According to the country's Ministry of Mines, Industry and Energy, production at Aseng, situated in Block 1 offshore Bioko Island, started seven months ahead of schedule and was 13 percent under budget. U.S.-based Noble Energy is the field's main operator and estimates a recovery of about 120 million barrels of liquids over the project's lifespan.



New production is also expected in late-2013 from the Alen gas-condensate field, with an initial output of about 37,000 bbl/d. Alen is located in the Douala Basin and extends from Block O (95 percent) to the northern part of Block I (5 percent). The new projects are expected to offset dwindling oil production from existing fields: Zafiro, Ceiba, Okume, and Alba.

Zafiro Field

In 1995, ExxonMobil and Ocean Energy discovered the Zafiro field, which is located northwest of Bioko Island. Zafiro was the first deepwater field to be brought on-stream in West Africa and is currently the main producing field in Equatorial Guinea. Zafiro is operated by an ExxonMobil-led consortium and produced around 121,000 bbl/d in 2011, according to Wood Mackenzie. While Zafiro continues to be the single largest source of Equatoguinean oil, field production has been in decline since its peak at 278,000 bbl/d in 2004.

Ceiba Field and Okume Complex

Ceiba and the Okume Complex are located just offshore of Rio Muni in exploration Block G. The fields are operated by the Hess Corporation, with partners Tullow Oil and GEPetrol. Liquids production at Ceiba has been declining since its peak from 2005 to 2007, when it averaged around 42,000 bbl/d, and now produces around 26,000 bbl/d. Okume recently reached its peak in 2010 at 81,000 bb/d; since then, production has begun to decline gradually as well.

Alba Field

Alba is located 12 miles north of Bioko Island and was developed as a major condensate field containing an estimated 400 million barrels of liquids. The field currently produces about 70,000 bbl/d of mostly condensates, in addition to other liquids. The associated natural gas that was historically flared from the Alba field is now the main source of feedstock for the Punta Europa liquefied natural gas (LNG) plant on Bioko Island (see Natural Gas section). Marathon Oil Corporation is the Alba field's operator.

Sector Organization

The Ministry of Mines, Industry and Energy regulates the petroleum industry in Equatorial Guinea. The Equatoguinean government created a national oil company, GEPetrol, which became operational in 2002. GEPetrol's primary focus is to manage the Equatoguinean government's interest in various production sharing agreements (PSAs) and joint ventures (JVs) with foreign oil companies. The company is also responsible for marketing, oil licensing, and policy implementation within the hydrocarbon sector. Oil licenses are awarded through licensing rounds or direct negotiations with companies.

While European and Chinese companies are starting to play a role in Equatorial Guinea, the main foreign investors are U.S. companies, including ExxonMobil, Hess, and Marathon. In recent years, the government has passed legislation to increase local participation (ownership) to a minimum of 35 percent in all foreign investments. Companies must give preference to local staff and resources. In the hydrocarbon sector, this requirement can be met with a 35 percent share allotted to the national oil company, GEPetrol. As a result, the national oil and gas companies (GEPetrol and Sonagas) are expected to continue to play a substantive role in oil and gas development.

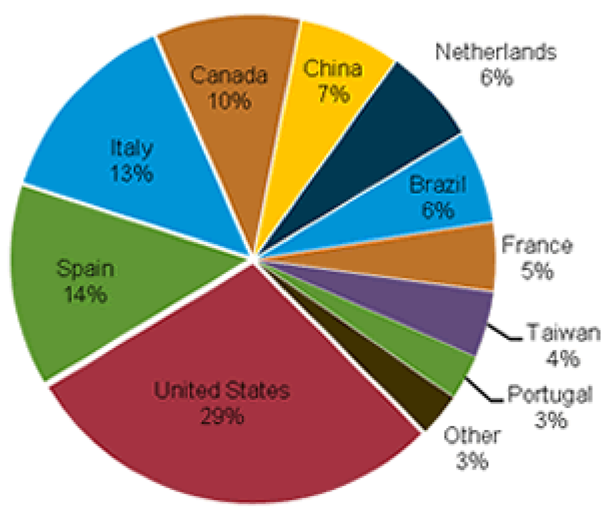
Downstream and Refining

Getotal, jointly owned by Total and the government of Equatorial Guinea, distributes petroleum products, all of which are imported due to a lack of refining capacity. In 2010, the government announced plans for a 20,000 bbl/d refinery located in Mbini on the coast of Rio Muni and construction is set to commence soon. The refinery will produce gasoline, diesel, fuel oil, and jet oil for the local market, and sell any surplus to regional markets. The country has also partnered with Royal Vopak, a Dutch storage facilities company, to develop a crude oil storage terminal to optimize the distribution of crude oil from Bioko to Rio Muni, in addition to regional markets.

Exports

Nearly all of Equatorial Guinea's oil production is exported and the small amount of domestic consumption is met through imports of refined products, which was estimated at 1,000 bbl/d in 2010. The majority of the country's production is exported to markets in North America, Europe, and Asia. In 2010, the United States imported approximately 70,000 bbl/d of crude oil from Equatorial Guinea. Other major destinations for exports include Spain, Italy, and Canada.

Equatorial Guinea's Oil Exports, by Destination, 2010



Source: *Global Trade Atlas*

Ports

The deepwater Luba Freeport, located on the west side of Bioko Island, became operational in 2002 and has since become a transportation hub for the oil and gas industry. Although Luba is the main port for the hydrocarbon industry, other ports also support hydrocarbon exports. In 2009, the Port of Malabo began its operation to ease pressure on the Luba terminal. The Port of Malabo and the port city of Bata are two of the deepest Atlantic seaports of the region, according to the U.S. Department of State. Both ports are currently undergoing renovations to expand their operational capacity; full completion of the Malabo port is expected in 2013.

Natural Gas

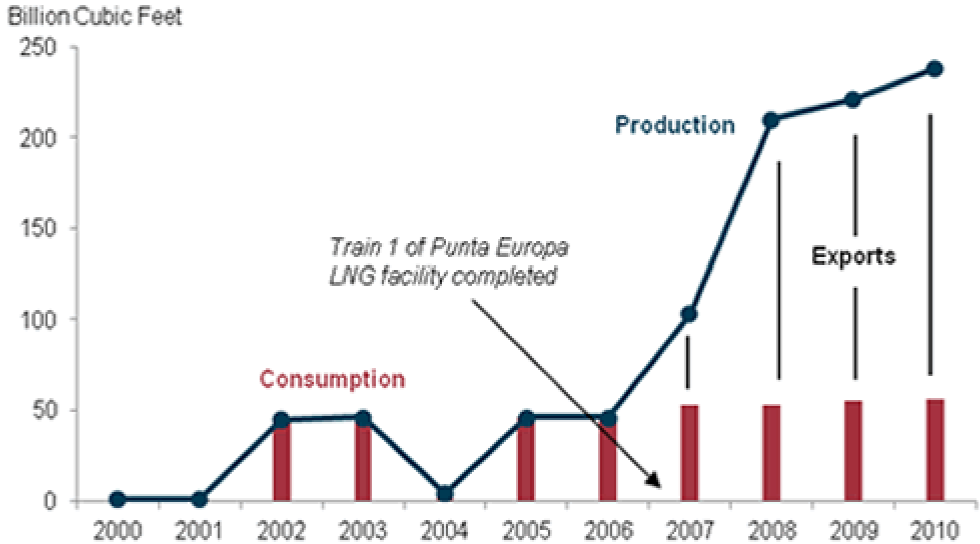
Liquefied Natural Gas (LNG) exports have rapidly increased

According to the Oil & Gas Journal, Equatorial Guinea had 1.3 trillion cubic feet (Tcf) of proven natural gas reserves as of January 1, 2012. The majority of the reserves are located offshore

since a LNG processing facility was built in 2007. A second LNG train is expected to start operation in 2016 to double LNG output.

Bioko Island, primarily in the Alba and Zafiro associated natural gas fields. From 2001-2010, Equatoguinean natural gas production increased rapidly from 1 billion cubic feet (Bcf) to 238 Bcf as new projects came online. Domestic consumption over the same period went from 1 to 56 Bcf and was increasing alongside of production until 2007, when the completion of the Punta Europa liquefied natural gas (LNG) facility on Bioko Island allowed for greater exports.

Equatorial Guinea Dry Natural Gas Production & Consumption, 2000-2010



Source: U.S. Energy Information Administration, *International Energy Statistics*

Sector Organization

Following a decree signed by President Obiang in January 2005, the government announced the creation of a state natural gas company, Sociedad Nacional de Gas de Guinea Ecuatorial (Sonagas, G.E.). Sonagas manages gas assets and the industrial and residential natural gas market. The state-owned company is also in charge of distribution, marketing, and exportation of natural gas. As is the case with oil companies, the government requires a minimum local participation of 35 percent in all foreign investments, which can be fulfilled by allotting shares to the state companies.

Exploration and Production

Natural gas production in Equatorial Guinea has expanded rapidly in the last five years in response to new investments by major stakeholders in the Alba field. Alba, the country's largest natural gas field, contains most of the 1.3 trillion cubic feet (Tcf) of proven reserves, with probable reserves estimated at 4.4 Tcf or more. Currently, the Alba field produces almost all of the 238 Bcf of natural gas produced in the country. Marathon Oil has a 63 percent interest in the field, while Noble Energy holds 34 percent interest and Sonagas has the remaining three percent.

Additional natural gas production could come online if the government implements plans to reduce gas flaring by 2013. In the past, the government has threatened ExxonMobil with fines for the continued flaring at its Zafiro field. The government has claimed that the field is responsible for close to 80 percent of all natural gas flaring in the country.

New gas production is expected to come online in the short and medium term from the Aseng and Alen fields, respectively. Initially, gas will be reinjected to maximize oil recovery at both fields, but gas resources are expected to be recovered a few years following the start of the projects. There have also been multiple new gas finds in the region, which if realized at their estimated potential, could yield a significant boost to Equatorial Guinea's gas production in the long-term.

Liquefied Natural Gas (LNG)

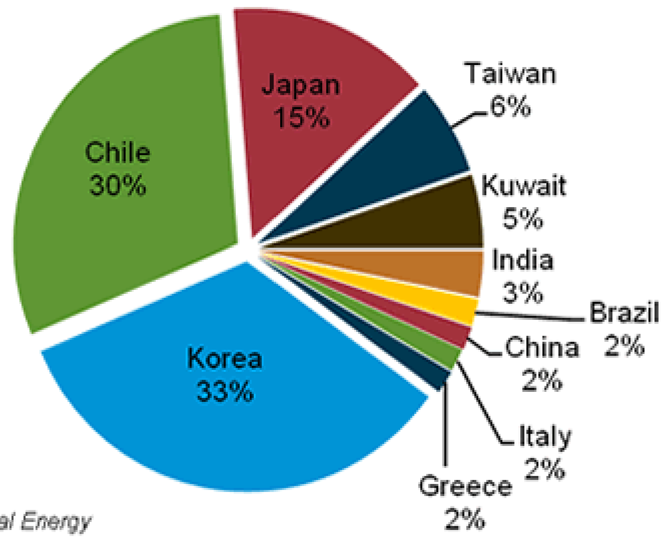
Most of Equatorial Guinea's natural gas production is exported in the form of LNG. Marathon Oil Corporation and its partners completed Train 1 of the $1.4 billion Punta Europa LNG facility on Bioko Island in May 2007. Train 1 has a capacity of 3.7 million tons of LNG per annum and processes dry gas from the Alba Field.

The Equatoguinean government signed an agreement on January 17, 2012 to develop a second LNG Train at a cost of $4 billion to double LNG output. The agreement was signed by the Ministry of Mines, Industry and Energy and state-owned companies (Sonagas and GEPetrol), along with a consortium of international companies that are invested in Blocks I, O, and R along with those involved in the first LNG train. The next phase for the LNG Train II Integrate Project is to define project scope and timing; signatories anticipate Train II to start operation in 2016. Feedstock is expected to come from associated gas from Blocks I, O, and R.

Exports

In 2010, Equatorial Guinea exported approximately 179 Bcf of LNG, of which nearly two-thirds went to Asia, namely Korea (33 percent) and Japan (15 percent), while most of the remainder went to Chile (30 percent). Equatorial Guinea's LNG exports to Japan reportedly increased in 2011 after the earthquake hit Japan in March 2011 and left much of the country's nuclear power offline, prompting Japan to increase LNG imports from suppliers further afield.

Equatorial Guinea LNG Exports, by Destination, 2010



Source: *FACTS Global Energy*

Links

EIA Links

[EIA - Country Information on Equatorial Guinea]

U.S. Government

CIA World Fact Book - Equatorial Guinea
U.S. State Department's Country Page - Equatorial Guinea
U.S. State Department's Consular Information Sheet - Equatorial Guinea
U.S. Trade with Equatorial Guinea

General Information

Africa News Service: Equatorial Guinea
MBendi
African Development Bank: Equatorial Guinea
African Studies: University of Pennsylvania
Extractive Industries Transparency Initiative
International Monetary Fund - Equatorial Guinea
Transparency International
World Bank - Equatorial Guinea

Oil and Natural Gas

ExxonMobil
Hess
Marathon Oil
Ministry of Mines, Industry and Energy - Equatorial Guinea
Noble Energy
Tullow
PA Resources

Sources

African Energy Intelligence
African Economic Outlook
Bloomberg
Business Monitor International
CIA World Factbook
Economist Intelligence Unit
Energy Intelligence Group
Energy- Pedia News

FACTS Global Energy
Global Trade Atlas
IHS Global Insight
International Monetary Fund
Newsbase African Oil and Gas Monitor
Oil and Gas Journal
Platts Oilgram News
PA Resources
RigZone
Upstream
Wood Mackenzie
World Bank

Contact Info

cabs@eia.gov
(202) 586-8800
cabs@eia.gov