

COUNTRY ANALYSIS BRIEFS

Caribbean

Last Updated: September 2007

Background

Most Caribbean islands are net energy importers.

The islands of the Caribbean basin are predominantly net energy importers, with the exception of Trinidad and Tobago. Agriculture and natural resource extraction activities continue to constitute the basis of the islands' economies, though the tourism and service sectors are growing. In recent years, the Caribbean countries have been worried that higher global oil prices will impair their efforts to expand economically. In response, the island nations have been discussing ways to better integrate their energy sectors, especially in regards to increased natural gas exports from Trinidad and Tobago to other islands. These efforts have also focused on the major external energy suppliers to the region, such as Mexico and Venezuela.

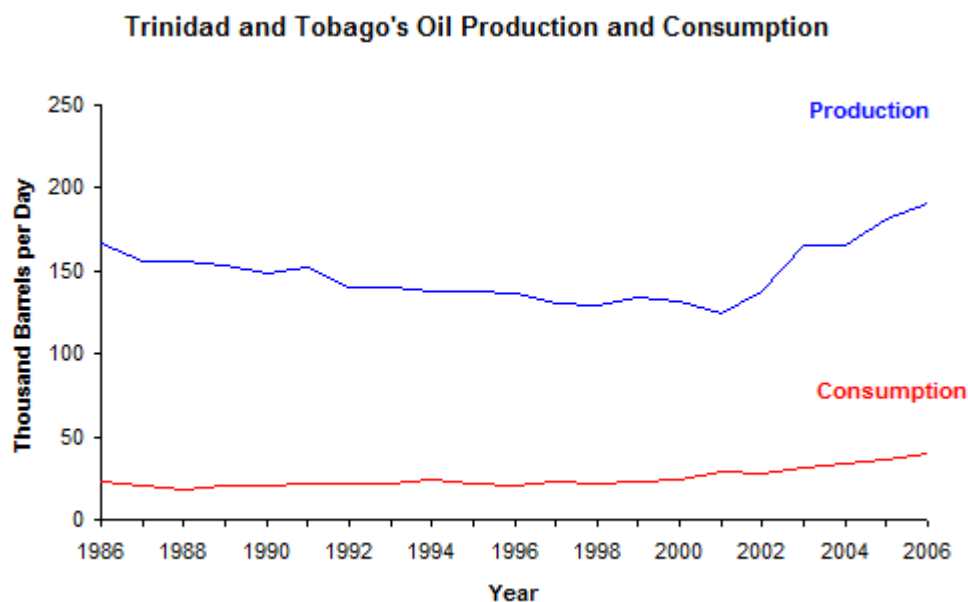


Oil Production

Trinidad and Tobago is the largest oil producer in the Caribbean.

Trinidad and Tobago

Trinidad and Tobago contains the majority of the Caribbean's oil production. In 2006, the country produced 191,300 barrels per day (bbl/d) of total oil production, of which 142,700 bbl/d was crude oil, the remainder mostly consisting of natural gas liquids (NGLs). In 2006 Trinidad and Tobago consumed of 30,000 bbl/d oil, allowing it to export a sizable amount of its production. The largest crude oil producers in Trinidad and Tobago include BHP Billiton and state-owned Petrotrin, which each control around one-quarter of the country's crude oil production. Important producers of NGLs in Trinidad and Tobago include the Phoenix Park gas processing plant and the Atlantic LNG project, which produced a combined 49,700 bbl/d of NGLs in 2006. In recent years, the country's oil production has rebounded following many years of decline, and production should continue to grow steadily in the next few years.



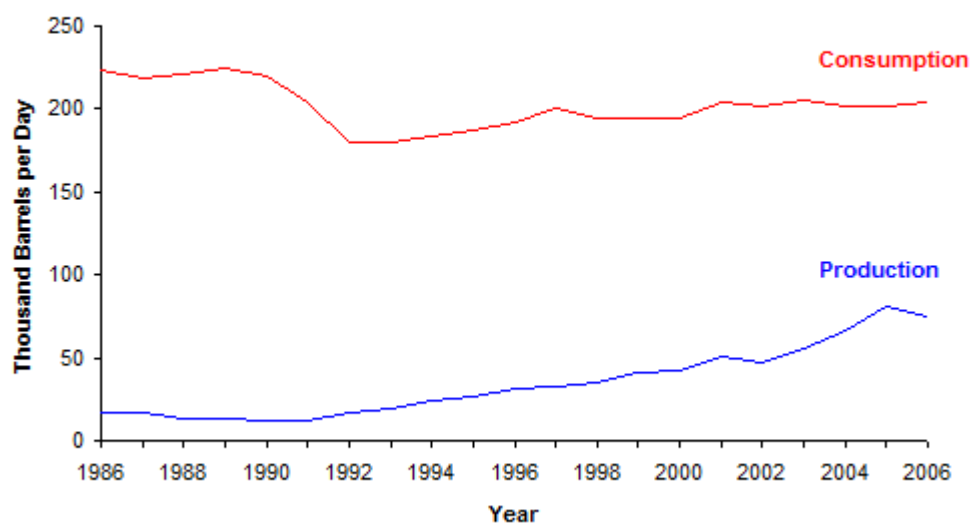
Source: EIA International Energy Annual; Short Term Energy Outlook

Most oil production in Trinidad and Tobago occurs offshore, concentrated off the southeastern and southwestern coasts. In January 2005, production began at the Greater Angostura field in Block 2(c), the first oil production to occur off the northeast coast of Trinidad. Operated by a consortium led by BHP Billiton, the Angostura field contains an estimated 310 million barrels of recoverable reserves. Production levels at Angostura averaged 33,000 bbl/d in 2006, down from 41,000 bbl/d in 2005. According to BHP Billiton, the Angostura project has a nameplate production capacity of 100,000 bbl/d of oil and associated gas liquids, so there is potential for future production growth at the facility.

Cuba

Cuba produced 76,000 bbl/d of oil in 2006, while the country consumed 209,000 bbl/d. Cuba's oil production has increased significantly in the past two decades, with the country only producing 16,000 bbl/d in 1984. Most of Cuba's oil production occurs in the northern Matanzas province, resulting in a heavy, sour crude that requires special processing. Currently, two Canadian companies, Sherritt International and Pebercan, are producing oil in Cuba, under joint-venture production agreements with state-owned oil company Cubapetroleo (Cupet). Much of this production occurs onshore, though there is some offshore production in shallow coastal waters. Cuba's oil production seems to have stabilized in the near term, with any additional increases in production dependent upon the discovery of substantial new reserves (see below).

Cuba's Oil Production and Consumption



Source: EIA International Energy Annual; Short Term Energy Outlook

There has been considerable excitement over exploration activities in Cuba's offshore basins, especially its portion of the Gulf of Mexico. Industry analysts have reported that there could be at least 1.6 billion barrels of crude oil reserves in these basins. However, exploration activities have, so far, been disappointing. In 2001, Brazil's Petrobras abandoned exploration activities in Cuba's offshore basins following disappointing results. In July 2004, Repsol-YPF announced that its exploratory well in the Gulf of Mexico had discovered high-quality crude oil, however the company noted that it had not discovered commercially-viable quantities. In 2007, Cupet and Venezuela's PdVSA concluded an agreement to jointly explore Cuba's offshore areas, while Malaysia's Petronas and India's OVL reportedly conducted a seismic exploration program in the offshore basins.

Barbados

While Barbados does not have significant crude oil reserves, it does maintain a small amount of domestic production. Oil production in Barbados during 2006 averaged 1,000 bbl/d, while the country consumed an estimated 9,000 bbl/d. As Barbados has no refining capacity, its oil is refined in Trinidad and Tobago, and then returned for domestic consumption.

Regional Initiatives

Many of the Caribbean countries import oil from Mexico and Venezuela under favorable terms. Under the San Jose Pact, Barbados, the Dominican Republic, Haiti, and Jamaica received oil and refined products from those two countries. Cuba also receives crude oil and petroleum products from Venezuela at a discounted rate. In 2005, nearly all Caribbean countries (except Barbados, Haiti, and Trinidad and Tobago) signed the Venezuela-backed Petrocaribe initiative. Under the program, Venezuela will sell crude oil and refined products to these countries under favorable financing terms.

Oil Refining

According to OGJ, the Caribbean region has a combined 1.7 million bbl/d of refining capacity. Smaller refineries produce petroleum products for local demand, whereas the larger facilities are geared towards exports to the United States and other regional markets. The Caribbean is also an important storage location for crude oil brought in from outside the region.

The largest refinery in the Caribbean is the Hovensa facility in the U.S. Virgin Islands, with a crude charge capacity of 495,000 bbl/d. Hovensa, a joint venture of PdVSA and Amerada Hess, sends most of its refined product output to the United States. Other large facilities in the region include the 320,000-bbl/d Isla refinery in the Netherlands Antilles, operated by PdVSA; the 230,000-bbl/d San Nicolas in Aruba, operated by Valero; and the 165,000-bbl/d Pointe-a-Pierre in Trinidad and Tobago, operated by Petrotrin. Both the Hovensa and Isla refineries source the bulk of their crude oil supplies from Venezuela.

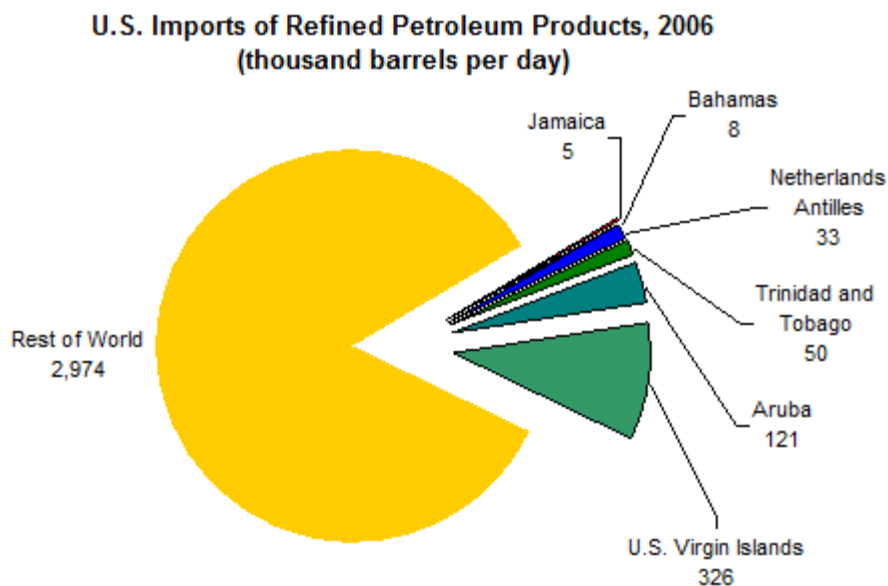
The Caribbean has several export-oriented oil refineries, focused towards the U.S. market.

A proposed \$2 billion refinery near St. Elizabeth, Jamaica has entered advanced planning stages. The Jamaican government has tentatively approved the facility, pending an environmental impact statement. Project sponsor Petroleum Corporation of Jamaica (PCJ) has stated that the facility will have an initial crude refining capacity of 250,000 bbl/d.

According to Cupet and industry sources, Cuba has 138,400 bbl/d of installed refining capacity at four facilities: Cienfuegos (76,000 bbl/d), Havana (34,000 bbl/d), Santiago (22,000 bbl/d), and Cabaiguan (5,000 bbl/d). Cupet announced that actual output from its refineries was only 61,000 bbl/d in 2006. In particular, construction on the Soviet-era Cienfuegos refinery was never completed, and the facility is not currently operational. Cupet and PdVSA have reached an agreement to complete construction of the Cienfuegos refinery, upgrade the facility with modern equipment, and increase its capacity. According to media accounts, Cienfuegos is slated for startup in December 2007 at an initial capacity of 65,000 bbl/d, eventually reaching 103,000 bbl/d.

Exports to U.S.

In 2006, the United States imported 542,500 bbl/d of petroleum products from the Caribbean, or 15 percent of its total petroleum product imports. The U.S. Virgin Islands represents the bulk of the region's exports to the United States (325,860 bbl/d), followed by Aruba (120,540 bbl/d) and Trinidad and Tobago (49,960 bbl/d). Proximity to crude oil produced in Mexico and Venezuela and the large U.S. market are driving efforts to increase export-oriented refining capacity in the Caribbean.



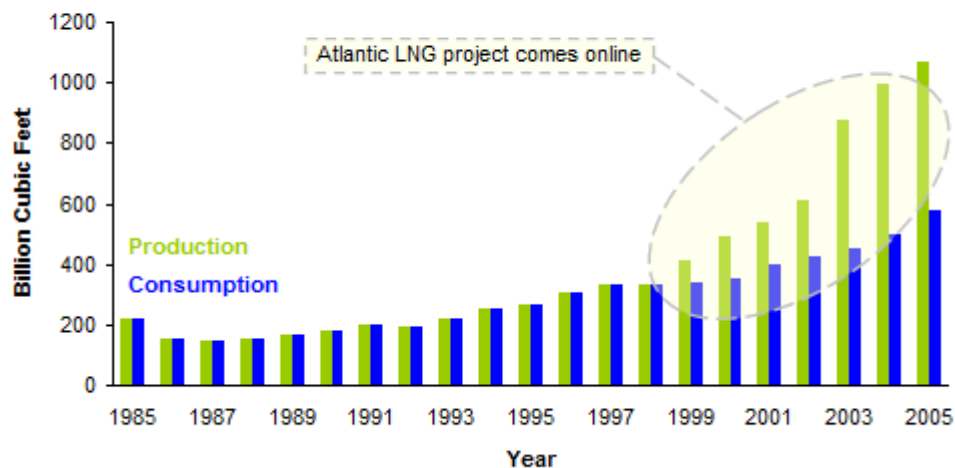
Liquefied Natural Gas

Trinidad and Tobago

Natural gas production in Trinidad and Tobago has skyrocketed in recent years. In 2005, the country produced 1.1 trillion cubic feet (Tcf) of natural gas, up 14 percent year-on-year. The country has benefited from a large amount of foreign investment into the sector, with BP Trinidad and Tobago (BPTT) leading these efforts. Other important players in the natural gas sector include British Gas (BG) and Chevron.

Trinidad and Tobago is the largest exporter of natural gas to the United States.

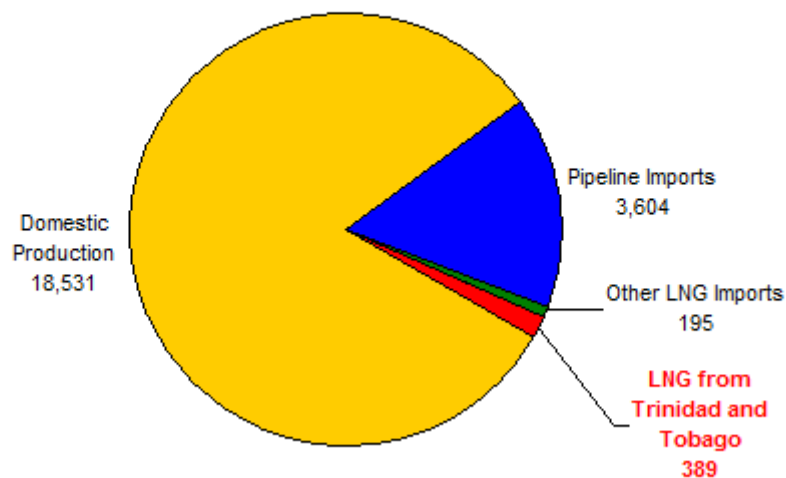
Trinidad and Tobago's Natural Gas Production and Consumption



Source: EIA International Energy Annual

Trinidad and Tobago is the largest supplier of LNG to the United States and one of the largest LNG exporters in the world. The Atlantic LNG Company, a consortium led by BP, BG, and Repsol-YPF, operates four LNG trains at Point Fortin, on the south-western coast of Trinidad. The first LNG train was completed in March 1999, with subsequent trains completed in August 2002, April 2003, and April 2006. The four trains have capacity to produce a combined 14.8 million metric tons (Mmt) of LNG per year (775 Bcf of regasified natural gas). There has been discussions between Atlantic LNG and the government of Trinidad and Tobago over the construction of a fifth and sixth train, though there are no firm plans as of yet to pursue these projects.

U.S. Natural Gas Supply, 2006 (Billion Cubic Feet)



Source: EIA Natural Gas Monthly

Other Regional Developments

Some Caribbean islands have begun to look towards LNG as a way to diversify their energy consumption away from imported oil. In June 2007, Jamaica received nine bids for the construction of a \$250 million LNG regasification terminal in that country. The Petroleum Company of Jamaica (PCJ) hopes to bring the facility online by the end of 2009, with an initial

capacity of 1.2 Mmt of LNG. One issue will be sourcing LNG supplies for the plant, as a proposed deal with Trinidad and Tobago reportedly failed due to pricing disputes.

Integrated LNG-power generation schemes have become a viable option for electricity generation in the Caribbean, especially as it can displace costly diesel or fuel oil. In the Dominican Republic, AES operates the Andres facility, an LNG regasification terminal that feeds two gas-fired power plants. In August 2000, Puerto Rico began importing LNG to supply the EcoEléctrica facility, a 540-MW natural gas-fired power plant.

The Bahamas has become a proposed gateway for LNG to enter the United States via Florida. AES has proposed the Ocean Express project, which would include an LNG receiving terminal in the Bahamas and an undersea pipeline to deliver natural gas to Florida. The project is still in the regulatory process. There were two other projects that would have attempted a similar goal: Seafarer, lead by El Paso, and Calypso, lead by Tractebel. In late 2006, El Paso announced that it would not pursue the Seafarer project further, while Tractebel has now sought regulatory approval for a floating LNG regasification terminal 10 miles off the coast of Florida as an alternative to a terminal in the Bahamas.

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Foreign Government Agencies

[Ministry of Energy and Energy Industries \(Trinidad and Tobago\)](#)

Sources

Aberdeen Press and Journal

Business News Americas

CIA World Factbook

Chemical News & Intelligence

Chicago Tribune

Dow Jones

Global Insight

Economist Intelligence Unit ViewsWire

El Universal (Mexico)

Energy Day

Expansion

Financial Times

The Gleaner

Inside F.E.R.C.

International Herald Tribune

International Market Insight Reports

International Oil Daily

LatinFinance

Latin America Monitor

Latin American Newsletters

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Lloyd's List

National Post (Canada)

Natural Gas Week

Oil and Gas Journal

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Petroleum Economist
Platts Oilgram News
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