



Vietnam Market for Oil and Gas Machinery and Services

By U.S. Commercial Service – Vietnam
March 2012

Overview

	2010	2011	2012 (estimates)
Total Market Size	2,000	2,400	2,880
Total Local Production	1,000	1,200	1,440
Total Exports	N/A	N/A	N/A
Total Imports	1,000	1,200	1440
Imports from the U.S.	295	354	425

The above statistics are in \$ millions including equipment and services for the upstream, midstream and downstream segments of the oil and gas industry and are based on U.S. Census Bureau records and unofficial estimates.

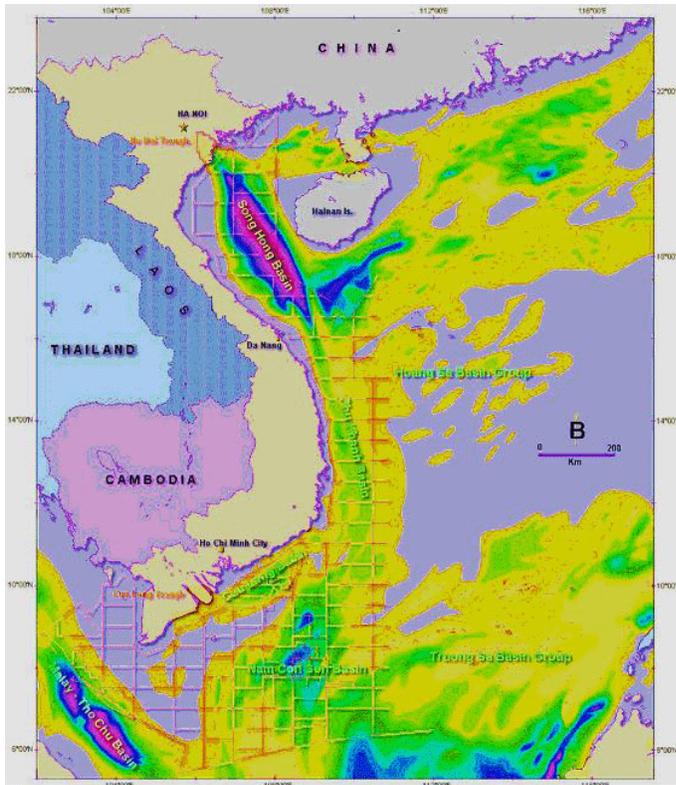
Vietnam's oil and gas industry is one of the country's biggest foreign currency earners and a major procurer of imported technology, services and equipment. Oil and gas is one of the top priority sectors for development by the Government of Vietnam since it is viewed as central to national economic growth and energy security. The oil and gas industry in Vietnam is under the principal jurisdiction and management of the Ministry of Industry and Trade (MOIT). PetroVietnam (also known as PV or PVN), the national oil and gas group reports directly to the Prime Minister and holds a monopoly in the upstream, mid-stream and virtually all key downstream areas of the industry. The taxes paid annually by PVN account for approximately 18-20% of Vietnam's state budget. In 2011, Vietnam earned \$32 billion in revenue, produced 23.91 million tons of oil equivalent, exploited 15.21 million tons of oil and 8.7 billion of cubic meters of gas, and increased its oil and gas reserve to 35.3 tons (35 million tons in Vietnam and 0.3 million tons overseas.) This year, the country sold 8.3 million tons of crude oil worth \$10 billion, which included the export of 8.7 million tons worth \$5.34 billion. The year 2011 marked Vietnam's exploitation of the 280th million ton of oil and the 70th billion of cubic meter of gas. In 2011, PVN maintained the No. 1 rank in Vietnam's Top 500 biggest companies. In 2012, PVN aims to reach the exploitation of 24.81 million tons oil and gas, and revenues of \$33 billion.



Map 1: Major Tertiary Basins in Vietnam
 Source: PVN (<http://www.pvn.vn>)

Upstream and Midstream

Vietnam is currently ranked fourth in Southeast Asia after Indonesia, Malaysia, and Brunei for oil and gas production and oil reserves. Vietnam's range of activity covers about one million sq km, comprising major tertiary basins and groups of basins: Song Hong, Phu Khanh, Cuu Long, Nam Con Son, Malay-Tho Chu. (See Map 1.) Of these, the Cuu Long and Nam Con Son basins have shown the most hydrocarbon potential.

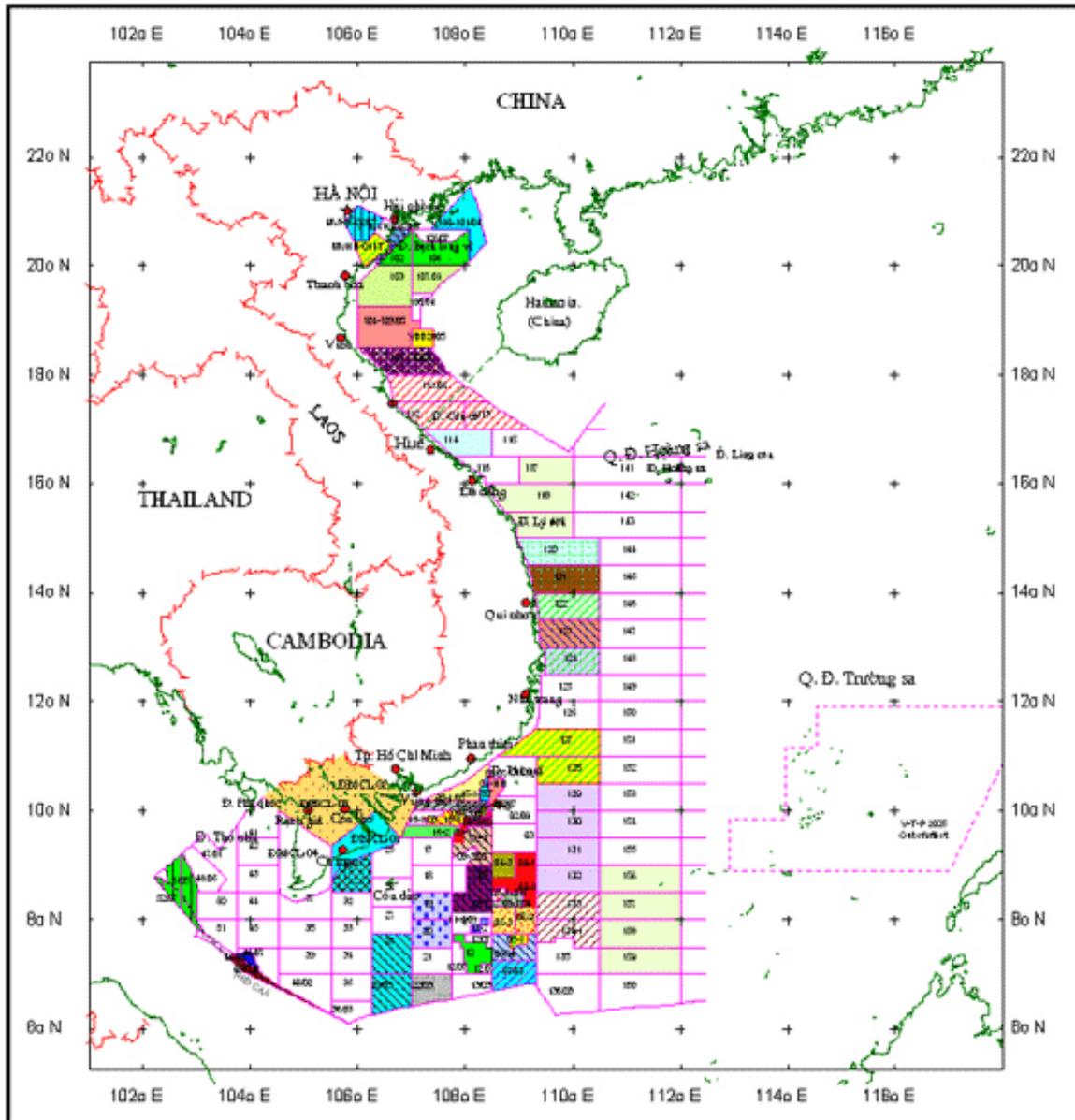


Map 2: Oil and Gas Reserve in Vietnam

Source: PVN (<http://www.pvn.vn>)

To date, about 100 hydrocarbon-bearing prospects have been found in almost 50 fields, with estimated reserves of approximately 643 million tons of crude oil and 644 billion cubic meters (bcum) of natural gas (23 trillion cubic feet -Tcf). Among the 50 fields with oil and gas discoveries, there are 30 commercial fields. (See Map 2.)

As of December 2011, PVN signed 94 oil and gas exploration and production contracts with foreign companies in the form of Product Share Contracts (PSC), Business Cooperation Contracts (BCC), Joint Ventures (JV) and Joint Operation Companies (JOC). Of these, 53 contracts are currently in effect. (See Map 3.)



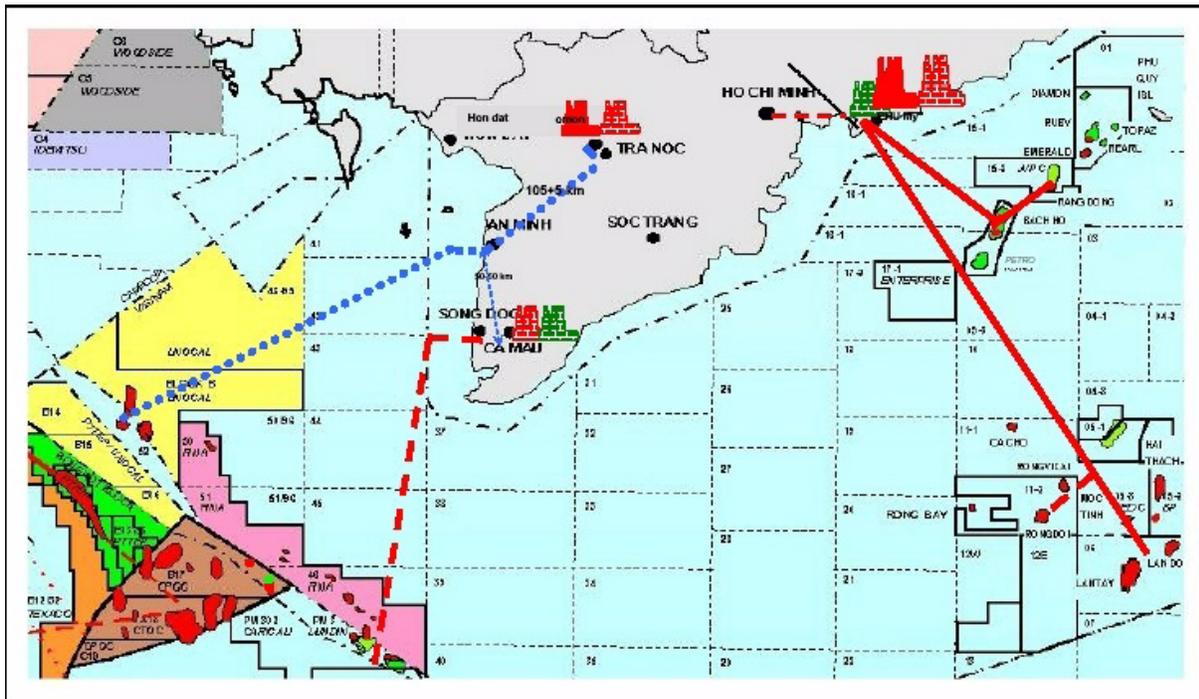
Map 3: Oil and Gas Exploration and Exploitation Operations in Vietnam

Source: PVN (<http://www.pvn.vn>)

In 2011, the country produced 23.91 million tons of oil equivalent, comprising 15.21 million tons of crude oil and condensate, and 8.7 billion cubic meters of gas. In the medium term, oil production is expected to decline gradually due to the deteriorating performance of existing oil fields while other new discoveries will not offset this loss in production. PVN has been expanding exploration to boost reserves, including in foreign countries. In 2011, three new oil fields were discovered and five new oil wells were put into production including three in Vietnam and two overseas.

Gas production, however, is expected to rise significantly since several gas fields will be put in production in the near future. At present, about 85 percent of the natural gas produced in Vietnam is used for power generation, 10 percent for fertilizer and the remaining 5 percent for

industries and households. Gas is transported via a network of gas pipelines from offshore gas fields to onshore processing facilities and power complexes (See Map 4.)



Map 4: Gas Pipelines (in red lines) and Projects (in blue lines) in Vietnam
Source: PVN (<http://www.pvn.vn>)

Along with three gas pipelines, Bach Ho, Nam Con Son and Ca Mau, PVN is building the fourth pipeline from the Gulf of Thai to O Mon in Can Tho Province, as well as the second Nam Con Son pipeline from the West Ocean and the Nam Con Son basin. PV Gas, Chevron Vietnam (U.S.), Mitsui Oil Exploration Company (MOECO) (Japan) and PTT Exploration and Production Public Company Limited (PTTEP) (Thailand) signed a Business Cooperation Contract (BCC) for the Block B Gas Pipeline Project. The Project, when completed, will transport natural gas from Block B&48/95 and Block 52/97, off the Southwest coast of Vietnam, with a capacity of 18.3 million cubic meter per day (equivalent to 6.4 billion cubic meter per year) to power plants at the O Mon Power Complex of Can Tho City (total capacity of 3,000 MW). This pipeline will also supply power plants and fertilizer plants in southernmost province of Ca Mau Province.

PVN has mapped out a five-year plan from 2011-2015 with a combined revenue estimated at \$144.8 billion, producing a total of 90 million tons of crude oil and 51 billion cubic meters of gas. Vietnam's domestic demand for crude oil and gas in the future is expected to increase, especially as the country expands refinery capacity.

Downstream

In 2005, PVN started construction of its first oil refinery at a cost of \$3 billion with a capacity of 6.5 million tons per year in Dung Quat, Quang Ngai Province (Central Vietnam). Operational since 2009, the Dung Quat refinery uses local feedstocks from the Bach Ho field and imports from the Middle East. Dung Quat refinery has been operating at full capacity since 2010, and was officially inaugurated in January 2011. In 2011, the country's first refiner produced 5.43 million tons of gasoline, liquefied petroleum gas, kerosene, diesel, jet fuel, fuel oil and

polypropylene (PP). PVN plans to raise the capacity of Dung Quat Refinery from 6.5 million tons to 10 million tons by 2016 at a projected cost of \$1 billion.

A joint-venture amongst Kuwait Petroleum International (KPI), Japanese refiner Idemitsu Kosan Co. and Mitsui Chemicals, and PVN was established in April 2008 to build the second refinery – the US\$7 billion Nghi Son Refinery and Petrochemical complex in Nghi Son, Thanh Hoa Province in northern Vietnam. The complex is under construction and will be able to process 8.4 million tons of crude oil per year when it is completed in 2013.

The third refinery, scheduled to be operational in 2014, is the Long Son Petrochemical complex in Ba Ria-Vung Tau Province. Long Son refinery needs an investment capital of US\$8 billion and will be able to refine 10 million tons of crude oil per year. Two local partners, PVN and Vinachem, have been negotiating with foreign partners including Thailand-based TPC and SCG about setting up a joint-venture. Companies from Qatar and Japan (Itochu) have also shown interest.

Best Prospects/Services

Under its WTO commitments, the Vietnamese government has opened its oil and gas sector to foreign companies, which it hopes will bring in capital, expertise and technology to help achieve the country's major industry goals. Foreign oil and gas companies active and successful in Vietnam include KNOC (Korea), ONGC Vadesh (India), Nippon Oil (Japan), Idemitsu (Japan), Zarubezneft (Russia), Petronas Carigalli (Malaysia), and Chevron (U.S.).

In 2009, the Vietnamese Government issued Decree 115, essentially supplementing the 2008 Petroleum Law and the 2001 Petroleum Bidding Regulation. The decree outlines the kinds of entities that are allowed to conduct business in the petroleum sector, and confirms that only PVN and its subsidiaries may conduct exploration activities as primary contractor. The decree outlines licensing processes, tax issues and bidding regulations. A number of decrees delineate surcharges on oil and other regulations for this sector, and U.S. entities in this field are encouraged to engage competent legal counsel as they develop their market-entry strategies.

According to Vietnam's Oil and Gas "Master Plan Toward 2015 and Vision to 2025," the industry will require an investment of \$203 billion to achieve the goals set forth by the government for the 2006-2025 period, in which PVN's share will be \$81.54 billion (accounting for 40%).

These policies, as well as the recent positive developments in the oil and gas sector, have generated a steadily increasing demand for equipment and services that will continue in the years to come.

Opportunities

American technologies, expertise and experience are well respected in the oil and gas industry in Vietnam. U.S. companies are highly competitive in supplying sophisticated equipment, advanced technologies and professional services to both new and existing projects.

Significant business opportunities for U.S. companies exist in the upstream, midstream and downstream segments of the oil and gas industry. More details on investment opportunities and a list of specific upcoming projects in the oil and gas sector will be provided to U.S. companies upon request. Potential buyers include PVN and its subsidiaries, joint ventures and affiliates, as

well as foreign oil and gas companies operating in Vietnam, which normally prefer sourcing from the U.S., Europe and Japan.

Resources

Ministry on Industry and Trade (MoIT)

<http://www.moit.gov.vn>

Vietnam Oil and Gas Group - PVN

<http://www.pvn.vn>

Contacts:

For more information about the Vietnamese oil and gas industry, please contact:

Mr. Nguyen Dzung, Commercial Specialist

U.S. Embassy in Hanoi

E-mail: Nguyen.Dzung@trade.gov

Mr. Tran My, Commercial Specialist

U.S. Consulate General in Ho Chi Minh City

Email: My.Tran@trade.gov