VENEZUELAN OIL INDUSTRY UPDATE

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In June 1993, the Commercial section of the Canadian Embassy in Caracas produced a detailed report entitled **Survey of the Petroleum Industry in Venezuela: Opportunities for Canadian Suppliers and Investors.** This paper is meant to provide an update of that survey outlining: in particular the impact of lower oil prices on the Venezuelan economy; recent changes in Petroleos de Venezuela's (PDVSA) long term plans; the impact of lower oil prices on the Venezuelan economy; PDVSA's procurement plans and major projects.

PETROLEUM INDUSTRY AND THE VENEZUELAN ECONOMY

Recent Government reports project that the Venezuelan petroleum industry will generate almost $11 billion U.S. in revenues in 1994, of which $10 billion will be in exports abroad. Almost 90% of Venezuela's export income is derived from petroleum sources. This income represents approximately 25% of the country's GDP and will account for 43% of Venezuela's national government budget expenditures(1994 national budget is based on average oil prices of U.S. $13.50 per barrel). As impressive as these figures are they actually show a declining importance of petroleum, whereby in 1993 petroleum revenue covered 50% of federal budget costs. This is part of a long term trend and stated another way, income from petroleum per capita has declined steadily from a high of over $1500 per capita in 1973 to about $200 per capita in 1993.

This drop in petroleum revenue is in large measure a result of a steady decline in oil prices which are now at their lowest level since 1988. The Brent Blend of crude oil is now trading at year end at about the $13.20 per barrel level. The benchmark started the year at $18.00 but declined steadily so that, allowing for inflation, the real value of the barrel is now about where it was 30 years ago-before the first oil shock caused by the Arab oil embargo. Venezuela's basket of crudes ended the year at an average $11.75 per barrel, down significantly from 1992. Although there has been a slight seasonal upturn in prices during the last few weeks as a result of the extremely cold winter being experienced in North America, the general trend in prices will likely continue flat for the next few years.

All of this, of course has a major impact on the Venezuelan economy and the ability of PDVSA to invest. The Government has been struggling with declining oil prices for several years and only recently has been successful in replacing some lost petroleum income(PDVSA is taxed at 66%) with other sources(ie. principally a new business asset tax and a value added tax). The government also seems to becoming increasingly frustrated with OPEC (Venezuela was a founding member) and for the first time recently admitted publicly that they are considering the possibility of withdrawing from the cartel.

Venezulea wants to dramatically increase its oil production potential and may be constrained by OPEC from significantly upping its quota. This, of course, will be a decision for the new government which takes over in February 1994.

PDVSA CURRENT SITUATION AND INVESTMENT PLANS

Over the last several years PDVSA has presented and revised various very ambitious medium and long term investment plans to dramatically increase oil exploration and production capacity, and expand refining and petrochemical capability. In addition, PDVSA plans major investments to develop the heavy oil fields of the Faja in the Orinoco and a huge offshore LNG facility in the eastern part of the country. The decline in oil revenue and the extremely heavy tax burden carried by PDVSA has increasingly forced the national oil company to reconsider and revise these plans as the cash flow considerations and the viability of some of their objectives come into question. A key component of PDVSA's new plans take into account the need for significant foreign participation by way of joint venturing in a number of areas, a major departure for Venezuela which nationalized its petroleum industry in 1976. The following is a brief overview of PDVSA recently released 10 year plan which outlines major strategies and investment plans.

PDVDA's Ten Year Business Plan 1993-2002

The new plan issued in November 1993, calls for capital investments of U.S.$48.5 billion and aims to raise crude oil production potential to 4 million barrels per day by 2002. Current production capacity is approximately 2.8 million b/d. It is expected that PDVSA will invest directly 65%($31.5 billion) of the total while encouraging private investors to provide 35%($17 billion) through joint ventures.

The investment program assumes moderate annual growth in world energy demand throughout the ten year plan period with potential demand for hydrocarbons reaching 76 million b/d by 2002, up from consumption of 65.2 million b/d in 1993. It also assumes that Venezuelan production will rise to around 3.6 million b/d in 2002 and to 4.5 b/d in 2010. Of the total 4 million b/d, 2.2 million b/d will be light/medium crudes and condensates, while 1 million b/d will be heavy and extra-heavy oil, a major percentage to come from new upgrader projects planned in the Orinoco Belt through strategic associations with private international partners. The remaining 800,000 b/d in capacity will come from re-activated fields run by third parties under operating service contracts, as well as strategic associations in heavy crude and possible joint ventures in exploration and production in high risk areas.

For the 1994 budget year PDVSA's investment budget is set at U.S. $3.9 billion:$2.2 billion for production; $1.13 billion for refining; $287 million for exploration; $184 million in petrochemicals; and $89 million for Orimulsion; and $14 million on coal.

Exploration

In both traditional and non-traditional production zones PDVSA wants to raise proven reserves from 63 to 65 billion by the end of the ten-year period, despite projected increases in production. This may not sound like a large increase, but it means that for each of the ten years contemplated in the business plan, PDVSA will have to add more than one billion barrels to proven reserves just to replace those which it will produce. PDVSA estimates a potential of 42 billion barrels of light and medium crude yet to be discovered in Venezuela's four principal sedimentary basins. A number of good areas have been identified for development by PDVSA some on its own and some through exploration/production sharing approaches with private partners.

New Production and Strategic Associations for Heavy Oil

Last year the Venezuelan Congress gave approval to PDVSA to move forward with joint-ventures to develop large-scale projects for the production of heavy oil in the Orinoco Belt in effect up to 35 years. Two deals are currently expected to begin development within the next two years to extract, upgrade and market Zuata crude. One association between Maraven and Conoco will require an investment of U.S. $1.9 billion to produce 120,000 barrels p/d and pipe it 210 km to a delayed coker facility at Jose where it will be upgraded to a lighter crude of 20 degrees API. Each partner has a 49.5% stake in the consortium. The other project being planned is with Maraven(35%),the French oil company Total(40%) and a group of Japanese companies to produce 114,000 b/d and ship it through the same pipeline to Jose, where it will be upgraded to 31 degrees API. This project will require a $3.8 billion investment.

Currently the partners are negotiating the legal and business structures of the two independent companies that will be formed. In 1994, the design, engineering and real costs will be detailed. Construction is expected to begin as early as the end of 1995. With Canada's well-known and respected leadership in heavy oil development Canadian companies should have excellent opportunities in these and a number of future heavy oil development projects being planned. Companies should be marketing their expertise and products to the consortium partner now.

Reactivation Program for Marginal Fields

The second round of bidding for service contracts to manage inactive fields was completed in 1993 with five companies and four consortiums awarded contracts for nine of the 13 reactivated units. One of the contracts was awarded to a Canadian led consortium made up of Norcen International, Perez Companc of Argentina and Corod of Venezuela for the Oritupano-Leona unit in northeast Venezuela. Another round of bidding has just started for two more units that were not successfully contracted in the second round. Strong interest has already been shown by several Canadian firms for the Colon and Falcon West units. Bidding for these units is restricted only to those companies or groups that pre-qualified during the second round. Contracts are expected by March or April 1994.

Refining and Environmental Expenditures

In refining, PDVSA will complete upgrading projects at the Amuay, Cardon and El Palito refineries, raising processing capacity in Venezuela and Curacao(Isla Refinery) from 1.1 million b/d in 1992 to 1.2 million b/d by 2002. Although this increase is small in volume terms, the upgraded and modernized refineries will have notably higher quality and higher-value product slates than today and be able to handle more heavy crudes. PSVSA is also seeking joint-venture partners for a planned new refinery for eastern Venezuela at Jose, which would handle heavy and extra heavy crudes. In December, Venezuela was hit badly by a decision of the U.S. EPA requiring foreign refiners to use the 1990 U.S. industry average for pollutants in reformulated gasoline between 1995 and 1997 which will cost Venezuela U.S.$150 million over the next three years.

Significant expenditure is being planned for environmental associated improvements(over $800 million over 5 years) including oil spill cleanup technology, pollution control equipment and services, preventative maintenance programs and treatment and disposal of effluent in refineries and petrochemical plants etc.

Liquified Natural Gas Project

Another major international strategic partnership approved by the Venezuelan Congress last year is for the development of a huge $5.6 billion project to produce natural gas from offshore fields in northeastern Venezuela, build a liquefaction plant on the Paria Peninsula, acquire a tanker fleet and market around 6 million metric tons per year of LNG to clients in the U.S. and Europe. International partners in the Cristobal Colon project are Lagoven, Royal Dutch Shell, Exxon and Mitsubishi. The project is still in the feasibility stage and major developments which are still pending depend to a large degree on gas supply, secure markets and firm natural gas pricing.

Petrochemicals

Despite the worldwide downturn in the petrochemical business, Pequiven, the PDVSA subsidiary responsible for Venezuela's upstream petrochemical production, is moving ahead with a major development program designed to raise petrochemical production capacity from 4.2 to 12 mtpy by 2002. Pequiven and private investors both national and international are already operating 18 joint-venture projects with 4 others under construction. New projects are being established to produce oxygenates, aromatics, olefins and plastics. Starting in 1994 all investments by Pequiven will be financed by its own resources and/or by private investors. Since petrochemicals are not covered by the nationalization law foreign investors can participate freely up to 100% in petrochemical developments. For a full description of all planned projects see the above noted study completed by the Embassy in June 1993.

CONCLUSIONS

Declining world wide oil prices will undoubtably have an impact on PDVSA's long term plans and it is debatable that the company will be able to realize all of the investment to achieve their very ambitious plans. Despite these concerns, even in the most pessimistic scenarios, Venezuela will remain an important producer of petroleum products. In light of this, numerous opportunities exist for Canadian companies either as investors and operators in new production or suppliers of equipment and services. Specific near term opportunities should be pursed in the following areas:

-**Equipment:** full range of equipment including oil well and field pumps, power valves and parts, turbines, steam injection equipment, drilling and boring machines, geophysical instruments and services, gas compression and processing equipment, electric equipment, process equipment, laboratory and measure and control equipment, telecommunication equipment, machine tools and firefighting equipment, environment equipment and spare parts, and services for all of the above.

-**Exploration:** as noted above, PDVSA is now taking seriously about opening up selected new development fields to some form of production sharing. This is a major departure for the nationalized industry. Developments in this area will be announced this year.

-**Heavy Oil Developments**: the large scale upgrader projects being planned for the Orinoco heavy crude is now creating opportunities for Canadian expertise and equipment.

-**Environmental:** PDVSA has a huge budget for environmental related equipment and services.

-Petrochemical: PDVSA is looking for joint venture partners to help realize an ambitious plan to become a world leader in petrochemicals.

-Engineering and Maintenance- significant opportunities exist in the sector; however it should be noted that a number of local engineering firms are very strong and strategic partnerships are the recommended approach to this market.

The Venezuelan petroleum industry is very sophisticated and extremely competitive. Companies interested in this market should be prepared to invest considerable time analysing their potential, locating appropriate representation or local partners. Financing is increasingly becoming an important factor in PDVSA's buying decisions and companies should consider offer either corporate terms or Export Development Corporation financing(EDC has a line of credit established with PDVSA that offers attractive terms).

Companies wishing more information on any of the above or a copy of the full report entitled **Survey of the Petroleum Industry in Venezuela: Opportunities for Canadian Suppliers and Investors**, which goes into considerable detail on the Venezuelan petroleum industry may contact:

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