

## Overview of India's Oil & Gas Industry—A \$ 13 Billion Commitment

The Oil and Gas Sector has emerged as a front ranking industry in India. Approximately one third of India's foreign exchange earnings are committed to meeting the cost of its petroleum imports. Having been adversely affected by rapid price escalations in the past, the Government of India (GOI) has since the early 1970's, strongly emphasised increased self-sufficiency in hydrocarbon production. During the period of its Seventh Five Year Plan (1985-1990), India committed in excess of \$ Cdn 13 billion to the exploration, production, refining and marketing of oil and gas. Energy self-sufficiency will continue to be central to India's economic planning, as the demand for commercial energy by an ever growing population continues to accelerate.

India presently produces approximately 33 million tonnes of crude oil per annum (MTA) meeting about 70% of demand. Recoverable oil reserves are estimated at 500 million tonnes or 15 years production at current levels. Gas production is at an early stage of development and stood at 9853 million cubic metres (MCM) in 1986-87. With over one half of the hydrocarbon reserves being in the form of natural gas, this relatively undeveloped resource holds an especially bright promise for the future. Estimates indicate that less than one quarter of commercially recoverable reserves of oil and gas have been proven.

According to present scenario, the gap between demand and supply is growing as rapidly increasing requirements continue to outstrip production improvements. In an effort to bridge this gap, the Government of India is strongly committed to an accelerated program of exploration and production.

The commitment to increasing self-sufficiency is aimed at reducing India's economic vulnerability to fluctuations in world oil prices over the long term. Temporary fluctuations, even significant down turns in world oil prices, are not taken into consideration when making investment commitments. For example, during periods of world wide recession in the oil industry caused by falling prices, India's program for oil and gas development continued to grow as planned. The Indian market therefore, is relatively isolated and its industry is protected from the major upheavals in expenditure and planning patterns experienced worldwide.

Details of expenditures in the Oil and Gas industry for the period of the Seventh Five Year Plan (1985-90) are given on page 3. Exploration and Production, at \$ 10.65 billion account for about 80% of total commitments. Refining, marketing, engineering and petrochemicals account for the remaining 20%. The oil and natural gas demand for the remainders of the seventh plan are detailed on page 4.

Initial planning for the Eighth Five Year Plan (1990-95) has begun. Expenditures in the Oil and Gas industry are expected to continue to increase. Details of preliminary ONGC demand projections for the Eighth plan period are likely to exceed \$ 10 billion (page 3).

## Historical Perspective—An Elephant's Oily Feet

The history of oil exploration in India can be traced back to 1825 when explorers first discovered oil clinging to the feet of wild elephants in the jungles of Upper Assam. Systematic exploration and production began in 1889 at the Digboi oil field which attained a maximum production of 1000 barrels a day in 1920.

In 1955, a Petroleum Division within the Geological Survey of India was established to develop a wider oil base and facilitate exploratory work. This became the forerunner of the Oil and Natural Gas Commission (ONGC) which is the single largest agency in the country for exploration, drilling, production and transportation of oil and gas.

In 1961, Oil India Limited (OIL) was incorporated as a joint venture, between the Government of India and the Burma-Shell Oil Company. It was engaged in the exploration, production and transportation of crude oil from Assam and Arunachal Pradesh to the refineries in North-East India. In 1981 OIL became a wholly-