

including the probable supply of Sable Island gas to the Atlantic region; strengthen the petroleum industry's cash flow for exploration at a time when industry's financial position has been weakened; and freeze the natural gas and gas liquids tax until the end of 1982 to make it an economically attractive oil substitute and dispense with a scheduled increase in the petroleum compensation charge.

Since 1960 the average annual increase in Canadian crude oil demand was at least 5% prior to the Middle East oil crisis of 1973-74 and the initiation of rapid oil price increases. In the second half of the 1970s there was an average annual increase of 3.4%. In the period 1979-82 a number of factors, including sharply higher prices and the impact of NEP initiatives, led to an average 9.1% decline in crude oil usage. In contrast to an increase of 5.6% in 1979, total energy use final demand declined by 0.6% in 1980, 2.9% in 1981 and 4.6% in 1982. This took place against a background of increases in the gross national product (GNP) of 0.9% in 1980 and 2.9% in 1981 and a decrease of 5.0% in 1982.

11.2.1 Pricing and fiscal incentives

The agreement between the governments of Canada and Alberta relating to energy pricing and taxation, as modified in mid-1983, froze the price of old oil (that discovered before March 31, 1974) at \$29.75 per barrel. This price was designed to remain constant until early 1985, unless a significant change in world oil prices was experienced. This 1983 accord also: guaranteed that natural gas prices will not rise above 65% of the price of oil; redefined oil discovered between 1974 and 1980 to allow it to qualify for the world price; and permitted the provision of world price for output from infill wells drilled to enhance production from existing oil fields. Amendments to the Canada-Saskatchewan agreement of October 1981 relating to energy pricing and taxation were announced in August 1983.

The NEP update of May 1982 introduced cash-flow relief measures to firms involved in exploration. This relief took several forms including broadening of the scope of new oil reference price to cover high-cost oil production, and a special price for oil discovered after 1973 and before 1981 to encourage firms which explored aggressively for oil after the 1973 international oil crisis.

The NEP update contained pricing and taxation adjustments estimated to increase petroleum industry cash flow by approximately \$2 billion. These included: a drop in the rate of PGRT from 16% to 14.67% from June 1, 1981 to May 31, 1983 (after an existing resource tax allowance was calculated in, producers were paying the PGRT at a rate of 11%); a reduction in the rate of PGRT paid by integrated oil sands plants from 12% to 8% between January 1, 1983 and December 31, 1984; the incremental oil revenue tax was reduced to nil between June 1, 1982

and May 31, 1983 and an annual credit of up to \$250,000 for small producers to offset their PGRT liability on their production income after May 31, 1982. Another adjustment took the form of the provision of earned depletion for tertiary recovery projects, subject to agreement with producing provinces on appropriate levels of royalty relief, and a provision of data indicating the justification for such support.

The April 19, 1983 federal budget introduced a change in the PGRT for enhanced oil recovery projects. This modification would result in no PGRT being payable by participants on the production revenue of an enhanced oil project until all eligible capital investments have been recovered by investors.

By June 1983, a federal petroleum incentives program (PIP) had contributed slightly more than \$2 billion to eligible exploration and development expenses since it began to replace the previous tax-based incentives system in January 1981. It was designed to open up new investment opportunities in petroleum exploration and development, enabling more Canadian investors to share in expansion benefits, and achieving at least 50% Canadian ownership and increased Canadian control of oil and gas production by 1990. The vast majority of PIP contributions were for exploration expenses incurred on the Canada Lands, that is, lands both in the territories and offshore. Contributions for exploration and development in Alberta, where the bulk of western Canadian petroleum activity occurs, are funded from the Alberta petroleum incentives program. Under terms of the Canada-Alberta energy pricing agreement of September 1981, Alberta administers and pays the incentives to industry under a program for activities in the province.

Nuclear energy. To stimulate better understanding of the potential of nuclear energy, and to provide a basis for study of issues related to the supply and use of nuclear energy, the *Nuclear industry review* was released in August 1982. It suggests that long-term prospects for the nuclear industry are favourable and that Canada will need an industry capable of building new reactors in the 1990s.

11.2.2 Oil substitution

A Canada oil substitution program (COSP), launched nationally in May 1981 was designed to reduce oil consumption to 10% of total energy used in residential, commercial and industrial sectors by 1990. Grants cover up to 50% of eligible costs of converting heating systems from oil to natural gas, electricity, propane and renewable sources such as wood and solar energy, to a maximum of \$800 (up to \$5,500 for multiple units). The cumulative value of COSP grants issued for the fiscal years 1981-82 and 1982-83 was \$283.3 million for 417,258 COSP grants. During 1981-82 \$132.0 million was spent for 191,916 grants: 83,312 for gas conversions, 71,865