

only 0.3 MMMcf over 1973. This small increase — six small plants — reflects the fact that no new fields were discovered during 1974. No major plant has been commissioned since 1972. Plant output includes pipeline gas, propane, butanes, pentanes plus and sulphur.

13.2.6 Research and development

Technical advances to assure adequate sources of energy depend on research and development. On April 15, 1975, the federal government announced the establishment of the Canadian Energy Research Institute. Funded by the Department of Energy, Mines and Resources, the Alberta Department of Mining, Energy and Natural Resources and the private Energy Research Association, the Institute will be located at the University of Calgary. It will conduct research and analysis on alternative solutions to medium- and long-range energy problems, develop independent source data, and provide economic research. Creation of the Institute is a response to a growing demand for information on energy matters from both the private and the public sectors.

13.2.7 Marketing

Higher prices for petroleum products in both the domestic and export markets appeared to reduce sales below forecast levels in 1974. Net sales of petroleum products were estimated at 607 million bbl in 1974, up 5.2% from 577 million bbl a year earlier, but the rate of increase was below the 5.4% historical growth pattern over the past decade. Net sales of natural gas in Canada climbed 8% in the year but exports were down slightly. Canadian production of crude oil, including natural gas liquids, averaged 1,993,800 b/d, a decrease of 122,300 bbl from the daily average in 1973.

13.2.7.1 Oil

The National Energy Board's report on exportation of oil in October 1974 analyzed established reserves and the likelihood of new oil field discoveries, and reviewed the long-term demand for Canadian oil. The report forecast a decline in production from established oil fields starting in 1975 and continuing into the 1980s, when oil from frontier areas in the north and from the oil sands in Alberta should become available in significant amounts.

Faced with a demand for oil in 1982 that, on the basis of supply and demand trends, will result in an over-all national deficit of 200,000 b/d, the Board recommended that exports of crude oil and petroleum products be progressively reduced with minimum injury to those areas of the US now dependent on Canadian supplies. Subsequent action by government set a limit on exports of 800,000 b/d for the six months ended June 30, 1975, and talks were initiated with producing provinces to cut exports to 650,000 b/d on July 1. Market conditions in the US kept exports below the levels authorized.

The amount of oil that can be exported is computed annually, with a system of monthly licences in force to ensure that Canadian requirements are met. The formula fixes the annual amount of crude oil available for export in relation to the amount of oil that can be produced, Canadian demand, and a conservation factor estimated for that year. This has the effect of reducing oil exports progressively as the estimated period of self sufficiency decreases in the area of Canada served by oil of Canadian origin.

Exports of western Canadian crude to American markets peaked at 1.1 million b/d in 1973. In 1974 the daily average export had dropped to 890,000 b/d, a 21.7% decrease. This decline may be attributed to the Canadian export tax imposed during 1974, making Canadian crude a less attractive feedstock for US mid-west refiners and to reduced deliveries to Puget Sound refiners because part of the Trans Mountain Pipeline capacity was needed to move western crude to the seaboard for shipment to eastern Canada.

In the early 1970s export demand for Canadian refined products increased substantially largely because the demand for heavy fuel oil in the US northeast grew more than the refinery capacity of the region. The increased demand was primarily met by the two large new refineries at St-Romuald, Que. and Point Tupper, NS. The new refinery at Come By Chance, Nfld. built in 1972 was also designed to meet this market.

As a result of concern about future supplies, the National Energy Board imposed controls on the export of petroleum products in June 1973. Marketers are required to obtain annual export licences to which export ceilings are attached. The licensed amounts for 1974 were 2,164,000 bbl of motor gasoline, 9,362,000 bbl of middle distillates, 50,895,000 bbl of heavy