

Electric Power Commission for use in its coal-fired power stations.

Nova Scotia. Major coal resources in the Atlantic provinces lie under and off the shore of Cape Breton Island. Three mines operated by the Cape Breton Development Corp. (DEVCO) accounted for 90% of NS production in 1981 and 88% in 1982. Production in 1982 was 3.1 megatonnes with a value of \$170 million, up from 2.5 megatonnes valued at \$128 million in 1981. Coal production in 1981 was lower than 1980 production levels due to a four-month miner strike at the DEVCO mines.

Research and development. In Western Canada, the BC government and a Japanese corporation were conducting a pre-feasibility study of a \$5 billion coal liquefaction plant near Hat Creek, west of Kamloops.

The Alberta government and the private sector continued to study the slurry pipeline option: transporting coal in water, methanol and other media via pipelines.

In Eastern Canada, technologies associated with the liquefaction of NS coal were being evaluated.

Coal gasification was considered but the current natural gas reserve and supply situations have made developments in this area uneconomical.

11.8 Uranium

Production in 1982 was an estimated 8 050 tonnes of uranium (t U). Shipments of primary uranium were estimated at 8 189 t U valued at \$815 million. Production in 1981 was 7 722 t U, an increase of 8% over 1980. The byproduct output, which is relatively small, is not included in the Canadian total because the source materials are exported from the United States and the extracted uranium is sold to US companies. Shipments of primary uranium in 1981 were estimated at 7 507 t U valued at \$794 million.

Canada had seven primary uranium producers until mid-1982, when the Eldorado mine in northern Saskatchewan and the Madawaska mine near Bancroft, Ont. ceased operating. Canada's first commercial byproduct uranium operation was idle throughout the year.

The short-term prospect for the uranium sector remained unchanged during 1982, as estimates of projected nuclear generating capacity and in turn uranium requirements were adjusted downward. The combined effect of the general economic slowdown, uranium supply exceeding demand, and swelling uranium inventories led to further production cutbacks, mine closures and project deferrals. Although the uranium market remained depressed during 1982, some signs of recovery were evident by the end of the year, as the uranium spot-market price rose slightly from the seven-year low reached in August 1982.

Levels of Canadian uranium exploration activity declined sharply in 1981 in response to continued

erosion of both the spot-market price and short-term sales prospects for uranium. Uranium exploration expenditures in Canada during 1981 amounted to \$102 million, 20% less than the 1980 total of \$128 million. Exploration and surface development drilling for uranium had dropped by 30% to some 359 000 metres, down from the record 503 000 metres in 1980.

During 1982 new export contracts totalled 7 500 t U, bringing the total amount of uranium under export contracts reviewed since September 1974 to 87 000 t U. Forward export commitments under all active contracts, including those in place prior to September 5, 1974 were estimated at almost 60 000 t U. Forward domestic commitments approached 80 000 t U.

EMR Canada's uranium resource appraisal group (URAG) completed its seventh (1980) assessment of Canadian uranium resources in early 1981. Comparison of the 1980 estimates with those published a year earlier indicates a 5% decrease in the measured category, a slight increase in the indicated category and a 4% decrease in the inferred category.

The total of the three resource categories is less than that reported in the 1979 assessment of 14 000 t U, representing a net decrease of about 2%. If the 1980 production and average processing recoveries are considered, however, the reduction over the period amounted to only 6 400 t U, or a decrease of just over 1%. Changes in the distribution of resources among individual categories resulted from the technical-economic re-evaluation of some segments of the Beaver Lodge deposits, the continued evaluation of the Midwest Lake deposit and the reassessment of the Key Lake deposits, all in northern Saskatchewan.

In early 1982, the Organization for Economic Co-operation and Development (OECD) released the results of the eighth in a series of world uranium supply assessments conducted jointly by its Nuclear Energy Agency (NEA) and the International Atomic Energy Agency (IAEA). The study showed that Canada accounts for some 13% of the world's low-cost reasonably assured resources, ranking fourth behind Australia, South Africa and the United States. Of greater significance in terms of Canada's future capability as a uranium supplier was its position with respect to estimated additional resources. In the world total of some 2.7 megatonnes of uranium reported in this category, with deposits mineable at costs up to US\$130/kg U, Canada accounts for 28%, ranking second behind the United States.

In British Columbia, the report of a royal commission of inquiry into health and environmental protection in uranium mining (the Bates commission) was tabled in the legislature in March 1981. It recommended that, providing a licensing procedure for uranium exploration is instituted in British