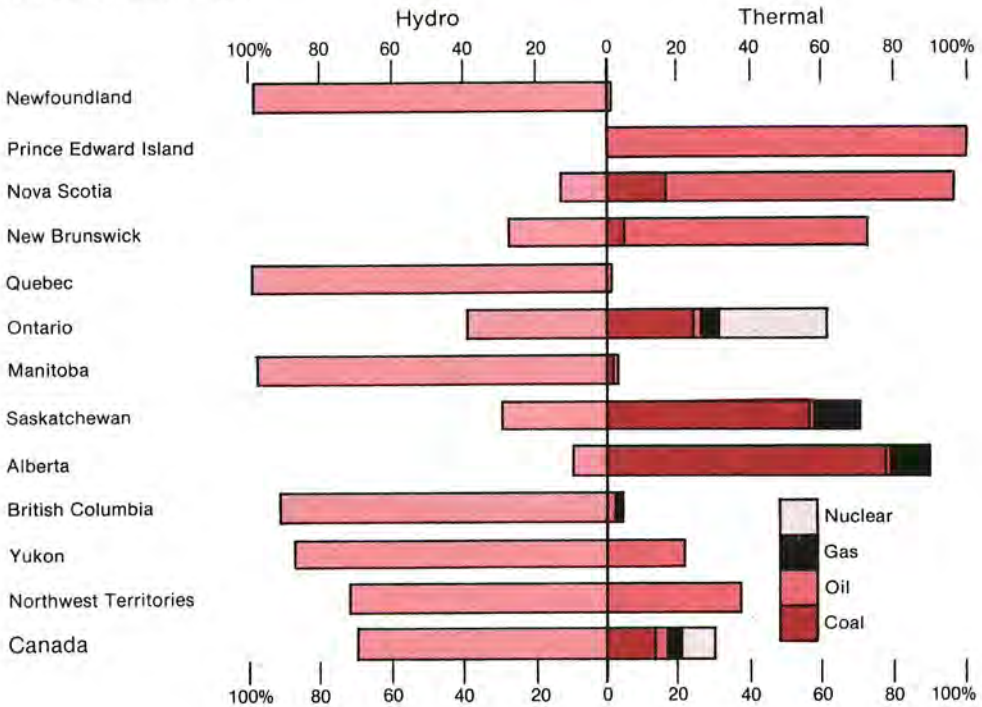


Electrical energy generation by principal fuel type, 1978

(Per cent of provincial total)



Bruce nuclear station began operation near the end of 1978. During the year, the three Bruce units in operation had a capacity of 74.3%. Duplicates of the Pickering and Bruce nuclear stations are under construction and work started on the four-unit 3 400 MW Darlington nuclear station on Lake Ontario between Bowmanville and Oshawa in 1977. Hydro-Québec and New Brunswick Electric Power Commission 600-MW CANDU stations are under construction at Gentilly and at Point Lepreau.

A further step in development of the CANDU reactor is the use of boiling light water instead of pressurized heavy water as the coolant. The initial Gentilly nuclear power station (Gentilly I) uses boiling light water; this station came into service in 1971 with 266 MW of nuclear-electric capacity.

Load demand and energy use

13.9.6

The demand for electricity depends basically on population growth and concentration, economic activity, the price of electricity and, to a lesser extent, the price of electricity relative to prices of such fuels as oil and gas. Demand for electricity is closely correlated with economic activity as measured by real gross national product (GNP). The annual rate of growth in electricity demand had been stable at about 6% to 7% for 25 years up to 1973, in a period when the rate of growth of real GNP was about 5%. A sharp increase in the world price of oil in 1973 adversely affected economic activity in Canada, as well as most other countries and changed the way energy was used. Since 1973, the annual growth rate of electricity has fluctuated considerably, including a decline for the first time since 1948 of about 0.3% in 1975. The compound annual growth rate for 1974 to 1978 has been 4.2%, and the rate of economic growth as measured by real GNP has been 3.2%. The reduced rate of electricity demand growth is undoubtedly caused by the