

Nova Scotia systems are interconnected. The first major international tie connecting regions of the Maritimes in Canada with the US was the completion of a 345-kV link between the New Brunswick and Maine systems. British Columbia has an international tie with the Pacific northwest (500 kV) and a 230-kV link between Manitoba and the US was completed in 1970.

The search for economies in transmission systems has led to changes in materials used and in tower erection and cable-stringing methods. Guyed V-shaped and Y-shaped transmission towers are being used instead of self-supporting towers where the terrain is suitable, and erection costs are being reduced by using helicopters to transport tower sections to the site.

Electric utilities

13.9.8

Federal regulation of electric utilities regarding export of electric power and construction of transmission lines for such exports falls within the jurisdiction of the NEB.

Power is generated in Canada by publicly and privately operated utilities and by industrial establishments (Table 13.17). Most of the total power generated in 1975 came from public utilities, followed by privately owned utilities and industrial establishments. However, ownership varies greatly in different areas of the country. Although Quebec power installations were at one time privately owned, most were transferred to public ownership in 1963. In Ontario almost all electric power has been produced by a publicly owned utility for over 60 years.

Determination of market prices and regulation of services is limited to competition with oil, gas and coal. Consequently, there is some regulation of electric utilities in all provinces. In all but two provinces major generation and main transmission of power is the responsibility of a provincial Crown corporation. Investor-owned electric utilities are prominent in Alberta, Newfoundland and Prince Edward Island and continue to play a significant role in Ontario and British Columbia. On a percentage basis, industrial generation has been declining steadily as purchasing power from utilities which can take advantage of larger unit sizes and operational flexibility becomes more attractive. Even when process steam is required for industry, it is sometimes advantageous to purchase both steam and power from the utility.

Aid to Atlantic provinces

13.9.9

The minister of energy, mines and resources and the premiers of New Brunswick, Nova Scotia and Prince Edward Island agreed on January 23, 1978 to accept a feasibility report and to incorporate the Maritime Energy Corporation (MEC). When established MEC would undertake the following functions: financing construction and operation of regional electrical generation and transmission projects; co-ordination and direction (dispatching) of day-to-day system operation; provision of regional planning staff for generation and bulk transmission facilities; co-ordination of expanded facilities and agreements for expansion of external transmission lines for import and export; carrying out R&D for Maritime utilities.

Certain measures to encourage electric power development projects in the four Atlantic provinces were announced by the federal energy minister in April 1977: Improvement of electrical supply in Atlantic Canada is being promoted by loans for nuclear power in New Brunswick, financial aid for the submarine cable between New Brunswick and PEI, an interconnection between New Brunswick and Nova Scotia, and offers of aid for an inventory of Newfoundland energy resources and for a transmission system to carry power from the proposed Gull Island hydroelectric project.

In addition to federal-provincial home insulation programs, the federal government has contributed \$9.2 million to help Nova Scotia develop other fuels, especially coal, to replace oil.

Other federal initiatives. A loan program has been set up to finance a \$14 million program aimed at strengthening regional transmission links between New Brunswick and Nova Scotia to increase energy flow among the three Maritime provinces. Funding has been assured for a study and demonstration project for electrical load management to reduce capital requirements for power generation by reducing peak loads. This will be