

the province's electrical energy was produced by thermal generation and 62% of this (58% of total supply) was oil-fired.

In 1976, Nova Scotia Power completed two major additions to its generating system. Four 30-MW combustion turbine units were commissioned at the Burnside Industrial Park in Dartmouth to provide peaking capacity, and a 150-MW oil-fired unit was added to increase the capacity of the Tufts Cove station to 350 MW.

Construction began on the first two 150-MW coal-fired units at Lingan in Cape Breton. The decision to proceed with this project followed negotiations with the Cape Breton Development Corporation (DEVCO) for the supply of coal. The first Lingan unit is scheduled for operation in 1979 and the second in 1981.

The last substantial hydro site in the province at Wreck Cove has been developed to provide 200 MW of peaking capacity with a 100-MW unit commissioned in 1977 and another scheduled for 1978.

New Brunswick

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The provincial load grew 12.4% over 1975. A decrease of 13.8% in industrial demand was offset by increases in residential and commercial demand in excess of 22% and 35% respectively. About 88% of the provincial electrical energy supply (excluding exports) was produced within the province with the rest imported from Quebec. Internal generation was 52% hydro, 5% coal-fired thermal and 43% oil-fired thermal (representing 33%, 3% and 27% respectively of the net provincial supply, excluding exports).

Net exports to Nova Scotia of 373 gigawatt hours (GWh) and the US (2 434 GWh) together represented 42.0% of internal generation and, respectively, 10.0% and 65.1% of the net import from Quebec. On an energy balance basis, less than 25.0% of power imported from Quebec was retained within the province, but such an analysis ignores the important timing aspect of export/import flows as well as peaking and reserve capacity benefits.

The New Brunswick Electric Power Commission has undertaken an expansion program to raise the installed generating capacity in 1980 by 1 370 megawatts, an increase of almost 70% over the 1976 level of 1 973 MW. Additions will include hydro, oil- and coal-fired thermal and nuclear power plants. Capacity of the Mactaquac hydro station on the Saint John River was increased to 638 MW with the installation of the fifth and sixth units in 1978; a 200-MW unit, capable of burning oil or coal (from the redeveloped Minto field), is to be added in 1979 to the Dalhousie thermal station which now has a single 150-MW oil unit.

The first nuclear power station in the Maritimes is under construction at Point Lepreau, west of Saint John, on the north shore of the Bay of Fundy. Initial operation of the first 630-MW CANDU unit is expected by 1980. Provision is being made for addition of a second unit at some future date to help reduce the province's dependence on high cost fuels for production of electricity.

In 1976 the first two of three 320-MW units were commissioned at the Coleson Cove oil-fired station. The final unit was expected to be in commercial service in 1977. Of the total 960-MW capacity, 400 MW has been committed to export to US utilities in the state of Maine for a 10-year period.

Planning for reinforcement of the provincial power grid is well under way. The existing system will eventually have an overlay at 345 kilovolts for reinforcement of major north-south transmission, and to connect the nuclear unit in southern New Brunswick with load centres. The first stage of this planned expansion is a 345-kV transmission line between Coleson Cove and the substation at Salisbury serving Moncton. This is also the terminal for the reinforced Nova Scotia/New Brunswick interconnection. A third such interconnection went into service in December 1976, operating initially at 138 kV but scheduled to expand to 345 kV in 1978 when the new Coleson Cove/Salisbury 345-kV circuit is completed.

A small windmill-powered generator was placed in service at the Sackville district office in the eastern part of the province and a solar-assisted heat pump heating system is being installed in a new district office building in Shediac.