production in Canada has more than doubled since 1970, with the level of coal exports increasing to roughly match imports (thermal and metallurgical coal has traditionally been imported into Ontario from the Eastern United States).

Table 3-4: COAL PRODUCTION, IMPORTS, EXPORTS AND CONSUMPTION IN CANADA, 1968-1978

Unit: Millions of metric tons.

	Production	Imports	Exports	Domestic Consumption
1968	10.0	15.5	1.3	24.8
1969	9.7	15.7	1.2	24.0
1970	15.1	17.1	4.0	26.8
1971	16.7	16.5	7.0	25.6
1972	18.8	17.5	7.7	25.8
1973	20.5	14.8	10.9	24.9
1974	21.3	12.4	10.8	24.8
1975	25.3	15.3	11.7	26.1
1976	25.5	14.6	11.8	28.2
1977	28.7	15.4	12.4	30.9
1978	30.5	14.1	14.0	31.7

Source: After Aylesworth and Weyland, 1980, p. 2.

3. HYDRAULIC RESOURCES

Installed hydro-electric generating capacity in Canada has increased dramatically as the 20th century has progressed, although the proportion of total generating capacity represented by hydraulic sources has dropped steadily from a high of over 90% in the 1940s and 50s to a low of 57% in 1979. Canada's installed generating capacity by type since 1920 is given in Table 3-5. Although hydro-electric generating capacity is forecast to increase by more than 15,000 MW by 1991, it nevertheless will remain at about the same proportion of the total electrical energy mix in the early 1990s.

Canada is blessed with abundant hydro resources by comparison with almost any other country. Nevertheless, the great majority of undeveloped generating sites are uneconomic at present; many of these are small or low-head. The question of how many of these sites eventually become economically exploitable and at what rate they are developed depends upon a number of imponderables, among which are technological advances in hydraulic power generation, the changing economics of electricity in the national energy mix, and technical and political changes relating to nuclear fission. A further constraint lies in the environmental impact of extensive hydro development. The impact of

Table 3-5: INSTALLED ELECTRICAL GENERATING CAPACITY IN CANADA, 1920-1979

Unit: Electrical megawatts.

Year	Conventional Thermal	Nuclear	Hydro	Total
1920	300	—	1,700	2,000
1930	400	—	4,300	4,700
1940	500	—	6,200	6,700
1950	900	—	8,900	9,800
1955	2,100	—	12,600	14,700
1960	4,392	—	18,657	23,049
1965	7,557	20	21,771	29,348
1970	14,287	240	28,298	42,825
1975	21,404	2,666	37,282	61,352
1979	27,216	5,866	43,990	77,072

Source: Canada, Department of Energy, Mines and Resources, 1980a, p.70.

Table 3-6: CANADA'S HYDRO-ELECTRIC POWER POTENTIAL IN 1980

Unit: Electrical megawatts.

		Undeveloped Power Potential		
	Actual Operation and under Construction	Remaining Theoretical Hydro Potential	Remaining Technically Developable Potential	Economically & Technically Developable Potential
Nfld. & Lab.	6,535	7,000	6,272	4,776
P.E.I.	—	—	—	—
N.S.	360	160	100	50
N.B.	900	620	556	460
Que.	25,750	42,160	30,750	18,838
Ont.	7,138	7,770	6,152	2,072
Man.	4,796	7,023	4,945	4,945
Sask.	567	2,395	1,711	1,161
Alta.	718	18,800	11,440	4,357
B.C.	12,134	29,400	25,827	17,575
Yukon	68	11,000	10,440	5,043
N.W.T.	47	14,900	6,000	4,163
CANADA	59,013	141,228	104,193	63,440

Notes: [a] Projects in the planning stage are included in remaining undeveloped potential.

[b] Remaining economically and technically developable potentials are installable capacity in megawatts.

[c] Pumped storage and tidal power are not included.

Source: Canada, Department of Energy, Mines and Resources, 1980c.