

Table 3-2: CANADIAN NATURAL GAS RESERVES AND RESOURCES

	Volume (billions of cubic metres) ^(a)
Known Natural Gas Reserves	
British Columbia.....	187.0
Alberta	1,640.2
Saskatchewan	22.7
Eastern Canada	8.5
Mackenzie Delta-Beaufort Sea	260.6
Mainland Territories.....	8.5
TOTAL	2,127.5
Natural Gas Resources^(b)	
Western Canada	2,748
Eastern Canada Mainland and Offshore	1,235
Mackenzie Delta-Beaufort Sea	1,700
Eastern Arctic	1,445
Mainland Territories.....	275
TOTAL	7,403

^(a) 1 cubic metre = 35.3 cubic feet.

^(b) Includes remaining reserves, discovered resources and undiscovered potential at the 50% probability level (1976 estimate).

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

Canada is fortunate to possess abundant coal resources of all ranks except for anthracite. Economically significant deposits occur in every province except Newfoundland, Prince Edward Island and Quebec, and are heavily concentrated in Alberta and British Columbia. Table 3-3 shows the most recent estimate of total coal resources in Canada.

Table 3-3: ESTIMATES OF COAL RESOURCES AND RESERVES IN CANADA, 1978

Unit: Millions of metric tons.

Coal Rank	Resources of Immediate Interest ^(a)	
	(1977 Mineable Coal) ^(b)	Resources of Future Interest
lignitic	17,209 (3,207)	27,586
sub- bituminous	132,000 (7,328)	198,000
bituminous	98,787 (5,556)	^(c)

^(a) Includes mineable coal.

^(b) Mineable coal is that part of the measured and indicated resources of immediate interest within a coal deposit that can be considered for mining using current technology, and applying broad economic judgement only to the mining method.

^(c) Not determined.

Source: After Bielenstein *et al*, 1979, p. 15, 23.

C. COAL

Coals are solid hydrocarbons which have formed through the action of heat and pressure on buried vegetative material over geological time. They are classified by *rank* which is determined by the degree of alteration of the original organic material. The four classes of coal, in decreasing order of rank, are anthracite, bituminous, subbituminous and lignite. In general, decreasing rank is characterized by lower carbon content, lower heat value and increasing softness.

Coal quality refers to those characteristics which affect the potential use of a coal. Quality is determined primarily by the nature and amount of organic material, noncombustible (mineral) material and moisture. These characteristics govern the use to which the coal can be put, whether for power generation, metallurgical coke or chemical feedstock.

These resources include those of "immediate interest" and discovered resources of "future interest". That portion of the coal resource which can be considered "mineable" — that is, the coal reserve in Canada — is shown in the table in brackets. Not all of this "mineable coal" can be recovered, however. Generally, only about 65-85% of the coal is actually recovered in underground mining operations, with somewhat more being recoverable in strip-mining situations. Canadian coal resources are sufficient to meet domestic Canadian demand for centuries, even allowing for reasonable increases in production.

In 1979 Canada had thirteen principal operators producing coal from 21 coal mines. Between them they produced an estimated 33.2 million tonnes of coal, mostly bituminous grades. Table 3-4 shows that coal