Coal

Lisa Shapiro

The author is with the Minerals and Metals Sector, Natural Resources Canada.
Telephone: (613) 992-1904
E-mail: Lisa.Shapiro@cc2smtp.nrcan.gc.ca

Coal is an organically derived material. It is formed from the remains of decayed plant material compacted into a solid through millions of years of pressure and heat. Coal is the world's most abundant and widely distributed fossil fuel. About 4.5 billion t are mined annually in over 40 countries.

Coal is used primarily for the generation of electricity and the production of steel. Nearly 50% of the world's electricity is generated from coal and about 75% of the world's steel is produced with coal. Coal is also used as an energy source in industrial processes (such as cement manufacture and pulp and paper) and to produce a wide range of products (such as tars and chemicals). In some developing countries, coal is still used as a residential heating fuel.

CANADIAN DEVELOPMENTS

Canada's coal production and exports increased steadily during the 1970s and 1980s. By 1991, Canada was the world's fourth largest coal exporter and twelfth largest coal producer. Following uncharacteristic declines in 1992, Canada's coal production and exports increased in 1993 and again in 1994 and 1995. Canada has maintained its world rankings.

Production

Preliminary estimates for 1995 show a record production of 74.9 Mt valued at $1.9 billion, representing increases of 3% and 5% respectively. About 60% of the production is thermal coal, with the remainder being metallurgical coal.

Nearly all (96%) of Canada's coal is produced in the three westernmost provinces. The remainder comes from Nova Scotia and New Brunswick.

British Columbia's coal production, all bituminous, increased in 1995 by 7% to 24.4 Mt. More than 90% of British Columbia's coal is metallurgical.

Alberta remained Canada's largest coal-producing province. Its production is forecast to be up 4% to a record 37.1 Mt, consisting of 25.6 Mt of sub-bituminous coal and 11.5 Mt of bituminous coal. About 85% of Alberta's production is thermal coal.

Saskatchewan was again the country's third largest coal-producing province. Its production, all lignite, was constant at 10.7 Mt. All of Saskatchewan's coal is used for thermal purposes.

Nova Scotia's bituminous coal production was down by one third to 2.4 Mt, primarily because of geological problems at the Cape Breton Development Corporation's (DEVCO) Phalen mine. DEVCO is a federal Crown corporation. More than 95% of Nova Scotia's 1995 coal production was thermal.

New Brunswick's bituminous production dropped by one fifth to 0.3 Mt. N.B. Coal Limited, the only coal producer in the province, is owned by, and sells exclusively to, the provincial electric utility, New Brunswick Power.

Consumption

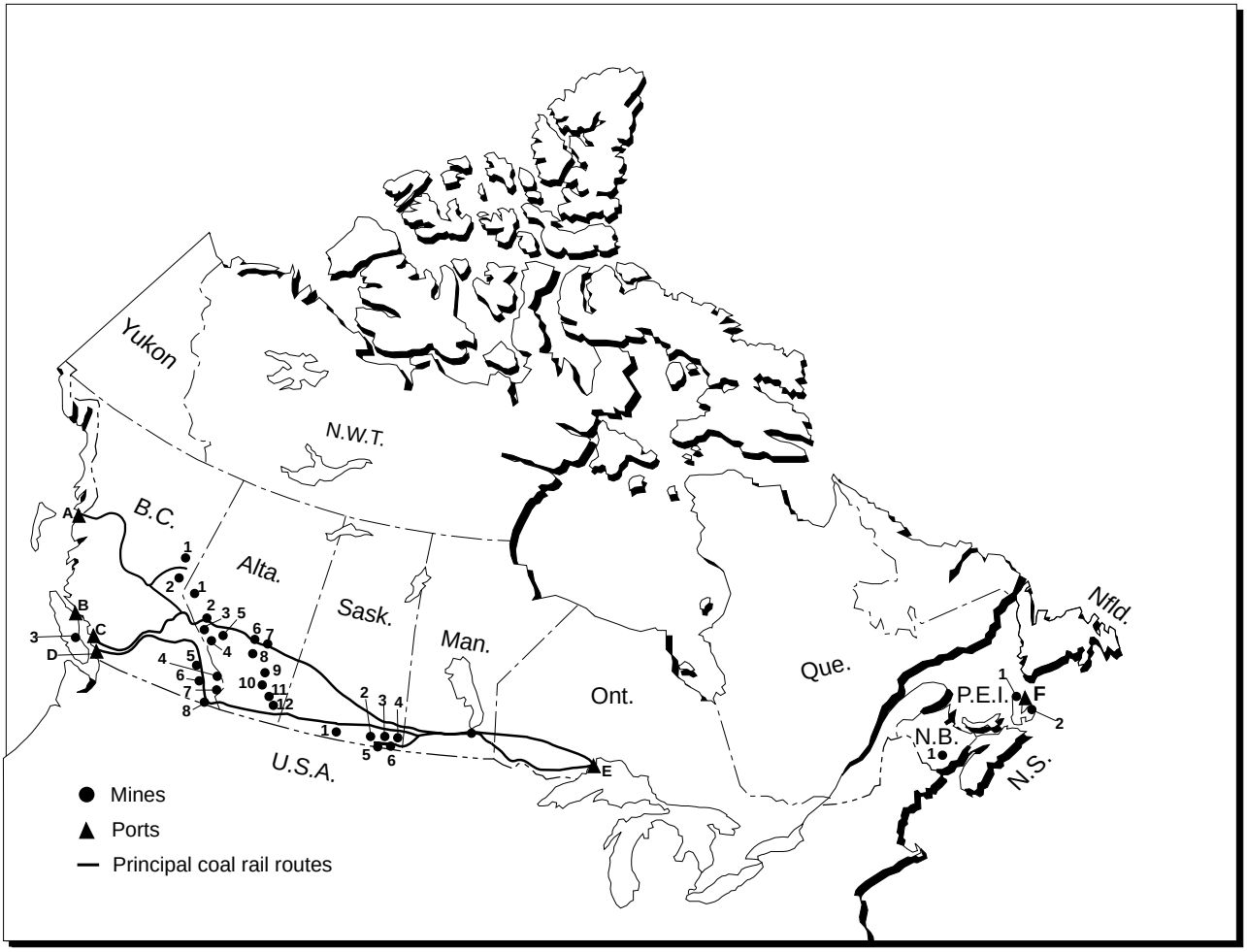
Canadian coal consumption in 1995 is estimated to be similar to 1994's 52 Mt. In 1995, more than 46 Mt were consumed for electricity generation, about 4 Mt were used in steel-making, and about 2 Mt were used by other industries, mainly cement.

Alberta, the largest consuming province, used about 26 Mt of coal to generate electricity. With the exception of about 0.5 Mt of Alberta bituminous coal, all the coal used was Alberta sub-bituminous.

In Saskatchewan, coal consumption by the electric utility was approximately 9.5 Mt. All the coal used by the utility comes from provincial lignite mines.

While Manitoba and Quebec do not produce coal, both provinces consume coal for general industrial uses. Their consumption is expected to be similar to the previous year's level at about 0.3 Mt and 0.7 Mt respectively. In Manitoba, about half the coal is used to generate electricity, with the rest being used for general industrial purposes. Manitoba's coal demand is met mostly by Saskatchewan lignite. All the coal consumed in Quebec (about half bituminous, the rest anthracite) is imported from the United States.

Figure 1
Principal Canadian Coal Mines and Ports



● MINES

British Columbia
1. Bullmoose
2. Quintette
3. Quinsam
4. Fording River
5. Greenhills
6. Elkview
7. Line Creek
8. Coal Mountain

Alberta
1. Smoky River
2. Obed
3. Gregg River
4. Luscar
5. Coal Valley
6. Highvale
7. Whitewood
8. Genesee
9. Paintearth
10. Vesta
11. Sheerness
12. Montgomery

Saskatchewan
1. Poplar River
2. Utility
3. Boundary Dam
4. Costello
5. Shand
6. Bienfait

New Brunswick
1. Minto

Nova Scotia
1. Prince
2. Phalen

▲ PORTS

British Columbia
A. Ridley Island
B. Texada Island Facility
C. Neptune
D. Roberts Bank

Ontario
E. Thunder Bay

Nova Scotia
F. International Pier

Ontario remains Canada's second largest coal consumer, using coal for electricity generation, steelmaking, and general industrial purposes. After four years of steadily diminishing consumption, Ontario's use of coal increased in 1995 to approximately 12 Mt. The use of coal for electricity generation increased by more than 1 Mt to close to 7 Mt. The higher coal use resulted from increased demand for electricity caused by higher export sales by Ontario Hydro. Nearly 40% of the coal consumed by the utility was Canadian, with the rest coming from the United States. The Canadian portion consisted of bituminous coal from Alberta and lignite from Saskatchewan.

Coal utilization by the steel industry in Ontario in 1995 is estimated to be approximately 4 Mt, slightly below the 1994 level. With the exception of about 0.3 Mt supplied by western Canadian mines, all the coal used by the steel industry was imported from the United States. Coal use by Ontario's industrial sector was about 1 Mt.

New Brunswick's 1995 coal consumption is expected to be similar to that of the previous year at somewhat over 1 Mt. Nearly all the consumption is by New Brunswick Power Corporation's 450-MW Belledune generating plant. Coal from New Brunswick supplied about one fifth of the utility's needs while imports from Colombia and the United States provided the remainder.

In Nova Scotia, coal consumption by the provincial power utility in 1995 is expected to be about 2.6 Mt, similar to the previous year. With the exception of about 0.2 Mt that was bought from small producers in the province, the utility bought all its coal from DEVCO.

Exports

In 1995, Canadian coal companies increased their exports by an estimated 7% to 34 Mt. Canadian coal was sold to 20 countries. As in the past, about 85% of Canada's exports were metallurgical coal.

The single largest buyer of this coal is Japan. In 1995, Canadian coal exports to Japan are expected to be up slightly, at approximately 18 Mt. About 85% of these exports are metallurgical coal. With a market share of about 14%, Canada is Japan's second largest coal supplier after Australia.

In 1995, Canadian coal exports to South Korea, which is Canada's second largest market, are estimated to be up about 7% to over 6 Mt. About 70% of these exports are metallurgical coal. With a market share of about 15%, Canada is South Korea's third largest coal supplier after Australia and China.

Canada's third and fourth largest coal markets in 1995 were, respectively, the United Kingdom (1.5 Mt) and the United States (1.4 Mt).

British Columbia remains the single largest exporting province with 1995 exports of close to 24 Mt, up from 22 Mt in 1994. Nearly 90% of British Columbia's exports are metallurgical coal.

Alberta's coal exports increased by more than 1 Mt to close to 10 Mt. About 70% of Alberta's exports are metallurgical coal.

Nova Scotia's coal exports are estimated to have declined significantly from close to 1 Mt in 1994 to under 0.1 Mt in 1995. This decrease is due to reduced production by DEVCO. DEVCO is the only coal exporter in Nova Scotia and, in 1995, nearly all of its reduced production was sold to its major customer, Nova Scotia Power Inc.

Imports

Canada's 1995 coal imports are projected at over 9 Mt, up slightly from the 1994 level. Most of the imports were from the United States with the remainder coming from Colombia.

The electric power industry imported about 4 Mt. Ontario Hydro, the single largest importer of coal, bought about 3 Mt of U.S. coal in 1995, slightly less than in the previous year. New Brunswick Power imported a little over 1 Mt, up slightly from 1994. Most of this coal came from Colombia.

Imports by the Ontario steel industry were about 4 Mt in 1995, somewhat below the previous year's level. All of this coal came from the United States.

The remaining imports, all from the United States, went to industrial users primarily in Quebec, Ontario and Manitoba.

New Projects

In August 1995, a new thermal coal mine began production in Alberta. The Sheerness mine, owned by Luscar Ltd.'s subsidiary, Forestburg Collieries (1984) Ltd., will produce about 2 Mt/y of sub-bituminous coal when in full production in 1996. The mine is adjacent to the Sheerness generating station near Hanna, Alberta, and will provide about half of the station's coal requirements. The Sheerness mine will not, however, add to Canada's total coal production. Previously, the Sheerness generating station's coal requirements were met by Manalta Coal Ltd.'s Montgomery mine, which will now provide only half the coal needed.

In November 1995, approval was given to Pioneer Coal Ltd. for a new strip mine in Stellarton, Nova Scotia. Production of about 0.2 Mt/y of thermal coal is expected to begin in early 1996.

Preparation continues on Cardinal River Coals Ltd.'s Cheviot mine near Hinton, Alberta, which is scheduled

to begin operations in 1999. The mine is expected to produce about 3.5 Mt/y of clean metallurgical coal.

Significant Changes

Fording Coal Limited is increasing production at its Coal Mountain mine in southeastern British Columbia. Fording acquired the mine, formerly known as Byron Creek and then Corbin Creek, late in 1994. That year, production was 0.3 Mt. In 1995, production was a little more than 1 Mt of thermal and PCI (pulverized coal injection) coal. The company plans to produce about 2 Mt in 1996, and to increase production to about 2.5 Mt in 1997. Further increases will depend on markets and reserves.

Hillsborough Resources Limited plans to double production at its Quinsam thermal coal mine on Vancouver Island to 1.2 Mt/y of clean coal by late 1996.

Smoky River Coal Limited in Grande Cache, Alberta, is increasing production from somewhat more than 3 Mt of mostly metallurgical coal in 1994 to 3.5 Mt in 1995 and to a projected 3.9 Mt in 1996. Production may reach 5 Mt/y by 2000. Smoky, which does both surface and underground mining, is increasing its underground production.

Teck Corporation is expanding production at its Elkview mine in southeastern British Columbia from 2.6 Mt of mostly metallurgical coal in 1994 to 3 Mt in 1995 and to above that level in 1996.

WORLD DEVELOPMENTS

International Energy Agency statistics show 1994 trade of 410 Mt, split about 60:40 between thermal and metallurgical coal. About 95% of the trade is by sea.

Preliminary estimates indicate 1995 coal trade increased by about 9% to 447 Mt due to higher demand for thermal coal for the generation of electricity. Coal use for power generation is growing strongly in the Asia-Pacific region, particularly in China. On the other hand, demand for metallurgical coal for steel-making is fairly flat, reflecting increasing efficiency in the ratio of coke to steel in blast furnaces, and technological changes in the production of steel, including the greater use of pulverized coal injection.

Two countries account for about one half of world coal exports. Australia will maintain its premier position in 1995 with exports projected at about 137 Mt, up from 131 Mt in 1994. The number two exporter, the United States, also increased its exports from 65 Mt in 1994 to an estimated 79 Mt in 1995. The large increase is partly explained by the fact that 1994 exports were lower than usual.

The third largest coal exporter, South Africa, is expected to have foreign sales of about 58 Mt, up more than 2 Mt over 1994. As mentioned earlier, Canada's exports should be up more than 2 Mt to 34 Mt. Poland, which in 1994 exported 27 Mt, is estimated to have increased its exports in 1995 to over 33 Mt. Russia, whose exports had dropped to 20 Mt in 1994, rebounded to over 25 Mt in 1995.

Among the newer exporters, Indonesia and China saw increases in 1995. Indonesia's exports are estimated at 30 Mt, up about 5 Mt from 1994. China, the world's largest coal producer and consumer, is estimated to have increased its 1995 exports by about 4 Mt to some 28 Mt.

On the buying side, Japan remains the world's largest importer of coal, accounting for more than one quarter of all purchases. Its 1995 imports are estimated at about 126 Mt, about 9 Mt higher than in 1994. Approximately 60% of Japan's imports are metallurgical coal.

South Korea, the world's second largest coal importer, is estimated to have increased its imports about 4 Mt to some 43 Mt. The increase was mostly in thermal coal imports, which now account for about 60% of total imports.

The third largest importer, Taiwan, increased its foreign coal purchases by an estimated 3 Mt to about 29 Mt.

The European Union (EU) as a bloc accounts for close to one third of world hard coal imports. In 1995, the 15 countries of the EU increased their imports from non-EU countries by an estimated 5 Mt to approximately 136 Mt. The four largest importing countries were Italy, the Netherlands, the United Kingdom and Germany. EU countries, which were at one time significant coal producers (280 Mt in 1973), saw 1995 production of an estimated 131 Mt, similar to 1994's level. Production and imports combined are estimated to be about 5 Mt lower than the anticipated demand, resulting in a reduction in inventories.

PRICES

Coal prices are quoted in U.S. currency and either "free on board trimmed" (f.o.b.t.) or "cost, insurance and freight" (c.i.f.). The benchmark price for hard coking coal sales to Japan (the world's single largest buyer) for the 1994 coal year was US$45.45/t f.o.b.t., down for the fourth consecutive year and US$3.85/t below the 1993 price. A turnaround began in 1995 with an increase of US$5.65/t to US$51.10/t. An increase of about US$2/t in the 1996 benchmark price is expected.

The benchmark price for Japan's thermal coal imports in 1994 was US$34.35/t, also down for the fourth consecutive year and US$2/t below 1993's price. As with coking coal, a turn-around began in 1995 with an increase of US$5.95/t to US$40.30/t. No increase is expected in the 1996 benchmark price.

For the EU, the guide c.i.f. price for imported coking coal was US$54.30/t at the end of 1994, compared to US$55/t at the end of 1993. By the end of 1995, this price had increased to US$58.40/t.

THE ENVIRONMENT

(This section was prepared by Bob Lomas of the Minerals and Metals Sector, Natural Resources Canada, telephone (613) 992-8468.)

Environmental protection is being addressed at all stages of the coal chain. At the mining stage, environmental assessments are an integral part of the provincial mine permitting process. Activities associated with coal mining, such as the removal of vegetation, relocation of overburden, construction of roads, blasting, and reclamation of previously mined areas, are carried out to minimize any negative effect on the environment. Several Canadian coal mining companies have been recognized for their successful environmental mine management programs.

At the coal utilization stage, air emissions are a concern. Coal accounts for about 20%, 15% and 20% respectively of sulphur dioxide (SO_2), nitrogen oxide (NO_x), and carbon dioxide (CO_2) emissions in Canada. Coal is also a source of heavy metals emissions.

In 1994, eastern Canadian coal-burning utilities, including Nova Scotia Power Inc., New Brunswick Power Corporation, and Ontario Hydro, were all below their SO_2 emission limits. Emissions were 329 000 t, compared to a legislated limit totalling 443 000 t. However, in several acid-sensitive areas of eastern Canada, even with the implementation of existing programs to control SO_2 emissions in Canada and the United States, sulphate deposition will continue to cause lake acidification. In 1995, the multi-stakeholder Acidifying Emissions Task Group, chaired by Environment Canada, continued its work to develop a national strategy to address acidifying emissions in the post-2000 period.

In 1995, a working group was established to develop guidelines for NO_x emissions from coal-fired utility boilers constructed after the year 2000. This group was also chaired by Environment Canada.

Climate change and carbon dioxide emissions were addressed in 1995. The Coal Association of Canada and the Canadian Electrical Association each signed a Memorandum of Understanding with Natural Resources Canada to participate in the Voluntary Climate Change Action Plan and Registry Program.

On heavy metals, the United Nations Economic Commission for Europe decided to begin negotiation in 1996 of a protocol under the Long-Range Transboundary Air Pollution Agreement to address the transboundary impacts of heavy metals emissions. Also, Environment Canada initiated an Issue Table for the Electric Power Generation (Fossil Fuel) Sector under the Strategic Options Process to prepare recommendations on the management of metal and organic compounds declared toxic under the *Canadian Environmental Protection Act*.

In addition to air emissions, coal-fired generating stations produce large volumes of ash and waste products. Most ash is a powder-like fly ash and the remainder is a coarser bottom ash. Fly ash utilization in the manufacture of cement is increasing and results in several environmental benefits including reduced landfill costs for the utility and reductions in emissions of carbon dioxide, particulates, organic compounds and sulphur dioxide for the cement manufacturer.

Flue gas desulphurization units produce large volumes of gypsum by-product. This material is increasingly being sold to wallboard manufacturers and again results in reduced landfill costs for the utility.

OUTLOOK

Predictions for the remainder of the decade and into the twenty-first century suggest that Canadian and world coal production, utilization and trade will increase. Domestically, thermal coal demand is expected to grow in the provinces that use coal to generate electricity. Most of this coal will come from indigenous sources, although some will be imported, primarily from the United States.

On the world scene, thermal coal trade is expected to increase because of higher coal consumption for electricity generation in Asia. While most of this coal will come from established steam coal exporters such as Australia, newer exporters such as Indonesia will likely increase their market share. Although overall coking coal demand is forecast to be flat during the next few years, some forecasters expect growth in Korea, Taiwan, India and Brazil.

NEW MAP

In 1995, Natural Resources Canada produced a full-colour wall map of the Canadian coal industry showing the location of coal mines, coal-fired power stations, blast furnaces and coal ports. The map (catalogue no. MM95-CC01), is available for $25 from the Geological Survey of Canada bookstore, 601 Booth Street, Ottawa, Ontario, K1A 0E8, telephone (613) 995-4342, fax (613) 943-0646, or internet: gsc_bookstore@gsc.nrcan.gc.ca.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 70. (2) Information in this review was current as of January 26, 1996.

TABLE 1. COAL SUPPLY AND DEMAND, 1982-95

	Production	Imports	Total Supply	Exports	Domestic Consumption	Total Demand	Stock Changes and Adjustment
				(000 tonnes)			
1982	42 811	15 775	58 586	16 004	41 353	57 357	1 229
1983	44 780	14 667	59 447	17 011	43 649	60 660	(1 213)
1984	57 402	18 359	75 761	25 138	48 699	73 837	1 924
1985	60 854	14 620	75 474	27 378	48 666	76 044	(570)
1986	57 812	13 312	71 124	25 904	44 532	70 436	688
1987	61 211	14 345	75 556	26 741	50 140	76 881	(1 325)
1988	70 644	17 418	88 062	31 725	54 467	86 192	1 870
1989	70 529	14 521	85 050	32 827	53 795	86 622	(1 572)
1990	68 331	14 113	82 444	31 009	49 037	80 046	2 398
1991	71 138	12 417	83 555	34 112	50 263	84 375	(820)
1992	65 610	12 834	78 444	28 097	51 967	80 064	(1 620)
1993	69 027	8 392	77 419	28 313	49 534	77 847	(428)
1994	72 823	9 176	81 999	31 746	52 348	84 094	(2 095)
1995	74 917	9 665	84 582	33 993	52 773	86 766	(2 184)

Sources: Natural Resources Canada; Statistics Canada.

TABLE 2a. COAL DISPOSITION FROM MINES, 1995

	Nova Scotia	New Brunswick	Saskatchewan	Alberta	British Columbia	Canada
			(000 tonnes)			
DELIVERIES TO:						
Newfoundland	–	–	–	–	–	–
Prince Edward Island	–	–	–	–	–	–
Nova Scotia	2 377	–	–	–	–	2 377
New Brunswick	10	263	–	–	–	273
Quebec	–	–	–	–	–	–
Ontario	–	–	1 059	998	334	2 441
Manitoba	–	–	257	92	25	374
Saskatchewan	–	–	9 424	–	–	9 424
Alberta	–	–	–	26 256	–	26 256
British Columbia	–	–	–	31	358	389
Total Canada	2 387	263	10 740	27 377	767	41 534
Shipments for export	57	–	–	9 743	23 583	33 383
Total	2 444	263	10 740	37 120	24 350	74 917

Sources: Natural Resources Canada; Statistics Canada.
– Nil.

TABLE 2b. COAL DISPOSITION FROM MINES, 1994

	Nova Scotia	New Brunswick	Saskatchewan	Alberta	British Columbia	Canada
			(000 tonnes)			
DELIVERIES TO:						
Newfoundland	–	–	–	–	–	–
Prince Edward Island	–	–	–	–	–	–
Nova Scotia	2 640	–	–	–	–	2 640
New Brunswick	9	332	–	–	–	341
Quebec	–	–	–	–	–	–
Ontario	–	–	934	914	598	2 446
Manitoba	–	–	235	–	25	260
Saskatchewan	–	–	9 474	–	–	9 474
Alberta	–	–	–	26 043	–	26 043
British Columbia	–	–	–	20	310	330
Total Canada	2 649	332	10 643	26 977	933	41 534
Shipments for export	860	–	42	8 697	21 675	31 274
Total	3 509	332	10 685	35 674	22 608	72 808

Sources: Natural Resources Canada; Statistics Canada.
– Nil.

TABLE 3. COAL SUPPLY BY RANK, 1980-95

	Production				Imports			Total Supply
	Bituminous	Sub-Bituminous	Lignite	Total	Anthracite	Bituminous	Total	
				(million tonnes)				
1980	20.2	10.5	6.0	36.7	0.3	15.5	15.8	52.5
1981	21.7	11.6	6.8	40.1	0.4	14.4	14.8	54.9
1982	22.3	13.0	9.5	42.8	0.3	15.5	15.8	58.6
1983	22.5	14.5	7.8	44.8	0.3	14.4	14.7	59.4
1984	32.1	15.4	9.9	57.4	0.3	18.1	18.4	75.8
1985	34.4	16.8	9.7	60.9	0.1	14.5	14.6	75.5
1986	32.3	17.3	8.2	57.8	0.4	12.9	13.3	71.1
1987	32.7	18.5	10.0	61.2	0.1	14.2	14.3	75.6
1988	38.6	19.9	12.1	70.6	0.5	16.9	17.4	88.1
1989	38.8	20.9	10.8	70.5	0.2	14.3	14.5	85.1
1990	37.6	21.3	9.4	68.3	0.3	13.8	14.1	82.4
1991	39.9	22.2	9.0	71.1	0.2	12.2	12.4	83.6
1992	32.6	23.0	10.0	65.6	0.2	12.6	12.8	78.4
1993	35.3	23.7	10.0	69.0	0.3	8.1	8.4	77.4
1994	36.6	25.5	10.7	72.8	0.3	8.9	9.1	82.0
1995	38.6	25.6	10.7	74.9	0.4	9.3	9.7	84.6

Sources: Natural Resources Canada; Statistics Canada.

TABLE 4. COAL SUPPLY BY RANK AND VALUES, 1991-95

	1991		1992		1993		1994		1995	
	(000 t)	($000)	(000 t)	($000)	(000 t)	($000)	(000 t)	($000)	(000 t)	($000)
DOMESTIC[1]										
Bituminous										
Nova Scotia	4 139	242 000	4 488	273 000	3 646	232 000	3 509	217 000	2 444	159 000
New Brunswick	498	34 000	399	32 000	387	34 000	332	28 000	263	24 000
Alberta	10 313	355 000	10 507	352 000	10 659	348 000	10 196	319 000	11 523	334 000
British Columbia	24 965	986 000	17 169	689 000	20 627	849 000	22 608	894 000	24 350	988 000
Subtotal	39 915	1 617 000	32 563	1 346 000	35 319	1 463 000	36 645	1 458 000	38 580	1 505 000
Sub-Bituminous										
Alberta	22 243	178 000	23 020	187 000	23 662	197 000	25 494	228 000	25 596	232 000
Lignite										
Saskatchewan	8 980	94 000	10 027	100 000	10 046	95 000	10 685	104 000	10 740	116 000
Total domestic	71 138	1 889 000	65 610	1 633 000	69 027	1 755 000	72 824	1 790 000	74 916	1 853 000
IMPORTED[2]										
Bituminous and anthracite briquettes	12 417	532 000	12 834	577 000	8 392	416 000	9 176	642 000	9 665	698 000
Total supply	83 555	2 421 000	78 444	2 210 000	77 419	2 171 000	82 000	2 432 000	84 581	2 551 000

Sources: Natural Resources Canada; Statistics Canada.
[1] f.o.b. mines. [2] Value at U.S. port of exit.

TABLE 5. EXPORTS OF CANADIAN COAL BY TYPE AND DESTINATION, 1995

Country	Metallurgical	Thermal	Total
		(000 tonnes)	
Japan	15 495	2 483	17 978
South Korea	4 280	1 819	6 099
United Kingdom	1 171	315	1 486
United States	1 280	47	1 327
Taiwan	1 264	–	1 264
Italy	968	255	1 223
Brazil	1 073	140	1 213
France	370	163	533
Mexico	517	–	517
Netherlands	459	–	459
Chile	267	157	424
Spain	337	–	337
Belgium	261	13	274
Turkey	257	–	257
Portugal	161	–	161
Pakistan	148	–	148
Germany	104	36	140
Finland	58	–	58
South Africa	50	–	50
Egypt	45	–	45
Total	28 565	5 428	33 993

Sources: Natural Resources Canada; Statistics Canada.
– Nil.

TABLE 6. COAL CONSUMED BY THERMAL POWER STATIONS, 1972-95

	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskat-chewan	Alberta	Total Canada
				(000 tonnes)			
1972	663	281	7 599	410	2 145	4 113	15 211
1973	585	193	6 615	386	2 806	4 474	15 059
1974	606	292	6 721	132	2 902	4 771	15 424
1975	571	248	6 834	323	3 251	5 345	16 572
1976	730	207	7 612	979	3 521	5 996	19 045
1977	572	198	8 795	1 113	4 304	7 461	22 443
1978	771	151	9 097	341	4 585	8 029	22 974
1979	644	198	9 901	73	4 956	9 181	24 953
1980	1 052	315	10 779	240	4 972	10 424	27 782
1981	1 126	515	11 460	332	4 935	11 445	29 813
1982	1 300	548	12 484	184	5 897	13 242	33 655
1983	1 400	564	13 025	109	6 625	14 492	36 215
1984	2 974	610	13 413	163	7 925	16 123	40 208
1985	2 235	521	10 985	253	8 290	18 112	40 396
1986	2 137	469	9 172	111	6 786	17 719	36 394
1987	2 077	526	12 016	457	7 672	19 077	41 825
1988	2 266	678	13 079	780	8 637	20 538	45 978
1989	2 141	705	12 809	327	8 534	21 410	45 926
1990	2 184	496	10 362	298	7 462	21 340	42 142
1991	2 290	426	10 850	232	7 548	22 480	43 826
1992	2 344	471	10 022	233	8 419	23 752	45 241
1993	2 416	506	7 004	178	8 428	24 194	42 726
1994	2 672	1 208	5 170	164	8 502	28 207	45 923
1995	2 578	1 304	6 707	117	9 597	26 201	46 504

Sources: Natural Resources Canada; Statistics Canada.

TABLE 7. COAL DEMAND, 1987-95

	1987	1988	1989	1990	1991	1992	1993	1994	1995
					(000 tonnes)				
THERMAL ELECTRIC									
Canadian	33 932	37 614	37 447	35 858	36 413	38 612	38 470	42 017	41 289
Imported	7 892	8 441	8 392	6 284	7 413	6 629	4 256	3 906	5 215
Total	41 824	46 055	45 839	42 142	43 826	45 241	42 726	45 923	46 504
METALLURGICAL									
Canadian	290	19	–	–	–	–	–	227	288
Imported	6 019	6 242	5 918	4 996	4 906	4 886	4 665	4 552	3 901
Total	6 309	6 261	5 918	4 996	4 906	4 886	4 665	4 779	4 189
GENERAL INDUSTRY									
Canadian	591	673	608	465	461	602	664	541	769
Imported	1 416	1 477	1 430	1 433	980	954	924	1 105	1 312
Total	2 007	2 150	2 038	1 898	1 441	1 556	1 588	1 646	2 080
EXPORTS									
Canadian	26 427	31 732	32 585	30 538	33 818	27 307	27 811	31 629	33 993
TOTAL									
Canadian	61 240	70 038	70 640	66 861	70 692	66 521	66 945	74 414	76 339
Imported	15 327	16 160	15 740	12 713	13 299	12 469	9 845	9 563	10 428
Total demand	76 567	86 198	86 380	79 574	83 991	79 990	76 790	83 977	86 766

Sources: Natural Resources Canada; Statistics Canada.
– Nil.