

# Coal

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**Lisa Shapiro and Bob Lomas**

*The authors are with the Mining Sector, Natural Resources Canada. Telephone: (613) 992-1904 and 992-8468, respectively.*

**C**oal 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 tonnes 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 is used 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. Canada has maintained its world rankings.

### Production

Preliminary estimates for 1994 show a record production of 72.8 million tonnes (Mt) with a value of \$1.9 billion, representing increases of 5.5% and 8%, respectively.

Nova Scotia's bituminous coal production was down about 4% to 3.5 Mt, primarily because of geological problems at Cape Breton Development Corporation's (CBDC) Phalen mine. The CBDC is a federal Crown corporation.

New Brunswick's bituminous coal production dropped 15% to 0.3 Mt. NB Coal Limited, the only coal producer in the province, is owned by, and sells exclusively to, the provincial electric utility, New Brunswick Power.

Saskatchewan was again the country's third largest coal-producing province. Its production, all lignite, was up 6% to 10.7 Mt.

Alberta remained Canada's largest coal-producing province. Production is forecast to be up 4% to a record 35.7 Mt, consisting of 25.5 Mt of sub-bituminous coal and 10.2 Mt of bituminous coal.

Bituminous coal production in British Columbia increased in 1994 by 9% to 22.6 Mt, reflecting full-year production at all B.C. coal mines.

### Consumption

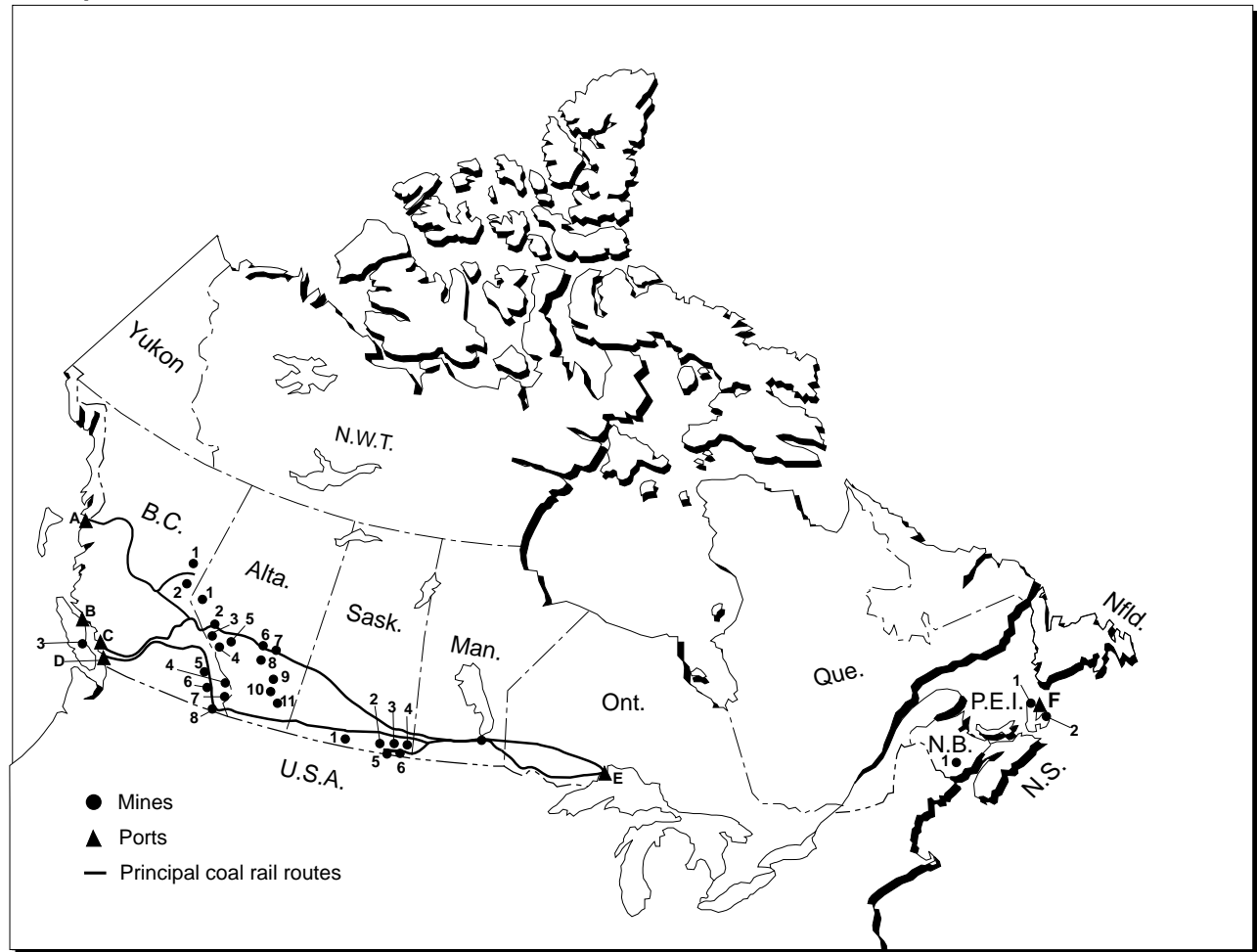
Canadian consumption of coal is estimated to be up more than 3 Mt to approximately 52 Mt. Nearly 46 Mt were consumed for the generation of electricity, and about 4.8 Mt were used in steel-making, with the remainder being used mainly by the cement industry.

In Nova Scotia, 1994 coal consumption by the provincial power utility is expected to be up about 0.3 Mt to a record 2.7 Mt. Nova Scotia Power Inc. bought 2.4 Mt from CBDC, with the remaining coal coming from small producers in the province. The increased consumption was due to the decreased use of hydro and the price advantages of coal over oil.

New Brunswick's 1994 coal consumption is expected to be up approximately 0.7 Mt to about 1.2 Mt. The increase is due to the first full year of operation of the 450-MW Belledune electric generating plant. Coal from New Brunswick supplied about 0.3 Mt of the utility's needs. Imports from the United States and Colombia provided the remainder.

While Quebec and Manitoba do not produce coal, both provinces consume coal for general industrial uses. Their consumption is expected to be similar to the previous year, about 0.6 Mt and 0.3 Mt respectively. All the coal consumed in Quebec (about half bituminous, the rest anthracite) is imported from the

**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. 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

United States. In Manitoba, small amounts of coal are also used to generate electricity. Manitoba's demand is met mostly by Saskatchewan lignite.

Ontario remains Canada's second largest coal consumer, using coal for electricity generation, steel-making, and general industrial purposes. However, consumption has been dropping. In 1994, consumption decreased approximately 1.5 Mt to about 10.5 Mt as a result of the drop in the use of coal for electricity generation from 7 Mt in 1993 to about 5.2 Mt in 1994. The lower coal use resulted from increased electrical generation from Ontario Hydro's nuclear plants in 1994. Nearly 40% of the coal consumed by the utility was from western Canada, with the rest coming from the United States. The western Canadian coal consists of bituminous coal from British Columbia and lignite coal from Saskatchewan.

Coal use by the steel industry in Ontario in 1994 was slightly above that for 1993, at approximately 4.8 Mt. For many years, nearly all the coal used in steel-making was being imported from the United States. In 1994, about 0.2 Mt of the metallurgical coal demand was met by western Canadian coal.

Coal use by Ontario's industrial sector was similar to the previous year at about 0.6 Mt.

In Saskatchewan, coal consumption by the electric utility was similar to 1993 at approximately 8.5 Mt. All the coal used by the utility comes from provincial mines.

Alberta, the largest coal-consuming province, used more than 28 Mt of coal to generate electricity. With the exception of about 1 Mt of Alberta bituminous coal, all the coal used was sub-bituminous, mined in the province.

## Exports

In 1994, Canadian coal companies exported 31.6 Mt, an increase of about 3 Mt over 1993, to 23 countries.

The increase follows production improvements in British Columbia, the number one coal-exporting province. B.C. exports in 1994 are estimated at 22 Mt, up from 18.4 Mt in 1993.

Alberta's coal exports in 1994 are expected to be similar to 1993, at about 9 Mt.

Nova Scotia's coal exports are estimated to be down slightly to approximately 0.9 Mt in 1994. The decrease is due to the reduced production by the CBDC, combined with increased CBDC sales to Nova Scotia Power.

For many years, about 80% of Canada's coal exports have been coking coal. The single largest buyer of this coal is Japan. In 1994, Canadian coal exports to

Japan are expected to be up at least 1 Mt to over 17 Mt.

Canada's 1994 coal exports to Korea, its second largest market, are estimated to be slightly below the 1993 level, at some 5.7 Mt.

Canada's third and fourth largest markets are Brazil and the United States. In 1994, Canadian exports to Brazil nearly doubled to 1.5 Mt, while Canadian exports to the United States increased about 25% to over 1.2 Mt.

Canadian coal exports to European Union (EU) countries in 1994 were up an estimated 1 Mt over 1993, to about 3.5 Mt.

## Imports

In 1994, Canada's coal imports are projected to be approximately 9 Mt, up from 1993's low of 8.4 Mt. More than 8 Mt of the imports were from the United States. The remainder was from Colombia.

The increase is due to increased foreign coal purchases by Ontario Hydro and New Brunswick Power. Ontario Hydro bought some 3 Mt of U.S. coal for its Nanticoke and Lambton power stations, up about 0.7 Mt from 1993. New Brunswick Power imported about 0.7 Mt, up about 0.2 Mt over 1993.

The Ontario steel industry reduced its imports about 0.5 Mt to approximately 4.1 Mt, supplementing the imports with increased purchases of western Canadian coal.

Imports by the Canadian industrial sector were similar to 1993, at approximately 1 Mt.

## New Projects

Cardinal River Coals Ltd. announced in October 1994 that it plans to build Alberta's first metallurgical coal mine since 1982. The Cheviot mine will be located about 70 km south of Hinton. It will provide continuity of supply for customers of the nearby Luscar mine, also operated by Cardinal River Coals, where resources are being depleted. Environmental studies, public comment and government approval are expected to take about two years. The mine should be operational in 1998.

Fording Coal Limited announced in October 1994 the purchase of the mine assets of Corbin Creek Resources Ltd. near Sparwood, British Columbia. Formerly known as Byron Creek, this mine has been renamed Coal Mountain Operations. Fording projects production of 1 Mt in 1995, with further growth dependent on international sales. Plans call for most of the coal to be sold for pulverized coal injection (PCI) purposes.

## WORLD DEVELOPMENTS

International Energy Agency statistics show a record trade of 404 Mt in 1992, followed by a drop to 385 Mt in 1993. With improvements in many countries' economies in 1994, trade should increase. Most of that increase is expected to be in steam coal, which has been growing for many years. Coking coal trade is likely to be flat.

The world's largest coal exporter, Australia, will maintain its position in 1994, with exports projected to be similar to the 1993 volume of 132 Mt. South Africa's coal exports should approach 55 Mt, up from 53 Mt in 1993. As mentioned earlier, Canada's exports should be up about 3 Mt to 31 Mt.

Poland should see an increase of about 5 Mt in its 1994 exports to some 28 Mt. Indonesia's coal exports are predicted to increase by at least 5 Mt in 1994, approaching 25 Mt. China, the world's largest coal producer and consumer, is estimated to have increased its 1994 exports by about 3 Mt to 23 Mt.

However, two other significant exporters will see declines in 1994. The United States, the world's second largest coal producer and exporter, is forecast to have a drop in exports of approximately 5 Mt to about 62 Mt. The lower U.S. exports are explained by the greater use of U.S. coal for domestic purposes. Russia, the fifth largest exporter in 1993, saw its exports drop about 5 Mt in 1994 to approximately 20 Mt, largely due to rail problems.

On the importing side, Japan is the world's largest importer of coal, accounting for about one quarter of all purchases. Its 1994 imports are estimated to be up because of increased demand for thermal coal for power generation.

South Korea, the world's second largest coal importer, is estimated to have flat or slightly lower demand for coking coal, but an increased demand for thermal coal, in 1994. The latter is partly because of new coal-fired electricity stations which came on stream in 1994.

The EU, which as a bloc accounts for more than one quarter of world hard coal imports, is expected to import some 118 Mt in 1994, about 2 Mt more than 1993. EU countries used to figure prominently in world coal production. However, 1994 production is expected to continue the downward trend, decreasing about 26 Mt to approximately 133 Mt. The drop in supply is a response to lower demand, caused primarily by a reduction in coal-fired electricity generation. This in turn results from the high cost of European coal and the presence of alternative means of generating electricity.

China is an importer into the rapidly expanding economic regions of the southeast, while being an exporter of coal from the country's northern produc-

ing areas. Although imports were less than 2 Mt in 1993, some projections show China's demand for imported coal growing to more than 30 Mt annually by the turn of the century.

## PRICES

As the world's largest coal purchaser, Japan sets a benchmark for coal prices. Prices are quoted in U.S. currency and either "cost, insurance and freight" (c.i.f.) or "free on board" (f.o.b.).

In the 1993 contract year, Japanese coking coal imports averaged US\$55.77/t c.i.f., down US\$2.09/t from 1992. Thermal coal imports in 1993 averaged US\$45.95/t c.i.f., down US\$2.52/t from 1992. Both coking and thermal coal prices dropped further in 1994.

The f.o.b. port of exit benchmark price for Canadian and Australian coking coal sold to Japan in 1994 was US\$45.45/t, down US\$3.85/t from 1993.

For the EU, the average price of imported coking coal is estimated at US\$53.80/t c.i.f. in the third quarter of 1994, compared to US\$55.30/t in the same period of 1993. For the EU's imported thermal coal, the average price in the second quarter of 1994 was US\$42.60/t c.i.f., compared to US\$45.92/t a year earlier.

At the end of 1994, an increasingly tight market led many in the coal business to predict price increases of several dollars per tonne for 1995.

With most export contracts quoted in U.S. dollars, exchange rates are significant for both exporters and importers. Canadian coal exporters benefitted in 1994 from the low Canadian dollar.

## THE ENVIRONMENT

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 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<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), and carbon dioxide emissions in Canada. Coal is also a source of heavy metals emissions.

In June 1994, Canada signed the United Nations Economic Commission for Europe's (UN ECE) second sulphur protocol. The protocol commits signatory countries to work towards a level of wet sulphate deposition that will not harm the environment. For several parts of eastern Canada, existing programs in Canada and the United States may not be sufficient to achieve this goal. An Acid Rain Task Group has been established to develop a national acid rain strategy by 1997, prior to the signing of the second sulphur protocol. Work in this area was beginning at the end of 1994.

To meet the commitments of the existing eastern Canada acid rain program, some provinces have imposed sulphur dioxide limits on their electric utilities. New power plant construction and retrofits of existing plants are addressing NO<sub>x</sub> and SO<sub>2</sub> emissions.

Nova Scotia Power Inc. (NSPI) has an annual SO<sub>2</sub> emissions limit of 145 000 t. In August 1994, NSPI officially opened the Point Aconi Generating Station. The 165-MW generating unit uses circulating fluidized bed technology to achieve 90% SO<sub>2</sub> removal and to reduce NO<sub>x</sub> emissions to about 30% of those from a conventional pulverized coal-fired boiler.

New Brunswick Power Corporation has an annual SO<sub>2</sub> ceiling of 123 000 t. To stay within this limit, the utility began operation in late 1993 of the 450-MW coal-fired plant at Belledune. This plant is equipped with a wet limestone scrubber that will capture about 90% of the SO<sub>2</sub>. In addition, the plant controls emissions of NO<sub>x</sub> via staged combustion. The plant will burn a combination of domestic high-sulphur coal (previously consumed in a plant with no SO<sub>2</sub> controls) and imported low-sulphur coals.

Ontario Hydro operates with an annual emission limit of 175 000 t of SO<sub>2</sub>. In 1994, Ontario Hydro completed a \$537 million flue gas desulphurization project adding scrubbers to two 500-MW units at its Lambton Generating Station. These will enable the utility to stay within its limit, even with increased coal use. The output from these scrubbers is about 200 000 t/y of gypsum by-product which is sold to a wallboard manufacturer.

Work continued in 1994 on the development of a National Action Program on Climate Change (NAPCC) that will be presented to the parties to the Climate Change Convention in Berlin in March 1995. It appears that an industry voluntary challenge program will be an important component of the NAPCC.

With respect to heavy metals, a Hazardous Air Pollutants Working Group was established in 1994 under the national air issues coordinating mechanism to investigate the need for national strategies. At the international level, a UN ECE working group is undertaking substantiation work to help the UN ECE executive body decide in November 1995

whether to pursue a heavy metals protocol. Canada is participating in the work, with Environment Canada and Natural Resources Canada being the primary participants.

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 is resulting in several environmental benefits. These include reduced landfill costs for the utility, and reductions in the 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. With the exception of Ontario Hydro's Lambton units, this material is landfilled. Waste produced from the fluidized bed unit at Point Aconi is also landfilled.

## 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, steam coal demand is expected to grow in the five provinces which use coal to generate electricity. Most of this coal will come from indigenous sources, although some will be imported from the United States and elsewhere.

On the world scene, steam coal trade and utilization will increase substantially in Asia. While most of this coal will come from established steam coal exporters such as Australia, newer exporters such as Indonesia will also take some of the market share. European imports are expected to increase slightly in the remainder of the decade.

Coking coal demand is forecast to stabilize or decline during the next few years. However, this segment of the market will still be active as changes in coal requirements and steel-making technology alter coking coal trade.

*Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 60. (2) Information in this review was current as of January 20, 1995.*

**TABLE 1. COAL SUPPLY AND DEMAND, 1982-94**

	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	72 808	9 138	81 946	31 629	52 348	83 977	(2 031)

Sources: Natural Resources Canada; Statistics Canada.

**TABLE 2a. COAL DISPOSITION FROM MINES, 1994**

	Nova Scotia	New Brunswick	Saskatchewan	Alberta	British Columbia	Canada
	(000 tonnes)					
<b>DELIVERIES TO:</b>						
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 2b. COAL DISPOSITION FROM MINES, 1993**

	Nova Scotia	New Brunswick	Saskatchewan	Alberta	British Columbia	Canada
	(000 tonnes)					
<b>DELIVERIES TO:</b>						
Newfoundland	-	-	-	-	-	-
Prince Edward Island	-	-	-	-	-	-
Nova Scotia	2 660	-	-	-	-	2 660
New Brunswick	9	389	-	-	-	398
Quebec	-	-	-	-	-	-
Ontario	-	-	833	1 088	662	2 583
Manitoba	-	-	212	-	24	236
Saskatchewan	-	-	8 960	1	22	8 983
Alberta	-	-	-	24 231	-	24 231
British Columbia	-	-	-	27	291	318
Total Canada	2 669	389	10 005	25 347	999	39 409
Shipments for export	979	-	40	8 972	19 617	29 608
Total	3 648	389	10 045	34 319	20 616	69 017

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

**TABLE 3. COAL SUPPLY BY RANK, 1980-94**

	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	37.2	25.5	10.1	72.8	0.2	8.9	9.1	81.9

Sources: Natural Resources Canada; Statistics Canada.

TABLE 4. COAL SUPPLY BY RANK AND VALUES, 1989-94

	1989		1990		1991		1992		1993		1994	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>DOMESTIC<sup>1</sup></b>												
<b>Bituminous</b>												
Nova Scotia	3 513	199 000	3 415	191 000	4 139	242 000	4 488	273 000	3 646	232 000	3 509	216 000
New Brunswick	519	34 000	548	37 000	498	34 000	399	32 000	387	34 000	332	30 000
Alberta	9 960	309 000	9 153	296 000	10 313	355 000	10 507	352 000	10 659	348 000	10 196	318 000
British Columbia	24 802	948 000	24 557	1 002 000	24 965	986 000	17 169	689 000	20 627	849 000	22 608	1 002 000
Subtotal	38 794	1 490 000	37 673	1 526 000	39 915	1 617 000	32 563	1 346 000	35 319	1 463 000	36 645	1 566 000
<b>Sub-Bituminous</b>												
Alberta	20 919	156 000	21 252	165 000	22 243	178 000	23 020	187 000	23 662	197 000	25 479	228 000
<b>Lignite</b>												
Saskatchewan	10 816	100 000	9 406	99 000	8 980	94 000	10 027	100 000	10 046	95 000	10 685	104 000
Total domestic	70 529	1 746 000	68 331	1 790 000	71 138	1 889 000	65 610	1 633 000	69 027	1 755 000	72 809	1 898 000
<b>IMPORTED<sup>2</sup></b>												
Bituminous and anthracite briquettes	14 521	808 000	14 113	616 000	12 417	532 000	12 834	577 000	8 392	416 000	9 138	439 999
Total supply	85 050	2 554 000	82 444	2 406 000	83 555	2 421 000	78 444	2 210 000	77 419	2 171 000	81 946	2 337 000

Sources: Natural Resources Canada; Statistics Canada.

<sup>1</sup> f.o.b. mines. <sup>2</sup> Value at U.S. port of exit.

TABLE 5. EXPORTS OF CANADIAN COAL BY TYPE AND DESTINATION, 1994

Country	Metallurgical	Thermal	Total
(000 tonnes)			
Japan	15 341	2 069	17 409
South Korea	4 079	1 610	5 689
Brazil	1 123	407	1 530
United States	1 132	103	1 235
United Kingdom	793	148	941
Taiwan	824	—	824
Italy	758	—	758
Spain	497	—	497
Mexico	417	—	417
Denmark	14	296	309
Portugal	300	—	300
Netherlands	281	—	281
Chile	254	—	254
Egypt	229	—	229
Turkey	218	—	218
Belgium	189	—	189
Sweden	155	—	155
Pakistan	144	—	144
Yugoslavia	91	—	91
France	54	—	54
South Africa	49	—	49
Algeria	45	—	45
Germany	10	—	10
Total	26 997	4 632	31 629

Source: Statistics Canada/Natural Resources Canada joint survey, Coal.

— Nil.



**TABLE 6. COAL CONSUMED BY THERMAL POWER STATIONS, 1972-94**

	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	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

Sources: Natural Resources Canada; Statistics Canada.

**TABLE 7. COAL DEMAND, 1986-94**

	1986	1987	1988	1989	1990	1991	1992	1993	1994
	(000 tonnes)								
<b>THERMAL ELECTRIC</b>									
Canadian	30 033	33 932	37 614	37 447	35 858	36 413	38 612	38 470	42 017
Imported	6 359	7 892	8 441	8 392	6 284	7 413	6 629	4 256	3 906
Total	36 392	41 824	46 055	45 839	42 142	43 826	45 241	42 726	45 923
<b>METALLURGICAL</b>									
Canadian	243	290	19	—	—	—	—	—	227
Imported	5 891	6 019	6 242	5 918	4 996	4 906	4 886	4 665	4 552
Total	6 134	6 309	6 261	5 918	4 996	4 906	4 886	4 665	4 779
<b>GENERAL INDUSTRY</b>									
Canadian	642	591	673	608	465	461	602	664	541
Imported	1 364	1 416	1 477	1 430	1 433	980	954	924	1 105
Total	2 006	2 007	2 150	2 038	1 898	1 441	1 556	1 588	1 646
<b>EXPORTS</b>									
Canadian	25 573	26 427	31 732	32 585	30 538	33 818	27 307	27 811	31 629
<b>TOTAL</b>									
Canadian	56 491	61 240	70 038	70 640	66 861	70 692	66 521	66 945	74 414
Imported	13 614	15 327	16 160	15 740	12 713	13 299	12 469	9 845	9 563
Total demand	70 105	76 567	86 198	86 380	79 574	83 991	79 990	76 790	83 977

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