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## **CANADIAN DEVELOPMENTS**

The year 2005 was an exciting one for the Canadian coal industry. Continued global demand for coal boosted the industry's morale and the word "rebirth" was frequently used. The record high coking coal price was certainly the driver for Canadian coal production and export increases.

Canada produced 67.3 Mt of coal in 2005, a slight increase over 2004's production of 66.5 Mt. The increase was mainly from Alberta and British Columbia, which produced 28.6 Mt and 27.5 Mt of coal respectively in 2005. Production from Saskatchewan remained at a similar level as in 2004. All of the production from British Columbia and some from Alberta was exported. Saskatchewan's and most of Alberta's output was consumed domestically under long-term contracts with coal-fired power generation plants adjacent to the mine sites. In Atlantic Canada, New Brunswick and Nova Scotia produced a limited amount of coal used by coal-fired power generation plants.

Canada exported 28.2 Mt of coal in 2005, of which 26.7 Mt was coking coal and 1.5 Mt was thermal coal. Canada's export volume increased 8% compared to 2004.

Based on robust prices and strong demand, coal developments in western Canada continued in full swing in 2005. In northeastern British Columbia, Western Canadian Coal Corp.'s Wolverine mine received the required regulatory approval and started mine construction in April 2005. The mine is projected to be completed in June 2006 and production will begin in July. The mine's designed production capacity is 2.4 Mt/y and it will eventually increase to 3 Mt in 2007. Northern Energy and Mining Inc. completed its Trend Small mine construction at the end of 2005 and production began in January 2006. The designed capacity of the mine is 1 Mt of coking coal. In southern British Columbia, construction of Compliance Energy Corp.'s Basin mine was also completed and the mine is ready to produce in 2006. The Basin mine is a thermal coal mine with a designed capacity of 400 000 t/y.

After 36 months of construction, Alberta's new coal-fired power plant, Genesee Phase 3, was completed and began commercial operation on March 1, 2005. The \$695 million, 455-MW power plant is the most technologically advanced coal-fired power plant ever built in Canada. It is equipped with \$90 million worth of clean air technologies that reduce nitrogen oxide emissions by 50%, CO<sub>2</sub> emissions by 18%, and a significant amount of sulphur dioxide emissions. In total, greenhouse gas emissions at the Genesee Phase 3 plant have been reduced by 52% compared to the emission levels of current standard coal-fired power plants. The plant also prevents 99.8% of particulates (fly ash) from being released into the atmosphere. The new Genesee Phase 3 plant uses subbituminous coal from the adjacent Genesee mine.

There were 24 coal mines operating in Canada at the end of 2005. Most large-scale coal mines are located in western Canada. British Columbia currently has 10 coal mines in operation: Greenhills, Fording River, Line Creek, Elkview, Coal Mountain, Quinsam, Willow Creek, Dillon, Trend Small, and Basin. Alberta is home to 9 coal mines: Obed Mountain, Cheviot Creek, Coal Valley, Highvale, Whitewood, Genesee, Paintearth, Sheerness, and Grande Cache. Saskatchewan has 3 mines: Poplar River, Boundary Dam and Bienfait. New Brunswick has 1 coal mine and Nova Scotia has several small-scale mines without significant output.

Elk Valley Coal Corp. operates 6 coal mines (Greenhills, Fording River, Line Creek, Elkview, Coal Mountain, and Cheviot Creek) with a production capacity of approximately 27 Mt/y of coking coal. Luscar Coal Ltd. operates 10 mines (Obed Mountain, Coal Valley, Highvale, Whitewood, Genesee, Paintearth, Sheerness, Poplar River, Boundary Dam, and Bienfait) with a production capacity of 40 Mt/y of bituminous, subbituminous and lignite coal. The remaining 8 mines are operated by Hillsborough Resources Ltd. (Quinsam), Western Canadian Coal Corp. (Dillon), Pine Valley Mining Corp. (Willow Creek), Grande Cache Coal Corp. (Grande Cache), Northern Energy and Mining Inc. (Trend Small), Compliance Energy Corp. (Basin), New Brunswick Power Generation (Minto), and Pioneer Coal Ltd. (Stellarton).



### Figure 1 **Principal Canadian Coal Mines and Ports**

Numbers and letters refer to locations on map above.

### **MINES**

### **BRITISH COLUMBIA**

- 1. Willow Creek
- 2. Dillon
- 3. Wolverine
- 4. Trend Small Quinsam
- 5.
- 6. Basin
- 7. Fording River
- 8. Greenhills
- 9. Elkview
- 10. Line Creek
- 11. Coal Mountain

## PORTS

### **BRITISH COLUMBIA**

- A. Ridley
- Neptune Β.
- C. Westshore

### ALBERTA

- 1. Grande Cache
- 2. Obed Mountain
- 3. Cheviot Creek
- 4. Coal Valley
- 5. Highvale
- 6. Whitewood
- 7. Genesee 8. Paintearth
- 9. Sheerness

### SASKATCHEWAN

- 1. Poplar River
- 2. Boundary Dam
- 3. Bienfait

### NEW BRUNSWICK

1. Minto

#### NOVA SCOTIA

1. Stellarton

# ONTARIO

D. Thunder Bay

### NOVA SCOTIA

E. International Pier





Sources: Natural Resources Canada; Statistics Canada.

# **E**XPORTS

Coal exports are vital to the Canadian coal industry with more than 40% of Canada's total production being exported.

Canada exported 28.2 Mt of coal in 2005, of which 26.7 Mt was coking coal and 1.5 Mt was thermal coal. Its export volume increased 8% in 2005 compared to 2004. Canada's exports to Asia, the largest market for Canada, increased 24% and the volume reached 15 Mt in 2005 compared to 2004's 12 Mt. Exports to Japan increased to 7.5 Mt, an increase of 40% compared to the previous year's 5.4 Mt. Exports to South Korea increased 36% and the volume was 4.9 Mt, compared to 3.6 Mt in the previous year. Canada's exports to European markets continued the upward trend in 2005. Exports to Europe totaled 8.8 Mt, an increase of 6% from the previous year's 8.3 Mt. Exports to Latin America increased 16% and the volume increased to 2.3 Mt from the previous year's 2 Mt. However, exports to the United States and Mexico took a tumble and declined 40% in 2005 due to increases in both countries' domestic supply.

Canadian coal exports were mainly from Elk Valley Coal's five coal mines in British Columbia. In 2005, British Columbia exported 25.8 Mt of coal, of which 25.6 Mt was coking coal and 177 000 t was thermal coal. Alberta exported 2.1 Mt of coal, of which 1.2 Mt was coking coal and 930 000 t was thermal coal. Seaborne coal accounted for more than 95% of coal exports, or approximately 27 Mt, in 2005. About 95% of the seaborne coal was shipped through coal terminals in Vancouver. Canadian coal exporters enjoyed record coal prices averaging US\$122/t for coking coal in the 2005 coal year.<sup>1</sup> This was the result of demand increases and tight supply in global coal markets. It appears that global demand for coking coal started to slow down in 2005, or perhaps the supply was catching up with demand increases. Canadian exporters settled various coking coal contracts for the 2006-07 coal year at prices of US\$107-\$110/t, lower than the 2005-06 coal year price of US\$120-\$125/t.

# **CONSUMPTION AND IMPORTS**

Canada's coal consumption in 2005 was estimated to be at a level similar to the previous year at about 58 Mt. Electricity generation consumed about 51 Mt, of which 37 Mt was sourced domestically and 15 Mt was imported. Canada's steel, cement and other industries consumed more than 4 Mt of coal.

Canada's major consumption of coal is as a fuel for its 23 coal-fired electric power generation plants, which account for roughly 93% of Canadian coal consumption. The Canadian steel industry consumed roughly 5% of the total with the remaining 2% being consumed by other industrial and domestic consumers.

Alberta, the largest coal-consuming province, consumes about 25 Mt annually for electric power generation,

<sup>&</sup>lt;sup>1</sup> The coal year starts on April 1 and ends on March 31 of the following year.



### Figure 3 Canadian Coal Exports, 1990-2005

accounting for about half of Canada's consumption in that category and for 43% of Canada's total coal consumption. Coal-fired power generation provides two thirds of Alberta's total electricity demand and is therefore crucial to the province's energy supply.

Ontario is the second largest coal-consuming province; it consumed approximately 16 Mt of coal in 2005. Electric power generation consumed approximately 12 Mt of coal and the steel industry consumed about 4 Mt; the other industries consumed the rest. Ontario's coal consumption was at a level similar to the 2004 level.

Saskatchewan consumed 11.5 Mt of lignite for its coalfired electricity generation in 2005 and provided two thirds of the province's electricity supply.

Nova Scotia's apparent coal consumption was 2.5 Mt in 2005, an increase of 0.5 Mt from 2004's 2 Mt; the coal consumed was for electricity generation. New Brunswick consumed about 1.3 Mt in 2005, an increase from 1 Mt in 2004 and similar to 2003's consumption. New Brunswick's coal consumption was also for electricity generation. Quebec has remained at the same consumption level of between 700 000 and 800 000 t over the past 10 years, all for industrial purposes.

Canada imported 21 Mt of coal in 2005, an increase of 11% from the previous year's 19 Mt. Of the 21 Mt in coal imports, 17 Mt was thermal coal, mainly for coal-fired electricity generation in the provinces of Ontario, Nova Scotia and New Brunswick. Coking coal imports were

4 Mt, consumed by Canada's steel industry. Of the total coal imports, the United States supplied 17.7 Mt, an increase of 1.1 Mt compared to 2004's 16.6 Mt. Colombia supplied 2.6 Mt, an increase of 70% compared to the previous year's 1.5 Mt, while Venezuela provided 676 000 t.

# **COAL PROJECTS**

Three new coal projects were submitted to the government for environmental assessment (EA) in 2005. Two projects are located in northeastern British Columbia and one is located in southeastern British Columbia.

Western Canadian Coal Corp.'s (WCC) Brule mine project is located within the Burnt River property. The Brule deposit contains approximately 36 Mt of low volatile bituminous coal. Based on mine designs and economic analysis, the mine could produce 21 Mt of coal. WCC anticipates that it will initially develop and operate the Brule property at 1 Mt/y using the infrastructure already in place at its Dillon mine. WCC expects to receive the EA certificate and regulatory approval in mid-2006.

Hillsborough Resources' Horizon mine project is near the closed Quintette and Bullmoose mines, but the Horizon area has never been mined before. Part of the project also includes some lands previously explored as the Quintette property holdings. The Quintette mine did not exhaust the coal resources in the area. The Horizon project contains approximately 45 Mt of medium volatile bituminous coal reserves and resources. The company projects output will

be 1.6 Mt/y of coking coal. Hillsborough expects to receive the EA certificate and regulatory approval in 2006 and to start the mine construction in 2007.

Cline Mining Corp.'s Lodgepole mine project is located in the Crowsnest Coalfield of southeastern British Columbia. The project area contains approximately 155 Mt of coal reserves and resources. Cline Mining anticipates production of 2 Mt/y of coking coal. The company expects to obtain the EA certificate and regulatory approval in 2006 and to start mine construction in 2007.

In January 2005, Luscar released a public disclosure document in which it proposes a two-unit, 1000-MW coal-fired electricity generation plant and associated coal mine and coal preparation plant. The project is referred to as the Bow City Power Project and is located near Bow City, Alberta, approximately 180 km southeast of Calgary. The project is based on the Brook Power project originally proposed by Fording Inc. in 2000 and later acquired by Luscar as the result of a coal industry restructuring in 2003. The development is to be carried out in two phases. Phase 1 is to construct a 500-MW power unit, a surface mine, and a coal preparation plant with expected completion in 2010. Phase 2 is to build a second 500-MW unit and a second dragline, and to expand the mine and preparation plant. The second phase is expected to be completed in 2014.

In eastern Canada, the Nova Scotia government selected Xstrata Donkin Mine Development Alliance (the Alliance) in December 2005 as the successful bidder to develop coal resources at the Donkin mine offshore Cape Breton Island. This was the result of the Nova Scotia government's call for proposals in December 2004. The Alliance consists of Xstrata Coal (Australia, 66%), Kaoclay Resources Inc. (Halifax, 20%) and Atlantic Green Energy (Savannah, Georgia, 14%). The Alliance has indicated that it will undertake a feasibility study at a cost of \$10-\$15 million to determine if the resource can be economically developed. The feasibility study would likely take two years to complete and coal production could possibly commence in 2008. The federal and provincial governments are currently working together to develop a regulatory regime. The Nova Scotia government has been pursuing coal mining and development under Nova Scotia's Energy Strategy since 2003. Nova Scotia is rich in coal resources and a return of productive coal mining operations will certainly provide economic benefits to the local communities and to the province.

## **ENVIRONMENT**

The Canadian coal industry has made progress with respect to environmental concerns such as the disturbance of land, acid mine drainage, greenhouse gas (GHG) emissions, and the production of particulate associated with the burning of coal. Some coal mining companies have already been recognized for their successful environmental management programs.

New coal mines and mine expansions are required to have environmental assessments under provincial legislation and, in some cases, also require a federal environmental review under the *Canadian Environmental Assessment Act*. Environmental assessments ensure that mining activities, such as the removal of vegetation, relocation of overburden, construction of roads, storage of waste rocks, reclamation of previous mined areas, and mining operations, are done in a way to manage the negative effect on the environment.

Canada and the private sector have invested significant amounts of money in the development of Clean Coal Technologies (CCT) that are designed to enhance both the efficiency and the environmental acceptability of coal extraction, preparation and consumption. Natural Resources Canada has made financial contributions to projects by the Canadian Clean Power Coalition (CCPC). The CCPC's projects aim to demonstrate that coal-fired power can be produced with emission levels similar to modern natural-gas-fired turbine plants and that CO<sub>2</sub> can be captured and stored by applying commercial technologies. The goal was to retrofit current coal-fired electricity generation plants while maintaining overall efficiency at or above the current levels and while remaining costcompetitive with other power generation technologies. The CCPC completed the projects' feasibility study in 2004 and concluded that coal-fired generation plant emissions can be comparable to natural-gas-fired power plants, technology limits will be pushed, life-cycle impacts and costs are significant, retrofit costs range from \$730/kW to \$1100/kW, and new plant (greenfield) costs will be over \$2700/kW.

# OUTLOOK

The outlook for 2006 is positive. Global demand for coking coal appears to be slowing down and supply increases seem to be catching up to demand. Canadian exporters settled various coking coal contracts for the 2006-07 coal year at prices of US\$107-\$110/t, lower than the 2005-06 coal year price of US\$120-\$125/t. Meanwhile, global thermal coal demand continues to be strong, particularly in developing countries, as the demand for heat and electricity keeps the demand for thermal coal at a high level. Canadian coal production is expected to reach 70 Mt in 2006 and exports are also expected to increase to 30 Mt. Most production increases will be coking and PCI coal for exports. Coking and PCI coal producers (Elk Valley Coal, WCC, Grande Cache and Pine Valley) will attempt to achieve a maximum volume of production. The level of thermal coal production in Canada is expected to remain the same as the majority of production is under long-term contracts. Luscar will operate at its full capacity and will also increase its thermal coal exports to benefit from the global demand increases. Hillsborough will operate at full capacity.

Canada's coal consumption and imports are expected to be stable in 2006. The global oil and natural gas spike in 2005 has made many people call for rethinking coal-fired electricity power generation as the abundant coal resources will certainly be a reliable energy source for centuries to come.

### **GENERAL INFORMATION**

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 chemical changes under pressure and heat. As the organic maturity process continues, the buried plant material is transformed into different kinds of coal. In general, the longer coal is subjected to heat and pressure, the higher its rank and contained heat volume per unit weight. Bituminous coal and anthracite are high-rank coals, also known as hard coal. Bituminous coal is consumed for both metallurgical and thermal purposes. Anthracite, the highest rank coal, is often called smokeless and is consumed for both domestic and industrial purposes. Lignite and subbituminous are low-rank coals, also known as brown coals, consumed only for the generation of electricity.

Coal is the world's most abundant and widely distributed fossil fuel. The current proven world coal reserve is estimated at 1000 billion t spread over 70 countries. Coal is currently mined in more than 50 countries. Canada holds close to 10 billion t of coal reserves. Coal offers a longterm economical source of energy that, at current production levels, would last for more than 200 years, significantly longer than known reserves of oil and gas.

The latest *Coal Information* report published by the International Energy Agency (which collects worldwide data on production, consumption and trade) shows the world's total coal output was 5.9 billion t in 2005, including 4.6 billion t of hard coal and 905 Mt of brown coal. Global coal supply increased 7.3% in 2005. The top 10 coal-producing countries were China (2226 Mt), the United States (1028 Mt), India (429 Mt), Australia (371 Mt), Russia (297 Mt), South Africa (240 Mt), Germany (207 Mt), Poland (160 Mt), Indonesia (140 Mt), and Kazakhstan (82 Mt). Canada produces hard and brown (lignite) coal. Canadian coal production was 67.3 Mt in 2005. Coal has been consumed as an energy source for hundreds of years. It provided the energy that boosted the industrial revolution of the 19<sup>th</sup> century and launched the electric era in the 20<sup>th</sup> century. Coal was the most important source of the world's primary energy until the late 1960s when it was overtaken by oil. Today, about 70% of the world's total coal production is consumed for electricity generation, providing about 39% of total world electricity. About 16% of Canada's electricity is generated by coal. Almost all primary steel production worldwide is based on pig iron from blast furnaces fed with coke from coal and on iron ore.

The Canadian coal industry plays an important role in the Canadian economy, both as a mining industry and as an energy provider. It currently employs approximately 5000 people directly linked to the production of coal and it also creates about 50 000 indirect jobs across the country. The coal industry contributes about \$5 billion to the national economy annually. Coal is the number one commodity in volume hauled by rail in Canada; in 2005, 33.5 Mt of coal was hauled by rail. The majority of coal was hauled to Vancouver ports for shipment overseas.

### CANADIAN COAL COMPANIES' WEB SITES

The Coal Association of Canada www.coal.ca Fording Canadian Coal Trust www.fording.ca Teck Cominco Ltd. www.teckcominco.com Elk Valley Coal Corp. www.elkvalleycoal.ca Sherritt International Corp. www.sherritt.com Luscar Coal Ltd. www.luscar.com Western Canadian Coal Corp. www.westerncoal.com Grande Cache Coal Corp. www.gccoal.com Hillsborough Resources Ltd. www.hillsboroughresources.com **Ouinsam** Coal Corporation www.quinsam.com Pine Valley Mining Corp. www.pinevalleycoal.com Compliance Energy Corp. www.complianceenergy.com

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 65. (2) Information in this review was current as of June 30, 2006. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan.gc.ca/mms/cmy/com e.html.

#### NOTE TO READERS

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#### TARIFFS

			Canada		United States	EU Conventional	Japan
Item No.	Description	MFN	GPT	USA	Canada	Rate (1)	WTO (2)
27.01	Coal; briquettes, ovoids and similar solid fuels manufactured from coal						
2701.11	Coal, whether or not pulverized, but not agglomerated: anthracite	Free	Free	Free	Free	Free	Free
2701.12	Coal, whether or not pulverized, but not agglomerated: bituminous coal	Free	Free	Free	Free	Free	Free
2701.19	Coal, whether or not pulverized, but not agglomerated: other coal	Free	Free	Free	Free	Free	Free
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal	Free	Free	Free	Free	Free	3.9%
27.02	Lignite, whether or not agglomerated, excluding jet						
2702.10	Lignite, whether or not pulverized, but not agglomerated	Free	Free	Free	Free	Free	Free
2702.20	Agglomerated lignite	Free	Free	Free	Free	Free	Free

Sources: Canadian Customs Tariff, effective January 2006, Canada Border Services Agency; Harmonized Tariff Schedule of the United States, 2006; Official Journal of the European Union (October 27, 2005 Edition); Customs Tariff Schedules of Japan, 2006.

(1) The customs duties applicable to imported goods originating in countries that are Contracting Parties to the General Agreement on Tariffs and Trade or with which the European Community has concluded agreements containing the most-favoured-nation tariff clause shall be the conventional duties shown in column 3 of the Schedule of Duties. (2) WTO rate is shown; lower tariff rates may apply circumstantially.

### TABLE 1. CANADA, COAL PRODUCTION AND TRADE, 2003-05

		2	2003	2	2004	200	5 (p)
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
SHIPMENTS							
	Nova Scotia	X 141.000	X 17 092	X 000 000	X 11.266	x	x
	Saskatchewan	141 000 X	17 002 X	90 000 x	11 200 X	11 017 000	x
	Alberta	28 226 000	330 462	27 202 000	304 246	28 570 000	x
	British Columbia	23 062 000	997 743	27 084 000	1 125 420	25 544 000	1 839 827
	Total	62 125 000	1 492 220	65 997 000	1 596 459	65 317 000	2 328 541
EXPORTS							
2701.11	Anthracite						
	United States	8 279	1 268	475	200	212	21
	Turkey	-	-	-	-	15	2
	Total	8 279	1 268	475	200	227	23
2701 12 10	Bituminous coal, metallurgical						
2.020	Japan	7 486 972	445 334	4 883 987	300 796	6 792 111	781 342
	South Korea	3 268 468	190 294	3 625 115	230 191	4 770 365	544 589
	United States	1 363 065	113 371	1 735 103	150 124	1 602 239	239 867
	Germany	1 478 163	99 476	1 813 986	128 145	1 757 343	188 840
	Brazil	1 835 371	109 887	1 469 050	89 485	1 718 266	180 062
	United Kingdom	1 077 984	64 740	1 063 763	65 680	1 677 264	178 961
	Italy	993 994	58 245	890 750	54 691	1 468 895	173 609
	Turkey	780 474	57 687	990 020 1 306 265	89 477	1 274 345	136 297
	Netherlands	1 250 360	84 082	1 139 166	84 484	807 144	91 752
	China	604 350	33 815	1 762 860	116 132	955 736	74 877
	France	324 399	23 750	387 968	33 191	493 735	70 958
	Finland	196 777	12 136	199 897	12 682	516 011	69 039
	Egypt	444 551	34 864	381 008	32 825	426 237	54 067
	Mexico	474 067	24 541	482 930	26 189	406 464	50 802
	Spain	391 718	20 351	112 816	6 608	343 948	49 991
	Chile	231 000	14 312	364 526	17 448	368 493	36 865
	Pakistan Bulgaria	194 846	10 538	204 300	12 469	103 566	13 046
	Belgium	115 893	6 785	202 031	22 797	57 651	4 557
	Iran	68 859	5 602	202 001			- 001
	Romania	57 783	3 693	_	_	_	-
	Greece	-	_	552 680	36 455	-	-
	India	-	-	49 143	6 353	-	-
	Total	23 716 405	1 480 530	23 846 977	1 593 651	26 710 356	3 116 246
2701.12.90	Bituminous coal, other						
	Japan	266 558	8 135	499 719	25 490	728 453	43 035
	United States	431 573	34 595	759 852	56 475	237 203	19 960
	South Korea	390 817	13 403	-	-	169 287	10 537
	Chile	118 251	4 019	44 990	1 704	180 406	10 127
	France	64 606	2 074	_	_	35 930	3 235
	Mexico			590 288	26 278	-	_
	Total (1)	1 271 805	63 226	1 894 849	109 947	1 351 279	86 894
2701 19	Other coal						
2101.10	United States	1 440	447	1.322	313	6 934	590
	Taiwan	100	39	880	96	2 194	179
	Vietnam	_	_	_	_	1 260	80
	Thailand	-	-	-	-	563	78
	Saudi Arabia	-	-	373	34	68	45
	Italy	103	25	1 703	166	322	27
	Egypt	-	-	98	9	89	19
	Spain Bekisten	-	_	-	-	77	6
	Pakistan	26	8	417	35	36	3
	Japan	1		_	_	_	-
	Kuwait	100		_	_	_	_
	China	-	_	1		-	-
	Iran	-	-	63	6	-	-
	T-1-1 (4)				~=~		
	i otal (1)	1 771	524	4 857	659	11 543	1 027

### TABLE 1 (cont'd)

		2	2003	2	2004	200	5 (p)
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS (con	ťd)						
2701.20	Briquettes, ovoids and similar solid fuels manufactured from coal						
	Saudi Arabia	-	-	-	-	420	39
	Saint Kitts and Nevis	-	-	_	_	9	1
	France	-	-	5	1	84	
	United States	171	15	-	-	-	-
	Total	173	15	5	1	513	40
2702.10	Lignite whether or not						
	pulverized, but not agglomerated	74 000	7.040	000 000	0 500	70.000	0.040
	United States	74 632	7 846	66 U90 176	6 533	12 629	6 940 11
	Fiance	54	0	170	12	105	
	Total (1)	74 726	7 852	66 266	6 545	72 794	6 951
2702.20	Agglomerated lignite					$\begin{array}{c cccc} & 200 \\ \hline & & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$	4.000
	United States	32 208	4 765	46 242	3 926	55 063	4 286
	Cuba	-	-	22	33	179	98
	France	_	_	36	6	_	_
			1 705	10.000		55.0.10	
		32 208	4 765	46 308	3 969	55 242	4 384
	Total exports	25 105 367	1 558 180	25 859 737	1 714 972	28 201 954	3 215 565
IMPORTS							
2701.11	Anthracite		0.050	04 50 4	0.704	440 700	44 504
	Russia	94 029	6 652 0 700	34 594	2 7 24	113 709	11 531
	Ukraine	37 398	2 848	204 393	13 567	61 528	5 419
	China	85 379	12 468	462	13 307	50 697	5 367
	Pitcairn Islands	-	-	-	-	10	1
	Italy	-	-	-	-		
	Japan	-	-	-	-		
	Canada	13	2	-	-	-	-
	United Kingdom	55	17	77	23	-	-
	Taiwan	_	_	2	1	_	_
	Total (1)	206 121	21 777	469.095	27.612	229 264	22 704
0704 40 00 44		300 131	51777	400 905	27 013	556 204	32 7 04
2701.12.00.11,	Bituminous coal, metallurgical	2 205 177	170 524	2 420 444	242 105	1 155 026	250 605
2701.12.00.12	Canada	5 205 177	179 554	5 429 444	242 103	59 032	6 008
	Colombia	8 364	1 099	-	-	8 983	1 554
	Australia	8		-	-	_	-
	Total (1)	3 293 549	180 633	3 429 444	242 105	4 223 051	367 167
2701.12.00.91	Bituminous coal, other, high volatile						
	United States	8 502 324	425 653	6 823 417	396 111	5 807 253	403 955
	Colombia	345 011	15 326	145 449	5 849	-	-
	Norway	38 939	1 389	-	-	-	-
	Venezuela	82 365	4 401	-	-	-	-
	Total (1)	8 968 639	446 769	6 968 866	401 960	5 807 253	403 955
2701.12.00.92	Bituminous coal, other, low volatile						
	Colombia	186 475	9 862	743 724	36 105	1 306 536	73 758
	Venezuela	615 753	36 799	734 150	38 008	625 330	52 154
	United States	193 201	13 233	284 420	18 678	394 992	27 578
	Norway	-	_	-	-	1	
	Italy	58	6	-	-	-	-
	United Kingdom Notherlands	33 085	2 482	_	-	-	-
2701.11 2701.12.00.11 2701.12.00.12 2701.12.00.91 2701.12.00.92	างอนายาสานร	-	_	9		_	-
	Total	1 028 572	62 382	1 762 303	92 791	2 326 859	153 490

### TABLE 1 (cont'd)

		2	003	2	004	200	ō (p)
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
	optid)						
2701 10	Other coal						
2701.15	United States	7 716 2/3	131 833	5 778 681	18/ 166	7 161 /31	228 617
	Colombia	1 321 736	42 951	614 747	31 810	1 250 086	67 917
	Venezuela		42 551	27 937	3 119	50 645	7 278
	Russian Federation	_	_		-	20 000	1 560
	United Kingdom	7 095	236	2 839	236	20 733	720
	Indonesia	-				10 000	625
	Japan	1		120	2	92	2
	Jordan	3		_	_	101	1
	Belgium	_	-	_	-	71	1
	Taiwan	-	-	_	-	113	1
	Mexico	2		-	-	7	
	South Africa	70 281	1 982	-	_	17	
	China	-	-	24	1	28	
	Egypt	-	-	-	_		
	Australia	9	1	-	-	-	-
	Canada	3		-	-	-	-
	Greece	1		-	-	-	-
	Iran	2		-	-	-	-
	Kazakhstan	2		-	-	-	-
	South Korea	10		-	-	-	-
	France	-	-	4		-	-
	Germany	-	-	1		-	-
	Total (1)	9 115 388	177 003	6 424 353	219 334	8 513 324	306 722
2701.20	Briquettes, ovoids and similar solid fuels						
	manufactured from coal						
	China	-	-	159	17	785	106
	Netherlands	-	-	-	-	1 170	79
	United States	1 195	133	9 045	837	86	6
	Taiwan	-	-				
	Egypt			14	2	-	-
	Japan	13	1	66	7	-	-
	Lebanon	40	1	-	-	-	-
	Germany	-	-	99	11	-	-
	South Korea	-	-	2		-	-
	Mexico	-	-			-	-
	Vietnam	-	-	2		-	-
	Total (1)	1 248	135	9 387	874	2 041	191
2702.10	Lignite whether or not pulverized, but not						
	agglomerated						
	United States	1 702	173	1 332	136	967	98
2702.20	Agglomerated lignite						
	China	-	-	-	_	256	83
	United States	4		2			
		A		0		050	00
		4		2		256	83
	Total imports	22 715 233	898 872	19 064 672	984 813	21 212 015	1 264 490

Sources: Natural Resources Canada; Statistics Canada.

- Nil; . . Not available; . . . Amount too small to be expressed; (p) Preliminary; x Confidential.
 (1) Total includes other countries.
 Note: Numbers may not add to totals due to rounding.

#### TABLE 2. CANADIAN COKE TRADE, 2003-05

			2003	2	2004		2005 (p)
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS							
2704.00	Coke and semi-coke of coal, of						
	lignite or of peat, whether or not						
	agglomerated; retort carbon						
	United States	104 920	13 197	132 551	42 117	239 030	66 376
	United Arab Emirates	153	94	718	118	591	87
	Romania	-	-	5		62	6
	Iraq	-	-	-	-	15	2
	Brazil	12 714	752	-	-	-	-
	Cuba	-	-	16	9	-	-
	Netherlands	-	-	132	14	-	-
	Total (1)	117 787	14 043	133 422	42 258	239 698	66 471
IMPORTS							
2704.00	Coke and semi-coke of coal, of						
	lignite or of peat, whether or not						
	agglomerated; retort carbon						
	United States	416 783	66 028	602 615	59 335	780 879	91 351
	China	93 194	17 076	317 292	115 419	211 835	57 974
	Germany	3 186	622	3 827	892	2 053	669
	Belgium	8	1	6	1	5	1
	France	12	2	36	3	3	1
	Netherlands	5 063	958			3	1
	Bangladesh	-	-	-	-		
	Colombia	-	-	-	-		
	Sweden	-	-	-	-		
	Brazil	75 561	7 581	11 989	2 741	-	-
	Japan	36 064	5 799	19	7	-	-
	Poland	26 716	7 833	-	-	-	-
	Ukraine	-	-	51 744	18 045	-	-
	Total (1)	656 587	105 900	987 528	196 443	994 778	149 997

Sources: Natural Resources Canada; Statistics Canada.

- Nil; ... Amount too small to be expressed; (p) Preliminary.

(1) Total includes other countries.

Note: Numbers may not add to totals due to rounding.

#### TABLE 3. COAL PRODUCTION BY TYPE AND PROVINCE, 1990-2005

		Alberta		British Columbia	New Brunswick	Nova Scotia	Saskatchewan	Canada
	Bituminous	Subbituminous	Total	Bituminous	Bituminous	Bituminous	Lignite	Total
				(000 ton	nes)			
1990	9 153	21 252	30 405	24 556	548	3 415	9 407	68 331
1991	10 312	22 242	32 554	24 963	498	4 138	8 981	71 134
1992	10 508	23 020	33 528	17 174	399	4 486	10 027	65 614
1993	11 498	23 660	35 159	20 628	389	3 647	9 000	68 824
1994	10 195	25 489	35 684	22 604	331	3 509	10 684	72 815
1995	11 523	25 621	37 144	23 349	263	2 482	10 739	74 979
1996	11 164	24 985	36 150	25 420	272	3 171	10 838	75 853
1997	10 560	25 782	36 343	27 878	173	2 715	11 652	78 762
1998	10 871	25 285	36 156	24 866	272	2 118	11 790	75 204
1999	9 903	24 229	34 203	24 844	251	1 537	11 659	75 204
2000	6 728	24 168	30 896	25 681	229	1 165	11 190	69 163
2001	5 971	24 940	30 911	27 007	165	881	(a) 11 390	70 355
2002	4 957	25 528	30 485	24 398	175	х	(a) 11 365	66 608
2003	3 346	24 880	28 226	23 099	141	х	(a) 10 665	62 163
2004	2 000	25 282	27 202	27 107	х	х	(a) 11 588	66 019
2005 (p)	2 570	26 000	28 570	27 544	х	х	(a) 11 017	67 500

Sources: Natural Resources Canada, Statistics Canada

(p) Preliminary; x Confidential.
(a) Saskatchewan Bureau of Statistics, *Monthly Statistical Review*.

### TABLE 4. CANADIAN COAL CONSUMPTION, 1990-2005

	Electricity	Steel	Industry	Producer Use	Non- Energy	Total
			(000 tonr	ies)		
1990	42 136	4 996	1 730	144	349	49 354
1991	43 873	4 906	1 473	165	315	50 732
1992	45 808	4 885	1 504	88	311	52 596
1993	43 112	4 665	1 392	128	386	49 683
1994	45 273	4 780	1 513	129	370	52 065
1995	45 954	4 189	1 595	186	415	52 338
1996	46 607	4 446	1 641	166	442	53 302
1997	49 799	4 490	1 721	144	450	56 605
1998	52 455	4 119	1 713	105	430	58 821
1999	52 037	4 360	1 745	179	382	58 703
2000	55 824	4 265	1 959	160	469	62 676
2001	55 537	4 255	1 870	335	396	62 393
2002	55 612	4 201	1 810	216	413	62 252
2003	55 213	4 174	1 931	284	457	62 059
2004	51 241	4 370	2 109	264	474	58 458
2005 (e)	51 000	4 200	2 100	260	470	58 030

Sources: Natural Resources Canada, Statistics Canada.

(e) Estimated.

### TABLE 5. CANADIAN COAL TRADE, 1990-2005

	Meta	Illurgical	The	ermal	Total	Canada
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
EXPORTS						
1990	31 986	2 109 070		9 474	32 058	2 118 544
1991	32 401	2 043 347		8 002	32 481	2 051 349
1992	25 910	1 666 905		17 110	26 134	1 684 015
1993	28 249	1 845 140		10 053	28 352	1 855 193
1994	31 243	2 039 875		7 325	31 311	2 047 200
1995	34 054	2 228 708		9 294	34 215	2 238 002
1996	34 593	2 494 781		8 414	34 695	2 503 195
1997	35 610	2 571 970		22 016	35 882	2 593 986
1998	27 972	2 060 927	5 213	301 083	33 185	2 362 010
1999	30 289	1 746 020	3 662	152 136	33 951	1 898 156
2000	30 305	1 632 441	2 196	89 358	32 501	1 721 799
2001	26 914	1 715 603	2 782	118 785	29 696	1 834 388
2002	22 964	1 582 580	2 222	108 642	25 186	1 691 222
2003	23 716	1 480 528	1 389	77 651	25 105	1 558 179
2004	23 847	1 593 650	2 013	121 322	25 860	1 714 972
2005 (p)	26 710	3 116 245	1 492	99 320	28 202	3 215 565
IMPORTS						
1990	4 021	185 421	10 819	426 879	14 840	612 300
1991	4 170	189 627	7 665	288 520	11 835	478 147
1992	4 733	216 429	9 017	375 259	13 750	591 688
1993	4 721	227 404	4 002	183 819	8 723	411 223
1994	4 047	201 583	5 007	232 349	9 054	433 932
1995	4 183	211 235	5 566	264 198	9 749	475 433
1996	5 465	283 250	6 183	288 448	11 648	571 698
1997	4 616	238 944	10 202	453 898	14 818	692 842
1998	4 536	258 201	15 318	671 063	19 854	929 264
1999	3 857	204 018	16 103	717 592	19 960	921 610
2000	3 493	183 214	15 932	755 576	19 425	938 790
2001	3 987	229 475	15 443	799 304	19 430	1 028 779
2002	4 315	283 037	18 321	809 983	22 636	1 093 020
2003	3 294	180 633	19 422	718 240	22 716	898 873
2004	3 429	242 105	15 635	742 709	19 064	984 814
2005 (p)	4 223	367 167	16 989	897 323	21 212	1 264 490

Sources: Natural Resources Canada.

... Amount too small to be expressed; (p) Preliminary.