



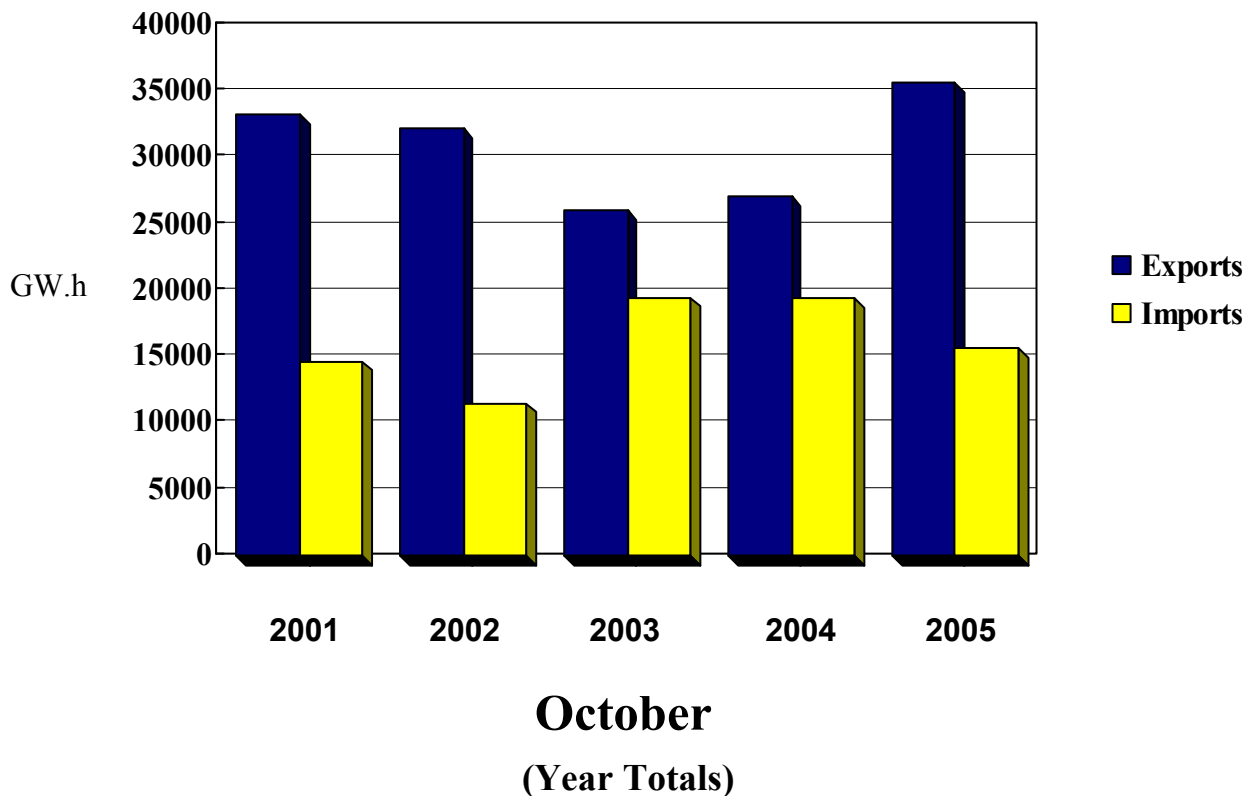
Electricity Exports and Imports

Monthly Statistics for

October 2005

Exports: 3518 GW.h

Imports: 1794 GW.h





National Energy Board
Office national de l'énergie

TABLE 1

Exports and Imports of Electricity

Summary: Canada

OCTOBER 2005

Page 1
05/12/09

Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
	OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Exports of Electric Energy						
Firm	1 144 765	10 678 629	106 033 566	722 029 570	85.55	58.20
Interruptible	2 373 526	24 823 089	201 531 002	1 816 446 816	84.20	70.98
Non-Revenue/Inadvertant	- 744 107	-5 742 012	0	0	0.00	0.00
Service	12 892	364 600	312 661	9 502 011	24.25	30.01
Total Exports	2 787 077	30 124 306	307 877 229	2 547 978 397	106.96	80.31
Total Sales - Firm and Interruptible	3 518 291	35 501 718	307 564 568	2 538 476 386	84.64	67.08
Imports of Electric Energy						
Non-Revenue/Inadvertant	- 781 701	-5 685 295	0	0	0.00	0.00
Purchase	1 793 991	15 613 881	144 399 341	1 011 104 790	80.49	62.19
Service	9 011	213 113	0	782 708	0.00	3.22
Total Imports	1 021 301	10 141 699	144 399 341	1 011 887 498	141.39	97.33
Excess of Exports Over Imports	1 765 776	19 982 607	163 477 887	1 536 090 899		
Number of Export Licences:	7					
Number of Export Permits/Orders:	176					
	183					

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

F - Firm Sales
I - Interruptible Sales
P - Purchase (Import)
N - Non-Revenue (Non-Revenue or Inadvertent)
S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)

For further information, contact:

Mary-Jane Sam
Statistical Research Officer,
Commodities Business Unit
National Energy Board
(403) 299-3706



National Energy Board
Office national de l'énergie

TABLE 2A Export Summary Report by Source, Authorization and Exchange Type

Page 1
05/12/09

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Alberta								
ATCO & Alberta	Permit 93	I	150	12 308	11 222	593 070	74.81	48.00
Cargill Trading	Permit 204	F	0	2 929	0	120 006	0.00	40.97
Enmax Marketing	Permit 169	I	590	18 985	53 308	1 037 452	90.35	53.08
EPCOR Merchant	Permit 186	I	296	21 691	26 314	1 108 169	88.90	50.65
TransAlta Ener	Permit 168	F	286	10 749	25 702	582 277	89.87	51.71
TransCanada Ene	Permit 78	I	275	17 732	23 581	925 585	85.75	50.14
Subtotal Firm and Interruptible Exports: Alberta			1 597	84 394	140 126	4 366 559	87.74	50.59
British Columbia								
BC Hydro	Permit 105	F	97	1 077	7 037	77 264	72.58	71.73
	Permit 127	N	- 486 619	-4 054 526	0	0	0.00	0.00
		S	9 011	199 246	0	0	0.00	0.00
		N	51 292	172 369	0	0	0.00	0.00
	Treaty	N	9 989	97 709	0	0	0.00	0.00
FortisBC	Permit 115	F	0	27 178	0	832 907	0.00	30.65

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2A

Export Summary Report

by Source, Authorization and Exchange Type

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Powerex Corp.	Permit 118	I	610 703	6 083 942	65 500 020	506 984 899	107.25	80.43
Teck Cominco	Permit 244	F	78 428	373 933	7 343 700	29 092 473	93.64	77.80
Subtotal Firm and Interruptible Exports: British Columbia			689 228	6 486 130	72 850 757	536 987 543	105.70	80.11
Manitoba								
Manitoba Hydro	Licence 170	F	0	909 872	0	44 554 088	0.00	46.16
	Permit 33	F	0	42 018	0	1 657 883	0.00	39.46
	Permit 34	F	0	267 012	0	10 323 392	0.00	38.66
	Permit 35	F	18 450	131 974	428 707	7 794 758	23.24	59.06
	Permit 45	F	16 598	131 433	1 158 956	9 578 045	69.83	72.07
	Permit 46	I	846 090	6 926 549	35 716 711	324 671 685	42.21	47.18
		N	0	36 229	0	0	0.00	0.00
	Permit 68	F	0	57 866	0	2 152 788	0.00	35.52
	Permit 144	F	16 605	165 792	1 346 981	13 695 456	81.12	82.35
	Permit 155	F	19 941	205 968	1 142 264	11 941 408	57.28	57.56
	Permit 207	F	33 204	344 681	2 250 118	22 758 330	67.77	65.89
	Permit 224	F	165 917	1 021 329	9 679 507	60 233 709	58.34	58.98
	Permit 259	F	422	5 244	26 302	307 973	62.37	58.56
Subtotal Firm and Interruptible Exports: Manitoba			1 117 227	10 209 738	51 749 545	509 669 515	46.32	49.76

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2A

Export Summary Report by Source, Authorization and Exchange Type

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
New Brunswick								
Brascan	Permit 112	F	14 312	22 427	2 194 676	3 016 350	153.35	134.50
Emera Energy	Permit 217	F	135 987	450 239	15 730 979	37 844 993	115.68	84.06
Fraser Inc.	Permit 225	F	24 900	285 330	1 815 582	20 668 409	72.91	71.97
NB Power	Permit 90	F	11 499	169 308	805 026	13 970 375	64.57	63.99
	Permit 91	I	201 693	905 145	21 539 759	74 860 227	106.74	78.45
	Permit 148	F	10 427	417 365	1 190 622	29 804 183	114.19	71.41
WPS Power Dev.	Licence 177	F	20 426	98 064	680 361	2 888 020	33.31	30.03
Subtotal Firm and Interruptible Exports: New Brunswick			419 244	2 347 878	43 957 007	183 052 557	104.67	74.70
Nova Scotia								
Brascan	Permit 112	F	0	143	0	38 754	0.00	271.01
NS Power Inc.	Permit 122	I	10 892	63 116	1 075 520	4 785 603	98.74	71.84
Subtotal Firm and Interruptible Exports: Nova Scotia			10 892	63 259	1 075 520	4 824 357	98.74	72.23

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2A Export Summary Report by Source, Authorization and Exchange Type

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Ontario								
Allete, Inc.	Permit 261	F	40	24 279	3 188	1 458 617	79.70	52.96
Brascan	Permit 112	F	131 657	788 776	21 069 349	66 247 244	160.03	79.27
Cargill Trading	Permit 204	F	0	47 032	0	3 406 526	0.00	71.20
Cdn. Transit	Permit 29	F	0	23	0	0	0.00	0.00
Cincinnati G&E	Permit 257	F	3 229	36 327	281 150	3 381 778	87.07	93.09
Conectiv Energy	Permit 212	I	12 879	118 929	1 157 846	7 384 143	89.90	58.20
Constell ECG	Permit 138	I	86 988	263 893	3 238 088	16 934 819	37.22	64.13
Constell NE	Permit 264	F	0	613	0	59 551	0.00	97.15
Coral Energy	Permit 174	F	662	316 988	48 312	20 611 488	72.98	64.47
D&W Subway	Permit 26	F	121	1 096	0	0	0.00	63.81
Direct Commod.	Permit 240	I	11 011	55 913	1 018 770	4 363 406	92.52	78.12
Direct EM Inc.	Permit 200	F	1 913	56 354	191 662	3 978 651	100.19	68.49
DTE Energy Trad	Permit 206	F	31 536	960 217	2 140 448	48 062 703	67.87	50.49

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2A

Export Summary Report

by Source, Authorization and Exchange Type

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
EPCOR Merchant	Permit 187	F	15 857	290 974	1 115 772	15 667 078	70.36	52.39
Hydro One Net	Permit 25	F	0	23	0	1 168	0.00	44.87
Ind Elc Mark Op	Permit 22	N	- 318 769	-1 993 793	0	0	0.00	0.00
Merrill-Lynch	Permit 227	F	0	200	0	15 999	0.00	91.96
Morgan Stanley	Permit 181	F	0	488	0	28 633	0.00	58.67
Northern States	Permit 235	F	520	84 647	43 823	4 503 776	84.27	51.25
Ont Power Gen	Permit 24	F	15	168	29	337	2.00	7.44
OPGI/OHIM	Permit 21	I	189 028	2 091 342	17 692 561	144 630 795	93.38	64.68
		S	3 881	165 354	312 661	9 502 011	80.56	54.59
Powerex Corp.	Permit 116	I	79 461	396 789	7 701 632	28 148 583	96.92	66.03
Rainbow	Permit 263	I	0	1 087	0	59 206	0.00	53.29
Saracen Merchan	Permit 276	I	7 470	8 885	617 909	701 555	82.72	78.96
Sempra Corp	Permit 157	F	8 055	44 160	819 906	3 562 325	101.79	75.68
SESCO	Permit 249	F	6 499	30 277	780 998	2 451 388	120.17	80.97
SPLIT ROCK	Permit 221	F	8 154	263 002	492 532	15 748 760	60.40	56.28

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2A

Export Summary Report

by Source, Authorization and Exchange Type

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
TransAlta Ener	Permit 168	F	227 408	869 519	19 266 255	59 305 780	84.72	64.78
WPS Energy	Permit 250	I	0	5 251	0	488 951	0.00	93.12
Subtotal Firm and Interruptible Exports: Ontario			822 502	6 757 252	77 680 230	451 203 261	94.39	63.65
Quebec								
Brascan	Permit 112	F	7 486	254 366	1 478 350	21 378 698	197.48	81.77
Hydro-Quebec	Licence 180	F	75 422	825 911	6 724 088	72 100 660	33.10	34.24
	Licence 181	F	13 040	143 221	1 690 018	12 590 226	33.10	35.74
	Licence 182	F	11 667	127 371	1 003 947	10 764 233	33.10	34.23
	Licence 183	F	20 733	223 131	1 835 249	19 551 404	33.10	34.25
	Licence 184	F	13 253	146 355	1 221 968	13 129 388	33.10	34.24
	Permit 20	F	0	1 180	0	89 320	0.00	76.11
	Permit 64	I	238 843	6 521 238	40 349 894	622 737 860	162.39	90.15
MEHQ	Permit 129	I	28 539	665 459	3 132 239	38 158 474	109.75	56.07
Powerex Corp.	Permit 116	I	32	21 189	0	1 115 480	0.00	52.64
Subtotal Firm and Interruptible Exports: Quebec			409 015	8 929 421	57 435 753	811 615 742	116.96	78.20

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



National Energy Board
Office national de l'énergie

TABLE 2A

Export Summary Report

by Source, Authorization and Exchange Type

Page 7
05/12/09

Source	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Saskatchewan								
Northpoint	Permit 88	I	48 586	623 646	2 675 630	36 756 853	53.86	57.62
Subtotal Firm and Interruptible Exports: Saskatchewan			48 586	623 646	2 675 630	36 756 853	53.86	57.62
Total Firm and Interruptible Exports:			3 518 291	35 501 718	307 564 568	2 538 476 386	84.64	67.08

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2B

Import Summary Report

by Destination, Authorization and Exchange Type

Destination	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Alberta								
Candela Energy	-	P	254	3 679	87 555	403 548	344.70	117.14
Cargill Trading		P	1 113	7 091	157 343	551 655	141.37	77.80
Enmax Marketing		P	30 849	118 167	3 106 554	8 402 720	100.70	66.55
EPCOR Merchant		P	15 278	149 891	1 547 720	10 375 910	101.30	67.82
TransAlta Ener		P	1 131	9 201	109 612	607 411	96.92	65.17
TransCanada Ene		P	23 080	76 024	2 381 786	5 739 064	103.20	74.01
Subtotal Purchased Imports: Alberta			71 705	364 053	7 390 570	26 080 309	103.07	69.19
British Columbia								
BC Hydro		N	- 474 660	-3 787 164	0	0	0.00	0.00
		S	9 011	199 246	0	0	0.00	0.00
FortisBC		P	0	14 023	0	898 290	0.00	64.36
Powerex Corp.		P	556 185	4 834 523	45 751 871	280 492 687	82.26	56.46
Teck Cominco		P	7 520	7 520	704 144	704 144	93.64	93.64
Subtotal Purchased Imports: British Columbia			563 705	4 856 066	46 456 016	282 095 121	82.41	56.54

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2B

Import Summary Report

by Destination, Authorization and Exchange Type

Destination	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Manitoba								
Manitoba Hydro	-	N	1 081	10 132	0	0	0.00	0.00
		P	1 412	194 913	80 825	7 836 283	57.24	35.52
Subtotal Purchased Imports: Manitoba			1 412	194 913	80 825	7 836 283	57.24	35.52
New Brunswick								
Emera Energy		P	6 245	13 153	601 509	957 365	96.32	72.79
NB Power		P	471	24 464	19 017	1 718 924	40.38	68.25
WPS Power Dev.		P	952	5 258	31 699	159 021	33.31	30.27
Subtotal Purchased Imports: New Brunswick			7 668	42 875	652 226	2 835 310	85.06	65.62
Nova Scotia								
NS Power Inc.		P	9 659	59 102	1 568 590	5 825 049	162.40	97.86
Subtotal Purchased Imports: Nova Scotia			9 659	59 102	1 568 590	5 825 049	162.40	97.86

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2B

Import Summary Report

by Destination, Authorization and Exchange Type

Destination	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Ontario								
Abitibi	-	P	0	36	0	1 807	0.00	50.21
Allete, Inc.		P	411	13 532	21 297	552 425	51.82	43.33
Brascan		P	7 234	271 561	1 341 318	25 383 884	185.42	90.01
Cargill Trading		P	221 224	1 538 332	16 222 409	97 559 729	73.33	61.72
Cincinnati G&E		P	23 953	344 270	2 571 090	30 829 416	107.34	86.76
Conectiv Energy		P	5 547	40 905	459 237	3 495 232	82.79	75.55
Constell ECG		P	4 516	139 013	808 042	11 613 317	178.93	100.63
Constell NE		P	9 156	84 449	1 077 340	8 552 414	117.66	101.27
Coral Energy		P	300	15 542	20 868	1 142 233	69.56	52.15
D&W Subway		P	146	1 277	0	0	0.00	0.00
Detroit Edison		P	0	3 024	0	134 730	0.00	44.55
Direct Commod.		P	7 760	58 157	1 073 914	5 996 655	138.39	100.73
Direct EM Inc.		P	814	31 148	118 037	3 958 063	145.01	125.78

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2B

Import Summary Report

by Destination, Authorization and Exchange Type

Destination	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
DTE Energy Trad	-	P	217 768	1 484 001	15 093 374	87 603 586	69.31	56.59
EPCOR Merchant		P	20 528	155 866	1 524 743	9 934 317	74.28	65.58
Ind Elc Mark Op		N	- 308 122	-1 908 263	0	0	0.00	0.00
Manitoba Hydro		P	148 096	1 020 162	9 080 552	62 545 035	61.32	57.90
Merrill-Lynch		P	1 132	110 560	89 220	7 566 057	78.82	64.32
Morgan Stanley		P	0	1 200	0	80 715	0.00	69.69
Northern States		P	2 220	91 369	180 492	6 171 766	81.30	67.54
OPGI/OHIM		P	84 007	733 394	5 027 906	41 759 615	59.85	55.53
		S	0	13 867	0	782 708	0.00	56.44
Powerex Corp.		P	12 494	237 186	1 021 573	16 280 713	81.77	64.57
Rainbow		P	1 583	27 567	155 290	2 660 949	98.10	85.55
Saracen Merchan		P	1 889	1 889	213 424	213 424	112.98	112.98
Sempra Corp		P	7 197	83 190	693 613	5 703 187	96.38	64.88
SESCO		P	0	729	0	103 140	0.00	141.48
SPLIT ROCK		P	4 733	47 006	537 349	3 276 174	113.53	53.09

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



TABLE 2B

Import Summary Report

by Destination, Authorization and Exchange Type

Destination	Authorization	Exchange Type	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
			OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
TransAlta Ener	-	P	65 055	635 890	4 712 177	39 075 776	72.43	59.72
WPS Energy		P	554	11 927	63 610	1 348 823	114.82	113.09
Subtotal Purchased Imports: Ontario			848 316	7 183 181	62 106 875	473 543 181	73.21	63.48
Quebec								
Brascan		P	76	13 749	9 368	1 567 799	123.26	110.95
Emera Energy		P	0	99 886	0	8 825 212	0.00	88.35
Hydro-Quebec		P	260 839	2 361 423	24 492 130	179 721 569	93.90	74.22
MEHQ		P	4 354	81 783	576 004	7 871 852	132.29	91.32
Powerex Corp.		P	0	48 811	0	3 172 790	0.00	65.00
Subtotal Purchased Imports: Quebec			265 269	2 605 652	25 077 502	201 159 223	94.54	75.35
Saskatchewan								
Northpoint		P	26 257	308 040	1 066 737	11 730 315	40.63	36.55
Subtotal Purchased Imports: Saskatchewan			26 257	308 040	1 066 737	11 730 315	40.63	36.55
Total Purchased Imports:			1 793 991	15 613 881	144 399 341	1 011 104 790	80.49	62.19

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).

- F - Firm Sales
- I - Interruptible Sales
- P - Purchase (Import)
- N - Non-Revenue (Non-Revenue or Inadvertent)
- S - Service (Spinning Reserve, Storage, Unit Rental, Transmission, etc.)



National Energy Board
Office national de l'énergie

TABLE 3A

Export Sales Summary Report by Destination and Source

Page 1
05/12/09

Destination	Source	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Alaska	British Columbia	97	1 077	7 037	77 264	72.58	71.73
Subtotal Exports: Alaska		97	1 077	7 037	77 264	72.58	71.73
Arizona	British Columbia	7 213	81 028	925 720	7 582 517	128.34	91.85
Subtotal Exports: Arizona		7 213	81 028	925 720	7 582 517	128.34	91.85
California	British Columbia	50 370	161 983	5 746 227	15 545 840	114.08	87.12
Subtotal Exports: California		50 370	161 983	5 746 227	15 545 840	114.08	87.12
Colorado	British Columbia	1 153	27 069	131 637	2 235 110	114.17	75.73
Subtotal Exports: Colorado		1 153	27 069	131 637	2 235 110	114.17	75.73
Idaho	British Columbia	6 312	82 936	760 284	7 837 800	120.45	94.30
Subtotal Exports: Idaho		6 312	82 936	760 284	7 837 800	120.45	94.30
Illinois	Ontario	0	1 138	0	65 402	0.00	55.99
Subtotal Exports: Illinois		0	1 138	0	65 402	0.00	55.99
Indiana	British Columbia	0	1	0	0	0.00	0.00
	Ontario	948	5 627	145 963	511 481	153.97	90.90
Subtotal Exports: Indiana		948	5 628	145 963	511 481	153.97	90.88
Iowa	British Columbia	0	2	0	0	0.00	0.00
Subtotal Exports: Iowa		0	2	0	0	0.00	0.00
Maine	New Brunswick	404 932	2 325 451	41 762 330	180 036 207	102.95	74.19
	Nova Scotia	10 892	63 116	1 075 520	4 785 603	98.74	71.84
	Quebec	28 539	665 459	3 132 239	38 158 474	109.75	56.07
Subtotal Exports: Maine		444 363	3 054 026	45 970 089	222 980 284	103.29	70.02

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3A

Export Sales Summary Report by Destination and Source

Page 2
05/12/09

Destination	Source	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Massachusetts	Ontario	9 330	9 480	1 112 191	1 126 748	119.21	118.86
	Quebec	0	4 032	0	455 648	0.00	113.01
Subtotal Exports: Massachusetts		9 330	13 512	1 112 191	1 582 396	119.21	117.11
Michigan	Ontario	57 380	1 443 604	4 456 179	82 966 725	77.66	56.36
Subtotal Exports: Michigan		57 380	1 443 604	4 456 179	82 966 725	77.66	56.36
Minnesota	Manitoba	85 805	524 043	5 305 482	35 708 252	61.83	64.26
	Ontario	560	114 351	47 011	8 279 405	83.95	52.98
Subtotal Exports: Minnesota		86 365	638 394	5 352 492	43 987 657	61.98	61.80
Missouri	British Columbia	0	27	0	0	0.00	0.00
	Ontario	0	12 281	0	937 325	0.00	76.32
Subtotal Exports: Missouri		0	12 308	0	937 325	0.00	76.16
Montana	British Columbia	358	105 661	35 372	7 050 741	98.81	66.44
Subtotal Exports: Montana		358	105 661	35 372	7 050 741	98.81	66.44
ND/Minn	Manitoba	1 031 422	9 685 695	46 444 064	473 961 263	45.03	48.97
Subtotal Exports: ND/Minn		1 031 422	9 685 695	46 444 064	473 961 263	45.03	48.97
Nebraska	British Columbia	0	281	0	25 454	0.00	90.59
Subtotal Exports: Nebraska		0	281	0	25 454	0.00	90.59
Nevada	British Columbia	17 354	381 916	2 095 795	32 582 176	120.77	84.30
Subtotal Exports: Nevada		17 354	381 916	2 095 795	32 582 176	120.77	84.30
New England	New Brunswick	8 033	9 873	952 532	1 143 022	118.58	115.77

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3A

Export Sales Summary Report by Destination and Source

Page 3
05/12/09

Destination	Source	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
New England	Nova Scotia	0	143	0	38 754	0.00	271.01
	Ontario	24 910	60 119	5 035 678	8 603 413	202.15	143.11
	Quebec	95 710	3 076 025	16 221 671	295 367 287	169.49	91.16
Subtotal Exports: New England		128 653	3 146 160	22 209 881	305 152 476	172.63	92.04
New Mexico	British Columbia	6 903	113 094	849 902	10 434 370	123.12	86.94
Subtotal Exports: New Mexico		6 903	113 094	849 902	10 434 370	123.12	86.94
New York	New Brunswick	6 279	12 554	1 242 144	1 873 328	197.83	149.22
	Ontario	724 550	5 046 260	66 515 095	343 495 492	91.74	65.08
	Quebec	148 332	3 691 302	25 292 524	346 542 530	159.97	88.39
Subtotal Exports: New York		879 161	8 750 116	93 049 763	691 911 350	104.01	75.00
North Dakota	Alberta	0	925	0	36 148	0.00	39.08
	Saskatchewan	48 586	623 646	2 675 630	36 756 853	53.86	57.62
Subtotal Exports: North Dakota		48 586	624 571	2 675 630	36 793 001	53.86	57.60
Ohio	Ontario	3 229	36 327	281 150	3 381 778	87.07	93.09
Subtotal Exports: Ohio		3 229	36 327	281 150	3 381 778	87.07	93.09
Oregon	Alberta	25	3 403	1 913	149 977	76.50	44.22
	British Columbia	420 334	3 857 775	47 638 999	329 807 891	113.34	82.74
Subtotal Exports: Oregon		420 359	3 861 178	47 640 912	329 957 868	113.33	82.71
Pennsylvania	Ontario	1 596	28 065	86 964	1 835 491	54.49	64.86
Subtotal Exports: Pennsylvania		1 596	28 065	86 964	1 835 491	54.49	64.86
Utah	British Columbia	480	41 280	64 988	4 259 362	135.39	102.61
Subtotal Exports: Utah		480	41 280	64 988	4 259 362	135.39	102.61

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3A

Export Sales Summary Report by Destination and Source

Page 4
05/12/09

Destination	Source	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Vermont	Quebec	136 434	1 492 603	12 789 319	131 091 803	34.84	35.66
Subtotal Exports: Vermont		136 434	1 492 603	12 789 319	131 091 803	34.84	35.66
Washington	Alberta	1 572	80 066	138 214	4 180 434	87.92	50.93
	British Columbia	172 097	1 590 459	14 048 329	115 901 153	81.63	70.46
Subtotal Exports: Washington		173 669	1 670 525	14 186 543	120 081 587	81.69	69.49
Wyoming	British Columbia	6 558	41 541	546 466	3 647 864	83.33	87.45
Subtotal Exports: Wyoming		6 558	41 541	546 466	3 647 864	83.33	87.45
Total Exports		3 518 291	35 501 718	307 564 568	2 538 476 386	84.64	67.08

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3B

Import Purchases Summary Report by Source and Destination

Page 5
05/12/09

Source	Destination	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Arizona	British Columbia	10 455	86 414	667 198	3 272 718	63.82	37.41
Subtotal Imports: Arizona		10 455	86 414	667 198	3 272 718	63.82	37.41
Colorado	British Columbia	0	194	0	6 929	0.00	35.72
Subtotal Imports: Colorado		0	194	0	6 929	0.00	35.72
Illinois	Ontario	1 583	17 837	155 290	2 035 405	98.10	100.50
Subtotal Imports: Illinois		1 583	17 837	155 290	2 035 405	98.10	100.50
Indiana	Ontario	0	887	0	67 957	0.00	76.61
Subtotal Imports: Indiana		0	887	0	67 957	0.00	76.61
Iowa	British Columbia	15	205	0	0	0.00	0.00
	Ontario	0	600	0	24 150	0.00	44.32
Subtotal Imports: Iowa		15	805	0	24 150	0.00	25.67
Kansas	Ontario	0	253	0	16 413	0.00	80.06
Subtotal Imports: Kansas		0	253	0	16 413	0.00	80.06
Kentucky	Ontario	0	250	0	20 900	0.00	83.60
Subtotal Imports: Kentucky		0	250	0	20 900	0.00	83.60
Maine	New Brunswick	7 668	42 875	652 226	2 835 310	85.06	65.62
	Quebec	4 354	81 783	576 004	7 871 852	132.29	91.32
Subtotal Imports: Maine		12 022	124 658	1 228 230	10 707 162	102.17	82.15
Massachusetts	British Columbia	0	130	0	9 569	0.00	73.61
	Ontario	0	4 508	0	405 587	0.00	89.97
Subtotal Imports: Massachusetts		0	4 638	0	415 156	0.00	89.51

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3B

Import Purchases Summary Report by Source and Destination

Page 6
05/12/09

Source	Destination	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Michigan	Ontario	451 540	3 635 700	30 359 120	214 008 830	67.23	57.70
Subtotal Imports: Michigan		451 540	3 635 700	30 359 120	214 008 830	67.23	57.70
Minnesota	Alberta	1 113	7 091	157 343	551 655	141.37	77.80
	Ontario	309 660	2 194 843	21 627 916	141 371 475	69.84	62.16
Subtotal Imports: Minnesota		310 773	2 201 934	21 785 259	141 923 130	70.10	62.20
Missouri	Ontario	0	2 087	0	142 393	0.00	61.62
Subtotal Imports: Missouri		0	2 087	0	142 393	0.00	61.62
Montana	Alberta	305	1 293	32 201	107 144	105.58	81.86
	British Columbia	12 292	76 681	1 082 516	3 407 643	88.07	45.23
Subtotal Imports: Montana		12 597	77 974	1 114 717	3 514 786	88.49	45.69
ND/Minn	Manitoba	1 412	194 913	80 825	7 836 283	57.24	35.52
Subtotal Imports: ND/Minn		1 412	194 913	80 825	7 836 283	57.24	35.52
Nebraska	British Columbia	315	4 423	24 373	127 433	77.37	26.81
Subtotal Imports: Nebraska		315	4 423	24 373	127 433	77.37	26.81
Nevada	British Columbia	2 135	37 583	145 259	1 530 721	68.04	40.12
Subtotal Imports: Nevada		2 135	37 583	145 259	1 530 721	68.04	40.12
New England	Quebec	73 026	486 953	6 853 377	36 019 968	93.85	73.97
Subtotal Imports: New England		73 026	486 953	6 853 377	36 019 968	93.85	73.97
New Mexico	British Columbia	10 519	72 182	636 533	2 840 449	60.51	38.97
Subtotal Imports: New Mexico		10 519	72 182	636 533	2 840 449	60.51	38.97

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3B

Import Purchases Summary Report by Source and Destination

Page 7
05/12/09

Source	Destination	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
New York	British Columbia	0	4 104	0	275 818	0.00	67.21
	Ontario	49 708	778 532	6 455 744	71 766 984	129.87	83.57
	Quebec	187 889	2 036 916	17 648 121	157 267 403	93.93	74.96
Subtotal Imports: New York		237 597	2 819 552	24 103 865	229 310 205	101.45	77.74
North Dakota	Ontario	0	1 026	0	9 007	0.00	9.66
	Saskatchewan	26 257	308 040	1 066 737	11 730 315	40.63	36.55
Subtotal Imports: North Dakota		26 257	309 066	1 066 737	11 739 322	40.63	36.49
Ohio	Ontario	23 953	344 926	2 571 090	30 876 111	107.34	86.70
Subtotal Imports: Ohio		23 953	344 926	2 571 090	30 876 111	107.34	86.70
Oklahoma	Ontario	0	342	0	28 877	0.00	71.22
Subtotal Imports: Oklahoma		0	342	0	28 877	0.00	71.22
Oregon	British Columbia	13 975	310 264	1 117 721	13 836 509	79.98	43.98
Subtotal Imports: Oregon		13 975	310 264	1 117 721	13 836 509	79.98	43.98
Pennsylvania	British Columbia	0	16 293	0	744 134	0.00	45.67
	Nova Scotia	9 659	59 102	1 568 590	5 825 049	162.40	97.86
	Ontario	11 873	197 861	937 715	12 507 040	78.98	59.29
Subtotal Imports: Pennsylvania		21 532	273 256	2 506 305	19 076 224	116.40	67.24
South Dakota	Ontario	0	150	0	13 304	0.00	86.35
Subtotal Imports: South Dakota		0	150	0	13 304	0.00	86.35
Texas	Ontario	0	3 379	0	248 749	0.00	73.26
Subtotal Imports: Texas		0	3 379	0	248 749	0.00	73.26

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 3B

Import Purchases Summary Report by Source and Destination

Page 8
05/12/09

Source	Destination	Energy (MW.h)		Revenue (CAN\$) ¹		CAN\$/MW.h ²	
		OCT05	JAN05 - OCT05	OCT05	JAN05 - OCT05	OCT05	L12M
Utah	British Columbia	0	824	0	61 872	0.00	75.09
Subtotal Imports: Utah		0	824	0	61 872	0.00	75.09
Washington	Alberta	70 287	355 669	7 201 026	25 421 510	102.45	69.00
	British Columbia	499 899	4 132 900	41 981 137	252 462 694	83.98	59.54
Subtotal Imports: Washington		570 186	4 488 569	49 182 162	277 884 203	86.26	60.36
Wyoming	British Columbia	14 100	113 869	801 280	3 518 632	56.83	31.02
Subtotal Imports: Wyoming		14 100	113 869	801 280	3 518 632	56.83	31.02
Total Imports		1 793 991	15 613 881	144 399 341	1 011 104 790	80.49	62.19

Footnotes:

1. Includes capacity and energy charges.
2. Average value for the month and the last 12 months (excludes capacity charge).



National Energy Board
Office national de l'énergie

TABLE 4 Source of Production Report ¹ Canadian Exports

Page 1
05/12/09

Fuel Type	OCT05		
	Energy (MW.h)	Revenue (CAN\$) ²	CAN\$/MW.h ²
Canadian Coal	10 351	1 096 493	105.93
Hydraulic	1 618 371	106 107 705	65.56
Imported Coal	52 431	4 997 028	95.31
Imported Oil	99 808	10 685 248	107.06
Natural Gas	11 469	1 271 031	110.82
Other	1 218 834	133 644 215	109.65
Total	3 011 264	257 801 721	85.61

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.

Additional Notes:

- Revenue for Permit 92 not available.



TABLE 5 Source of Production Report ¹ by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
Allete, Inc.	Other	Permit 261	40	3 188	79.70
		Subtotal	40	3 188	79.70
	Subtotal		40	3 188	79.70
ATCO & Alberta	Other	Permit 93	150	11 222	74.81
		Subtotal	150	11 222	74.81
	Subtotal		150	11 222	74.81
BC Hydro	Hydraulic	Permit 105	97	7 037	72.58
		Permit 192	51 292	0	0.00
		Treaty 0	9 989	0	0.00
		Subtotal	61 378	7 037	0.11
		Subtotal	61 378	7 037	0.11
Brascan	Hydraulic	Permit 112	7 486	1 478 350	197.48
		Subtotal	7 486	1 478 350	197.48
	Other	Permit 112	145 969	23 264 025	159.38
		Subtotal	145 969	23 264 025	159.38
		Subtotal	153 455	24 742 375	161.24
Conectiv Energy	Other	Permit 212	12 879	1 157 846	89.90
		Subtotal	12 879	1 157 846	89.90
	Subtotal		12 879	1 157 846	89.90

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.



TABLE 5 Source of Production Report ¹ by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
Coral Energy	Other	Permit 174	662	48 312	72.98
		Subtotal	662	48 312	72.98
	Subtotal		662	48 312	72.98
Direct Commod.	Other	Permit 240	11 011	1 018 770	92.52
		Subtotal	11 011	1 018 770	92.52
	Subtotal		11 011	1 018 770	92.52
Direct EM Inc.	Other	Permit 200	1 913	191 662	100.19
		Subtotal	1 913	191 662	100.19
	Subtotal		1 913	191 662	100.19
DTE Energy Trad	Other	Permit 206	31 536	2 140 448	67.87
		Subtotal	31 536	2 140 448	67.87
	Subtotal		31 536	2 140 448	67.87
Emera Energy	Other	Permit 217	135 987	15 730 979	115.68
		Subtotal	135 987	15 730 979	115.68
	Subtotal		135 987	15 730 979	115.68
Enmax Marketing	Canadian Coal	Permit 169	590	53 308	90.35
		Subtotal	590	53 308	90.35
	Subtotal		590	53 308	90.35
Hydro-Quebec	Hydraulic	Licence 180	75 422	2 496 644	33.10
		Licence 181	13 040	431 654	33.10
		Licence 182	11 667	386 205	33.10

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.



TABLE 5 Source of Production Report ¹ by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
Hydro-Quebec	Hydraulic	Licence 183	20 733	686 311	33.10
		Licence 184	13 253	438 705	33.10
		Permit 64	238 843	38 786 335	162.39
		Subtotal	372 958	43 225 855	115.90
	Subtotal		372 958	43 225 855	115.90
Manitoba Hydro	Hydraulic	Permit 35	18 291	425 004	23.24
		Permit 45	16 455	1 148 943	69.83
		Permit 46	753 717	30 249 391	40.13
		Permit 144	16 462	1 335 344	81.12
		Permit 155	19 769	1 132 396	57.28
		Permit 207	32 917	2 230 679	67.77
		Permit 224	164 484	9 595 886	58.34
		Subtotal	1 022 093	46 117 643	45.12
	Imported Coal	Permit 35	146	3 400	23.24
		Permit 45	132	9 191	69.83
		Permit 46	6 029	241 968	40.13
		Permit 144	132	10 682	81.12
		Permit 155	158	9 058	57.28
		Permit 207	263	17 843	67.77
Permit 224	1 316	76 758	58.34		
	Subtotal	8 176	368 900	45.12	

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.



TABLE 5
Source of Production Report ¹
by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
Manitoba Hydro	Other	Permit 35	13	304	23.24
		Permit 45	12	822	69.82
		Permit 46	539	21 634	40.13
		Permit 144	12	955	81.12
		Permit 155	14	810	57.28
		Permit 207	24	1 595	67.77
		Permit 224	118	6 863	58.34
		Subtotal	731	32 982	45.12
Subtotal		1 031 000	46 519 525	45.12	
NB Power Gen.	Canadian Coal	Permit 90	1	69	70.02
		Permit 91	9 654	1 030 995	106.79
		Permit 148	106	12 121	114.19
		Subtotal	9 761	1 043 186	106.87
	Hydraulic	Permit 90	5 532	387 250	70.01
		Permit 91	28 472	3 040 632	106.79
		Subtotal	34 003	3 427 882	100.81
	Imported Coal	Permit 90	2 708	189 544	70.01
		Permit 91	41 336	4 414 462	106.79
		Permit 148	211	24 123	114.19
		Subtotal	44 255	4 628 129	104.58

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.



TABLE 5
Source of Production Report ¹
by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
NB Power Gen.	Imported Oil	Permit 90	58	4 089	70.01
		Permit 91	95 902	10 241 838	106.79
		Permit 148	3 847	439 321	114.19
		Subtotal	99 808	10 685 248	107.06
	Natural Gas	Permit 91	5 226	558 158	106.79
		Permit 148	6 243	712 873	114.19
		Subtotal	11 469	1 271 031	110.82
	Other	Permit 90	3 201	224 074	70.01
		Permit 91	21 103	2 253 675	106.79
		Permit 148	19	2 184	114.19
		Subtotal	24 323	2 479 933	101.96
	Subtotal		223 619	23 535 408	105.25
Northern States	Other	Permit 235	520	43 823	84.27
		Subtotal	520	43 823	84.27
	Subtotal		520	43 823	84.27
Ont Power Gen	Other	Permit 24	15	29	2.00
		Subtotal	15	29	2.00
	Subtotal		15	29	2.00
OPGI/OPIM	Other	Permit 21	189 028	17 692 561	93.60
		Subtotal	189 028	17 692 561	93.60
	Subtotal		189 028	17 692 561	93.60

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.



TABLE 5 Source of Production Report ¹ by Exporter

Exporter	Fuel Type	Authorization	OCT05		
			Energy (MW.h)	Revenue (CANS) ²	CANS/MW.h ²
Powerex Corp.	Hydraulic	Permit 118	42 024	4 507 238	107.25
		Subtotal	42 024	4 507 238	107.25
	Other	Permit 116	79 493	7 701 632	96.88
		Permit 118	568 679	60 992 782	107.25
	Subtotal	648 172	68 694 413	105.98	
Subtotal	690 196	73 201 651	106.06		
Saracen Merchan	Other	Permit 276	7 470	617 909	82.72
		Subtotal	7 470	617 909	82.72
	Subtotal	7 470	617 909	82.72	
SPLIT ROCK	Other	Permit 221	8 154	492 532	60.40
		Subtotal	8 154	492 532	60.40
	Subtotal	8 154	492 532	60.40	
Teck Cominco	Hydraulic	Permit 244	78 428	7 343 700	93.64
		Subtotal	78 428	7 343 700	93.64
	Subtotal	78 428	7 343 700	93.64	
TransCanada Ene	Other	Permit 78	275	23 581	85.75
		Subtotal	275	23 581	85.75
	Subtotal	275	23 581	85.75	
Total All Exporters			3 011 264	257 801 721	85.61

Footnotes:

1. Source of production data filed by major exporters only.
2. Revenue figures are for illustrative purposes only and are strictly allocatable by energy source.