

HONG KONG ENERGY STATISTICS

1977-1987

Industrial Production Statistics Section,
Census and Statistics Department, Hong Kong

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1. Introduction

Hong Kong Energy Statistics, 1977-1987 is published by the Census & Statistics Department in recognition of the importance to the Hong Kong economy of energy supplies in terms of volume, prices, sources and storage capacity, and in response to a widespread interest both within Government and among the public.

Hong Kong derives its energy supplies entirely from overseas sources. Energy is either imported directly (as in the case of oil products, coal and charcoal), or produced through an intermediate transformation process using imported fuel inputs (as in the case of electricity and gas).

This publication not only collates energy statistics published elsewhere (such as fuel imports from Hong Kong Trade Statistics, and the consumption of electricity and gas from the Monthly Digest of Statistics), but also provides fresh information (notably storage capacity and tank stocks of oil products, generating capacity for electricity and gas, sales prices and tariff charges).

This publication will be updated annually, with quarterly supplements to provide the latest energy information.

Due to the effect of rounding, figures in the statistical tables given in this publication may not add up to their respective totals.

2. Types and Sources of Energy Statistics

Statistics on the value and quantity of imports, re-exports and retained imports as well as the average unit values of imports in respect of oil products (Tables 2-6) and coal and charcoal (Tables 2 and 10-12) are extracted from Hong Kong External Trade Statistics.

Based on regular returns submitted by the leading petroleum companies in Hong Kong, the Industry Department compiles statistics on the storage capacity, tank stocks and sales of various types of oil products, as shown in Tables 7 and 8. Also, the standard list prices of these oil products in Hong Kong, as supplied by the Shell Company of Hong Kong Limited, are given in Table 9.

Statistics on the local consumption, production, exports, generating capacity, average charges and general tariff for both electricity and gas are supplied by the respective electricity and gas companies and are summarized in Tables 13-18.

Figures showing the growth of energy requirements (including oil products, coal and charcoal, and electricity and gas) over time and the growth of the population size and gross domestic product of Hong Kong are presented in Table 1.

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Table 1 Growth of energy requirements, 1977-1987

	Unit of measurement	<u>1977</u>	<u>1982</u>	<u>% change 1982/1977</u>	<u>1987</u>	<u>% change 1987/1982</u>	<u>% change 1987/1977</u>	
A.	<u>Local energy requirement*</u>							
	Oil products							
	Aviation gasoline and aviation kerosene	kilolitre	786 870	1 042 359	+32	1 470 219	+41	+87
	Motor gasoline	"	179 155	320 492	+79	266 082	-17	+49
	Kerosene	"	247 482	120 205	-51	117 191	-3	-53
	Gas oil, diesel oil and naphtha	tonne	1 090 433	1 405 126	+29	1 703 894	+21	+56
	Fuel oil	"	3 747 494	3 952 571	+5	1 866 357	-53	-50
	LPG	"	88 862	126 852	+43	163 988	+29	+85
	Coal and charcoal	"	33 077	1 479 155	+4 372	8 031 125	+443	+24 180
	Electricity and gas	Terajoule	31 869	49 627	+56	81 210	+64	+155
B.	<u>Total population (at mid-year)</u>	number	4 583 700	5 264 500	+15	5 613 400	+7	+22
C.	<u>Gross domestic product** (at constant 1980 market prices)</u>	HK\$ million	101,124	154,512	+53	227,197	+47	+125

* Figures for oil products and coal and charcoal relate to retained imports, while those for electricity and gas relate to local consumption.

** The gross domestic product for 1987 is only a preliminary estimate.

Table 2 Value of retained imports of oil products, coal and charcoal, 1977, 1982 and 1987 and their shares of the total value of retained imports

(HK\$ million)

Type of product	1977	1982	1987
<u>Oil products</u>			
Aviation gasoline and aviation kerosene	390	1,832	1,652
Motor gasoline	104	557	335
Kerosene	126	199	124
Gas oil, diesel oil and naphtha	614	2,743	2,113
Fuel oil	1,419	4,563	1,594
LPG	78	306	222
Total	2,731 (7.03)	10,200 (10.35)	6,041 (3.10)
<u>Coal and Charcoal</u>			
Steam coal and other coal	0	541	1,984
Wood charcoal	7	23	24
Anthracite	3	2	2
Coke and semi-coke	4	3	4
Total	14 (0.04)	569 (0.58)	2,015 (1.03)
Grand total	2,745 (7.06)	10,769 (10.93)	8,055 (4.13)
Total value of retained merchandise imports for Hong Kong	38,872	98,540	195,167

Figures in brackets denote percentage shares against the corresponding total value of retained merchandise imports.

Table 3 Quantity of retained imports of oil products, 1977-1987

Type of product	Unit of measurement	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Aviation gasoline and aviation kerosene	kilolitre	786 870 (-10)	761 950 (-3)	746 497 (-2)	744 260 (#)	950 105 (+28)	1 042 359 (+10)	1 023 414 (-2)	1 090 596 (+7)	1 195 676 (+10)	1 420 028 (+19)	1 470 219 (+4)
Motor gasoline	"	179 155 (+4)	232 680 (+30)	243 638 (+5)	257 759 (+6)	343 471 (+33)	320 492 (-7)	279 799 (-13)	269 309 (-4)	269 087 (#)	246 431 (-8)	266 082 (+8)
Kerosene	"	247 482 (+35)	224 407 (-9)	300 759 (+34)	306 605 (+2)	208 947 (-32)	120 205 (-42)	82 326 (-32)	207 101 (+152)	82 459 (-60)	89 636 (+9)	117 191 (+31)
Gas oil, diesel oil and naphtha	tonne	1 090 433 (+4)	1 157 738 (+6)	1 204 966 (+4)	1 099 090 (-9)	1 171 816 (+7)	1 405 126 (+20)	1 406 525 (#)	1 396 251 (-1)	1 258 087 (-10)	1 734 095 (+38)	1 703 894 (-2)
Fuel oil	"	3 747 494 (+13)	3 881 311 (+4)	3 898 216 (#)	4 059 277 (+4)	4 245 461 (+5)	3 952 571 (-7)	2 943 288 (-26)	2 511 379 (-15)	2 056 132 (-18)	2 187 464 (+6)	1 866 357 (-15)
LPG	"	88 862 (+3)	96 384 (+8)	105 089 (+9)	103 350 (-2)	113 969 (+10)	126 852 (+11)	130 151 (+3)	144 847 (+11)	143 189 (-1)	161 794 (+13)	163 988 (+1)

Figures in brackets denote percentage changes over the preceding year.

Less than +0.5%.

Graph 1 Quantity of retained imports of oil products, 1977-1987

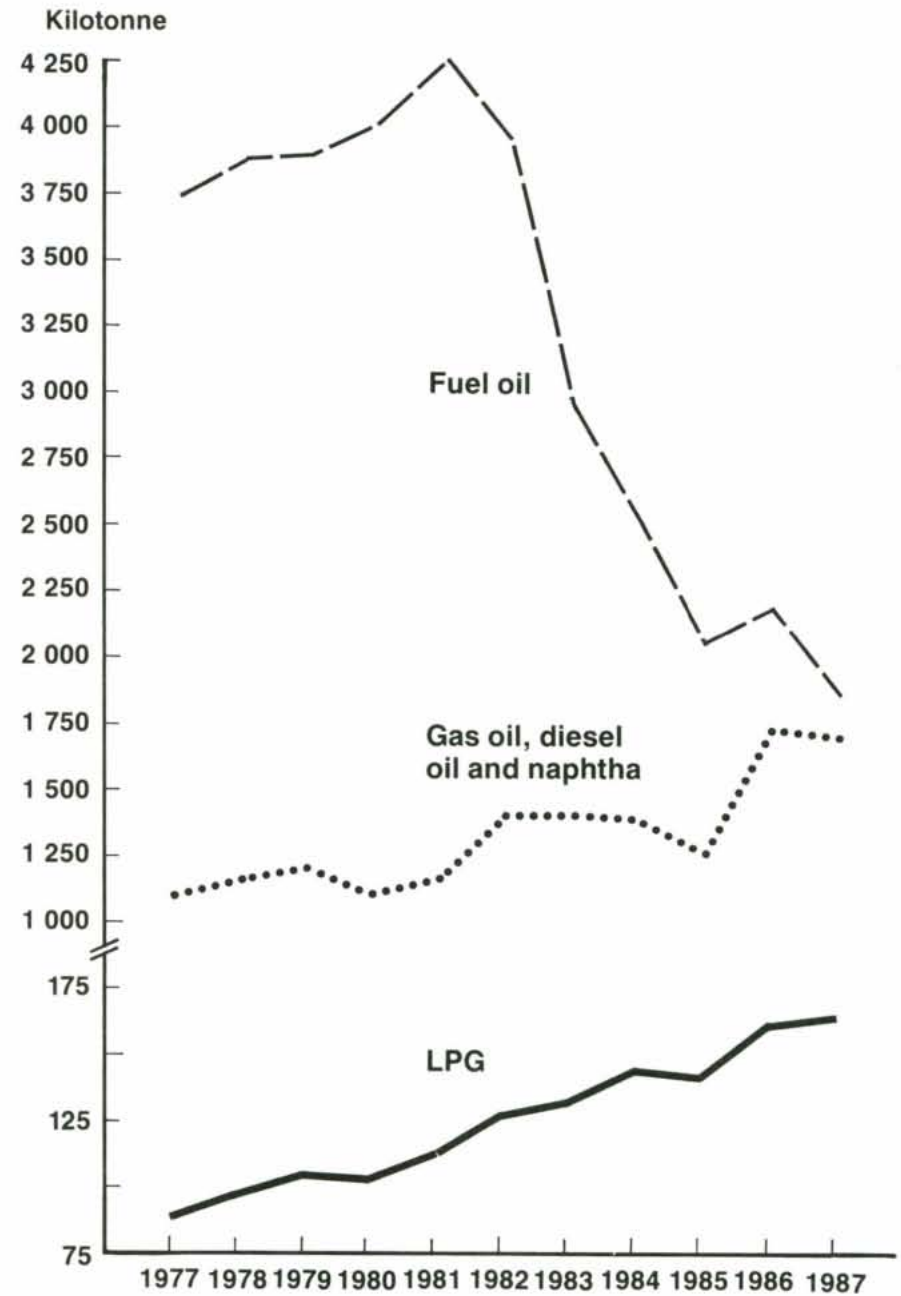
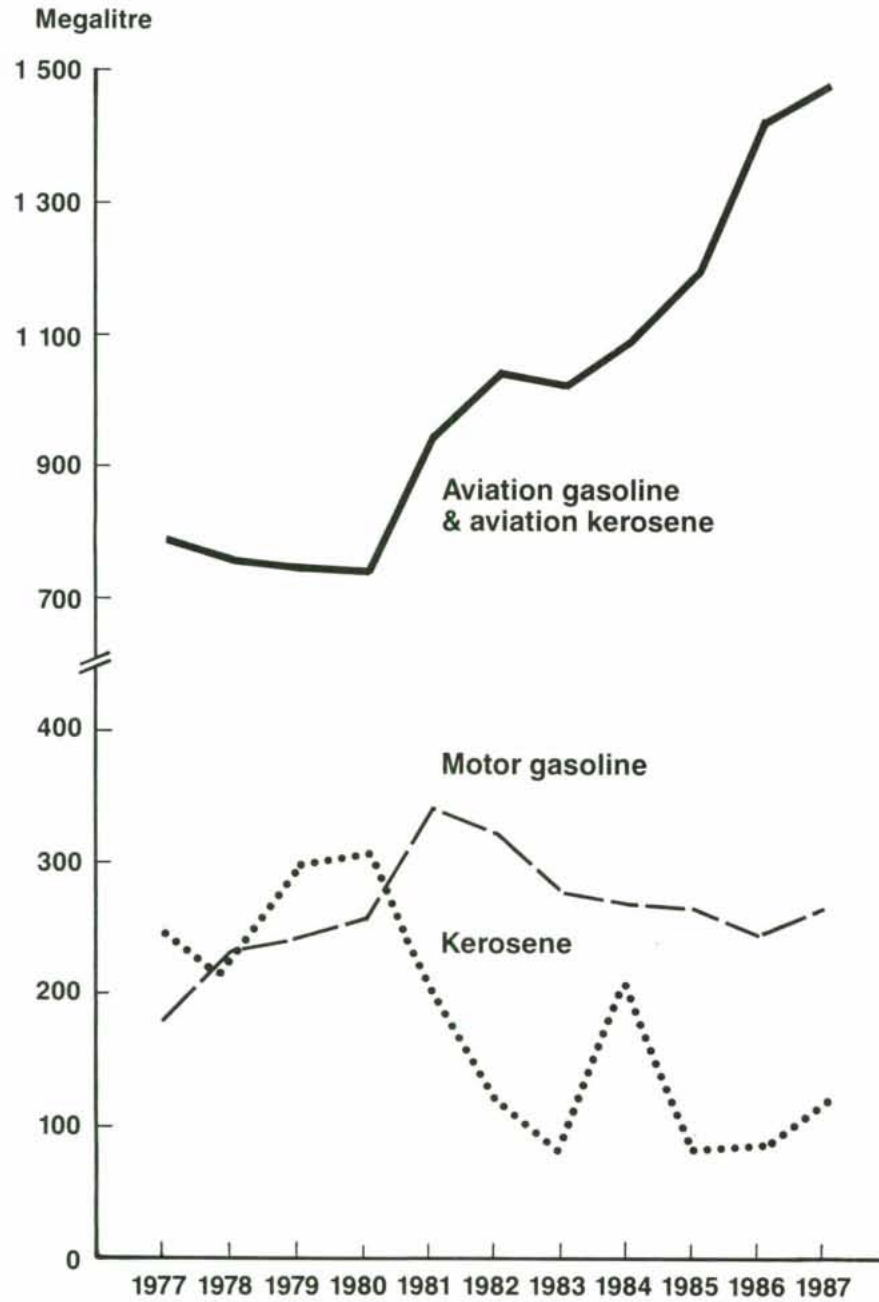


Table 4 Quantity of retained imports of oil products, 1st qtr. 1986 - 4th qtr. 1987

Type of product	Unit of measurement	1986				1987			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Aviation gasoline and aviation kerosene	kilolitre	322 065 (-1)	333 796 (+18)	363 051 (+17)	401 116 (+45)	341 017 (+6)	389 625 (+17)	303 503 (-16)	436 074 (+9)
Motor gasoline	"	49 631 (-26)	56 184 (-9)	62 030 (-11)	78 586 (+10)	60 047 (+21)	73 050 (+30)	60 283 (-3)	72 702 (-7)
Kerosene	"	16 111 (-19)	46 223 (+166)	701 (-98)	26 601 (+139)	19 755 (+23)	33 174 (-28)	24 396 (+3 380)*	39 866 (+50)
Gas oil, diesel oil and naphtha	tonne	409 552 (+35)	419 109 (+42)	458 725 (+27)	446 709 (+50)	476 005 (+16)	365 867 (-13)	347 733 (-24)	514 289 (+15)
Fuel oil	"	500 767 (+12)	655 096 (+7)	504 852 (-13)	526 749 (+27)	372 494 (-26)	505 950 (-23)	548 534 (+9)	439 379 (-17)
LPG	"	40 684 (-5)	39 751 (+17)	40 047 (+30)	41 312 (+17)	47 068 (+16)	41 062 (+3)	32 891 (-18)	42 967 (+4)

Figures in brackets denote percentage changes over the same quarter of the preceding year.

*The huge percentage increase over 3rd qtr. 1986 is attributable to the exceptionally small amount of retained imports of kerosene in 3rd qtr. 1986.

Table 5 Average unit values of imports of oil products, 1977-1987

(HK\$ per litre for the first three types of product and HK\$ per kilogram for the rest)

Type of product	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Aviation gasoline and aviation kerosene	0.495	0.507	0.770	1.364	1.697	1.756	1.807	1.783	1.680	1.081	1.124
Motor gasoline	0.592	0.597	0.865	1.384	1.688	1.750	1.939	1.969	1.886	1.277	1.307
Kerosene	0.509	0.520	0.793	1.334	1.621	1.659	1.773	1.821	1.634	1.109	1.082
Gas oil, diesel oil and naphtha	0.564	0.578	0.962	1.625	1.910	1.949	2.070	2.112	1.914	1.121	1.270
Fuel oil	0.379	0.371	0.566	0.874	1.227	1.156	1.300	1.428	1.348	0.679	0.859
LPG	0.900	0.876	1.287	2.212	2.489	2.447	2.903	2.813	2.484	1.716	1.485

Table 6(A) Quantity of imports and re-exports of oil products by principal source and destination, 1977

Type of product	Unit of measurement	Imports									Re-exports			Retained Imports	
		Total	By source								Total	By destination			
			Singapore	China	Bahrain	South Korea	Iran	Kuwait	Saudi Arabia	Others		Macau	Taiwan		Thailand
Aviation gasoline and aviation kerosene	kilolitre	786 881	488 461 (62)	171 617 (22)	45 466 (6)	75 552 (9)	0	0	0	5 785 (1)	11	11 (100)	0	0	786 870
Motor gasoline	"	189 003	130 249 (69)	0	0	48 499 (26)	0	0	0	10 255 (5)	9 848	9 848 (100)	0	0	179 155
Kerosene	"	251 063	118 741 (47)	82 254 (33)	0	33 386 (13)	0	4 771 (2)	0	11 911 (5)	3 581	3 581 (100)	0	0	247 482
Gas oil, diesel oil and naphtha	tonne	1 186 214	535 555 (45)	486 956 (41)	64 261 (5)	22 135 (2)	0	77 307 (7)	0	0	95 781	94 347 (99)	1 434 (1)	0	1 090 433
Fuel oil	"	3 797 996	2 843 154 (75)	207 421 (6)	281 695 (7)	9 393 (#)	195 782 (5)	0	70 402 (2)	190 149 (5)	50 502	4 037 (8)	0	46 465 (92)	3 747 494
LPG	"	91 116	51 294 (56)	0	0	35 942 (40)	0	0	0	3 880 (4)	2 254	2 254 (100)	0	0	88 862

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 6(B) Quantity of imports and re-exports of oil products by principal source and destination, 1982

Type of product	Unit of measurement	Imports								Re-exports				Retained Imports	
		Total	By source							Total	By destination				
			Singapore	China	Bahrain	Rep. of Korea	U.S.A.	Japan	Others		Macau	China	Singapore		Japan
Aviation gasoline and aviation kerosene	kilolitre	1 051 241	645 455 (61)	237 450 (23)	117 943 (11)	50 393 (5)	0	0	0	8 882	0	0	8 882 (100)	0	1 042 359
Motor gasoline	"	336 624	184 244 (55)	69 987 (21)	62 518 (18)	19 874 (6)	1 (#)	0	0	16 132	15 851 (98)	281 (2)	0	0	320 492
Kerosene	"	128 423	2 171 (2)	84 780 (66)	15 820 (12)	0	0	0	25 652 (20)	8 218	2 944 (36)	61 (1)	5 213 (63)	0	120 205
Gas oil, diesel oil and naphtha	tonne	1 459 160	481 517 (33)	757 897 (52)	128 536 (9)	51 453 (3)	17 374 (1)	0	22 383 (2)	54 034	21 057 (39)	5 061 (9)	24 244 (45)	3 672 (7)	1 405 126
Fuel oil	"	4 083 271	3 637 458 (89)	176 730 (4)	111 347 (3)	0	71 289 (2)	0	86 447 (2)	130 700	80 084 (61)	44 585 (34)	0	6 031 (5)	3 952 571
LPG	"	131 051	83 261 (63)	1 (#)	0	0	7 (#)	38 963 (30)	8 819 (7)	4 199	3 580 (85)	619 (15)	0	0	126 852

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 6(C) Quantity of imports and re-exports of oil products by principal source and destination, 1987

Type of product	Unit of measurement	Imports								Re-exports			Retained Imports	
		Total	By source							Total	By destination			
			Singapore	China	Philippines	Saudi Arabia	Taiwan	U.S.A.	Others		China	Macau		Others
Aviation gasoline and aviation kerosene	kilolitre	1 470 221	1 256 307 (85)	138 490 (9)	40 316 (3)	25 930 (2)	0	8 908 (1)	270 (#)	2	0	2 (100)	0	1 470 219
Motor gasoline	"	292 347	198 099 (68)	57 237 (19)	37 011 (13)	0	0	0	0	26 265	5 893 (22)	20 372 (78)	0	266 082
Kerosene	"	122 690	39 675 (32)	83 015 (68)	0	0	0	0	0	5 499	1 797 (33)	3 696 (67)	6 (#)	117 191
Gas oil, diesel oil and naphtha	tonne	1 968 175	1 237 440 (63)	534 808 (27)	39 991 (2)	62 579 (3)	0	18 615 (1)	74 742 (4)	264 281	242 218 (92)	21 559 (8)	504 (#)	1 703 894
Fuel oil	"	2 166 783	1 565 329 (72)	217 500 (10)	19 231 (1)	105 715 (5)	136 518 (6)	79 457 (4)	43 033 (2)	300 426	131 266 (44)	149 665 (50)	19 495 (6)	1 866 357
LPG	"	177 229	88 558 (50)	14 002 (8)	62 713 (35)	0	0	2 (#)	11 954 (7)	13 241	5 785 (44)	7 456 (56)	0	163 988

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 7(A)

Storage capacity and tank stock of oil products as at year end of 1978-1982

Type of product	Unit of measurement	1978		1979		1980		1981		1982	
		Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock
Aviation gasoline and aviation kerosene	kilolitre	109 500	55 673 (51)	143 400	71 571 (50)	130 100	69 053 (53)	141 800	50 814 (36)	129 740	51 337 (40)
Motor gasoline	"	37 700	19 735 (52) [28]	38 500	21 769 (57) [29]	45 300	23 173 (51) [26]	51 300	33 157 (65) [35]	56 050	45 981 (82) [52]
Kerosene	"	90 100	40 196 (45) [53]	55 800	33 394 (60) [47]	67 100	36 113 (54) [47]	46 600	23 313 (50) [41]	47 260	30 234 (64) [55]
Gas oil, diesel oil and naphtha	tonne	223 000	109 588 (49) [33]* [107]**	220 200	131 037 (60) [42]* [38]**	222 300	91 828 (41) [26]* [98]**	209 000	73 184 (35) [21]* [20]**	251 130	157 893 (63) [50]* [6]**
Fuel oil	"	831 400	519 822 (63) [59]	833 700	564 365 (68) [58]	785 600	525 285 (67) [51]	798 200	386 552 (48) [34]	814 176	463 797 (57) [54]
LPG	"	9 700	3 476 (36) [10]	9 900	6 164 (62) [18]	11 100	6 228 (56) [15]	10 600	3 756 (35) [10]	11 597	6 775 (58) [15]

Figures in round brackets denote percentage tank utilization against the maximum storage capacity.

Figures in square brackets denote an equivalent days-offtake (i.e. the number of days of reserve assuming the normal daily consumption) for the tank stock in question, calculated as :-

$$\text{Days-offtake} = \frac{\text{Tank stock as at the end of the period specified}}{\text{Actual sales during the month which follows}} \times \frac{\text{No. of days in the month which follows}}{\text{month which follows}}$$

* in respect of gas oil
** in respect of diesel oil

Table 7(B)

Storage capacity and tank stock of oil products as at year end of 1983-1987

Type of product	Unit of measurement	1983		1984		1985		1986		1987	
		Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock	Maximum storage capacity	Tank stock
Aviation gasoline and aviation kerosene	kilolitre	129 000	52 457 (41)	138 510	29 559 (21)	148 268	43 881 (30)	155 460	74 628 (48)	154 869	66 188 (43)
Motor gasoline	"	56 460	30 677 (54) [37]	48 411	27 054 (56) [35]	66 865	32 156 (48) [41]	63 269	27 711 (44) [35]	61 574	27 940 (45) [30]
Kerosene	"	30 680	11 120 (36) [18]	32 601	15 361 (47) [32]	28 827	11 712 (41) [23]	51 655	17 961 (35) [36]	48 510	11 450 (24) [26]
Gas oil, diesel oil and naphtha	tonne	287 023	141 221 (49) [40]* [12]**	282 507	162 457 (58) [51]* [20]**	353 234	123 736 (35) [29]* [9]**	360 831	184 559 (51) [31]* [16]**	389 859	209 631 (54) [41]* [6]**
Fuel oil	"	707 780	372 303 (53) [44]	762 710	330 184 (43) [46]	778 878	226 248 (29) [40]	693 411	338 490 (49) [49]	703 464	315 154 (45) [56]
LPG	"	11 592	5 471 (47) [10]	12 495	7 871 (63) [16]	13 855	7 175 (52) [14]	12 458	5 986 (48) [10]	12 156	6 206 (51) [11]

Figures in round brackets and square brackets - see footnotes for Table 7(A).

Note : The figures in Tables 7(A) and 7(B) are based on the data supplied by the leading petroleum companies which account for most of the total storage capacity and tank stock of oil products in Hong Kong.

* in respect of gas oil

** in respect of diesel oil

Table 8(A) Sales of oil products by type of user, 1986

Type of product	Unit of measurement	Local consumption				Other sales				Overall sales
		Total	By electricity and gas companies	By Govt. and armed forces	By domestic, commercial and industrial users	Total	Re-exports	Ship stores	Aircraft stores	
Aviation gasoline and aviation kerosene	kilolitre	8 785 (1)	381 (#)	6 102 (1)	2 302 (#)	1 163 732 (99)	5* (#)	0	1 163 727* (99)	1 172 517
Motor gasoline	"	270 907 (91)	0	14 012 (4)	256 895 (87)	25 221 (9)	25 061 (9)	160 (#)	0	296 128
Kerosene	"	150 558 (97)	0	251 (#)	150 307 (97)	4 687 (3)	4 651 (3)	36 (#)	0	155 245
Gas oil, diesel oil and naphtha	tonne	1 561 251 (75)	248 197 (12)	4 890 (#)	1 308 164 (63)	531 774 (25)	366 915 (17)	164 859 (8)	0	2 093 025
Fuel oil	"	1 329 377 (53)	711 409 (28)	15 581 (1)	602 387 (24)	1 166 724 (47)	489 833 (20)	676 891 (27)	0	2 496 101
LPG	"	159 210 (95)	0	2 372 (1)	156 838 (94)	7 873 (5)	7 833 (5)	40 (#)	0	167 083

Figures in brackets denote percentage shares against the overall sales.

Less than 0.5%.

* Note : The figures of 5 and 1 163 727 are derived from the sum of corresponding figures for each of the four quarters in 1986. Due to a reporting error, the amount of aviation gasoline and aviation kerosene going into re-exports and aircraft stores were printed in the second quarter 1986 Supplement of the Hong Kong Energy Statistics as 23 413 kilolitres and 260 359 kilolitres respectively. The former figure should have read zero instead, and the latter be increased by 23 413 to 283 772. The error is regretted.

Table 8(B) Sales of oil products by type of user, 1987

Type of product	Unit of measurement	Local consumption				Other sales				Overall sales
		Total	By electricity and gas companies	By Govt. and armed forces	By domestic, commercial and industrial users	Total	Re-exports	Ship stores	Aircraft stores	
Aviation gasoline and aviation kerosene	kilolitre	7 754 (1)	17 (#)	5 440 (#)	2 297 (#)	1 230 243 (99)	4 (#)	0	1 230 239 (99)	1 237 997
Motor gasoline	"	281 082 (92)	0	14 753 (5)	266 329 (87)	25 365 (8)	25 365 (8)	0	0	306 447
Kerosene	"	154 123 (97)	0	275 (#)	153 848 (97)	5 154 (3)	5 150 (3)	4 (#)	0	159 277
Gas oil, diesel oil and naphtha	tonne	1 394 166 (75)	162 460 (9)	3 989 (#)	1 227 717 (66)	473 520 (25)	250 862 (13)	222 658 (12)	0	1 867 686
Fuel oil	"	975 188 (44)	256 695 (11)	14 942 (1)	703 551 (32)	1 256 858 (56)	563 522 (25)	693 336 (31)	0	2 232 046
LPG	"	174 119 (98)	0	2 433 (1)	171 686 (97)	3 643 (2)	3 643 (2)	0	0	177 762

Figures in brackets denote percentage shares against the overall sales.

Less than 0.5%.

Note : The figures in Tables 8(A) and 8(B) are based on the data supplied by the leading petroleum companies which account for most of the total sales of oil products in Hong Kong.

Table 9 List prices of selected oil products, 1st qtr. 1986 - 4th qtr. 1987

(prices being quoted as at ending day of quarter)

Type of product	Basis of pricing	1986				1987			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Aviation gasoline and aviation kerosene									
(a) Aviation gasoline 100) HK\$ per litre in bulk	5.96	5.75	5.75	5.75	5.75	5.75	5.75	5.75
(b) Aviation jet fuel) ex airport	2.64	2.11	2.11	2.01	2.11	2.11	2.11	2.32
Motor gasoline Premium label	HK\$ per litre in bulk ex filling station	4.44	4.21	4.30	4.35	4.50	4.50	4.57	4.53
Kerosene	HK\$ per litre in bulk ex installation	2.08	1.52	1.48	1.54	1.73	1.73	1.79	1.81
Gas oil and diesel oil									
(a) Light diesel for motor vehicles	HK\$ per kg in bulk ex filling station	3.68	3.27	3.29	3.38	3.78	3.78	3.87	3.84
(b) Light diesel for industrial and marine use	HK\$ per kg in bulk ex installation	2.14	1.74	1.75	1.84	2.19	2.19	2.27	2.25
Fuel oil	HK\$ per kg in bulk ex installation	1.30	1.04	1.13	1.13	1.45	1.45	1.58	1.45
LPG	HK\$ per kg delivered	4.37	4.02	3.95	3.95	4.18	4.18	4.20	4.34

Government duties : The list prices of aviation gasoline 100 and aviation jet fuel are exclusive of Government duties (both at HK\$2.40 per litre as at 31 December 1987), while that of motor gasoline and light diesel for motor vehicles are inclusive of Government duties (at HK\$2.40 and HK \$1.20 per litre respectively as at 31 December 1987).

Conversion factors: The prices of light diesel for motor vehicles, light diesel for industrial and marine use, medium diesel fuel and fuel oil are originally quoted in terms of litre, but are now expressed in terms of kilogram by employing approximate conversion factors of 1.182, 1.182, 1.146 and 1.068 litres per kg. respectively.

Table 10 Quantity of retained imports of coal and charcoal(A) Annual data for 1977 - 1987

Type of product	(tonne)										
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Steam coal and other coal	0	2 162	509	756	51 696	1 451 485	3 416 006	4 459 637	5 520 669	6 390 253	8 007 311
Wood charcoal	16 924	17 772	19 634	21 406	19 927	21 959	24 760	21 359	19 852	19 844	18 646
Anthracite	11 109	5 524	5 305	1 995	5 304	3 191	2 307	2 598	2 515	2 265	2 259
Coke and semi-coke	5 044	5 883	6 746	5 561	3 735	2 520	1 253	2 489	3 951	3 360	2 909
Total	33 077 (-4)	31 341 (-5)	32 194 (+3)	29 718 (-8)	80 662 (+171)	1 479 155 (+1 734)	3 444 326 (+133)	4 486 083 (+30)	5 546 987 (+24)	6 415 722 (+16)	8 031 125 (+25)

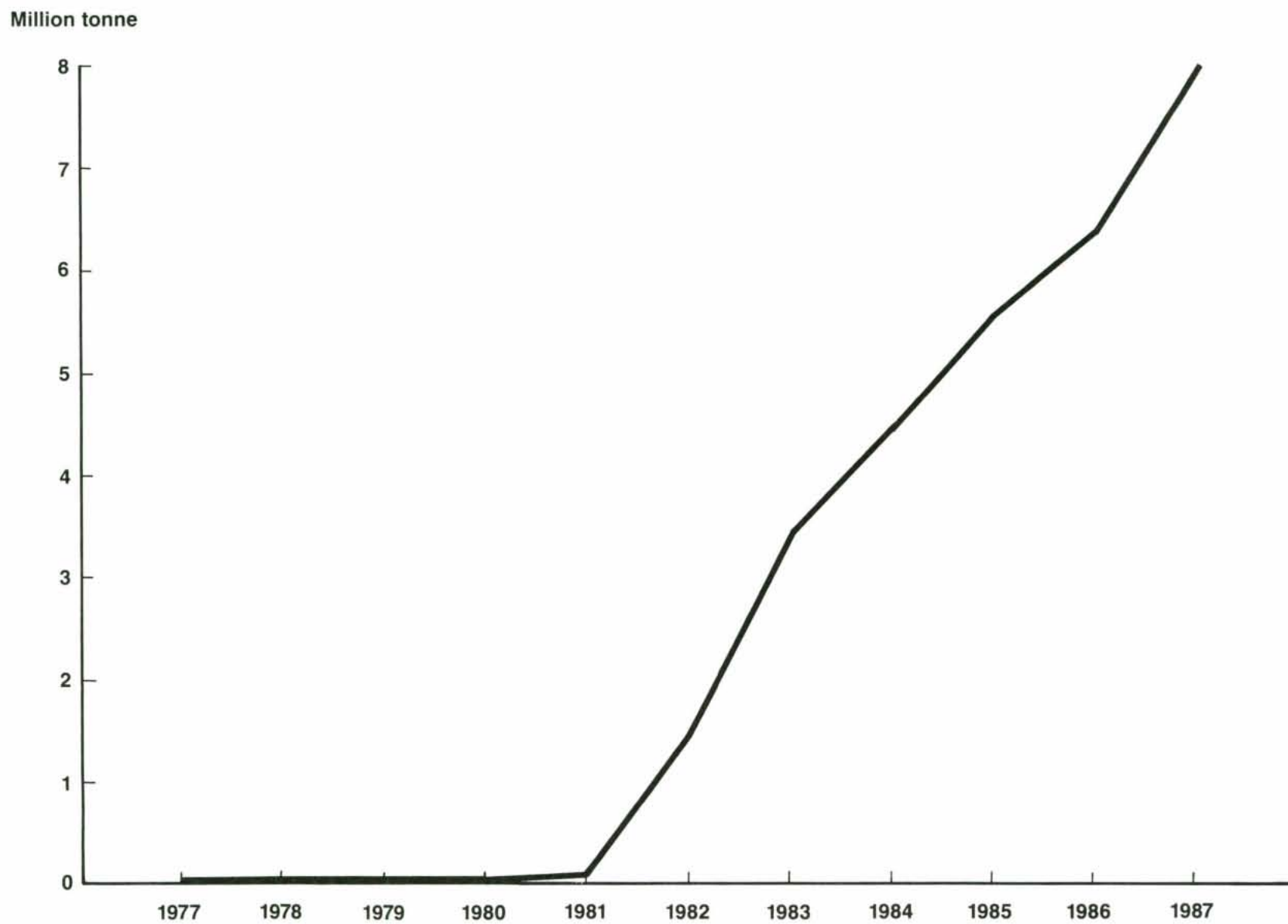
(B) Quarterly data for 1st Qtr. 1986 - 4th Qtr. 1987

Type of product	1986				1987				(tonne)
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Steam coal and other coal	1 327 519	1 615 458	1 655 471	1 791 805	1 743 520	2 014 474	1 808 873	2 440 444	
Wood charcoal	4 574	5 963	4 823	4 484	4 605	6 466	3 073	4 502	
Anthracite	763	153	909	440	4	744	770	741	
Coke and semi-coke	786	707	1 030	837	561	934	743	671	
Total	1 333 642 (+19)	1 622 281 (+17)	1 662 233 (+6)	1 797 566 (+23)	1 748 690 (+31)	2 022 618 (+25)	1 813 459 (+9)	2 446 358 (+36)	

The surge of retained imports of "steam coal and other coal" as from 1981 was due to the in-take of steam coal for electricity generation.

Figures in brackets under Part A denote percentage changes over the preceding year and those under Part B, over the same quarter of the preceding year.

Graph 2(A) Quantity of retained imports of steam coal and other coal, 1977-1987



Graph 2(B) Quantity of retained imports of wood charcoal, anthracite and coke & semi-coke, 1977-1987

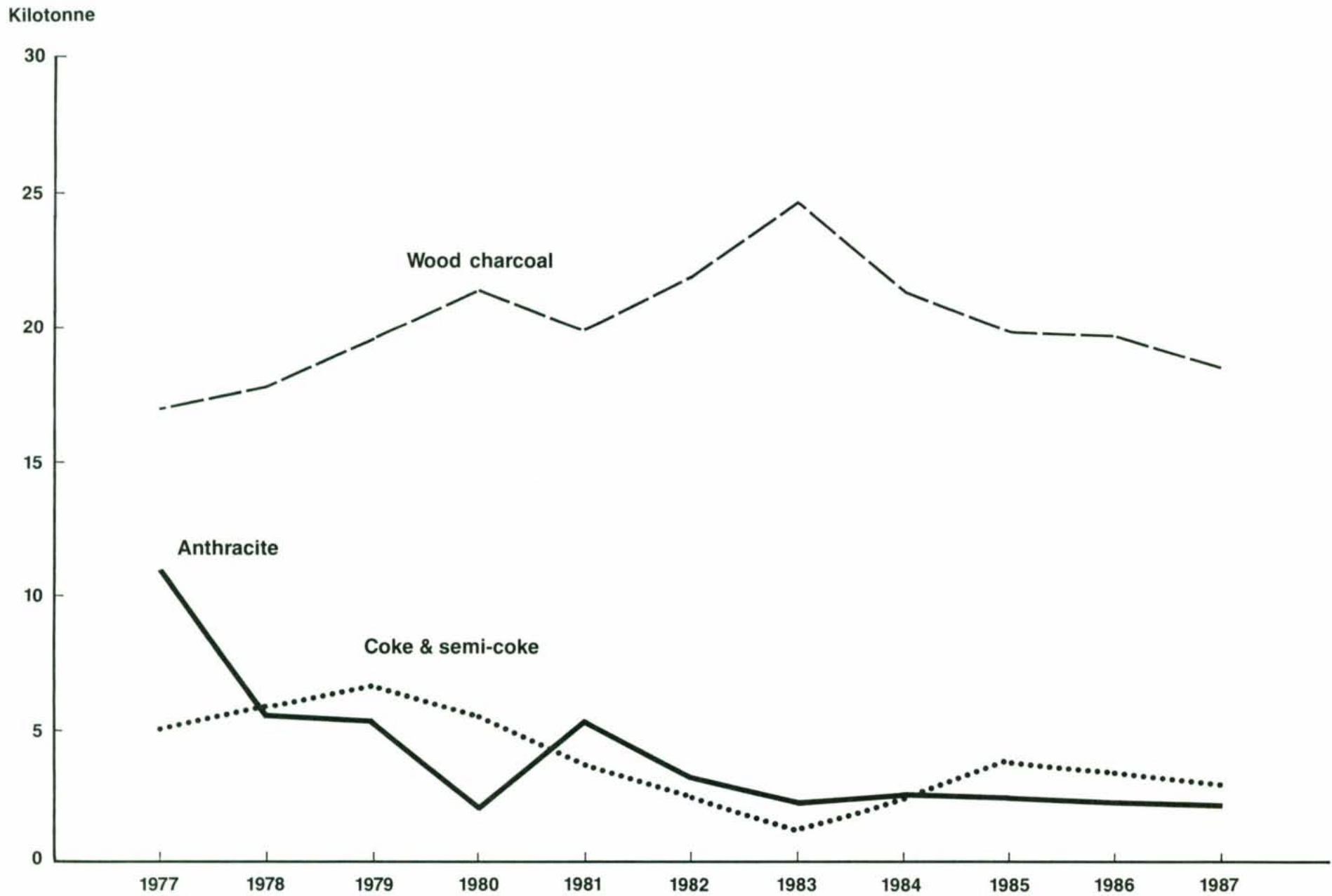


Table 11 Average unit values of imports of coal and charcoal, 1977-1987

(HK\$ per kilogram)

Type of product	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
Steam coal and other coal	0	0.236	0.288	0.405	0.405	0.373	0.337	0.337	0.318	0.291	0.248
Wood charcoal	0.438	0.643	0.843	0.918	0.831	1.050	1.368	1.420	1.361	1.296	1.324
Anthracite	0.218	0.260	0.302	0.445	0.547	0.689	0.728	0.804	0.818	0.980	0.967
Coke and semi-coke	0.808	0.856	0.934	1.018	1.116	0.867	1.261	1.361	1.335	1.303	1.223

Table 12(A) Quantity of imports and re-exports of coal and charcoal by principal source and destination, 1977

(tonne)

Type of product	Imports						Re-exports			Retained Imports
	Total	By source					Total	By destination		
		West Malaysia	Vietnam	Japan	China	Others		Macau	Others	
Steam coal and other coal	0	0	0	0	0	0	0	0	0	0
Wood charcoal	18 812	16 220 (86)	0	14 (#)	451 (3)	2 127 (11)	1 888	1 886 (100)	2 (#)	16 924
Anthracite	11 113	0	7 491 (67)	0	3 010 (27)	612 (6)	4	4 (100)	0	11 109
Coke and semi-coke	5 114	0	0	4 028 (79)	406 (8)	680 (13)	70	70 (100)	0	5 044
Total	35 039	16 220 (46)	7 491 (21)	4 042 (12)	3 867 (11)	3 419 (10)	1 962	1 960 (100)	2 (#)	33 077

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 12(B)

Quantity of imports and re-exports of coal and charcoal by principal source and destination, 1982

(tonne)

Type of product	Imports								Re-exports					Retained Imports
	Total	By source							Total	By destination				
		South Africa	China	Australia	Singapore	Vietnam	Japan	Others		Indonesia	Macau	China	Others	
Steam coal and other coal	1 451 485	474 414 (33)	427 249 (29)	402 978 (28)	0	0	0	146 844 (10)	0	0	0	0	0	1 451 485
Wood charcoal	23 741	0	956 (4)	0	14 840 (63)	0	8 (#)	7 937 (33)	1 782	0	1 715 (96)	0	67 (4)	21 959
Anthracite	3 213	0	0	0	0	3 201 (100)	12 (#)	0	22	0	0	18 (82)	4 (18)	3 191
Coke and semi-coke	6 130	0	3 500 (57)	0	0	0	1 820 (30)	810 (13)	3 610	3 520 (98)	10 (#)	0	80 (2)	2 520
Total	1 484 569	474 414 (32)	431 705 (29)	402 978 (27)	14 840 (1)	3 201 (#)	1 840 (#)	155 591 (11)	5 414	3 520 (65)	1 725 (32)	18 (#)	151 (3)	1 479 155

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 12(C) Quantity of imports and re-exports of coal and charcoal by principal source and destination, 1987

(tonne)

Type of product	Imports									Re-exports			Retained Imports	
	Total	By source								Total	By destination			
		Australia	South Africa	China	Singapore	Thailand	Vietnam	Japan	Others		Macau	Indonesia		Others
Steam coal and other coal	8 007 311	2 971 788 (37)	2 559 446 (32)	1 963 413 (25)	0	0	0	0	512 664 (6)	0	0	0	0	8 007 311
Wood charcoal	19 902	0	0	96 (1)	16 386 (82)	2 252 (11)	0	0	1 168 (6)	1 256	1 182 (94)	0	74 (6)	18 646
Anthracite	2 259	0	0	0	0	0	2 248 (100)	4 (#)	7 (#)	0	0	0	0	2 259
Coke and semi-coke	3 544	0	0	2 520 (71)	0	0	0	698 (20)	326 (9)	635	0	600 (94)	35 (6)	2 909
Total	8 033 016	2 971 788 (37)	2 559 446 (32)	1 966 029 (25)	16 386 (#)	2 252 (#)	2 248 (#)	702 (#)	514 165 (6)	1 891	1 182 (62)	600 (32)	109 (6)	8 031 125

Figures in brackets denote percentage shares against the corresponding total.

Less than 0.5%.

Table 13 Local consumption of electricity and gas by type of user, 1977 - 1987

(terajoule)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Electricity</u>											
Domestic	6 944 [23]	7 364 [22]	7 556 [21]	8 414 [21]	8 733 [21]	9 227 [21]	10 685 [21]	10 817 [20]	11 519 [20]	12 808 [20]	14 022 [20]
Commercial	11 348 [38]	12 649 [39]	13 884 [39]	15 779 [40]	17 481 [42]	20 106 [45]	23 021 [46]	24 806 [46]	27 001 [47]	29 393 [46]	32 625 [46]
Industrial	11 500 [39]	12 781 [39]	14 124 [40]	15 125 [39]	15 406 [37]	15 436 [34]	16 820 [33]	18 543 [34]	18 820 [33]	21 391 [34]	23 979 [34]
Total	29 792 (+14)	32 794 (+10)	35 564 (+8)	39 318 (+11)	41 620 (+6)	44 769 (+8)	50 526 (+13)	54 166 (+7)	57 340 (+6)	63 592 (+11)	70 626 (+11)
<u>Gas</u>											
Domestic	993 [48]	1 249 [50]	1 501 [50]	1 758 [50]	2 025 [50]	2 500 [51]	3 021 [51]	3 476 [50]	4 036 [51]	4 593 [51]	5 254 [50]
Commercial	904 [43]	1 076 [43]	1 318 [43]	1 554 [44]	1 784 [44]	2 138 [44]	2 670 [45]	3 174 [46]	3 669 [46]	4 123 [45]	4 930 [46]
Industrial	180 [9]	179 [7]	202 [7]	212 [6]	225 [6]	220 [5]	233 [4]	257 [4]	274 [3]	327 [4]	399 [4]
Total	2 077 (+10)	2 504 (+21)	3 021 (+21)	3 524 (+17)	4 034 (+14)	4 858 (+20)	5 924 (+22)	6 907 (+17)	7 979 (+16)	9 043 (+13)	10 584 (+17)

The commercial electricity consumption above includes street lighting, which is charged to the Government's account.

Figures in round brackets denote percentage changes over the preceding year.

Figures in square brackets denote percentage shares against the total consumption of electricity or gas for the year concerned.

Graph 3 Local consumption of electricity and gas, 1977-1987

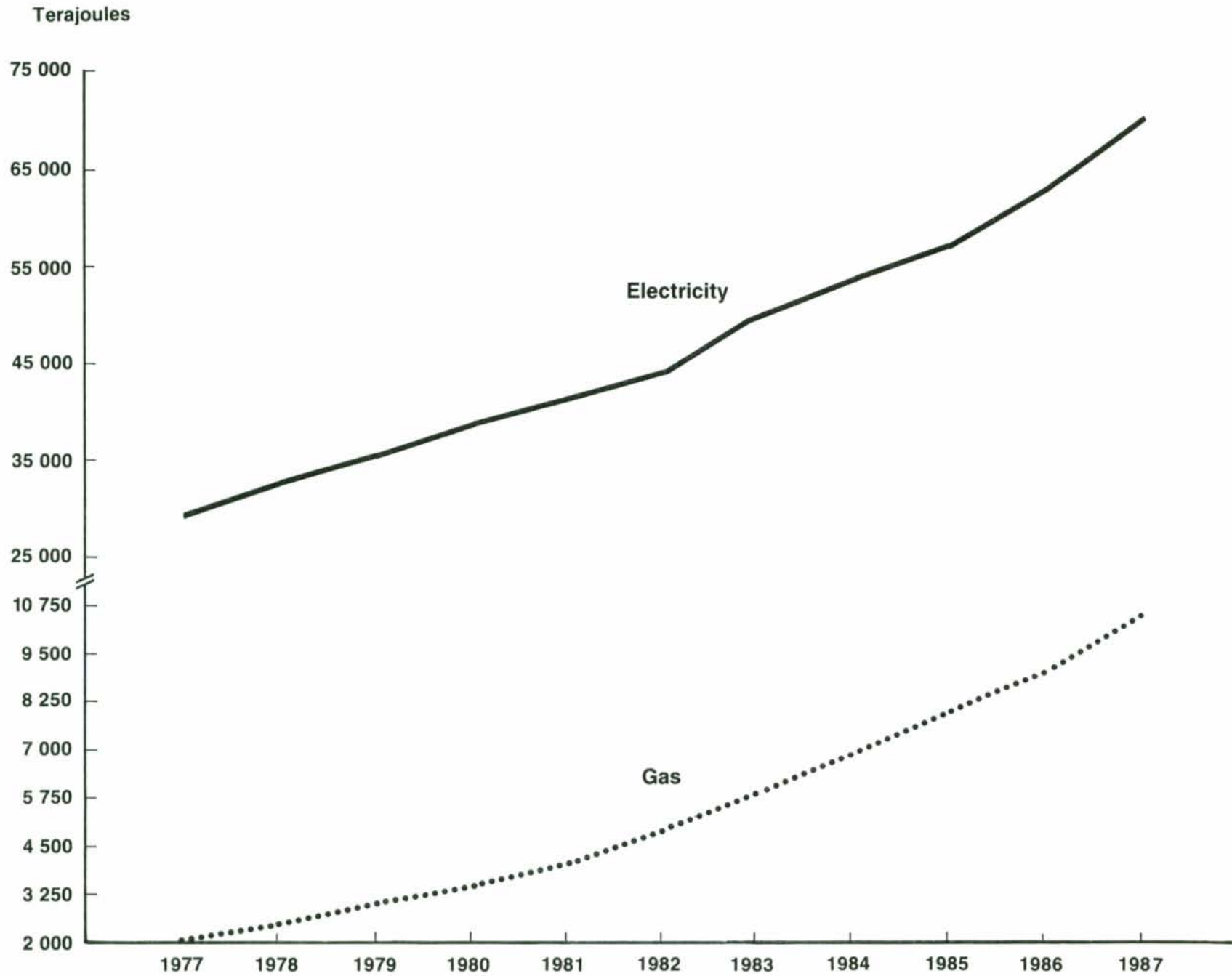


Table 14 Local consumption of electricity and gas by type of user, 1st qtr. 1986 - 4th qtr. 1987

(terajoule)

	1986				1987			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<u>Electricity</u>								
Domestic	2 416 [20]	2 975 [18]	4 672 [23]	2 744 [18]	2 485 [18]	3 113 [18]	5 268 [24]	3 156 [18]
Commercial	5 597 [47]	7 675 [47]	8 874 [45]	7 248 [46]	6 561 [47]	8 128 [47]	9 757 [44]	8 179 [47]
Industrial	3 900 [33]	5 571 [35]	6 287 [32]	5 634 [36]	4 806 [35]	6 124 [35]	6 990 [32]	6 059 [35]
Total	11 913 (+7)	16 221 (+14)	19 833 (+15)	15 626 (+6)	13 852 (+16)	17 364 (+7)	22 015 (+11)	17 394 (+11)
<u>Gas</u>								
Domestic	1 338 [55]	1 160 [51]	934 [46]	1 161 [49]	1 443 [53]	1 305 [50]	1 147 [46]	1 360 [49]
Commercial	1 006 [42]	1 014 [45]	1 009 [50]	1 093 [47]	1 190 [44]	1 218 [46]	1 228 [50]	1 295 [47]
Industrial	64 [3]	80 [4]	90 [4]	94 [4]	91 [3]	104 [4]	103 [4]	102 [4]
Total	2 408 (+10)	2 254 (+11)	2 033 (+16)	2 348 (+16)	2 724 (+13)	2 626 (+17)	2 478 (+22)	2 756 (+17)

The commercial electricity consumption above includes street lighting, which is charged to the Government's account.

Figures in round brackets denote percentage changes over the same quarter of the preceding year.

Figures in square brackets denote percentage shares against the total consumption of electricity or gas for the quarter concerned.

Table 15 Electricity production, exports and consumption, 1st qtr. 1986 - 4th qtr. 1987

(Terajoule)

	1986					1987				
	Total	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4
Electricity generated at plant	77 083	15 290	19 834	23 120	18 839	85 511	17 661	21 590	25 649	20 611
<u>less</u> System losses*	9 141	2 206	2 653	2 456	1 826	9 981	2 194	3 044	2 729	2 015
<u>less</u> Exports of electricity to China	4 350	1 171	960	832	1 387	4 904	1 615	1 182	905	1 202
<u>equals</u> Local electricity consumption, as measured at meter point	63 592	11 913	16 221	19 833	15 626	70 626	13 852	17 364	22 015	17 394

* System losses include generating loss, transmission loss, and distribution loss. They also include electricity consumed within the company, such as for the office and staff residence.

Table 16(A)

Maximum installed generating capacity, peak demand, plant factor and load factor for electricity, 1977-1987

	Unit of measurement	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Hong Kong Electric Co. Ltd.</u>												
Maximum installed generating capacity @	megawatt	902	924	1 025	1 029	1 060	1 172	1 498	1 685	1 685	1 685	1 771
Peak demand	megawatt	587	658	691	795	960	1 038	1 340	1 221	1 181	1 259	1 379
Annual production (including system losses)	terajoule	9 493	10 404	10 825	12 143	13 344	14 501	17 629	17 517	17 997	19 772	21 862
Plant factor*	%	33	36	33	37	40	39	37	33	34	37	39
Load factor**	%	51	50	50	48	44	44	42	45	48	50	50
<u>China Light and Power Co. Ltd.</u>												
Maximum installed generating capacity @	megawatt	2 162	2 192	2 171	2 313	2 546	2 860	3 236	3 583	3 895	4 268	4 843
Peak demand	megawatt	1 380	1 572	1 780	1 980	2 109	2 280	2 538	2 710	2 987	3 355	3 650
Annual production (including system losses)	terajoule	24 493	26 940	30 142	33 353	34 521	37 672	41 669	47 007	51 249	57 311	63 649
Plant factor*	%	36	39	44	46	43	42	41	41	42	43	42
Load factor**	%	56	54	54	53	52	52	52	55	54	54	55

@ Average of the daily maxima during the year.

* Plant factor = $\frac{\text{Actual production (including system losses) for the year, measured in } 10^6 \text{ megajoules (i.e. terajoules)}}{\text{Installed capacity, measured in megawatts} \times 60 \times 60 \times 24 \times 365 \text{ (or } 366)} \times 100\%$

** Load factor = $\frac{\text{Actual production (including system losses) for the year, measured in } 10^6 \text{ megajoules (i.e. terajoules)}}{\text{Peak demand within the year, measured in megawatts} \times 60 \times 60 \times 24 \times 365 \text{ (or } 366)} \times 100\%$

Table 16(B)

Maximum installed generating capacity, peak demand, plant factor and load factor for gas 1977-1987

	Unit of measurement	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Hong Kong and China Gas Co. Ltd.</u>												
Maximum installed generating capacity (at the end of the year)	terajoule per day	12.0	15.8	15.8	15.8	27.4	38.9	38.9	38.9	61.9	61.9	112.1
Peak demand	terajoule per day	7.8	9.1	10.4	12.9	15.6	18.4	22.4	24.4	27.8	32.2	39.0
Annual production (including system losses)	terajoule	2 077	2 504	3 021	3 524	4 034	4 858	5 924	6 907	7 979	9 043	10 584
Plant factor#	%	47	43	52	61	40	34	42	49	35	40	26
Load factor##	%	73	75	80	75	71	72	72	77	79	77	74

Plant factor = $\frac{\text{Actual production for the year, measured in terajoules}}{\text{Installed capacity, measured in terajoules per day} \times 365 \text{ (or } 366)} \times 100\%$

Load factor = $\frac{\text{Actual production for the year, measured in terajoules}}{\text{Peak demand within the year, measured in terajoules per day} \times 365 \text{ (or } 366)} \times 100\%$

Table 17 Average charges per unit of locally consumed electricity and gas, 1977 - 1987

(HK\$/megajoule)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Electricity</u>											
Hong Kong Electric Co. Ltd.	0.0637	0.0635	0.0789	0.1059	0.1555	0.1553	0.1692	0.1680	0.1672	0.1611	0.1570
China Light and Power Co. Ltd.	0.0584	0.0579	0.0702	0.1012	0.1501	0.1482	0.1544	0.1538	0.1559	0.1532	0.1529
<u>Gas</u>											
Hong Kong and China Gas Co. Ltd.	0.0448	0.0450	0.0584	0.0761	0.0880	0.0951	0.1004	0.1048	0.1017	0.0867	0.1003

The average unit charge is obtained by dividing quantities of electricity or gas consumed into the corresponding sales revenue, which comprises the basic tariff and the fuel cost escalation surcharges.

Differences in the average unit charge between companies as well as over the years could arise, inter alia, from the transmission and distribution networks, the pattern of usage by domestic, commercial and industrial users, and the application of Bulk Tariff as against General Tariff in the customer accounts.

The average charge per unit of electricity is not directly comparable in practice with that of gas supply, because gas appliances generally have lower efficiency resulting in the need to consume more units to yield the same amount of energy output as electrical appliances.

Table 18 General tariff for electricity and gas, 1985 - 1987A. Hong Kong Electric Co. Ltd.

	For the period 1.1.85-31.12.86 (tariff in force as from 1.1.83)	For the period 1.1.87-31.12.87 (tariff in force as from 1.1.87)
(a) Domestic tariff (in cents per kilowatt hour)		
For the first 10 kilowatt hours	\$7.20 minimum charge	\$7.45 minimum charge
For the next		
10 kWh (11 - 20)	71.3	73.8
20 kWh (21 - 40)	63.3	65.8
60 kWh (41 - 100)	62.3	64.8
900 kWh (101 - 1 000)	61.8	64.3
1 000 kWh (1 001 - 2 000)	60.8	63.3
500 kWh (2 001 - 2 500)	60.3	62.8
2 500 kWh (2 501 - 5 000)	58.3	60.8
Flat rate for consumption exceeding 5 000 kWh per month	59.7	62.2
(b) Commercial and miscellaneous tariff (in cents per kilowatt hour)		
For the first 10 kilowatt hours	\$7.20 minimum charge	\$7.45 minimum charge
For the next		
10 kWh (11 - 20)	70.3	72.8
20 kWh (21 - 40)	68.8	71.3
60 kWh (41 - 100)	68.3	70.8
100 kWh (101 - 200)	67.8	70.3
2 800 kWh (201 - 3 000)	62.3	64.8
2 000 kWh (3 001 - 5 000)	59.3	61.8
Flat rate for consumption exceeding 5 000 kWh per month	61.3	63.8

Table 18 (Cont'd)

	For the period 1.1.85-31.12.86 (tariff in force as from 1.1.83)	For the period 1.1.87-31.12.87 (tariff in force as from 1.1.87)
(c) Small industrial tariff (in cents per kilowatt hour)		
For the first 10 kilowatt hours	\$7.20 minimum charge	\$7.45 minimum charge
For the next		
90 kWh (11 - 100)	72.3	74.8
2 900 kWh (101 - 3 000)	60.8	63.3
2 000 kWh (3 101 - 5 000)	58.3	60.8
Flat rate for consumption exceeding 5 000 kWh per month	60.0	62.5

(d) Fuel cost adjustment (as at end of quarter and in cents per kWh)

	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>
1985	0	0	0	0
1986	0	-2.5	-2.5	-2.5
1987	-6.0	-6.0	-6.0	-6.0

Table 18 (Cont'd)

B. China Light & Power Co. Ltd.

	For the period 1.3.85-28.2.86 (tariff in force as from 1.3.85)	For the period 1.3.86-28.2.87 (tariff in force as from 1.3.86)	For the period 1.3.87-31.12.87 (tariff in force as from 1.3.87)	
(a) Domestic tariff (in cents per kilowatt hour)				
For the first 20 kilowatt hours	65.7 (subject to minimum charge of \$11.00)	70.7 (subject to minimum charge of \$11.00)	72.5 (subject to minimum charge of \$11.00)	
For the next 480 kWh (21 - 500)	60.0	65.0	66.8	
For over 500 kwh	58.1	63.1	64.9	
(b) General service tariff (in cents per kilowatt hour)				
For the first 20 kilowatt hours	65.7 (subject to minimum charge of \$11.00)	70.7 (subject to minimum charge of \$11.00)	72.5 (subject to minimum charge of \$11.00)	
For the next 480 kWh (21 - 500)	60.0	65.9	66.8	
4 500 kWh (501 - 5 000)	57.9	62.9	64.7	
For over 5 000 kwh	56.9	61.9	63.7	
(c) Fuel cost adjustment (as at end of quarter and in cents per kWh)				
	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>
1985	2.50	2.50	2.50	2.50
1986	-2.50	-5.00	-5.00	-6.50
1987	-8.50	-8.50	-8.50	-8.50

Table 18 (Cont'd)

C. Hong Kong & China Gas Co. Ltd.

(a) General tariff (in cents per megajoule)

	For the period 1.1.85-31.1.86 (tariff in force as from 1.4.84)	For the period 1.2.86-31.1.87 (tariff in force as from 1.2.86)	For the period 1.2.87-31.12.87 (tariff in force as from 1.2.87)
For the first 2 500 megajoules	10.50 (subject to minimum charge of \$6.50)	11.00 (subject to minimum charge of \$6.50)	12.00 (subject to minimum charge of 10.00)
For the next			
5 000 MJ (2 501 - 7 500)	10.36	10.86	10.86
10 000 MJ (7 501 - 17 500)	10.26	10.76	10.76
15 000 MJ (17 501 - 32 500)	10.16	10.66	10.66
25 000 MJ (32 501 - 57 500)	10.03	10.53	10.53
50 000 MJ (57 501 - 107 500)	9.93	10.43	10.43
50 000 MJ (107 501 - 157 500)	9.84	10.34	10.34
50 000 MJ (157 501 - 207 500)	9.74	10.24	10.24
50 000 MJ (207 501 - 257 500)	9.65	10.15	10.15
For over 257 500 MJ	9.55	10.05	10.05

(b) Fuel cost adjustment (as at end of quarter and in cents per MJ)

	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>
1985	0.036	0.004	0.312	0.176
1986	-0.508	-3.024	-3.104	-2.688
1987	-1.864	-1.272	-1.520	-1.848

Bulk tariff schemes are available in the three companies to large quantity consumers.

The unit of supply is the kilowatt-hour (being equivalent to 3.60 megajoules) in the case of electricity companies, and the megajoule in the case of the gas company.

