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DIGEST
OF
ENERGY STATISTICS
1990 – 1998

March 2000

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FOREWORD

This is the first issue of an annual Digest of Energy Statistics, produced by the Central Statistical Office in collaboration with the Ministry of Public Utilities. It presents statistical data relating to sources, transformation and final consumption of Energy by Sector in the Republic of Mauritius.

The data, which cover the period 1990 to 1998, are the latest available as at September 1999 and are subject to revision in subsequent issues of the digest.

It is hoped that these statistics will prove useful to a wide range of users, in particular planners, decision makers and scientists. The preparation of this digest has required the collaboration of several public and private organisations. This co-operation is gratefully acknowledged.

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Acting Director of Statistics

Central Statistical Office,
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PORT LOUIS.

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SECTION I

SECTION I

Concepts and Terminology

The energy data have been compiled according to the recommendations of the United Nations Manual, Series F No. 29 on Energy Statistics.

- **Energy**
Energy means the capacity for doing work or for producing heat. Producing heat is a common manifestation of "doing work", as are producing light and motive force.
- **Primary energy**
Primary energy designates energy from sources that involve only extraction or capture, with or without separation from contiguous material, cleaning or grading, before the energy embodied in that source can be converted into heat or mechanical work. Primary energy is not derived from any other form of energy. By convention, sources of energy that occur naturally such as coal, natural gas, fuel wood are termed primary energy.
- **Secondary energy**
Secondary energy designates energy from all sources of energy that results from transformation of primary sources.
- **Fuels**
The term fuel is used to describe those energy sources, whether primary or secondary, that must be subjected to combustion or fission in order to release for use the energy stored up inside them.
- **Re-export of bunkers and aviation fuel**
Bunkers relate to fuels sold to ships, irrespective of their flags of ownership or registration. Re-exports include aviation fuel delivered to foreign aircraft. Aviation fuel delivered to aircraft owned by the national airline is included as final consumption in the transport sector.
- **Primary energy requirement**
It is the sum of imported fuels and locally available fuels less re-exports of bunkers and aviation fuel to foreign aircraft after adjusting for stock changes.
- **Primary energy input to hydro electricity.**
The primary energy input to hydro electricity is defined as the energy value of the electricity generated from hydro.

Energy conversion factors

The following energy conversion factors have been used to express the energy content for the different fuels in terms of a common accounting unit, tonnes of oil equivalent (toe)

	<u>Tonne</u>	<u>toe</u>
Gasolene	1	1.08
Diesel Oil	1	1.01
Dual Purpose Kerosene (DPK)	1	1.04
Fuel oil	1	0.96
Liquefied Petroleum Gas (LPG)	1	1.08
Coal	1	0.62
Bagasse	1	0.16
Fuel Wood	1	0.38
Charcoal	1	0.74
	<u>GWh</u>	<u>toe</u>
Electricity	1	220

1 toe = 41.84 gigajoule (net calorific value)

SYMBOLS

The following technical abbreviations have been used throughout the report.

toe	Tonne of oil equivalent
ktoe	Thousand tonnes of oil equivalent
LPG	Liquefied Petroleum Gas
MW	megawatt (1,000 kW)
kWh	kilowatt hour
GWh	gigawatt hour

ACRONYMS

CEB	Central Electricity Board
GDP	Gross Domestic Product

Energy Statistics, 1990 - 1998

Introduction

Energy Statistics is a new series of data which was released for the first time through the Economic and Social Indicators, Issue No. 312. Data series (1990 to 1998) presented in this report have been compiled with the collaboration of the Ministry of Public Utilities and the Central Electricity Board.

The energy data have been compiled according to the recommendations of the United Nations Manual, Series F No. 29 on Energy Statistics. For meaningful comparison and analysis, the quantities of each type of fuel have been expressed in a common accounting unit, namely, tonnes of oil equivalent (toe). Concepts and terminology as well as the energy conversion factors used are given on pages 3 and 4 respectively.

All data refer to the Republic of Mauritius unless stated otherwise. The tables on final energy consumption by sector have been compiled according to the classification used by the suppliers of data. For example, consumption of energy in the transport sector refers to consumption of fuel by all users, industries as well as private households.

2. The energy commodity balance

The energy commodity balance shows the relationships between total primary energy requirement, transformation and total final consumption. The energy commodity balance for the year 1998 is given at Table 1.9. Total primary energy requirement is obtained as the sum of the indigenous production (hydro, fuel wood and bagasse) and imports less re-exports and bunkering after stock adjustments. The transformation process is the conversion of primary energy into secondary energy, such as coal and fuel oil into electricity. Own use and losses during transformation are also recorded. Total final energy consumption is the total amount of energy required by end users as a final product. End-users are categorised into five sectors, namely manufacturing, transport, commercial and distributive trade, residential and agricultural.

2.1 Total primary energy requirement

The total primary energy requirement of the country is met from imported fuels (around 70%) and indigenous sources, the remaining 30% (Table 2.2). In 1998, the primary energy requirement amounted to some 1,017 ktoe, of which 663 ktoe were imported petroleum products and 44 ktoe was coal. Bagasse contributed 91 % of the indigenous production (310 ktoe) and the remaining were from hydroelectricity, fuel wood and wind energy. Of the 663 ktoe of imported petroleum products, 32.1 % was from fuel oil, 23.6 % from diesel oil, 14.4 % from gasoline, 14.0 % from aviation fuel and the remaining 15.9 % comprised of kerosene and LPG.

During the period 1990 - 1998, the primary energy requirement increased from 734 ktoe to 1,017 ktoe, representing an annual average growth rate of 4.2 %. The share of petroleum products in the primary energy requirements during the same period increased from 54.3 % (399 ktoe) to 65.2 % (663 ktoe).

2.1.1 Indigenous production

Local energy sources consist mainly of bagasse, the residue left over after extraction of sugar from sugarcane, hydroelectricity and to a lesser extent, fuel wood. The indigenous production for energy use in 1998 amounted to 310 ktoe. Bagasse represented 91.1 % followed by hydroelectricity, 7.4 % and the remaining 1.5 % was fuel wood. During the period 1990 - 1998, bagasse production varied between 227 ktoe and 283 ktoe and hydroelectricity production fluctuated between 16 and 30 ktoe whilst fuel wood as a source of energy has gone down consistently from 30 ktoe to less than 5 ktoe. (Table 2.2)

2.1.2 Imports of energy sources

Tables 2.4 to 2.12 show data on imports of energy sources. Some 959 ktoe of petroleum products and coal were imported in 1998 compared to 598 ktoe in 1990 representing an average annual growth of 6.1 %. During the period under consideration, the C.I.F. value of imported energy sources increased from Rs 1,812.7 million to Rs 2,873.2 million.

2.1.3 Re-exports and bunkering

Of the 959 ktoe of imported energy sources, 218 ktoe were re-exported to bunkers and foreign aircraft (129 ktoe of diesel oil, 34 ktoe of fuel oil and 55 ktoe of aviation fuel) as shown in Table 2.13.

2.2 Electricity generation

In 1998, some 1380 GWh (304 ktoe) of electricity was generated. The Central Electricity Board (CEB) generated 81.4 % and private power producers, 18.6 %. Thermal energy represented 92.5 % and hydro, the remaining 7.5 %. The installed capacity increased from 297.1 MW in 1990 to 480.4 MW in 1998 whilst the effective capacity increased from 270.3 MW to 396.7 MW for the Island of Mauritius. The peak demand during the period under consideration increased from 131.1 MW to 248.9 MW (Table 3.1).

Between 1990 and 1998, total electricity generation was doubled, increasing at an average annual rate of 9.4 % from 673 GWh to 1380 GWh. Output from thermal generation increased from 587 GWh in 1990 to 1276 GWh in 1998, representing an average annual growth of 10.2 % whilst that from hydro and wind generation has been uneven, varying between 75 and 135 GWh.

2.2.1 Fuel input for electricity generation

Tables 3.7 and 3.8 show the fuel used for electricity generation in physical and energy units. Fuel input increased from 159 ktoe in 1990 to 329 ktoe in 1998. There has been a considerable increase in the use of fuel oil, kerosene and bagasse. This can be explained by the increasing demand for electrical energy and the limited hydroelectric potential of the country. In fact, the installed capacities of the hydro plants has been constant at 60 MW for the past few years. Table 3.9 gives the percentage for each type of fuel input in electricity generation.

2.3 Final energy consumption

In 1998, some 960 ktoe of energy was consumed as final energy. The Manufacturing sector accounted for 40.3 %, followed by transport (32.2 %), residential (14.8 %), commercial and distributive trade (7.8 %) and agriculture (0.8 %) (Tables 4.1 and 4.2). The different types and amount of fuel consumed by each sector is given in Tables 4.3 and 4.4.

2.3.1 Manufacturing

In 1998, some 387 ktoe of energy was used for manufacturing process, bagasse contributed 208 ktoe, electricity, 87 ktoe, fuel oil, 41 ktoe, diesel oil, 31 ktoe and the remaining was from coal, LPG and fuel wood. During 1990 - 1998, consumption grew at an average rate of 2.2 % per annum. Fuel oil, diesel oil and electricity consumption was doubled. The use of fuel wood has considerably decreased whilst the demand for LPG has increased. Bagasse consumption has remained more or less at the same level. (Table 4.4)

2.3.2 Transport

As shown in Table 4.4, in 1998, some 309 ktoe of energy were used for transportation: 120 from diesel oil, 96, gasoline and 93, aviation fuel. Gasoline consumption increased from 64 ktoe in 1990 to 96 ktoe in 1998, and diesel oil rose from 77 ktoe to 120 ktoe. This can be explained by the increasing number of vehicles on our road networks. Aviation fuel used by our national airline fluctuated between 72 and 94 ktoe.

2.3.3 Commercial and Distributive Trade

Electricity is the main source of energy consumed by the Commercial and Distributive Trade sector. In 1998, the total energy consumption stood at 75 ktoe, of which, 70 ktoe was electrical energy. Between 1990 - 1998, the annual energy consumption for this sector increased from 31 ktoe (of which electricity, 28 ktoe) to 75 ktoe representing an average annual growth of 11.8 %. (Table 4.4)

2.3.4 Residential

Energy consumed by households amounted to some 142 ktoe in 1998. Electricity and LPG continued to be the main sources of energy. Of the 142 ktoe, 93 ktoe came from electricity, 36, LPG and the remaining 13, kerosene, fuel wood and charcoal. Compared to

the total of 99 ktoe in 1990, household energy consumption grew at an average rate of 4.6 % per annum. There has been a net decrease in the amount of fuel wood and charcoal used whilst LPG and electricity continued to grow. (Table 4.4)

2.3.5 Agriculture

Only electricity and diesel oil are used in this sector. In 1998, 6 ktoe of electricity was used for irrigation whilst 2 ktoe of diesel oil was used for derocking of land and preparation of soil prior to plantation.

3. Ratios

As shown in Table 2.14, the total primary energy requirement index moved from 100 in 1990 to 138 in 1998. During 1990 - 1998, import dependency varied between 59 % and 70 % and per capita primary energy requirement rose from 0.69 toe to 0.88 toe. Energy intensity defined as total primary energy requirement (toe) per 100,000 rupees of GDP (at constant 1990 rupees), varied between 1.97 and 2.22.

4. Number of electricity consumers and average unit price by category

In 1998, the total number of electricity consumers stood at 293,887 for the Island of Mauritius and 8,812 for Rodrigues (Table 4.6). For the Island of Mauritius, domestic category had the highest number of consumers, 261,971, followed by commercial, 24,914 and industrial, 6,751. These shares have remained almost at the same level between 1990 and 1998. Compared to the total in 1990 (225,224), the number of electricity consumers grew at an average rate of 3.8% per annum during the period under consideration.

Table 4.8 shows the average sales price of electricity in rupees per kWh by category for the Island of Mauritius. The average sales price varied between Rs. 1.71 and Rs. 2.20 during the period under consideration.

SECTION II

Energy commodity balance

Table 1.1 - Energy commodity balance, 1990

Flow	Source	Tonne of oil equivalent (toe)											Total	
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro-wind	Bagasse		Electricity
Indigenous Production		-	-	-	-	-	-	-	29,526	-	18,792	252,159	-	300,476
Imports		49,666	60,443	155,471	154,162	19,359	134,091	24,331	-	-	-	-	-	597,523
Re-Exports and Bunkering		-	-	(59,216)	(69,101)	-	(19,522)	-	-	-	-	-	-	(147,839)
Stock change / Statistical error		(14,760)	3,492	(2,941)	(9,952)	8,310	-	19	-	-	-	-	-	(15,832)
Total Primary Energy Requirement		34,906	63,935	93,314	75,110	27,668	114,569	24,351	29,526	-	18,792	252,159	-	734,329
Electricity Generation		(22,499)	-	(3,067)	-	(11,577)	(94,060)	-	-	-	(18,792)	(27,771)	147,992	(29,774)
Other transformation		-	-	-	-	-	-	(4,560)	2,220	-	-	-	-	(2,340)
Own use		-	-	-	-	-	-	-	-	-	-	-	(4,147)	(4,147)
Total Final Consumption		12,407	63,935	90,247	75,110	16,091	20,509	24,351	24,966	2,220	-	224,387	143,845	698,068
Manufacturing Sector		12,400	-	12,120	-	-	20,509	540	8,738	-	-	224,387	46,741	325,436
Transport Sector		-	63,935	76,710	75,110	-	-	-	-	-	-	-	-	215,754
Commercial Sector		-	-	-	-	-	-	1,620	-	1,295	-	-	27,788	30,703
Residential Sector		-	-	-	-	16,091	-	22,191	16,228	925	-	-	43,758	99,193
Agriculture		-	-	1,414	-	-	-	-	-	-	-	-	3,007	4,421
Other(n.e.s) and losses		7	-	3	-	-	-	-	-	-	-	-	22,551	22,560

Table 1.2 - Energy commodity balance, 1991

Flow	Source	Tonne of oil equivalent (toe)											Total	
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind	Bagasse		Electricity
Indigenous Production		-	-	-	-	-	-	-	18,224	-	16,605	246,924	-	281,752
Imports		40,926	70,617	155,409	134,697	28,694	137,743	28,089	-	-	-	-	-	596,173
Re-Exports and Bunkering		-	-	(53,919)	(66,965)	-	(18,601)	-	-	-	-	-	-	(139,484)
Stock change / Statistical error		(3,741)	(4,248)	(1,843)	5,227	52	7,903	(117)	-	-	-	-	-	3,233
Total Primary Energy Requirement		37,185	66,369	99,647	72,959	28,746	127,044	27,972	18,224	-	16,605	246,924	-	741,674
Electricity Generation		(23,850)	-	(3,524)	-	(14,100)	(104,305)	-	-	-	(16,605)	(28,643)	163,595	(27,432)
Other transformation		-	-	-	-	-	-	-	(3,952)	1,924	-	-	-	(2,028)
Own use		-	-	-	-	-	-	-	-	-	-	-	(4,398)	(4,398)
Total Final Consumption		13,334	66,369	96,123	72,959	14,645	22,740	27,972	14,272	1,924	-	218,280	159,198	707,816
Manufacturing Sector		13,330	-	13,635	-	-	22,740	1,404	4,281	-	-	218,280	51,053	324,724
Transport Sector		-	66,369	80,967	72,959	-	-	-	-	-	-	-	-	220,295
Commercial Sector		-	-	-	-	-	-	2,268	-	1,036	-	-	32,791	36,095
Residential Sector		-	-	-	-	14,645	-	24,300	9,991	888	-	-	47,971	97,795
Agriculture		-	-	1,515	-	-	-	-	-	-	-	-	3,135	4,650
Other(n.e.s) and losses		4	-	6	-	-	-	-	-	-	-	-	24,247	24,258

Table 1.3 - Energy commodity balance, 1992

Flow	Source	Tonne of oil equivalent (toe)										Total		
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind		Bagasse	Electricity
Indigenous Production		-	-	-	-	-	-	-	12,452	-	24,911	260,077	-	297,439
Imports		44,949	68,822	167,628	136,283	39,113	162,921	31,397	-	-	-	-	-	651,112
Re-Exports and Bunkering		-	-	(59,543)	(49,918)	-	(26,112)	-	-	-	-	-	-	(135,572)
Stock change / Statistical error		(7,259)	4,454	293	2,507	(4,142)	(7,204)	247	-	-	-	-	-	(11,104)
Total Primary Energy Requirement		37,690	73,276	108,378	88,872	34,971	129,605	31,644	12,452	-	24,911	260,077	-	801,875
Electricity Generation		(20,944)	-	(4,428)	-	(22,183)	(103,772)	-	-	(24,911)	(30,571)	179,679	-	(27,130)
Other transformation		-	-	-	-	-	-	-	(3,496)	1,702	-	-	-	(1,794)
Own use		-	-	-	-	-	-	-	-	-	-	-	(4,582)	(4,582)
Total Final Consumption		16,746	73,276	103,950	88,872	12,788	25,833	31,644	8,956	1,702	-	229,505	175,096	768,368
Manufacturing Sector		16,740	-	15,150	-	-	25,833	1,944	2,687	-	-	229,505	53,788	345,646
Transport Sector		-	73,276	87,182	88,872	-	-	-	-	-	-	-	-	249,330
Commercial Sector		-	-	-	-	-	-	2,700	-	888	-	-	37,022	40,610
Residential Sector		-	-	-	-	12,788	-	27,000	6,269	814	-	-	52,206	99,077
Agriculture		-	-	1,616	-	-	-	-	-	-	-	-	3,452	5,068
Other(n.e.s) and losses		6	-	2	-	-	-	-	-	-	-	-	28,629	28,637

Table 1.4 - Energy commodity balance, 1993

Flow	Source	Tonnes of oil equivalent (toe)											Total	
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro-wind	Bagasse		Electricity
Indigenous Production		-	-	-	-	-	-	-	12,086	-	22,852	249,963	-	284,901
Imports		39,000	80,772	181,840	135,557	31,746	171,765	31,737	-	-	-	-	-	672,418
Re-Exports and Bunkering		-	-	(43,028)	(47,360)	-	(17,340)	-	-	-	-	-	-	(107,727)
Stock change / Statistical error		(281)	(2,679)	(20,612)	(4,943)	(6,816)	(3,238)	3,822	-	-	-	-	-	(34,748)
Total Primary Energy Requirement		38,719	78,093	118,200	83,254	24,930	151,188	35,559	12,086	22,852	249,963	-	-	814,843
Electricity Generation		(19,129)	-	(4,826)	-	(12,763)	(123,000)	-	-	(22,852)	(27,632)	193,211	-	(16,990)
Other transformation		-	-	-	-	-	-	(3,040)	1,480	-	-	-	-	(1,560)
Own use		-	-	-	-	-	-	-	-	-	-	-	(5,721)	(5,721)
Total Final Consumption		19,590	78,093	113,375	83,254	12,167	28,188	35,559	9,046	1,480	222,331	187,489	-	790,571
Manufacturing Sector		19,588	-	16,624	-	-	28,188	2,376	2,714	-	222,331	56,775	-	348,595
Transport Sector		-	78,093	95,033	83,254	-	-	-	-	-	-	-	-	256,380
Commercial Sector		-	-	-	-	-	-	3,525	-	740	-	-	40,691	44,956
Residential Sector		-	-	-	-	12,167	-	29,655	6,332	740	-	-	60,344	109,238
Agriculture		-	-	1,717	-	-	-	-	-	-	-	-	3,219	4,936
Other(n.e.s) and losses		2	-	1	-	-	-	3	-	-	-	-	26,467	26,467

Table 1.5 - Energy commodity balance, 1994

Flow	Source	Tonne of oil equivalent (toe)											Total
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind	Bagasse	
Indigenous Production		-	-	-	-	-	-	7,831	-	16,645	227,863	-	252,339
Imports		23,839	83,929	212,520	129,266	25,769	191,430	-	-	-	-	-	702,043
Re-Exports and Bunkering		-	-	(86,606)	(47,160)	-	(24,512)	-	-	-	-	-	(158,278)
Stock change / Statistical error		14,973	2,034	(260)	1,472	836	4,867	-	-	-	-	-	24,601
Total Primary Energy Requirement		38,812	85,963	125,654	83,578	26,605	171,785	7,831	-	16,645	227,863	-	820,706
Electricity Generation		(19,808)	-	(5,084)	-	(15,381)	(141,244)	-	-	(16,645)	(29,477)	210,095	(17,545)
Other transformation		-	-	-	-	-	-	(2,280)	1,110	-	-	-	(1,170)
Own use		-	-	-	-	-	-	-	-	-	-	(6,411)	(6,411)
Total Final Consumption		19,004	85,963	120,570	83,578	11,225	30,541	5,551	1,110	-	198,386	203,684	795,580
Manufacturing Sector		19,001	-	18,557	-	-	30,541	1,665	-	-	198,386	60,995	331,813
Transport Sector		-	85,963	100,194	83,578	-	-	-	-	-	-	-	269,734
Commercial Sector		-	-	-	-	-	-	-	740	-	-	45,492	49,775
Residential Sector		-	-	-	-	11,225	-	3,886	370	-	-	65,039	110,273
Agriculture		-	-	1,818	-	-	-	-	-	-	-	4,090	5,908
Other(n.e.s) and losses		2	-	1	-	-	-	4	-	-	-	28,069	28,077

Table 1.6 - Energy commodity balance, 1995

Flow	Source	Tonne of oil equivalent (toe)										Total		
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind		Bagasse	Electricity
Indigenous Production		-	-	-	-	-	-	-	6,764	-	29,581	262,370	-	298,715
Imports		41,144	90,891	228,501	136,302	41,185	199,178	39,121	-	-	-	-	-	776,323
Re-Exports and Bunkering		-	-	(85,905)	(44,468)	-	(19,168)	(47)	-	-	-	-	-	(149,588)
Stock change / Statistical error		(2,031)	(216)	(15,014)	(16,637)	3,454	(10,004)	(2,027)	-	-	-	-	-	(42,475)
Total Primary Energy Requirement		39,113	90,675	127,583	75,197	44,639	170,005	37,046	6,764	-	29,581	262,370	-	882,974
Electricity Generation		(18,779)	-	(5,337)	-	(33,625)	(137,171)	-	-	-	(29,581)	(31,582)	233,053	(23,023)
Other transformation		-	-	-	-	-	-	-	(1,824)	888	-	-	-	(936)
Own use		-	-	-	-	-	-	-	-	-	-	-	(6,797)	(6,797)
Total Final Consumption		20,334	90,675	122,246	75,197	11,014	32,835	37,046	4,940	888	-	230,787	226,256	852,218
Manufacturing Sector		20,334	-	17,428	-	-	32,835	2,754	1,482	-	-	230,787	67,841	373,461
Transport Sector		-	90,675	102,895	75,197	-	-	-	-	-	-	-	-	268,767
Commercial Sector		-	-	-	-	-	-	3,402	-	592	-	-	50,516	54,510
Residential Sector		-	-	-	-	11,014	-	30,888	3,458	296	-	-	73,491	119,147
Agriculture		-	-	1,919	-	-	-	-	-	-	-	-	3,808	5,727
Other(n.e.s) and losses		-	-	5	-	-	-	2	-	-	-	-	30,599	30,606

Table 1.7 - Energy commodity balance, 1996

Flow	Source	Tonne of oil equivalent (toe)											Total	
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind	Bagasse		Electricity
Indigenous Production		-	-	-	-	-	-	-	5,776	-	22,863	255,217	-	283,855
Imports		23,858	95,084	224,205	119,436	84,392	186,597	39,512	-	-	-	-	-	773,084
Re-Exports and Bunkering		-	-	(103,170)	(46,355)	-	(25,202)	(774)	-	-	-	-	-	(175,501)
Stock change / Statistical error		1,118	(706)	16,356	10,711	(5,008)	13,901	747	-	-	-	-	-	37,118
Total Primary Energy Requirement		24,976	94,378	137,390	83,792	79,384	175,296	39,485	5,776	-	22,863	255,217	-	918,557
Electricity Generation		(4,065)	-	(4,476)	-	(68,460)	(140,169)	-	-	(22,863)	(45,954)	256,145	256,145	(29,842)
Other transformation		-	-	-	-	-	-	-	(1,216)	592	-	-	-	(624)
Own use and losses		-	-	-	-	-	-	-	-	-	-	-	(6,975)	(6,975)
Total Final Consumption		20,911	94,378	132,914	83,792	10,924	35,127	39,485	4,560	592	-	209,263	249,169	881,115
Manufacturing Sector		20,911	-	23,601	-	-	35,126	2,982	1,292	-	-	209,263	74,360	367,535
Transport Sector		-	94,378	107,286	83,792	-	-	-	-	-	-	-	-	285,456
Commercial Sector		-	-	-	-	-	-	3,624	-	370	-	-	55,638	59,632
Residential Sector		-	-	-	-	10,924	-	32,872	3,268	222	-	-	78,518	125,804
Agriculture		-	-	2,020	-	-	-	-	-	-	-	-	4,752	6,772
Other(n.e.s) and losses		-	-	7	-	-	1	6	-	-	-	-	35,901	35,916

Table 1.8 - Energy commodity balance, 1997

Flow	Source	Tonne of oil equivalent (toe)											Total	
		Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro+wind	Bagasse		Electricity
Indigenous Production		-	-	-	-	-	-	-	4,750	-	20,347	278,556	-	303,653
Imports		17,225	95,120	258,516	124,480	79,622	239,239	45,003	-	-	-	-	-	859,204
Re-Exports and Bunkering		-	-	(105,865)	(56,164)	-	(24,680)	(977)	-	-	-	-	-	(187,686)
Stock change / Statistical error		11,092	(435)	(5,680)	13,870	(20,835)	(20,470)	(1,749)	-	-	-	-	-	(24,207)
Total Primary Energy Requirement		28,317	94,685	146,970	82,186	58,787	194,089	42,277	4,750	-	20,347	278,556	-	950,963
Electricity Generation		(11,427)	-	(3,463)	-	(48,873)	(156,152)	-	-	-	(20,347)	(48,116)	278,706	(9,671)
Other transformation		-	-	-	-	-	-	-	(760)	370	-	-	-	(390)
Own use and losses		-	-	-	-	-	-	-	-	-	-	-	(8,067)	(8,067)
Total Final Consumption		16,890	94,685	143,507	82,186	9,914	37,937	42,277	3,990	370	-	230,440	270,639	932,835
Manufacturing Sector		16,890	-	26,888	-	-	37,937	3,433	950	-	-	230,440	79,911	396,449
Transport Sector		-	94,685	114,495	82,186	-	-	-	-	-	-	-	-	291,365
Commercial Sector		-	-	-	-	-	-	3,942	-	222	-	-	63,166	67,330
Residential Sector		-	-	-	-	9,914	-	34,898	3,040	148	-	-	85,237	133,237
Agriculture		-	-	2,121	-	-	-	-	-	-	-	-	4,517	6,638
Other(n.e.s) and losses		-	-	3	-	-	-	3	-	-	-	-	37,809	37,815

Table 1.9 - Energy commodity balance, 1998

Flow	Tonnes of oil equivalent (toe)													Total
	Source	Coal	Gasoline	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuel Wood	Charcoal	Hydro-wind	Bagasse	Electricity	
Indigenous Production	-	-	-	-	-	-	-	-	4,560	-	22,916	282,719	-	310,195
Imports	53,533	93,847	285,564	158,400	56,293	263,160	48,250	-	-	-	-	-	-	959,048
Re-Exports and Bunkering	-	-	(128,589)	(55,273)	-	(33,909)	(734)	-	-	-	-	-	-	(218,505)
Stock change / Statistical error	(9,670)	1,833	(305)	(10,009)	5,221	(16,599)	(3,836)	-	-	-	-	-	-	(33,365)
Total Primary Energy Requirement	43,864	95,679	156,670	93,118	61,514	212,652	43,681	4,560	-	22,916	282,719	-	-	1,017,373
Electricity Generation	(27,922)	-	(3,789)	-	(51,663)	(171,582)	-	-	-	(22,916)	(74,364)	303,654	-	(48,582)
Other transformation	-	-	-	-	-	-	-	(760)	370	-	-	-	-	(390)
Own use	-	-	-	-	-	-	-	-	-	-	-	-	(8,286)	(8,286)
Total Final Consumption	15,942	95,679	152,881	93,118	9,851	41,070	43,681	3,800	370	-	208,355	295,368	-	960,115
Manufacturing Sector	15,942	-	30,535	-	-	41,063	3,538	760	-	-	208,355	86,530	-	386,724
Transport Sector	-	95,679	120,123	93,118	-	-	-	-	-	-	-	-	-	308,921
Commercial Sector	-	-	-	-	-	-	4,368	-	222	-	-	70,233	-	74,822
Residential Sector	-	-	-	-	-	9,851	-	3,040	148	-	-	93,181	-	141,989
Agriculture	-	-	2,222	-	-	-	-	-	-	-	-	5,586	-	7,808
Other(n e.s) and losses	-	-	-	-	-	7	5	-	-	-	-	39,838	-	59,850

SECTION III

Primary energy requirement

Table 2.1 - Primary energy requirement (Physical unit), 1990 - 1998

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
Imported										
Gasolene	tonne	59,199	61,453	67,848	72,308	79,595	83,958	87,387	87,671	88,592
Diesel Oil	tonne	92,390	98,660	107,305	117,030	124,410	126,320	136,030	145,515	155,119
Dual Purpose Kerosene	tonne	98,825	97,793	119,080	104,023	105,945	115,227	156,900	135,551	148,685
Kerosene	tonne	26,604	27,640	33,626	23,971	25,582	42,922	76,331	56,526	59,148
Aviation Fuel	tonne	72,221	70,153	85,454	80,052	80,363	72,305	80,569	79,025	89,537
Fuel Oil	tonne	119,343	132,338	135,005	157,487	178,943	177,089	182,600	202,176	221,512
LPG	tonne	22,547	25,900	29,300	32,925	33,305	34,302	36,560	39,145	40,445
Coal	tonne	56,300	59,975	60,790	62,450	62,600	63,086	40,284	45,672	70,748
Local										
Electricity (hydro + wind)	GWh	85	75	113	104	76	134	104	92	104
Bagasse	tonne	1,575,992	1,543,273	1,625,479	1,562,267	1,424,144	1,639,810	1,595,104	1,740,976	1,766,992
Fuel Wood *	tonne	77,700	47,958	32,768	31,806	20,608	17,800	15,200	12,500	12,000

* estimates

Table 2.2 - Primary energy requirement (Energy unit - ktoe), 1990 - 1998

Energy source	1990	1991	1992	1993	1994	1995	1996	1997	1998
Imported									
Gasolene	63.93	66.37	73.28	78.09	85.96	90.67	94.38	94.68	95.68
Diesel Oil	93.31	99.65	108.38	118.20	125.65	127.58	137.39	146.97	156.67
Dual Purpose Kerosene	102.78	101.70	123.84	108.18	110.18	119.84	163.18	140.97	154.63
Kerosene	27.67	28.75	34.97	24.93	26.61	44.64	79.38	58.79	61.51
Aviation Fuel	75.11	72.96	88.87	83.25	83.58	75.20	83.79	82.19	93.12
Fuel Oil	114.57	127.04	129.60	151.19	171.79	170.01	175.30	194.09	212.65
LPG	24.35	27.97	31.64	35.56	35.97	37.05	39.48	42.28	43.68
Sub total (Petroleum products)	398.95	422.74	466.75	491.22	529.55	545.15	609.72	618.99	663.31
Coal	34.91	37.18	37.69	38.72	38.81	39.11	24.98	28.32	43.86
Sub total (Imported)	433.85	459.92	504.44	529.94	568.37	584.26	634.70	647.31	707.18
Local									
Electricity (hydro + wind)	18.79	16.60	24.91	22.85	16.65	29.58	22.86	20.35	22.92
Bagasse	252.16	246.92	260.08	249.96	227.86	262.37	255.22	278.56	282.72
Fuel Wood *	29.53	18.22	12.45	12.09	7.83	6.76	5.78	4.75	4.56
Sub total (Local)	300.48	281.75	297.44	284.90	252.34	298.71	283.86	303.65	310.20
Total	734.33	741.67	801.87	814.84	820.71	882.97	918.56	950.96	1,017.37

* estimates

Table 2.3 - Percentage share (fuel input basis) of primary energy requirement, 1990 - 1998

Energy source	1990	1991	1992	1993	1994	1995	1996	1997	1998
Imported									
Gasolene	8.7	8.9	9.1	9.6	10.5	10.3	10.3	10.0	9.4
Diesel Oil	12.7	13.4	13.5	14.5	15.3	14.4	15.0	15.5	15.4
Dual Purpose Kerosene	14.0	13.7	15.4	13.3	13.4	13.6	17.8	14.8	15.2
Fuel Oil	15.6	17.1	16.2	18.6	20.9	19.3	19.1	20.4	20.9
LPG	3.3	3.8	3.9	4.4	4.4	4.2	4.3	4.4	4.3
Sub total (Petroleum products)	54.3	57.0	58.2	60.3	64.5	61.7	66.4	65.1	65.2
Coal	4.8	5.0	4.7	4.8	4.7	4.4	2.7	3.0	4.3
Sub total (Imported)	59.1	62.0	62.9	65.0	69.3	66.2	69.1	68.1	69.5
Local									
Hydro Electricity	2.6	2.2	3.1	2.8	2.0	3.4	2.5	2.1	2.3
Bagasse	34.3	33.3	32.4	30.7	27.8	29.7	27.8	29.3	27.8
Fuel Wood *	4.0	2.5	1.6	1.5	1.0	0.8	0.6	0.5	0.4
Sub total (Local)	40.9	38.0	37.1	35.0	30.7	33.8	30.9	31.9	30.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* estimates

Table 2.4 - Imports of energy sources (Physical unit - Tonne), 1990 - 1998

Thousand tonne

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Gasolene	55.97	65.39	63.72	74.79	77.71	84.16	88.04	88.07	86.90
Diesel oil	153.93	153.87	165.97	180.04	210.42	226.24	221.99	255.96	282.74
Dual Purpose Kerosene	166.85	157.11	168.65	160.87	149.07	170.66	195.99	196.25	206.44
Kerosene	18.61	27.59	37.61	30.53	24.78	39.60	81.15	76.56	54.13
Aviation Fuel	148.23	129.52	131.04	130.34	124.29	131.06	114.84	119.69	152.31
Fuel oil	139.68	143.48	169.71	178.92	199.41	207.48	194.37	249.21	274.12
LPG	22.53	26.01	29.07	29.39	32.68	36.22	36.59	41.67	44.68
Coal	80.11	66.01	72.50	62.90	38.45	66.36	38.48	27.78	86.34

Table 2.5 - Imports of energy sources (Energy unit - ktoe), 1990 - 1998

ktoe

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Gasolene	60.44	70.62	68.82	80.77	83.93	90.89	95.08	95.12	93.85
Diesel oil	155.47	155.41	167.63	181.84	212.52	228.50	224.20	258.52	285.56
Dual Purpose Kerosene	173.52	163.39	175.40	167.30	155.03	177.49	203.83	204.10	214.69
Kerosene	19.36	28.69	39.11	31.75	25.77	41.19	84.39	79.62	56.29
Aviation Fuel	154.16	134.70	136.28	135.56	129.27	136.30	119.44	124.48	158.40
Fuel oil	134.09	137.74	162.92	171.77	191.43	199.18	186.60	239.24	263.16
LPG	24.33	28.09	31.40	31.74	35.29	39.12	39.51	45.00	48.25
<i>Sub total (Petroleum products)</i>	<i>547.86</i>	<i>555.25</i>	<i>606.16</i>	<i>633.42</i>	<i>678.20</i>	<i>735.18</i>	<i>749.23</i>	<i>841.98</i>	<i>905.51</i>
Coal	49.67	40.93	44.95	39.00	23.84	41.14	23.86	17.22	53.53
Total imports	597.52	596.17	651.11	672.42	702.04	776.32	773.08	859.20	959.05

Fig. 2.1 - Imports of energy sources (ktoe), 1990 - 1998

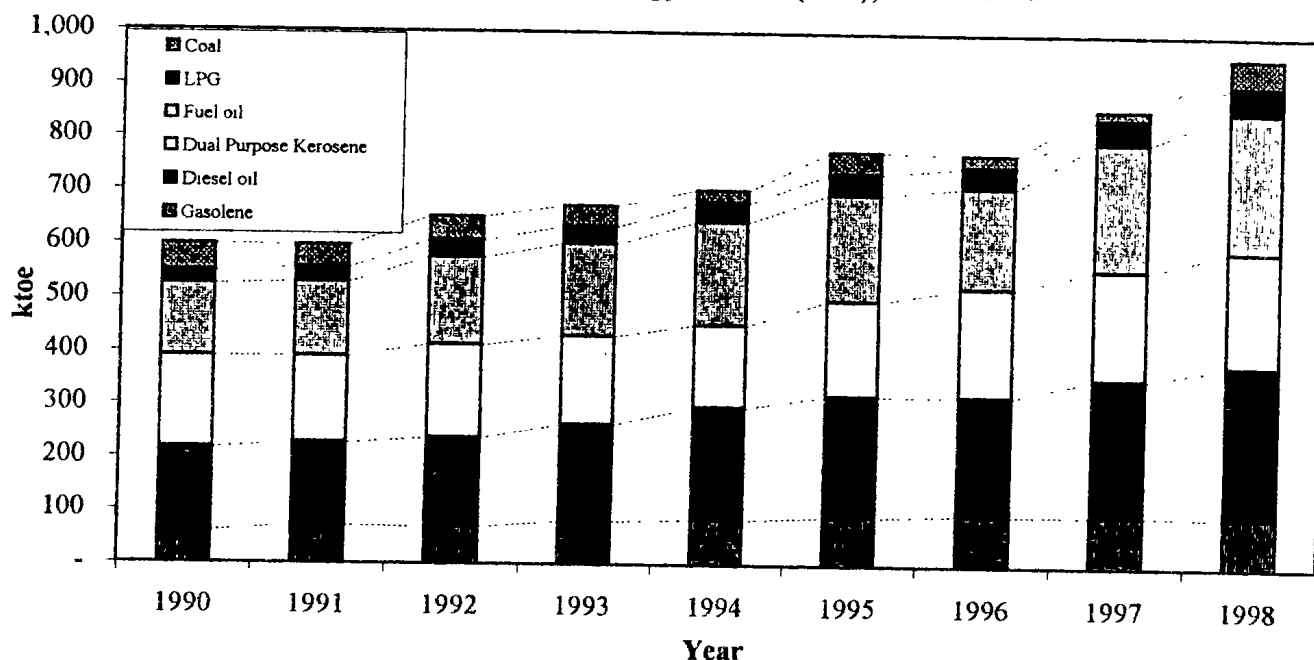


Table 2.6 - Imports of gasoline by country of origin (Physical unit - Tonne), 1990 - 1998

Country	Tonne									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Bahrain	45,762	40,780	19,978	-	-	3,266	2,986	8,913	24,035	
Ivory Coast	3,855	2,756	3,624	-	-	-	-	-	-	
Kuwait	6,349	-	-	-	16,303	42,919	53,636	25,731	-	
Saudi Arabia	-	5,123	-	-	19,082	22,982	2,737	15,791	46,878	
South Africa	-	16,727	40,122	74,789	42,327	14,991	28,682	37,639	15,982	
Total imports	55,966	65,386	63,724	74,789	77,712	84,158	88,041	88,074	86,895	

Table 2.7 - Imports of diesel oil by country of origin (Physical unit - Tonne), 1990 - 1998

Country	Tonne									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	
Bahrain	68,216	47,837	3,825	-	-	10,984	19,005	29,019	78,893	
Kuwait	51,642	-	-	-	31,377	101,285	107,461	46,948	-	
Saudi Arabia	9,093	20,272	2,988	-	68,148	53,108	9,993	46,647	150,460	
South Africa	-	44,470	121,492	180,040	110,891	60,862	85,526	133,342	53,384	
Other countries	24,981	41,291	37,663	-	-	-	-	-	-	
Total imports	153,932	153,870	165,968	180,040	210,416	226,239	221,985	255,956	282,737	

Table 2.8 - Imports of dual purpose kerosene by country of origin (Physical unit - Tonne), 1990 - 1998

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bahrain	80,729	58,983	14,984	-	-	7,569	18,296	14,970	57,241
Kuwait	56,279	-	-	-	26,608	70,792	83,616	43,750	-
Saudi Arabia	7,014	15,492	1,495	7,506	46,786	45,322	8,292	36,640	112,177
South Africa	-	41,356	101,907	153,362	75,678	46,978	85,784	100,892	37,018
Other countries	22,825	41,275	50,264	-	-	-	-	-	-
Total imports	166,847	157,106	168,650	160,868	149,072	170,661	195,988	196,252	206,436

Table 2.9 - Imports of fuel oil by country of origin (Physical unit - Tonne), 1990 - 1998

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
United Arab	-	-	-	-	-	-	-	-	40,688
Bahrain	26,835	50,495	49,986	-	-	-	17,079	-	28,732
Kenya	23,872	19,137	39,388	56,276	10,764	41,388	10,163	-	11,584
Kuwait	73,603	-	-	-	34,520	51,116	77,139	49,108	-
Madagascar	9,797	27,002	21,966	32,100	12,631	89,749	86,984	153,944	174,599
South Africa	-	9,156	38,126	68,519	115,015	10,569	3,007	23,803	18,522
Tanzania	-	30,359	-	22,027	11,254	11,633	-	-	-
Other countries	5,571	7,333	20,243	-	15,222	3,022	-	22,352	-
Total imports	139,679	143,481	169,711	178,923	199,405	207,477	194,372	249,207	274,125

Table 2.10 - Imports of liquefied petroleum gas by country of origin (Physical unit - Tonne), 1990 - 1998

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
Bahrain	419	2,999	6,692	1,922	4,969	-	-	-	-
Philippines	3,556	5,306	11,001	24,339	7,467	10,008	6,297	5,186	2,625
Saudi Arabia	-	824	689	1,515	971	-	-	-	-
Singapore	9,263	10,123	6,625	192	3,712	1,062	-	11,035	5,983
South Africa	940	797	-	170	14,305	20,341	30,246	20,718	27,299
Other countries	8,351	5,959	4,064	1,248	1,252	4,812	42	4,730	8,769
Total imports	22,529	26,008	29,071	29,386	32,676	36,223	36,585	41,669	44,676

Table 2.11 - Imports of coal by country of origin (Physical unit - Tonne), 1990 - 1998

Country	1990	1991	1992	1993	1994	1995	1996	1997	1998
South Africa	80,106	66,009	72,498	62,904	38,450	65,362	38,481	27,782	32,717
Mozambique	-	-	-	-	-	-	-	-	53,627
Greece	-	-	-	-	-	1,000	-	-	-
Total imports	80,106	66,009	72,498	62,904	38,450	66,362	38,481	27,782	86,343

Tonne

Tonne

Table 2.12 - Imports of energy sources (C.I.F. value - Rs million), 1990 - 1998

Energy source	1990	1991	1992	1993	1994	1995	1996	1997	1998
Gasolene	237.7	264.4	227.0	260.3	43.6	277.1	381.0	410.6	356.3
Diesel oil	504.2	558.9	492.5	564.4	589.6	660.4	913.2	1,003.9	808.3
Dual Purpose Kerosene	661.3	605.7	547.7	559.8	474.8	568.2	903.9	840.6	700.5
Kerosene	80.4	115.7	124.2	109.4	86.9	133.8	386.3	338.4	186.9
Aviation Fuel	580.9	490.0	423.5	450.5	387.9	434.4	517.6	502.2	513.6
Fuel oil	252.7	255.8	255.9	271.2	338.2	385.4	449.3	587.3	568.4
LPG	100.3	145.9	165.3	178.4	195.9	228.5	262.4	338.7	323.4
Coal	56.6	52.3	57.0	34.1	35.3	65.2	41.9	31.0	116.2
Total	1812.7	1883.0	1745.4	1868.3	1677.4	2184.8	2951.8	3212.1	2873.2

Table 2.13 - Re-exports of energy sources to foreign aircraft and bunkers, 1990 - 1998

	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
Aviation fuel										
Foreign aircraft	tonne	66,443	64,389	47,998	45,538	45,346	42,758	44,572	54,004	53,147
Diesel oil	tonne	58,630	53,385	58,953	42,602	85,749	85,054	102,149	104,817	127,316
Fuel oil	tonne	20,335	19,376	27,200	18,062	25,533	19,967	26,252	25,708	35,322
Aviation fuel										
Foreign aircraft	ktoe	69.10	66.96	49.92	47.36	47.16	44.47	46.35	56.16	55.27
Diesel oil	ktoe	59.22	53.92	59.54	43.03	86.61	85.90	103.17	105.87	128.59
Fuel oil	ktoe	19.52	18.60	26.11	17.34	24.51	19.17	25.20	24.68	33.91
Total	ktoe	147.84	139.48	135.57	107.73	158.28	149.54	174.73	186.71	217.77

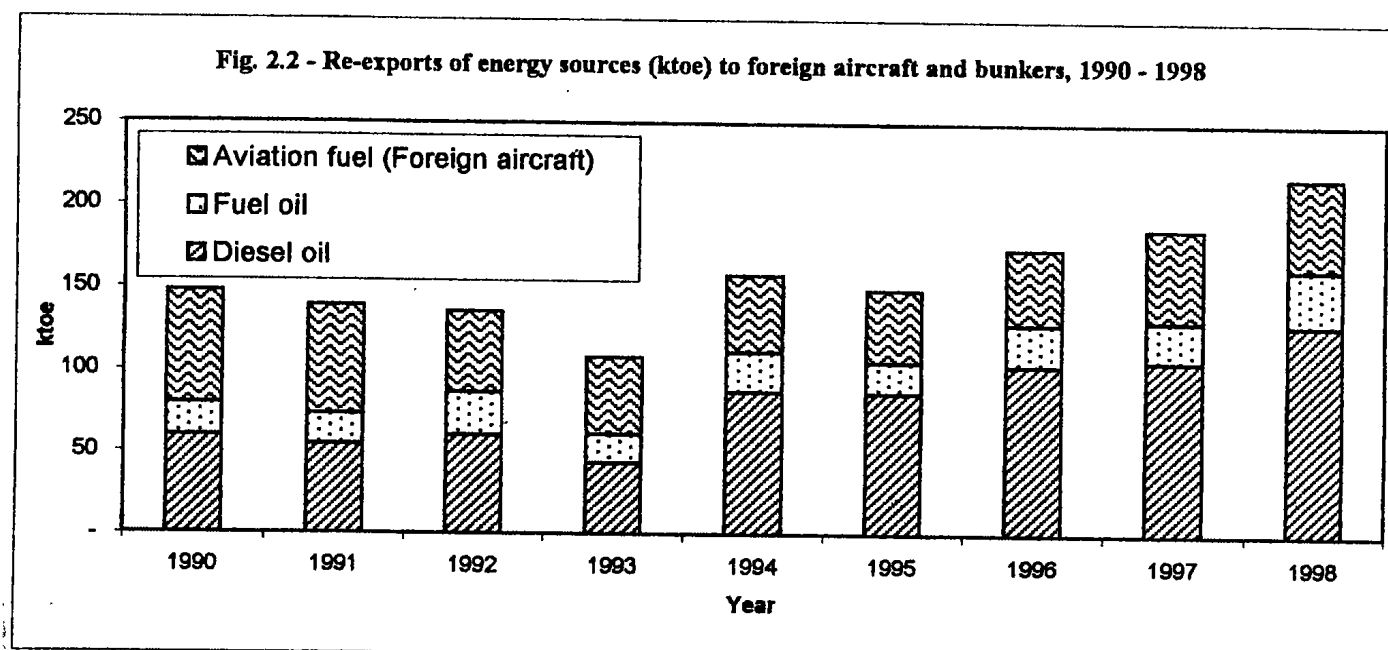
Fig. 2.2 - Re-exports of energy sources (ktoe) to foreign aircraft and bunkers, 1990 - 1998

Table 2.14 - Ratios, 1990 - 1998

	unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total primary energy requirement	ktoe	734.33	741.67	801.87	814.84	820.71	882.97	918.56	950.96	1,017.37
<i>Imported</i>	ktoe	433.85	459.92	504.44	529.94	568.37	584.26	634.70	647.31	707.18
<i>Local</i>	ktoe	300.48	281.75	297.44	284.90	252.34	298.71	283.86	303.65	310.20
Total primary energy requirement index (1990 = 100)		100.00	101.00	109.20	110.96	111.76	120.24	125.09	129.50	138.54
Import dependency	%	59.08	62.01	62.91	65.04	69.25	66.17	69.10	68.07	69.51
GDP (at 1990 factor cost)	Rs. Mn	33,018	34,471	36,780	38,619	40,627	42,903	45,820	48,248	50,757
GDP Index (1990 = 100)		100.00	104.40	111.39	116.96	123.05	129.94	138.77	146.13	153.73
Energy Intensity	toe per Rs.100,000 GDP	2.22	2.15	2.18	2.11	2.02	2.06	2.00	1.97	2.00
Mid-year population	thousand	1,059	1,070	1,084	1,097	1,113	1,122	1,134	1,148	1,160
Per capita primary energy requirement	toe	0.69	0.69	0.74	0.74	0.74	0.79	0.81	0.83	0.88

SECTION IV

Transformation of energy

Table 3.1 - Evolution of plant capacities, peak demand, electricity generation and consumption, 1990 - 1998

Year	Installed capacity ¹ (MW)	Effective capacity ¹ (MW)	Peak Demand ¹ (MW)	Electricity generated (GWh)				Consumption (GWh)
				Hydro	Wind	Thermal	Total	
1990	297.1	270.3	131.1	84.92	0.49	587.29	672.70	564.14
1991	320.6	294.1	147.1	75.46	0.02	668.15	743.62	630.02
1992	331.7	283.9	155.7	113.06	0.17	703.48	816.72	694.41
1993	339.2	307.8	169.6	103.70	0.17	774.36	878.23	750.46
1994	339.2	307.8	187.2	75.45	0.21	879.29	954.95	818.59
1995	364.6	331.9	200.5	134.42	0.04	924.89	1059.35	913.85
1996	364.6	331.9	218.7	103.82	0.10	1060.37	1164.29	995.96
1997	401.7	370.0	238.1	92.44	0.05	1174.36	1266.85	1087.35
1998	480.4	396.7	248.9	104.17	0.00	1276.08	1380.24	1192.75

Source: Central Electricity Board

¹ Island of Mauritius

Table 3.2 - Plant capacities ¹ (MW), CEB and Private Sector, 1998

Central Electricity Board			Purchases (Private Sector)		
	Plant Capacity	Effective Capacity		Plant Capacity	Effective Capacity
Hydro:			Hydro:		
Champagne	30.00	28.00	Riche en Eau	0.20	0.20
Ferney	10.00	10.00	Bois Cheri	0.10	0.10
Tamarind Falls	11.10	8.00	Total	0.30	0.30
Le Val	4.00	4.00			
Reduit	1.20	1.20			
Cascade Cecile	1.00	1.00	Thermal:		
Magenta	0.94	0.80	F.U.E.L.	36.70	27.00
La Ferme	1.20	1.20	Savannah	15.60	6.00
Total	59.44	54.20	Medine	10.00	8.00
			Belle Vue	0.80	0.80
Thermal:			Constance		
St Louis	71.80	54.00	Britannia	0.60	0.50
Fort Victoria	61.72	45.00	Beau Champ	24.50	22.00
Nicolay	78.00	76.00	Mont Desert Alma	11.60	5.00
Fort George	77.00	77.00	Mon Loisir	1.10	4.50
Total	288.52	252.00	Beau Plan	0.40	0.40
			Riche en Eau	6.50	5.00
			Union St. Aubin	12.70	6.00
			Mont Tresor Mon Desert	11.60	5.00
			Total	132.10	90.20
Total C.E.B.	347.96	306.20	Total Purchases	132.40	90.50
TOTAL CAPACITIES					
1. Central Electricity Board				347.96	306.20
2. Private Sector				132.40	90.50
GRAND TOTAL				480.36	396.70

Source: Central Electricity Board

¹ Island of Mauritius only

Table 3.3 - Electricity production by source of energy, 1990 - 1998

	GWh								
Source of energy	1990	1991	1992	1993	1994	1995	1996	1997	1998
Island of Mauritius									
Primary energy	85.09	75.46	113.06	103.70	75.45	134.42	103.82	92.44	104.17
Hydro	84.92	75.46	113.06	103.70	75.45	134.42	103.82	92.44	104.17
Wind	0.17	-	-	-	-	-	-	-	-
Secondary energy	582.14	661.74	695.60	765.41	869.57	912.95	1,047.16	1,159.31	1,260.62
Gas turbine (kerosene)	36.01	43.79	69.29	39.60	47.60	105.84	219.03	154.21	161.93
Diesel & Fuel oil	448.73	494.35	497.89	614.77	699.34	682.09	699.30	857.10	841.96
Coal*	44.90	53.50	43.10	40.00	46.00	40.90	9.84	23.38	62.39
Bagasse*	52.50	70.10	85.32	71.04	76.63	84.12	119.00	124.61	194.34
Sub total	667.23	737.20	808.66	869.11	945.02	1,047.37	1,150.98	1,251.75	1,364.78
Rodrigues									
Primary energy									
Wind	0.33	0.02	0.17	0.17	0.21	0.04	0.10	0.05	-
Secondary energy									
Diesel & Fuel oil	5.15	6.41	7.88	8.95	9.72	11.94	13.21	15.06	15.45
Sub total	5.47	6.43	8.06	9.12	9.93	11.98	13.31	15.10	15.45
Total	672.70	743.62	816.72	878.23	954.95	1,059.35	1,164.29	1,266.85	1,380.24

* Electricity purchased by C.E.B.

Table 3.4 - Percentage share of electricity production by source of energy, 1990 - 1998

Source of energy	1990	1991	1992	1993	1994	1995	1996	1997	1998
Island of Mauritius									
Primary energy	12.65	10.15	13.84	11.81	7.90	12.69	8.92	7.30	7.55
Hydro	12.62	10.15	13.84	11.81	7.90	12.69	8.92	7.30	7.55
Wind	0.02	-	-	-	-	-	-	-	-
Secondary energy	86.54	88.99	85.17	87.15	91.06	86.18	89.94	91.51	91.33
Gas turbine (kerosene)	5.35	5.89	8.48	4.51	4.98	9.99	18.81	12.17	11.73
Diesel & Fuel oil	66.71	66.48	60.96	70.00	73.23	64.39	60.06	67.66	61.00
Coal*	6.67	7.19	5.28	4.55	4.82	3.86	0.84	1.85	4.52
Bagasse*	7.80	9.43	10.45	8.09	8.02	7.94	10.22	9.84	14.08
Sub total	99.19	99.14	99.01	98.96	98.96	98.87	98.86	98.81	98.88
Rodrigues									
Primary energy									
Wind	0.05	0.00	0.02	0.02	0.02	0.00	0.01	0.00	-
Secondary energy									
Diesel & Fuel oil	0.77	0.86	0.97	1.02	1.02	1.13	1.13	1.19	1.12
Sub total	0.81	0.86	0.99	1.04	1.04	1.13	1.14	1.19	1.12
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

* Electricity purchased by C.E.B.

Table 3.5 - Generation of electricity by CEB and Private Sector, 1990 - 1998

Power station	1990	1991	1992	1993	1994	1995	1996	1997	1998
CEB	574.73	619.47	687.69	766.39	832.10	934.08	1,035.29	1,118.60	1,123.29
<i>Hydro</i>	84.35	74.90	112.45	102.90	75.23	134.17	103.65	92.18	103.95
Champagne	30.31	24.70	44.31	42.73	29.35	53.25	38.01	30.73	32.36
Ferney	24.00	24.73	29.76	29.43	23.08	35.68	28.35	28.83	30.19
Tamarin Falls	18.41	15.17	19.80	21.40	17.39	23.66	20.88	17.65	24.42
Eau Bleue	4.91	4.71	8.27	1.28	0.30	9.36	5.80	5.53	6.33
Reduit	2.09	1.66	3.04	2.96	2.01	4.07	3.15	2.55	1.98
Cascade Cecile	1.49	2.23	3.33	2.16	0.64	3.46	2.76	3.32	3.78
Magenta	2.19	1.56	2.27	2.71	2.11	2.85	2.50	1.93	2.84
La Ferme	0.95	0.14	1.67	0.23	0.35	1.84	2.20	1.63	2.05
<i>Wind</i>	0.49	0.02	0.17	0.17	0.21	0.04	0.10	0.05	-
Grand Bassin	0.17	-	-	-	-	-	-	-	-
Rodrigues	0.33	0.02	0.17	0.17	0.21	0.04	0.10	0.05	-
<i>Thermal</i>	489.89	544.55	575.06	663.32	756.66	799.87	931.54	1,026.37	1,019.35
Fort Georges	-	-	31.13	240.23	275.95	292.07	306.33	477.23	450.10
St Louis	253.54	280.71	258.71	218.31	254.11	246.80	249.45	227.49	236.90
Fort Victoria	195.19	213.64	208.05	156.23	169.28	143.22	143.52	152.38	154.95
Nicolay	36.01	43.79	69.29	39.60	47.60	105.84	219.03	154.21	161.93
Rodrigues	5.15	6.41	7.88	8.95	9.72	11.94	13.21	15.06	15.45
Private Sector	97.97	124.16	129.03	111.84	122.85	125.27	129.00	148.25	256.95
<i>Hydro</i>	0.57	0.56	0.61	0.80	0.22	0.25	0.17	0.25	0.22
Riche en Eau	0.50	0.47	0.52	0.70	0.14	0.11	0.06	0.17	0.13
Bois Cheri	0.07	0.09	0.08	0.10	0.08	0.13	0.11	0.08	0.09
<i>Thermal</i>	97.40	123.60	128.42	111.04	122.63	125.02	128.83	148.00	256.73
F.U.E.L.	63.26	92.30	93.83	80.40	90.32	89.43	88.27	89.44	78.53
Other Sugar Mills	34.14	31.30	34.59	30.64	32.31	35.59	40.56	58.55	178.20
Total	672.70	743.62	816.72	878.23	954.95	1,059.35	1,164.29	1,266.85	1,380.24

GWh

Table 3.7 - Fuel input (tonne) for electricity production, 1990 - 1998

Fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998
Tonne									
Island of Mauritius									
Fuel oil	97,979	108,651	108,096	128,125	147,129	142,886	145,398	160,798	176,006
Diesel oil	1,877	2,049	2,609	2,768	2,844	2,599	2,202	2,299	2,529
Kerosene	11,132	13,558	21,330	12,272	14,789	32,332	65,827	46,993	49,676
Coal	36,289	38,468	33,780	30,853	31,949	30,289	6,557	18,430	45,035
Bagasse*	173,571	179,020	191,070	172,700	184,232	197,389	287,210	300,726	464,773
Rodrigues									
Diesel oil *	1,160	1,440	1,775	2,010	2,190	2,685	2,230	1,130	1,223
Fuel oil *	-	-	-	-	-	-	611	1,860	2,726

* Estimates

Table 3.8 - Fuel input (ktoe) for electricity production, 1990 - 1998

Fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998
ktoe									
Island of Mauritius									
Fuel oil	94.06	104.30	103.77	123.00	141.24	137.17	139.58	154.37	168.97
Diesel oil	1.90	2.07	2.64	2.80	2.87	2.62	2.22	2.32	2.55
Kerosene	11.58	14.10	22.18	12.76	15.38	33.63	68.46	48.87	51.66
Coal	22.50	23.85	20.94	19.13	19.81	18.78	4.07	11.43	27.92
Bagasse *	27.77	28.64	30.57	27.63	29.48	31.58	45.95	48.12	74.36
Sub total	157.80	172.97	180.11	185.32	208.78	223.78	260.28	265.10	325.47
Rodrigues									
Diesel oil *	1.17	1.45	1.79	2.03	2.21	2.71	2.25	1.14	1.24
Fuel oil *	-	-	-	-	-	-	0.59	1.79	2.62
Sub total	1.17	1.45	1.79	2.03	2.21	2.71	2.84	2.93	3.85
Total	158.98	174.42	181.90	187.35	210.99	226.49	263.12	268.03	329.32

* Estimates

Table 3.9 - Percentage share of fuel input (ktoe) for electricity production, 1990 - 1998

Fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998
Island of Mauritius									
Fuel oil	59.17	59.80	57.05	65.65	66.94	60.56	53.05	57.59	51.31
Diesel oil	1.19	1.19	1.45	1.49	1.36	1.16	0.85	0.87	0.78
Kerosene	7.28	8.08	12.20	6.81	7.29	14.85	26.02	18.23	15.69
Coal	14.15	13.67	11.51	10.21	9.39	8.29	1.54	4.26	8.48
Bagasse *	17.47	16.42	16.81	14.75	13.97	13.94	17.46	17.95	22.58
Sub total	99.26	99.17	99.01	98.92	98.95	98.80	98.92	98.91	98.83
Rodrigues									
Diesel oil *	0.74	0.83	0.99	1.08	1.05	1.20	0.86	0.43	0.38
Fuel oil *	-	-	-	-	-	-	0.22	0.67	0.79
Sub total	0.74	0.83	0.99	1.08	1.05	1.20	1.08	1.09	1.17
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

* Estimates

SECTION V

Final energy consumption

Table 4.1 - Final energy consumption by sector (Energy unit - ktoe), 1990 - 1998

Sector	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Manufacturing	325.44	324.72	345.65	348.59	331.81	373.46	367.53	396.45	386.72
1.1 excluding bagasse	101.05	106.44	116.14	126.26	133.43	142.67	158.27	166.01	178.37
1.2 bagasse	224.39	218.28	229.51	222.33	198.39	230.79	209.26	230.44	208.36
2. Transport	215.75	220.29	249.33	256.38	269.73	268.77	285.46	291.37	308.92
3. Residential	99.19	97.79	99.08	109.24	110.27	119.15	125.80	133.24	141.99
4. Commercial and Distributive Trade	30.70	36.10	40.61	44.96	49.78	54.51	59.63	67.33	74.82
5. Agriculture	4.42	4.65	5.07	4.94	5.91	5.73	6.77	6.64	7.81
6. Other (n.e.s) and losses	22.56	24.26	28.64	26.47	28.08	30.61	35.92	37.82	39.85
TOTAL	698.07	707.82	768.37	790.57	795.58	852.22	881.12	932.84	960.12

Table 4.2 - Percentage share of final energy consumption (ktoe) by sector, 1990 - 1998

Sector	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Manufacturing	46.6	45.9	45.0	44.1	41.7	43.8	41.7	42.5	40.3
1.1 excluding bagasse	14.5	15.0	15.1	16.0	16.8	16.7	18.0	17.8	18.6
1.2 bagasse	32.1	30.8	29.9	28.1	24.9	27.1	23.7	24.7	21.7
2. Transport	30.9	31.1	32.4	32.4	33.9	31.5	32.4	31.2	32.2
3. Residential	14.2	13.8	12.9	13.8	13.9	14.0	14.3	14.3	14.8
4. Commercial and Distributive Trade	4.4	5.1	5.3	5.7	6.3	6.4	6.8	7.2	7.8
5. Agriculture	0.6	0.7	0.7	0.6	0.7	0.7	0.8	0.7	0.8
6. Other (n.e.s) and losses	3.2	3.4	3.7	3.3	3.5	3.6	4.1	4.1	4.2
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Fig. 4.1 - Final energy consumption by sector, 1990 - 1998

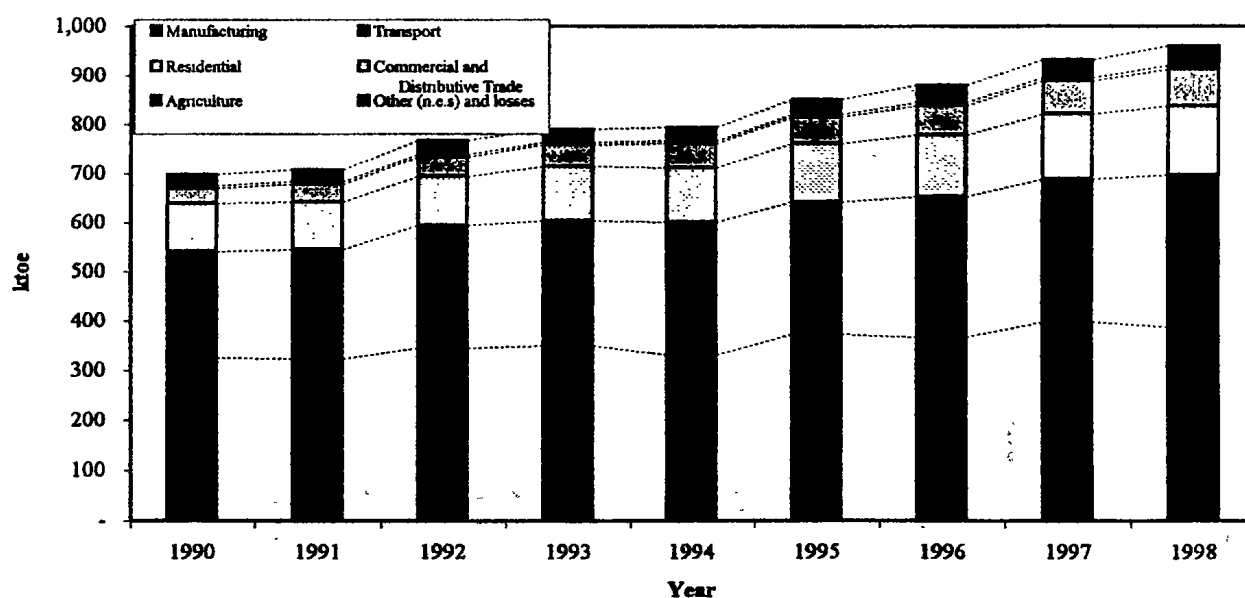


Table 4.3 - Final energy consumption (Physical unit) by sector and type of fuel, 1990 - 1998

Sector	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Manufacturing										
1.1 excluding bagasse										
Fuel oil	tonne	21,364	23,687	26,909	29,362	31,814	34,203	36,590	39,518	42,774
Diesel oil	tonne	12,000	13,500	15,000	16,459	18,373	17,255	23,367	26,622	30,233
LPG	tonne	500	1,300	1,800	2,200	2,470	2,550	2,761	3,179	3,276
Coal	tonne	20,000	21,500	27,000	31,593	30,647	32,797	33,727	27,242	25,713
Fuel wood ¹	tonne	22,995	11,267	7,070	7,142	4,382	3,900	3,400	2,500	2,000
Electricity ²	GWh	212.46	232.06	244.49	258.07	277.25	308.37	338.00	363.23	393.32
1.2 bagasse	tonne	1,402,421	1,364,253	1,434,409	1,389,567	1,239,912	1,442,421	1,307,894	1,440,250	1,302,219
2. Transport										
Gasolene	tonne	59,199	61,453	67,848	72,308	79,595	83,958	87,387	87,671	88,592
Diesel oil	tonne	75,950	80,165	86,319	94,092	99,202	101,876	106,224	113,361	118,934
Aviation fuel (local aircraft)	tonne	72,221	70,153	85,454	80,052	80,363	72,305	80,569	79,025	89,537
3. Residential										
Kerosene	tonne	15,472	14,082	12,296	11,699	10,793	10,590	10,504	9,533	9,472
LPG	tonne	20,547	22,500	25,000	27,458	27,550	28,600	30,437	32,313	33,124
Fuel wood ¹	tonne	42,705	26,291	16,498	16,664	10,226	9,100	8,600	8,000	8,000
Charcoal ¹	tonne	1,250	1,200	1,100	1,000	500	400	300	200	200
Electricity ²	GWh	198.90	218.05	237.30	274.29	295.63	334.05	356.90	387.44	423.55
4. Commercial and Distributive Trade										
LPG	tonne	1,500	2,100	2,500	3,264	3,281	3,150	3,356	3,650	4,044
Charcoal ¹	tonne	1,750	1,400	1,200	1,000	1,000	800	500	300	300
Electricity ²	GWh	126.31	149.05	168.28	184.96	206.78	229.62	252.90	287.12	319.24
5. Agriculture										
Diesel oil ¹	tonne	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200
Electricity ²	GWh	13.67	14.25	15.69	14.63	18.59	17.31	21.60	20.53	25.39

¹ Estimates² Island of Mauritius only

Table 4.4 - Final energy consumption (Energy unit - ktoe) by sector and type of fuel, 1990 - 1998

Sector	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. Manufacturing	325.44	324.72	345.65	348.59	331.81	373.46	367.53	396.45	386.72
1.1 excluding bagasse	101.05	106.44	116.14	126.26	133.43	142.67	158.27	166.01	178.37
Fuel oil	20.51	22.74	25.83	28.19	30.54	32.83	35.13	37.94	41.06
Diesel oil	12.12	13.64	15.15	16.62	18.56	17.43	23.60	26.89	30.54
LPG	0.54	1.40	1.94	2.38	2.67	2.75	2.98	3.43	3.54
Coal	12.40	13.33	16.74	19.59	19.00	20.33	20.91	16.89	15.94
Fuel wood ¹	8.74	4.28	2.69	2.71	1.67	1.48	1.29	0.95	0.76
Electricity ²	46.74	51.05	53.79	56.78	61.00	67.84	74.36	79.91	86.53
1.2 bagasse	224.39	218.28	229.51	222.33	198.39	230.79	209.26	230.44	208.36
2. Transport	215.75	220.29	249.33	256.38	269.73	268.77	285.46	291.37	308.92
Gasolene	63.93	66.37	73.28	78.09	85.96	90.67	94.38	94.68	95.68
Diesel oil	76.71	80.97	87.18	95.03	100.19	102.89	107.29	114.49	120.12
Aviation Fuel	75.11	72.96	88.87	83.25	83.58	75.20	83.79	82.19	93.12
3. Residential	99.19	97.79	99.08	109.24	110.27	119.15	125.80	133.24	141.99
Kerosene	16.09	14.65	12.79	12.17	11.22	11.01	10.92	9.91	9.85
LPG	22.19	24.30	27.00	29.65	29.75	30.89	32.87	34.90	35.77
Fuel wood ¹	16.23	9.99	6.27	6.33	3.89	3.46	3.27	3.04	3.04
Charcoal ¹	0.93	0.89	0.81	0.74	0.37	0.30	0.22	0.15	0.15
Electricity ²	43.76	47.97	52.21	60.34	65.04	73.49	78.52	85.24	93.18
4. Commercial and Distributive Trade	30.70	36.10	40.61	44.96	49.78	54.51	59.63	67.33	74.82
LPG	1.62	2.27	2.70	3.53	3.54	3.40	3.62	3.94	4.37
Charcoal ¹	1.30	1.04	0.89	0.74	0.74	0.59	0.37	0.22	0.22
Electricity ²	27.79	32.79	37.02	40.69	45.49	50.52	55.64	63.17	70.23
5. Agriculture	4.42	4.65	5.07	4.94	5.91	5.73	6.77	6.64	7.81
Diesel oil ¹	1.41	1.52	1.62	1.72	1.82	1.92	2.02	2.12	2.22
Electricity ²	3.01	3.14	3.45	3.22	4.09	3.81	4.75	4.52	5.59
6. Other (n.e.s) and losses	22.56	24.26	28.64	26.47	28.08	30.61	35.92	37.82	39.85
TOTAL	698.07	707.82	768.37	790.57	795.58	852.22	881.12	932.84	960.12

¹ Estimates² Island of Mauritius only

Table 4.6 - Number of electricity consumers, 1990 - 1998

Category of consumer	Number								
	1990	1991	1992	1993	1994	1995	1996	1997	1998
Domestic	196,312	203,741	211,655	220,309	225,450	237,209	245,769	253,518	261,971
Commercial	17,603	18,510	19,400	20,503	21,356	22,924	23,631	24,216	24,914
Industrial	4,958	5,252	5,550	5,803	6,038	6,404	6,539	6,596	6,751
<i>General</i>	4,835	5,122	5,361	5,592	5,807	6,163	6,269	6,308	6,342
<i>Irrigation</i>	123	130	189	211	231	241	270	288	409
Other	194	196	197	200	222	230	239	246	251
Total (I. of Mauritius)	219,067	227,699	236,802	246,815	253,066	266,767	276,178	284,576	293,887
Total (Rodrigues)	6,157	6,476	7,097	7,393	7,692	7,905	8,279	8,605	8,812

Table 4.7 - Electricity sales, 1990 - 1998

Sector	GWh								
	1990	1991	1992	1993	1994	1995	1996	1997	1998
Domestic	198.9	220.4	249.3	274.3	295.6	334.1	356.9	387.4	423.5
Commercial	126.4	149.4	168.3	185.0	206.8	229.6	252.9	287.1	319.2
Industrial	226.2	246.4	260.2	272.7	295.8	325.7	359.6	383.8	418.7
<i>General</i>	212.5	232.2	244.5	258.1	277.2	308.4	338.0	363.2	393.3
<i>Irrigation</i>	13.7	14.2	15.7	14.6	18.6	17.3	21.6	20.5	25.4
Other	7.6	8.5	10.3	10.9	11.8	14.6	15.6	16.8	17.3
Total (I. of Mauritius)	559.1	624.7	688.1	742.9	810.0	904.0	985.0	1,075.1	1,178.8
Total (Rodrigues)	5.0	5.3	6.3	7.6	8.6	9.9	11.0	12.2	13.9

Table 4.8 - Average sales price ¹ of electricity (Rs./kWh) by category, 1990 - 1998

Category of consumer	1990	1991	1992	1993	1994	1995	1996	1997	1998
Domestic	1.61	1.87	1.98	2.16	2.17	2.19	2.18	2.19	2.21
Commercial	1.94	2.31	2.43	2.63	2.62	2.63	2.61	2.65	2.51
Industrial:									
General	1.64	1.80	1.85	1.91	1.90	1.87	1.83	1.87	1.75
Irrigation	1.05	1.30	1.32	1.36	1.35	1.36	1.35	1.40	1.69
Other	2.84	3.06	3.14	3.03	3.00	3.00	3.48	3.02	2.58
Average	1.71	1.95	2.05	2.19	2.19	2.18	2.17	2.20	2.18

¹ Island of Mauritius