## **ENERGY AND WATER STATISTICS – 2005**

### Introduction

This issue of the Economic and Social Indicators on Energy and Water Statistics contains data for the years 2004 and 2005. These statistics have been compiled in close collaboration with the Ministry of Public Utilities, the Central Electricity Board, the Central Water Authority, the petroleum companies, the Independent Power Producers and the Meteorological Services. All data refer to the Republic of Mauritius, unless stated otherwise.

## 2. Energy

# 2.1 The energy balance

The energy balance (Tables 1 & 2) shows the supply and final uses of electricity and the different types of fuel. Total primary energy requirement is obtained as the sum of the indigenous production (hydro, fuelwood and bagasse) and imports less re-exports and bunkering, after stock adjustments. 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 agriculture.

In order to compare the energy content of the different fuels, a common accounting unit, namely, tonne of oil equivalent (toe) is used. The conversion factors are given on page 7.

#### 2.2 Total primary energy requirement

During the year 2005, the total primary energy requirement increased by 3.0%, from 1,256 ktoe to 1,293 ktoe (Table 3).

The total primary energy requirement of the country was derived from imported fuels (79.7%) and locally available sources (20.3%). In 2005, imported petroleum products represented 805 ktoe, the main components of which being fuel oil (31.5%), diesel (26.6%), aviation fuel (17.8%) and gasolene (12.4%). The share of imported coal accounted for 226 ktoe which showed a 26.3% increase when compared to 179 ktoe in 2004. This high increase of coal in the primary energy requirements was partly due to the coming into operation in 2005 of a new Independent Power Producer, the Centrale Thermique du Sud Ltd which generates electricity only from coal.

The indigenous production was mainly derived from bagasse (93.3%), hydro electricity (3.8%) and fuelwood (2.9%).

The total primary energy requirement index, expressed with 1990 as reference year (1990 = 100), increased by 5.2 points or 3.0% from 171.8 in 2004 to 177.0 in 2005. Per capita primary energy requirement increased by 2.0% from 1.02 toe to 1.04 toe (Table 16).

Energy intensity defined as total primary energy requirement (toe) per Rs 100,000 of GDP (in 1990 rupees) provides a measure of the efficiency with which energy is being used in production. A higher ratio indicates a less efficient use of energy. As shown in Table 16, energy intensity, which stood at 1.59 in 2004, rose to 1.60 in 2005.

### 2.2.1 Local production

Total energy production from local sources decreased by 4.7% from 276 ktoe in 2004 to 263 ktoe in 2005. Production of hydroelectricty went down from 10.6 ktoe to 9.9 ktoe while, in terms of energy content, production of bagasse decreased from 258 ktoe to 245 ktoe (Table 3).

#### 2.2.2 Imports of energy sources

Data on imports of energy sources show that some 1,304 ktoe of petroleum products and coal were imported in 2005 compared to 1,226 ktoe in 2004, representing an increase of 6.4%. Petroleum products increased from 1,020 ktoe to 1,069 ktoe (+4.8%) and coal from 206 ktoe to 235 ktoe (+14.1%). As a result of higher prices of petroleum products and coal, the import bill was 54% higher in 2005, Rs 14,922 million against Rs 9,685 million in 2004 (Table 4).

#### 2.2.3 Re-exports and bunkering

Of the 1,304 ktoe of imported energy sources, about 290 ktoe (22.2%) were supplied to foreign vessels and aircraft. Re-exports consisted of 137 ktoe of diesel oil, 101 ktoe of aviation fuel and 53 ktoe of fuel oil (Table 5).

#### 2.3 Electricity generation

Some 2,272 GWh (195 ktoe) of electricity was generated in 2005 as compared to 2,165 GWh (186 ktoe) in 2004, representing an increase of 4.9%. The Central Electricity Board (CEB) generated 53.2% and Independent Power Producers, 46.8%. Thermal energy represented 94.9% and hydro, the remaining 5.1%. The peak demand in 2005 reached 353.1 MW (Tables 6, 7 and 8).

## 2.3.1 Fuel input for electricity generation

The different types of fuel used for electricity generation are shown in Table 9. Fuel input increased by 6.5%, from 572 ktoe in 2004 to 609 ktoe in 2005. The major components of the fuel input were coal (34.7%), fuel oil (34.2%) and bagasse (27.7%).

## 2.3.2 Electricity sales

Electricity sales increased by 4.3% from 1,704 GWh in 2004 to 1,777 GWh in 2005. The average sales price of electricity increased from Rs 3.14 per KWh to Rs 3.23 per KWh during the same period (Table 10).

The consumption of electricity per capita per annum stood at 1,429 kWh in 2005 compared to 1,382 kWh in 2004 (Table 16).

#### 2.4 Final energy consumption

Final energy consumption increased by 1.0% from 838 ktoe in 2004 to 846 ktoe in 2005. "Transport" and "Manufacturing" were the two largest energy-consuming sectors accounting for 49.5% and 29.4% respectively. They were followed by "Households" (13.6%), "Commercial and Distributive Trade" (6.6%) and Agriculture (0.6%). The details on the different types of fuel consumed by each sector and the respective amounts are given in Table 11.

## 2.4.1 Manufacturing

Energy used for manufacturing process went down by 3.9% from 259 ktoe in 2004 to 249 ktoe in 2005. The contribution of bagasse was 76 ktoe, electricity, 67 ktoe, fuel oil, 45 ktoe and diesel oil, 42 ktoe.

#### 2.4.2 Transport

In 2005, some 419 ktoe of energy were used for transportation, representing a rise of 2.4% over last year. Consumption of gasolene increased from 98 ktoe to 100 ktoe (+2.0%) and that of diesel oil from 166 ktoe to 168 ktoe (+1.2%). Consumption of aviation fuel remained at 143 ktoe. It should be noted that the use of LPG in the transport sector has increased considerably, more than twofold, from 2.9 ktoe in 2004 to 7.3 ktoe in 2005.

#### 2.4.3 Households

Energy consumed by households increased by 3.6% to reach 115 ktoe in 2005. The two main sources of energy for households were electricity and LPG, representing 45.3% and 40.4% respectively of total energy consumption by households. Consumption of electricity increased by 5.7% whilst that of LPG by 0.9%.

#### 2.4.4 Commercial and Distributive Trade

Total energy consumption by "Commercial and Distributive Trade" sector rose by 9.8%, from 51 ktoe in 2004 to 56 ktoe in 2005. Electricity was the main source of energy and its consumption increased from 44 ktoe to 48 ktoe (+9.1%).

# 2.4.5 Agriculture

Electricity and diesel were the only two sources of energy used in agriculture. In 2005, about 2.3 ktoe of electricity were used for irrigation and 2.4 ktoe of diesel oil were used for derocking of land and for the preparation of soil prior to plantation.

#### 3 Water

## 3.1 Rainfall

Table 12 shows the amount of rainfall recorded around the islands of Mauritius and Rodrigues. During the year 2005, the mean amount of rainfall recorded around the island of Mauritius was 2,372 millimetres, a 4.5% increase compared to 2,270 millimetres in 2004. The mean rainfall was highest during the month of March with 727 mm and the driest month, November, registered only 48 mm of rainfall.

In Rodrigues, the mean rainfall registered was 1,275 millimetres at Pointe Canon and 1,126 millimetres at Plaine Corail.

#### 3.2 Water storage level

In 2005, due to the abundant rainfall, the water storage level of all the reservoirs remained above normal, except for La Nicoliere. During the same period the mean water level for all the reservoirs combined together (excluding Midlands Dam) was above normal for nine months of the year (Table 13). It is to be noted that the mean water level is computed as the average level during a month, and the normal is the long term mean level for 1990 to 1999.

# 3.3 Water production

In 2005 the total volume of potable water treated by the different treatment plants amounted to 195 million cubic metres (Mm<sup>3</sup>), a 5.4% increase compared to 185 Mm<sup>3</sup> in 2004. During the same year, average water production from surface and ground water represented 48.2% and 51.8% respectively (Table 14).

#### 3.4 Water sales and revenue collectible

Total volume of water sold increased from  $102~\mathrm{Mm^3}$  in  $2004~\mathrm{to}~108~\mathrm{Mm^3}$  in  $2005~\mathrm{(+5.9\%)}$ . In 2005, potable water made up 86.9% of the volume sold and the remaining 13.1% consisted of non-treated water. Water for domestic consumption amounted to  $73~\mathrm{Mm^3}$ , accounting for nearly 67.8% of the water sales.

The amount of revenue collectible for the year 2005 amounted to Rs 934.5 million, that is an increase of 4.1% over the amount of Rs 897.5 million for 2004 (Table 15).

#### **Central Statistics Office**

Ministry of Finance and Economic Development Port Louis June 2006

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# **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).

	<b>Tonne</b>	<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>
Hydro/Wind	1	86
Electricity	1	86

1 toe = 41.84 gigajoule (net calorific value)

# **SYMBOLS**

The following technical abbreviations have been used throughout the report.

	C
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
$Mm^3$	Millimetres
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# **ACRONYMS**

CEB	Central Electricity Board
IPP	Independent Power Producers
GDP	Gross Domestic Product

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Table 1 - Energy balance, 2005

Tonne of oil equivalent (toe)

												10	onne of oil equ	iivalent (toe)
Source	Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuelwood	Charcoal	Hydro	Wind	Bagasse	Electricity	Total
Local production	-	-	-	-	-	-	-	7,592	-	9,880	38	245,110	-	262,621
Imports	235,143	93,700	333,221	228,878	29,015	316,718	67,730	-	-	-	-	-	-	1,304,405
Re-exports and bunkering	-	-	(136,792)	(100,745)	-	(52,558)	-	-	-	-	-	-	-	(290,095)
Stock change / Statistical error	(9,564)	6,387	17,801	14,929	(419)	(10,897)	(2,008)	-	-	-	-	-	-	16,230
Total Primary Energy Reruirement	225,579	100,087	214,230	143,062	28,596	253,263	65,722	7,592	-	9,880	38	245,110	-	1,293,160
Public electricity generation plant	-	-	(2,148)	-	(18,441)	(208,371)	-	-	-	(9,880)	(38)	-	104,021	(134,856)
Autoproducer plants	(211,219)	-	-	-	-	-	-	-	-	-	-	(168,919)	91,384	(288,753)
Other transformation	-	-	-	-	-	-	-	(775)	377	-	-	-	-	(398)
Own use	-	-	-	-	-	-	-	-	-	-	-	-	(4,035)	(4,035)
Losses	-	-	-	-	-	-	-	-	-	-	-	-	(19,038)	(19,038)
Total Final Consumption	14,360	100,087	212,082	143,062	10,156	44,892	65,722	6,817	377	-	-	76,192	172,332	846,080
Manufacturing sector	14,360	-	41,538	-	-	44,892	4,216	532	-	-	-	76,192	66,856	248,588
Transport sector	-	100,087	168,175	143,062	-	-	7,264	-	-	-	-	-	-	418,588
Commercial and distributive trade sector	-	-	-	-	-	-	7,544	-	281	-	-	-	47,846	55,671
Household	-	-	-	-	10,156	-	46,662	6,285	96	-	-	-	52,252	115,452
Agriculture	-	-	2,368	-	-	-	-	-	-	-	-	-	2,328	4,697
Other	-	-	-	-	-	-	36	-	-	-	-	-	3,049	3,085

Note: figures in brackets represent negative quantities

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Table 2 - Energy balance, 2004

Tonne of oil equival									nivalent (toe)					
Source	Coal	Gasolene	Diesel	Aviation Fuel	Kerosene	Fuel Oil	LPG	Fuelwood	Charcoal	Hydro	Wind	Bagasse	Electricity	Total
Local production	-	-	-	-	-	-	-	7,325	-	10,516	37	257,792	-	275,670
Imports	205,732	94,722	322,929	236,074	31,041	277,265	58,082	-	-	-	-	-	-	1,225,847
Re-exports and bunkering	-	-	(106,250)	(91,920)	-	(38,483)	-	-	-	-	-	-	-	(236,653)
Stock change / Statistical error	(26,336)	2,856	(706)	(1,672)	(4,748)	20,344	1,157	-	-	-	-	-	-	(9,107)
Total Primary Energy Requirement	179,396	97,578	215,973	142,482	26,293	259,127	59,239	7,325	-	10,516	37	257,792	-	1,255,757
Public electricity generation plant	-	-	(4,008)	-	(17,218)	(211,264)	-	-	-	(10,514)	(37)	-	105,374	(137,666)
Autoproducer plants	(164,379)	-	-	-	-	-	-	-	-	(2)	-	(174,852)	80,835	(258,398)
Other transformation	-	-	-	-	-	-	-	(730)	355	-	-	-	-	(374)
Own use	-	-	-	-	-	-	-	-	-	-	-	-	(4,233)	(4,233)
Distribution losses	-	-	-	-	-	-	-	-	-	-	-	-	(16,962)	(16,962)
Total Final Consumption	15,016	97,578	211,966	142,482	9,075	47,863	59,239	6,595	355	-	-	82,941	165,014	838,123
Manufacturing sector	15,016	-	43,806	-	-	47,863	2,976	538	-	-	-	82,941	66,125	259,265
Transport sector	-	97,578	165,761	142,482	-	-	2,906	-	-	-	-	-	-	408,728
Commercial and distributive trade sector	-	-	-	-	-	-	6,882	-	266	-	-	-	44,395	51,544
Household	-	-	-	-	9,075	-	46,284	6,057	89	-	-	-	49,451	110,957
Agriculture	-	-	2,399	-	-	-	-	-	-	-	-	-	2,046	4,445
Other	-	-	-	-	-	-	190	-	-	-	-	-	2,996	3,186

Note: figures in brackets represent negative quantities

Table 3 - Primary energy requirement, 2004 - 2005

Energy govern		2004			2005	
Energy source	Tonne/GWh	Ktoe	%	Tonne/GWh	Ktoe	%
Imported						
Gasolene	90,350	97.6	7.8	92,673	100.1	7.7
Diesel Oil	213,835	216.0	17.2	212,109	214.2	16.6
Dual Purpose Kerosene	162,283	168.8	13.4	165,056	171.7	13.3
Kerosene	25,281	26.3	2.1	27,496	28.6	2.2
Aviation Fuel	137,002	142.5	11.3	137,560	143.1	11.1
Fuel Oil	269,924	259.1	20.6	263,816	253.3	19.6
LPG	54,851	59.2	4.7	60,854	65.7	5.1
Sub total (petroleum products)		800.7	63.8		805.0	62.2
Coal	289,348	179.4	14.3	363,837	225.6	17.4
Sub total (Imported)		980.1	78.0		1,030.5	79.7
Local						
Electricity (hydro) GWh	122	10.6	0.8	115	9.9	0.8
Bagasse *	1,611,202	257.8	20.5	1,531,940	245.1	19.0
Fuelwood *	19,275	7.3	0.6	19,980	7.6	0.6
Sub total (Local)		275.7	22.0		262.6	20.3
Total		1,255.8	100.0		1,293.2	100.0

<sup>\*</sup> estimates

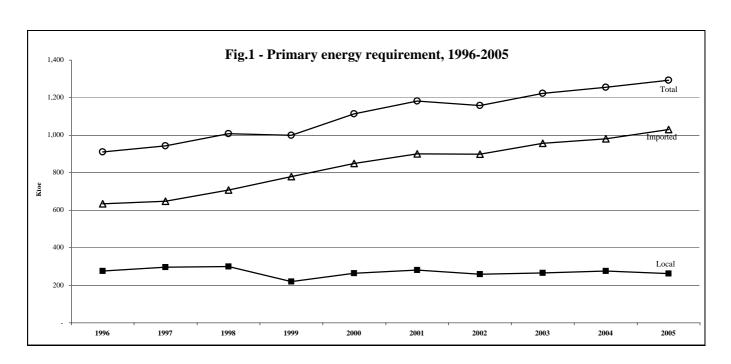


Table 4 - Imports of energy sources, 2004-2005

		200	04			20	05	
Energy source	Tonne (000)	Ktoe	%	C.I.F value (Rs million)	Tonne (000)	Ktoe	%	C.I.F value (Rs million)
Gasolene	87.7	94.7	7.7	1,030.6	86.8	93.7	7.2	1,452.8
Diesel Oil	319.7	322.9	26.3	3,101.5	329.9	333.2	25.5	4,833.4
Dual Purpose Kerosene	256.8	267.1	21.8	2,772.7	248.0	257.9	19.8	4,078.4
Kerosene	29.9	31.0	2.5	321.4	27.9	29.0	2.2	456.8
Aviation Fuel	227.0	236.0	19.3	2,451.3	220.1	228.9	17.5	3,621.6
Fuel Oil	288.8	277.3	22.6	1,621.6	329.9	316.7	24.3	2,743.3
LPG	53.8	58.1	4.7	639.4	62.7	67.7	5.2	1,047.4
Sub total (petroleum products)		1,020.1	83.2	9,165.9		1,069.3	82.0	14,155.2
Coal	331.8	205.7	16.8	519.7	379.3	235.1	18.0	766.7
Total imports		1,225.9	100.0	9,685.5		1,304.4	100.0	14,921.9

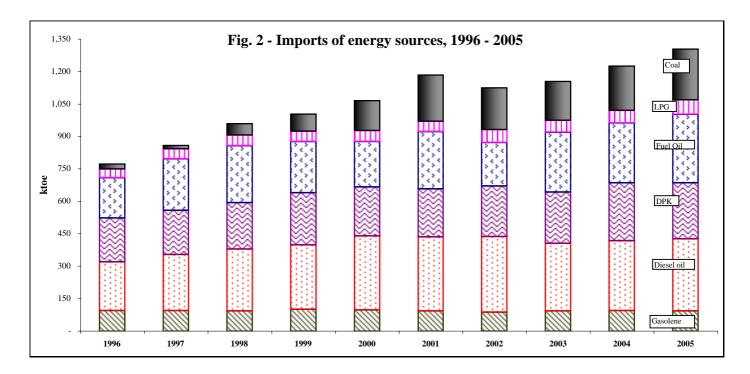


Table 5 - Re-exports of energy sources to foreign aircraft and bunkers, 2004-2005

Energy Re-exported		2004		2005			
Energy Re-exported	Tonne	Ktoe	%	Tonne	Ktoe	%	
Aviation fuel to foreign aircraft	88,385	91.9	38.8	96,870	100.7	34.7	
Diesel oil	105,198	106.3	44.9	135,438	136.8	47.2	
Fuel oil	40,086	38.5	16.3	54,748	52.6	18.1	
Total		236.7	100.0		290.1	100.0	

Table 6 - Evolution of plant capacities, peak demand and electricity generation, 2004-2005

	Installed	Effective	Peak	F	lectricity g	generated (C	GWh)
Year	capacity (MW)	capacity (MW)	demand (MW)	Hydro	Wind	Thermal	Total
2004	654.5	558.9	332.6	122.3	0.4	2,042.5	2,165.2
2005	688.8	587.3	353.1	114.9	0.4	2,156.8	2,272.1

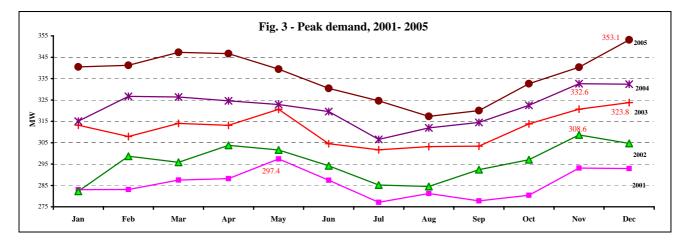


Table 7 - Electricity production by source of energy, 2004-2005

Source of opensy	2	004	20	05
Source of energy	GWh	%	GWh	%
Primary energy	122.7	5.6	115.3	5.1
Hydro	122.3	5.6	114.9	5.1
Wind	0.4	0.0	0.4	0.0
Secondary energy	2,042.5	94.3	2,156.8	94.9
Gas turbine (kerosene)	44.3	2.0	56.2	2.5
Diesel & Fuel oil	1,058.3	48.9	1,038.0	45.7
Coal	470.3	21.7	609.7	26.8
Bagasse	469.6	21.7	452.9	19.9
Total	2,165.2	100.0	2,272.1	100.0

Table 8 - Generation of electricity by CEB and IPP, 2004 - 2005

Power producer	20	004	20	005
1 ower producer	GWh	%	GWh	%
CEB	1,225.3	56.6	1,209.5	53.2
Island of Mauritius	1,198.1	55.3	1,179.5	51.9
Hydro	122.3	5.6	114.9	5.1
Thermal	1,075.8	49.7	1,064.6	46.9
Island of Rodrigues(Thermal)	27.2	1.3	30.0	1.3
Wind	0.4	0.0	0.4	0.0
Thermal	26.8	1.2	29.6	1.3
IPP	939.9	43.4	1,062.6	46.8
Total hydro	0.0	0.0	0.0	0.0
of which: exported to CEB	0.0	0.0	0.0	0.0
Total thermal	939.9	43.4	1,062.6	46.8
of which: exported to CEB	725.1	33.5	835.4	36.8
Total	2,165.2	100.0	2,272.2	100.0
Island of Mauritius				
CEB	1,198.1	62.3	1179.5	58.5
IPP export to CEB	725.1	37.7	835.4	41.5
Total units generated for sales	1,923.2	100.0	2,014.9	100.0

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

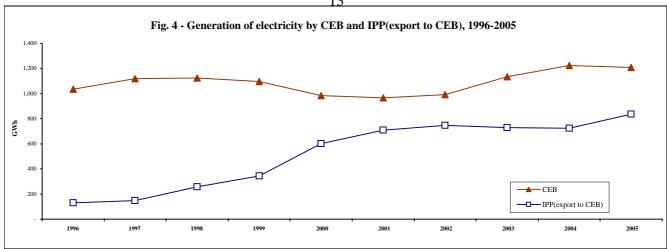


Table 9 - Fuel input for electricity production, 2004 - 2005

Fuel		2004			2005			
ruei	Tonne	Ktoe	%	Tonne	Ktoe	%		
Fuel oil	220,067	211.3	37.0	217,053	208.4	34.2		
Diesel oil	3,968	4.0	0.7	2,127	2.1	0.4		
Kerosene	16,555	17.2	3.0	17,731	18.4	3.0		
Coal	265,128	164.4	28.8	340,675	211.2	34.7		
Bagasse	1,092,823	174.9	30.6	1,055,742	168.9	27.7		
Total		571.7	100.0		609.1	100.0		

Source: Central Electricity Board and Annual Sugar Industry Energy Survey

Table 10 - Sales of electricity by type of tariff, 2004 - 2005

		2004		2005						
Type of tariff	No. of consumers	Consumption (MWh)	Average sales price <sup>1</sup> per KWh (Rupees)	No. of consumers	Consumption (MWh)	Average sales price <sup>1</sup> per KWh (Rupees)				
Domestic	319,425	575,012	3.23	328,726	607,584	3.33				
Commercial	30,541	516,226	4.05	31,891	556,348	4.14				
Industrial	7,205	577,866	2.17	7,316	577,228	2.19				
of which: irrigation	428	23,790	1.67	428	27,073	1.72				
Other	335	34,842	4.35	338	35,437	4.48				
Total	357,506	1,703,946	3.14	368,271	1,776,596	3.23				

1 Excluding VAT & meter rent

Source: Central Electricity Board (CEB)

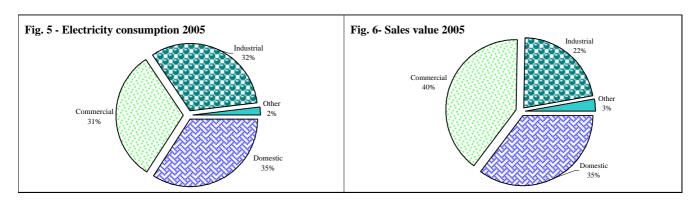


Table 11 - Final energy consumption by sector and type of fuel, 2004 - 2005

	α .		2004			2005	
	Sector	Tonne/GWh	Ktoe	%	Tonne/GWh	Ktoe	<b>%</b>
1.	Manufacturing		259.3	30.9		248.6	29.4
	1.1 excluding bagasse		176.3	21.0		172.4	20.4
	Fuel oil	49,857	47.9	5.7	46,763	44.9	5.3
	Diesel oil	43,372	43.8	5.2	41,127	41.5	4.9
	LPG	2,756	3.0	0.4	3,904	4.2	0.5
	Coal	24,220	15.0	1.8	23,162	14.4	1.7
	Fuel wood 1	1,415	0.5	0.1	1,400	0.5	0.1
	Electricity ( GWh)	768.9	66.1	7.9	777.4	66.9	7.9
	1.2 bagasse	518,379	82.9	9.9	476,198	76.2	9.0
2.	Transport		408.7	48.8		418.6	49.5
	Gasolene	90,350	97.6	11.6	92,673	100.1	11.8
	LPG	2,691	2.9	0.3	6,726	7.3	0.9
	Diesel oil	164,120	165.8	19.8	166,510	168.2	19.9
	Aviation Fuel	137,002	142.5	17.0	137,560	143.1	16.9
4.	Commercial and Distributive Trade		51.5	6.1		55.7	6.6
	LPG	6,372	6.9	0.8	6,985	7.5	0.9
	Charcoal 1	360	0.3	0.0	380	0.3	0.0
	Electricity ( GWh)	516.2	44.4	5.3	556.3	47.8	5.7
3.	Household		111.0	13.2		115.5	13.6
	Kerosene	8,726	9.1	1.1	9,765	10.2	1.2
	LPG	42,856	46.3	5.5	43,206	46.7	5.5
	Fuelwood <sup>1</sup>	15,940	6.1	0.7	16,540	6.3	0.7
	Charcoal 1	120	0.1	0.0	130	0.1	0.0
	Electricity ( GWh)	575.0	49.5	5.9	607.6	52.3	6.2
5.	Agriculture		4.4	0.5		4.7	0.6
	Diesel oil <sup>1</sup>	2,375	2.4	0.3	2,345	2.4	0.3
	Electricity ( GWh)	23.8	2.1	0.2	27.1	2.3	0.3
6.	Other (n.e.s)		3.2	0.4		3.1	0.4
	TOTAL		838.1	100.0		846.1	100.0

1 Estimates

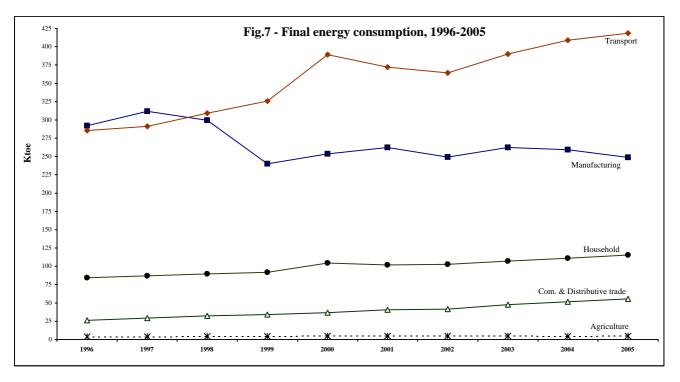


Table 12 - Mean rainfall 2004 & 2005

/	Иi	• • • • • • • • • • • • • • • • • • • •	7 3	22	ot	100

						T +										T +	1								es 
	Long Term	200	-	20		Long Term	200		20		Long Term	20	-	20		Long Term	20	004	200	)5	Long Term	200	04	20	05
Period	Mean (1971-	Mean	% of Long	Mean	% of Long	Mean (1971-	Mean	% of Long	Mean	% of Long	Mean (1971-	Mean	% of Long	Mean	% of Long	Mean (1971-	Mean	% of Long Term	Mean	% of Long Term	Mean (1971-	Mean	% of Lon Term	g Mean	% of Long Term
	2000)		Term Mean		Term Mean	2000)		Term Mean		Term Mean	2000)		Term Mean		Term Mean	2000)		Mean		Mean	2000)		Mean		Mean
		1	North				5	South				East			West					Center					
Year	1,341	1,495	111	1,494	111	2,557	2,794	109	2,927	114	2,065	2,474	120	2,435	118	918	900	98	1,079	118	2,790	3,280	118	3,319	119
Jan	186	331	178	80	43	290	490	169	162	56	260	464	178	167	64	167	270	162	82	49	354	617	174	180	51
Feb	245	134	55	270	110	366	417	114	369	101	336	355	106	448	133	219	189	86	207	94	464	438	94	557	120
Mar	161	189	117	564	350	325	271	83	865	266	243	231	95	657	270	112	118	105	515	459	337	402	119	961	285
Apr	165	187	113	47	28	280	396	141	205	73	245	364	149	141	58	97	72	74	39	40	293	386	132	153	52
May	107	133	124	55	51	212	290	137	152	72	180	226	126	144	80	56	30	54	40	72	210	336	160	190	91
Jun	72	70	97	69	96	157	196	125	193	123	123	147	120	195	158	33	35	106	16	49	163	201	123	185	114
Jul	73	75	103	103	141	180	111	62	249	138	116	107	92	191	165	25	17	68	24	96	181	130	72	257	142
Aug	68	28	41	67	99	180	53	29	124	69	114	51	45	95	83	26	8	31	28	108	192	76	40	175	91
Sep	44	135	307	126	286	112	104	93	342	305	79	152	192	220	278	20	14	70	83	415	126	143	113	348	276
Oct	41	14	34	38	93	96	39	41	92	96	74	42	57	58	<b>78</b>	18	7	39	14	77	102	59	58	102	100
Nov	47	89	189	30	64	110	213	194	63	57	86	154	179	44	51	31	33	106	13	41	105	202	192	84	80
Dec	132	110	83	45	34	249	214	86	111	45	209	181	87	75	36	114	107	94	18	16	263	290	110	127	48
	I	sland o	of Ma	uritius	;				Isla	nd of	Rodrigu	ies				<sup>3500</sup> Fig. 8 - Mean annual rainfall, 2004 & 2005									
		Who	ole Isla	and			Poin	te Car	on			Plai	ine Co	rail		2000									
Year	2,006	2,270	113	2,372	118	1,105	1,134	103	1,275	115	946	1,088	115	1,126	119	3000 -		88			_8				
Jan	261	443	170	148	57	150	208	139	68	45	122	226	185	66	54	2500		<del></del> 88				8			
Feb	336	316	94	407	121	185	55	30	179	97	168	57	34	172	102				8				.88		
Mar	242	252	104	727	300	131	110	84	143	109	125	116	93	212	170	<b>E</b> 2000			558			<b>.</b>	₿	■ Mean(1	971-2000)
Apr	221	297	134	117	53	117	264	226	230	197	100	251	251	119	119	-							₿	■ 2004 ■ 2005	
May	159	203	128	126	79	<i>78</i>	164	210	105	134	72	191	265	129	179	1500 -	28						₿	2003	
Jun	115	131	114	139	121	78	66	85	135	174	62	48	78	125	202								₩ .	<del>.</del> 28	
Jul	120	93	78	174	145	81	41	51	130	161	53	37	69	94	176	1000 -				8328			<b>18</b> 8 19	188 E	::::::::::::::::::::::::::::::::::::::
Aug	122	46	38	106	87	59	83	141	76	128	46	33	72	33	72	500							<b>18</b>		
Sep	81	120	148	233	288	44	56	127	96	219	32	43	135	87	272										
Oct	70	36	51	64	91	41	19	46	23	56	32	25	78	13	41	0		: 608		<u>(% 6</u> 0 88		8 22	188 [3	*******	(18) (18)
Nov	80	139	174	48	60	70	31	44	43	61	64	23	36	43	67		North	South	East	West	Centre	Whole	Island P	•	aine Corail
Dec	199	194	97	83	42	71	37	52	47	66	70	38	54	33	47	J			Island o	f Mauritius			<u> </u>	Island of Rode	rigues

Source: Mauritius Meteorological Services

Table 13 - Percentage water level by month and reservoir - 2004, 2005

Table 13 - Percentage water level by month and														2005 1								
Jan Feb Mar Apr May Jun Jul Aug  Mare aux Vacoas										Sep	Oct	Nov	Dec									
Normal	*	60	65	80	83	83	81	79	80	78	72	63	58	Fig.9 - Mare aux Vacoas (25.89Mm³), 2004-2005								
2004		74	84	96	98	98	96	96	90	80	70	62	58	25 1								
2004																						
	Min	65	79	92	96	97	95	94	85	76	64	59	55									
	Max	79	90	98	99	99	97	98	94	85	76	64	60	→ Normal								
2005	Mean	53	56	78	97	93	93	96	95	95	96	86	75	™ Mean'04  Mean'05								
	Min	50	50	60	95	92	92	91	93	93	92	80	69									
	Max	56	61	100	98	95	94	98	96	98	99	91	80	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
		ı	ı	ı	1	a Nico	1	ĺ	ĺ	ı	ı	ĺ		Fig.10 - La Nicoliere (5.26 Mm <sup>3</sup> ), 2004-2005								
Normal	•	63	75	91	92	95	94	93	94	89	69	46	39	× × × × × × × × × × × × × × × × × × ×								
2004	Mean	82	100	100	100	100	100	100	84	71	74	79	71									
	Min	54	100	100	100	100	98	99	62	56	63	65	61	(e) 1 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4								
	Max	100	100	100	100	100	100	100	99	96	95	92	81	Water leyel (Mm <sup>2</sup> <sub>2</sub> )								
2005	Mean	82	88	100	92	76	71	82	71	82	71	75	43									
	Min	66	61	95	81	68	58	75	65	66	65	52	37	Mean 04 Mean 05								
	Max	93	100	100	100	83	85	88	77	94	77	81	53	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
	Piton du Milieu											Fig.11 - Piton du Milieu (2.99 Mm³), 2004-2005										
Normal	<b> </b> *	64	72	88	89	91	86	83	83	81	73	60	57									
2004	Mean	77	100	100	100	99	94	97	83	67	63	57	63									
	Min	46	99	99	99	98	91	92	73	65	58	55	57									
	Max	100	100	100	100	100	98	99	91	73	66	59	73									
2005	Mean	74	85	100	98	89	85	95	94	96	96	79	64	- La								
2005	Min	70	69	99	93	85	83	85	89	89	88	71	56	────Mean'04								
			100	100	100	93	86	100	98	100	99	88	70									
	Max	75	100	100		La Fei		100	90	100	99	00	70									
Normal	*	23	30	64	75	77	69	58	49	37	25	13	10	Fig.12 - La Ferme (11.52 Mm <sup>3</sup> ), 2004-2005								
2004	ī	63	99	100	100	100	95	93	84	69	53	35	24	"   <del>x                                </del>								
2004		45	88	100	100	100	91	88	79	61	43	29	22									
	Min													N   N   N   N   N   N   N   N   N   N								
2005	Max	86	100	100	100	100	100	96	88	79	61	42	28	<b>d</b> ig								
2005		24	34	86	100	96	86	81	76	76	83	74	58	Normal Mean(14								
	Min	22	21	52	100	91	82	80	72	72	81	66	50	0+								
	Max	25	51	100	100	100	90	82	80	82	85	81	66	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
<b>N</b> T 1	l de	I 22	40	72	1	are Lo		1	63	50 l	46	20	20	Fig.13 - Mare Longue (6.28 Mm³), 2004-2005								
Normal		32	48	73	75	77	73	65	63	58	46	28	20	6								
2004		24	47	72	95	99	96	89	70	50	33	21	7									
	Min	4	37	58	84	98	93	79	60	43	26	17	0	No and								
	Max	36	57	84	99	100	98	95	79	60	42	25	17									
2005	Mean	0	1	34	99	98	89	93	87	87	91	75	34	≥ 2 Normal Normal Mean'04								
	Min	0	0	4	94	94	86	88	83	83	86	59	12	Mean 05								
	Max	0	4	94	100	100	94	95	92	93	93	86	57	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
			(1	1	1	exclud	- 1	1	1	- 1		-										
Normal		49	56	77	82	83	79	75	73	68	58	46	41									
2004		66	86	95	98	99	96	95	85	72	62	52	46									
2005	Mean	44	50	76	97	93	88	91	87	89	90	80	62	62 Fig.14 - Midlands Dam (25.5 Mm <sup>3</sup> ),2004-2005								
2000	l.,		اممد	امما	1	dland	1	1		ا. ۽												
2004		80	100	100	100	100	100	100	99	94	89	81	86									
	Min	66	96	99	99	100	99	99	99	89	85	79	81	\[ \text{\tin}\text{\ti}\}\tittt{\text{\text{\ti}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}\\\ \ti}\\\ \tittt{\text{\text{\text{\text{\ti}}}\tittt{\text{\text{\text{\text{\text{\text{\text{\texi}\text{\text{\text{\texit}\tittt{\text{\texi}\tittt{\text{\texi}\text{\text{\texi}\								
	Max	96	100	100	100	100	100	100	99	99	91	84	90	Water level(Mm 50 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0								
2005	Mean	93	98	100	100	99	97	99	100	100	98	85	70	≥ 10 • ——————————————————————————————————								
	Min	91	94	100	99	96	94	96	99	100	93	80	59	1 <sup>3</sup> 1								
	Max	94	100	100	100	100	99	100	100	100	100	92	80	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec								
* Norm	11 1 1			1000	1000																	

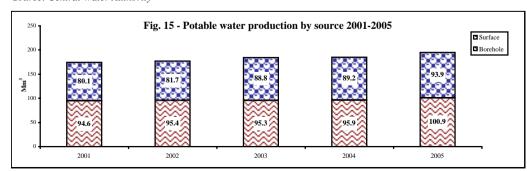
\* Normal is the long term mean for 1990-1999

Source: Water Resources Unit

Table 14 - Average monthly potable water production (Mm³), 2004-2005 (Island of Mauritius)

Month	(IImmon)			Mare Au	ıx Vacoas	(Lower)	P	ort -Loui	s	Distric	t water su North	ipply -	District	t water s South	upply -	District water supply - East				Tot	ction		
Month	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole	Total	Surface	Borehole
		·						· ·		Million	ubic metre	s (Mm³)				-						Surrace	Borenoie
2004	34.0	6.0	40.0	-	27.8	27.8	18.8	11.3	30.1	18.9	21.2	40.1	8.7	15.1	23.8	8.8	14.7	23.5	89.2	95.9	185.2	48.2%	51.8%
Jan	2.9	0.5	3.4	-	2.3	2.3	1.7	1.2	2.9	1.6	1.8	3.3	0.7	1.3	2.0	0.7	1.2	1.9	7.6	8.2	15.8	47.9%	52.1%
Feb	2.7	0.5	3.2	-	2.4	2.4	1.5	1.1	2.6	1.5	1.7	3.1	0.7	1.2	1.8	0.8	1.2	1.9	7.1	7.9	15.0	47.3%	52.7%
Mar	2.9	0.5	3.4	-	2.5	2.5	1.7	0.9	2.6	1.6	1.8	3.4	0.7	1.2	2.0	0.8	1.3	2.1	7.7	8.2	15.9	48.5%	51.5%
Apr	2.8	0.5	3.3	-	2.4	2.4	0.9	1.1	2.0	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.2	2.0	6.7	8.2	14.9	45.0%	55.0%
May	2.9	0.5	3.4	-	2.5	2.5	0.9	1.1	2.0	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.3	2.1	6.8	8.3	15.1	45.1%	54.9%
Jun	2.8	0.5	3.3	-	2.4	2.4	1.7	1.0	2.7	1.6	1.7	3.3	0.7	1.2	1.9	0.8	1.2	2.0	7.5	8.0	15.5	48.4%	51.6%
Jul	2.9	0.5	3.4	-	2.4	2.4	1.8	0.8	2.7	1.6	1.8	3.4	0.7	1.3	2.0	0.8	1.2	2.0	7.8	8.1	15.8	49.1%	50.9%
Aug	2.9	0.5	3.4	-	2.3	2.3	1.8	0.9	2.7	1.6	1.8	3.4	0.7	1.2	1.9	0.8	1.2	2.0	7.8	8.0	15.7	49.4%	50.6%
Sep	3.0	0.5	3.5	-	2.2	2.2	1.9	0.7	2.6	1.6	1.8	3.4	0.8	1.4	2.1	0.7	1.2	1.9	7.8	7.8	15.6	50.1%	49.9%
Oct	2.9	0.5	3.4	-	2.1	2.1	1.8	0.9	2.7	1.6	1.9	3.4	1.0	1.4	2.3	0.7	1.2	1.9	7.8	8.0	15.8	49.5%	50.5%
Nov	2.7	0.5	3.2	-	2.1	2.1	1.6	0.7	2.4	1.6	1.8	3.4	0.8	1.3	2.1	0.6	1.3	1.9	7.3	7.6	15.0	49.1%	50.9%
Dec	2.8	0.5	3.3	-	2.2	2,2	1.6	0.9	2.4	1.6	1.7	3.3	0.6	1.3	1.9	0.7	1.2	1.9	7.3	7.7	15.0	48.8%	51.2%
2005	35.6	6.1	41.7	-	28.0	28.0	21.4	11.6	32.9	19.1	22.7	41.8	9.1	15.8	24.9	8.7	16.7	25.4	93.9	100.9	194.8	48.2%	51.8%
Jan	2.8	0.5	3.3	-	2.3	2.3	1.8	0.8	2.6	1.6	1.8	3.4	0.8	1.3	2.2	0.7	1.4	2.1	7.8	8.2	15.9	48.7%	51.3%
Feb	2.6	0.5	3.0	-	2.1	2.1	1.2	2.0	3.2	1.5	1.6	3.1	0.7	1.2	1.9	0.7	1.3	1.9	6.6	8.6	15.2	43.3%	56.7%
Mar	2.9	0.6	3.5	-	2.4	2.4	1.4	1.1	2.4	1.6	2.0	3.6	0.8	1.4	2.1	0.7	1.5	2.2	7.4	8.9	16.2	45.4%	54.6%
Apr	2.8	0.5	3.4	-	2.4	2.4	1.6	1.0	2.6	1.5	1.9	3.4	0.8	1.3	2.1	0.8	1.4	2.2	7.5	8.6	16.1	46.7%	53.3%
May	2.9	0.5	3.4	-	2.5	2.5	1.8	1.1	2.9	1.6	1.9	3.5	0.8	1.3	2.1	0.8	1.4	2.2	7.8	8.8	16.6	47.1%	52.9%
Jun	2.8	0.5	3.3	-	2.4	2.4	1.6	0.8	2.4	1.5	1.9	3.4	0.7	1.3	2.0	0.6	1.1	1.7	7.3	8.1	15.4	47.4%	52.6%
Jul	2.9	0.5	3.4	-	2.4	2.4	2.0	0.8	2.8	1.6	1.9	3.5	0.8	1.4	2.1	0.7	1.4	2.1	7.9	8.5	16.4	48.3%	51.7%
Aug	3.2	0.5	3.7	-	2.4	2.4	2.0	0.8	2.8	1.6	1.9	3.6	0.7	1.3	2.1	0.8	1.4	2.2	8.3	8.4	16.7	49.8%	50.2%
Sep	3.0	0.5	3.5	-	2.3	2.3	2.0	0.7	2.7	1.6	1.9	3.5	0.7	1.3	2.0	0.7	1.4	2.1	8.1	8.1	16.2	49.8%	50.2%
Oct	3.2	0.5	3.7	-	2.5	2.5	2.3	0.9	3.2	1.6	1.9	3.5	0.8	1.3	2.1	0.8	1.5	2.3	8.7	8.6	17.3	50.2%	49.8%
Nov	3.2	0.5	3.7	-	2.2	2.2	1.9	0.8	2.7	1.6	2.0	3.6	0.7	1.3	2.0	0.8	1.4	2.2	8.3	8.1	16.3	50.5%	49.5%
Dec	3.4	0.5	3.9	-	2.1	2.1	1.8	0.8	2.6	1.7	2.0	3.6	0.8	1.3	2.2	0.8	1.5	2.2	8.4	8.1	16.5	50.8%	49.2%

Source: Central Water Authority



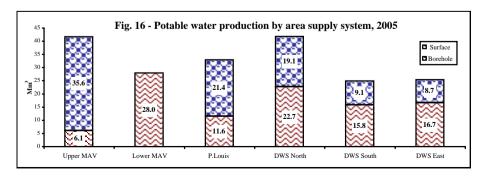
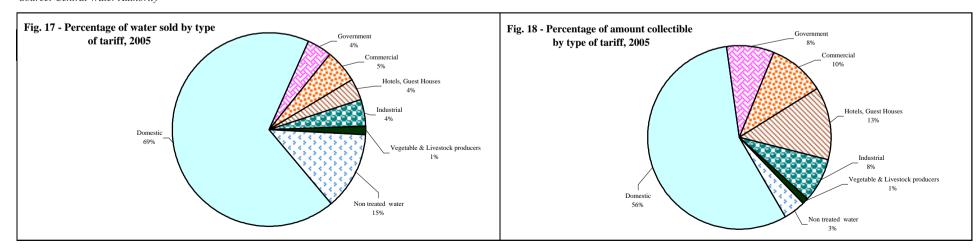


Table 15 - Water sales by type of tariff of subscriber, 2004 - 2005 (Island of Mauritius)

Tuna of towiff				2004				2005							
Type of tariff	Subscril	bers	Volume sol	d (m³)	Amount coll	ectible	Average consumption	Subscrib	oers	Volume sol	d (m³)	Amount col	lectible	Average consumption	
	No.	%	Mm <sup>3</sup>	%	Rs million	%	(m <sup>3</sup> )	No.	%	Mm <sup>3</sup>	%	Rs million	%	(m <sup>3</sup> )	
Domestic	258,381	93.9	70.6	68.9	502.5	56.0	273	265,763	93.9	73.1	67.8	523.1	56.0	275	
Government	3,585	1.3	4.3	4.2	76.0	8.5	1,195	3,708	1.3	4.6	4.3	77.9	8.3	1,249	
Acquired / concessionary prises	47	0.0	0.0	0.0	0.1	0.0	424	45	0.0	0.0	0.0	0.1	0.0	413	
Commercial	9,638	3.5	5.7	5.5	93.5	10.4	587	9,823	3.5	5.8	5.4	95.7	10.2	589	
Hotels, Guest Houses	188	0.1	3.7	3.6	108.1	12.0	19,650	197	0.1	4.1	3.8	119.2	12.8	20,709	
Industrial	746	0.3	4.8	4.7	72.1	8.0	6,400	741	0.3	4.8	4.4	71.8	7.7	6,437	
Sub total	272,585	99.0	89.0	86.9	852.3	95.0	326	280,277	99.0	92.3	85.6	887.9	95.0	329	
Vegetable & Livestock producers	2,377	0.9	1.1	1.1	8.8	1.0	476	2,632	0.9	1.3	1.2	10.1	1.1	502	
Total potable water	274,962	99.9	90.1	88.0	861.2	96.0	328	282,909	99.9	93.7	86.9	898.0	96.1	331	
Total non-treated water (agriculture/Industrial)	254	0.1	12.3	12.0	36.3	4.0	48,288	267	0.1	14.2	13.1	36.6	3.9	53,038	
Grand Total	275,216	100.0	102.4	100.0	897.5	100.0	372	283,176	100.0	107.8	100.0	934.5	100.0	381	

Source: Central Water Authority



**Table 16 - Main Indicators**, 2001 - 2005

Indicators	Unit	2001	2002	2003	2004	2005
Mid-year population, Republic of Mauritius	thousand	1,200	1,210	1,223	1,233	1,243
GDP in1990 rupees	Rs.Million	70,071	71,542	74,618	78,872	80,843
GDP index (1990 = 100)		176.8	180.5	188.3	199.0	204.0
Total primary energy requirement	ktoe	1,182.0	1,157.3	1,222.8	1,255.8	1,293.2
Imported	ktoe	901.2	898.8	956.3	980.1	1,030.5
Local	ktoe	280.9	258.6	266.5	275.7	262.6
Annual increase	%	6.2	-2.09	5.7	2.7	3.0
Total primary energy requirement index (1990 = 100)		159.7	158.4	167.3	171.8	177.0
Import dependency	%	76.2	77.7	78.2	78.0	79.7
Energy intensity	toe per Rs.100,000 GDP	1.69	1.62	1.64	1.59	1.60
Per capita primary energy requirement	toe	0.99	0.96	1.00	1.02	1.04
Total final energy consumption	ktoe	784.4	765.0	814.9	838.1	846.1
Per capita final energy consumption	toe	0.65	0.63	0.67	0.68	0.68
Total electricity generated	GWh	1,911	1,949	2,082	2,165	2,272
Total electricity sold	GWh	1,467	1,510	1,627	1,704	1,777
Per capita consumption of electricity sold	kWh	1,222	1,248	1,330	1,382	1,429
Mean annual rainfall, Island of Mauritius	Millimetres	1,891	2,082	2,148	2,270	2,372
Mean annual rainfall, Island of Rodrigues <sup>2</sup>	Millimetres	883	997	1,320	1,134	1,275
Potable water produced <sup>3</sup>	Mm <sup>3</sup>	175	177	184	185	195
Potable water consumed	Mm <sup>3</sup>	85	86	90	90	94
Potable water consumed per capita per day	litres	200	201	207	206	213

<sup>1</sup> Revised

<sup>2</sup> Refers to Pte Canon only

<sup>3</sup> Refer to Island of Mauritius only