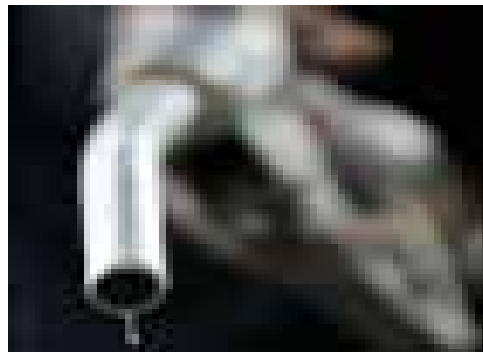


SECTION 20:
ENERGY AND WATER STATISTICS



SECTION 20 : ENERGY AND WATER STATISTICS

TABLE 221 : ELECTRIC PRODUCTION, CONSUMPTION, INSTALLED CAPACITY AND NUMBER OF CONSUMERS

YEAR	Electricity Production (KWH)	Electricity Consumption (KWH)	Installed Capacity (KVA)	No. of Consumers	TREND OF ELECTRIC POWER SERVICES BASE ON 1991/92(Percentage change to 1991/92)			
					Electricity Production (KWH)	Electricity Consumption (KWH)	Installed Capacity (KVA)	Consumers
1991/92	26,642,000	21,367,000	17,306	14,905	100.0	100.0	100.0	100.0
1992/93	27,342,000	22,309,000	na	10,906	102.6	104.4	na	73.2
1993/94	28,965,000	23,345,000	7,991	15,263	108.7	109.3	46.2	102.4
1994/95	31,184,000	25,611,000	13,093	15,931	117.0	119.9	75.7	106.9
1995/96	29,664,000	26,842,000	12,943	na	111.3	125.6	74.8	na
1996/97	29,869,000	25,608,000	12,943	16,550	112.1	119.8	74.8	na
1997/98	29,634,000	26,016,000	13,696	16,943	111.2	121.8	79.1	113.7
1998/99	33,826,000	28,235,000	9,135	17,381	127.0	132.1	52.8	116.6
1999/00	43,176,000	n.a.	n.a.	n.a.	162.1	-	-	-
2000/01	38,984,000	n.a.	n.a.	n.a.	146.3	-	-	-
2001/02	40,182,000	n.a.	n.a.	n.a.	150.8	-	-	-
2002/03	44,787,000	n.a.	n.a.	n.a.	168.1	-	-	-
2003/04	47,269,000	n.a.	n.a.	n.a.	177.4	-	-	-

SOURCE : Tonga Electric Power Board/Shoreline Power Ltd

NOTE : KWH Stands for Kilowatt hours

KVA Stands for kilovolt Amperes

n.a. - Not available

SECTION 20 : ENERGY AND WATER STATISTICS

Table 222: GROWTH OF ELECTRIC POWER SERVICES IN THE KINGDOM BY ISLAND DIVISION

Year/ Division	Electricity Production (KWH)	Electricity Consumption (KWH)	Install Capacity (KVA)	Number of Consumers
1991/92	26,642,000	21,367,000	17,306	14,905
Tongatapu	23,231,000	18,564,000	14,583	11,689
Vava'u	2,452,000	1,971,000	2,193	1,792
Ha'apai	570,000	502,000	350	698
'Eua	389,000	330,000	180	726
1992/93	27,342,000	22,309,000	na	10,906
Tongatapu	23,718,000	19,283,000	na	na
Vava'u	2,565,000	2,132,000	na	na
Ha'apai	631,000	534,000	na	na
'Eua	428,000	360,000	na	na
1993/94	28,965,000	23,345,000	7,991	15,263
Tongatapu	25,013,000	20,231,000	6,799	na
Vava'u	2,805,000	2,196,000	600	na
Ha'apai	655,000	544,000	400	na
'Eua	492,000	374,000	192	na
1994/95	31,184,000	25,611,000	13,093	15,931
Tongatapu	27,002,000	22,305,000	11,071	na
Vava'u	2,885,000	2,253,000	1,130	na
Ha'apai	798,000	651,000	400	na
'Eua	499,000	402,000	492	na
1995/96	29,664,000	26,842,000	12,943	na
Tongatapu	24,734,000	23,249,000	11,071	na
Vava'u	3,372,000	2,373,000	980	na
Ha'apai	929,000	776,000	400	na
'Eua	629,000	444,000	492	na
1996/97	29,869,000	25,608,000	12,943	16,550
Tongatapu	25,080,000	21,644,000	11,071	12,147
Vava'u	3,322,000	2,735,000	980	2,653
Ha'apai	929,000	807,000	400	913
'Eua	538,000	422,000	492	837
1997/98	29,634,000	26,016,000	13,696	16,943
Tongatapu	25,197,000	22,409,000	11,071	12,517
Vava'u	2,960,000	2,335,000	1,925	2,682
Ha'apai	871,000	793,000	400	876
'Eua	606,000	459,000	300	868
1998/99	33,826,000	28,235,000	9,135	17,381
Tongatapu	29,476,000	24,520,000	7,000	12,874
Vava'u	2,843,000	2,444,000	1,435	2,740
Ha'apai	861,000	754,000	400	879
'Eua	646,000	517,000	300	888
1999/00	43,176,000			
Tongatapu	37,961,000	n.a.	n.a.	n.a.
Vava'u	3,425,000	n.a.	n.a.	n.a.
Ha'apai	984,000	n.a.	n.a.	n.a.
'Eua	806,000	n.a.	n.a.	n.a.
2000/01	38,984,000			
Tongatapu	33,471,000	n.a.	n.a.	n.a.
Vava'u	3,830,000	n.a.	n.a.	n.a.
Ha'apai	929,000	n.a.	n.a.	n.a.
'Eua	734,000	n.a.	n.a.	n.a.
2001/02	40,182,000			
Tongatapu	34,807,307	n.a.	n.a.	n.a.
Vava'u	3,614,324	n.a.	n.a.	n.a.
Ha'apai	1,014,001	n.a.	n.a.	n.a.
'Eua	746,188	n.a.	n.a.	n.a.
2002/03	44,786,949			
Tongatapu	38,379,664	n.a.	n.a.	n.a.
Vava'u	4,349,712	n.a.	n.a.	n.a.
Ha'apai	1,165,800	n.a.	n.a.	n.a.
'Eua	891,773	n.a.	n.a.	n.a.
2003/04	47,269,000			
Tongatapu	40,389,000	n.a.	n.a.	n.a.
Vava'u	4,648,000	n.a.	n.a.	n.a.
Ha'apai	1,279,000	n.a.	n.a.	n.a.
'Eua	952,000	n.a.	n.a.	n.a.

SOURCE : Tonga Electric Power Board /Shoreline Power Ltd - 1999/00-2002/03

NOTE : KWh Stands for Kilowatt
KVA Stands for kilovolt Amperes
n.a. - Not available

SECTION 20 : ENERGY AND WATER STATISTICS

TABLE 223 : IMPORTS OF ENERGY AND FUEL ITEMS IN QUANTITIES

SITC Code	Commodity	Unit	1992	1993	1994	1995	1996	1997	1998	1999
32	: Coal, Coke and Briquettes	tonne	-	-	-	-	-	-	-	-
321	: Coal and Coke	tonne	-	-	-	-	-	-	1	1
33	: Petroleum and Petroleum Products	litre	28,962,038	31,806,635	34,816,542	37,155,389	32,469,466	37,369,521	33,505,595	142,240,361
331.0	: Petroleum Crude	litre	434,274	2,014,747	-	-	-	-	-	-
332.11	: Benzine (Motor Spirit)	litre	8,635,816	11,941,754	13,119,220	13,750,176	12,230,989	14,253,894	9,652,597	16,033,674
332.12	: Aviation Gasoline	litre	16,000	1,176,267	2,242,054	1,017,820	161,577	-	127,204	258,353
332.22	: Kerosene Oil	litre	2,825,420	1,515,168	1,196,005	2,451,596	4,478,850	4,350,424	4,779,446	5,250,556
332.3	: Dieseloline	litre	16,584,896	14,688,564	17,871,156	19,436,835	15,109,913	17,966,277	18,515,269	120,193,842
332.24	: Benzine White (Shellite)	litre	10,752	9,780	31,065	26,332	5,313	491,202	696	11,100
332.51	: Lubricating Oil	litre	454,880	460,355	357,042	472,630	482,824	307,724	430,383	492,836
34	: Gas, Natural and Manufactured	kg	831,230	738,226	847,749	1,035,440	1,058,013	944,062	1,255,013	790,157
341.0	: Coal gas and petroleum gas	kg	165,302	3,864	-	122,063	268,332	1,144	290,044	131,255
341.1	: Gas, natural; Butane Gas	kg	665,928	734,362	847,749	913,377	789,681	942,918	964,969	658,902

TABLE 224 : IMPORTS OF ENERGY AND FUEL ITEMS IN VALUE (T\$)

SITC Code	Commodity	Unit	1992	1993	1994	1995	1996	1997	1998	1999
32	: Coal, Coke and Briquettes	tonne	-	-	-	-	-	-	-	-
321	: Coal and Coke	tonne	-	278	-	-	698	1,929	631	1,880
33	: Petroleum and Petroleum Products	litre	9,271,698	10,004,571	9,483,038	10,571,068	10,164,977	11,319,416	8,826,080	13,132,266
331.0	: Petroleum Crude	litre	131,585	602,907	-	-	-	-	-	-
332.11	: Benzine (Motor Spirit)	litre	2,728,095	3,497,888	3,425,371	3,853,434	3,618,161	4,387,000	2,506,787	4,735,962
332.12	: Aviation Gasoline	litre	12,432	395,733	591,646	279,430	49,218	-	36,647	117,518
332.22	: Kerosene Oil	litre	879,793	477,702	356,780	686,214	1,422,802	1,389,683	1,117,457	1,523,331
332.3	: Dieseloline	litre	5,083,962	4,526,482	4,696,498	5,219,746	4,590,148	5,059,547	4,672,579	6,133,493
332.24	: Benzine White (Shellite)	litre	8,345	7,394	22,263	16,581	2,968	152,776	1,258	16,794
332.51	: Lubricating Oil	litre	427,486	496,465	390,480	515,663	481,680	330,410	491,352	605,168
34	: Gas, Natural and Manufactured	kg	616,771	616,400	605,198	803,607	819,627	842,723	989,760	678,201
341.0	: Coal gas and petroleum gas	kg	121,321	3,572	-	94,408	213,520	708	238,762	149,257
341.1	: Gas, natural; Butane Gas	kg	495,450	612,828	605,198	709,199	606,107	842,015	750,998	528,944

SOURCE: Statistics Department

SECTION 20 : ENERGY AND WATER STATISTICS

TABLE 223(cont'd) : IMPORTS OF ENERGY AND FUEL ITEMS IN QUANTITIES

HS Code	Commodity	Unit	Quantity				
			2000	2001	2002	2003	2004
	Mineral Products		40,621,092	35,996,558	39,232,603	48,515,385	45,958,234
2701.0000	Coal; briquettes, ovoidsand similar solid fuels manufactured from coal	tonne	35	501	781	79,916	1
2705.0000	Coal Gas, Water Gas, Producer Gas and similar Gases, other than Petroleum Gases and other Gaseous Hydrocarbons	tonne	649	771	1,113	812	396,694
2707.0000	Oils and other products of the distillation of high temperature coal tar; similar products in which the weight of the aromatic constituents exceeds that of the Non-aromatic	tonne	-	15	1	-	-
2708.0000	Pitch and Pitch Coke; Obtained from Coal Tar or from other Mineral Tars	tonne	15	1	-	-	-
2709.0000	Oils; Petroleum oils Obtained from Bituminous Minerals, Crude	Litre	30	-	48	318	17
2710.001 0	Motor Spirit	Litre	13,414,638	13,850,760	14,582,963	13,588,219	12,487,673
2710.0020	Aviation Gasoline	Litre	1,250,569	30,100	707,339	462,515	70,836
2710.0030	Jet Fuel and Aviation Kerosene	Litre	1,268,713	464,896	1,291,648	1,473,079	477,962
2710.0040	Kerosene and White Spirit, other kinds	Litre	4,229,545	1,556,467	936,943	2,928,828	4,752,182
2710.0050	Disitillate Fuels	Litre	18,805,903	19,047,284	20,388,777	28,277,851	26,441,798
2710.0060	Residual Fuel Oils	Litre	41,126	-	89	13,811	9,853
2710.0070	Lubricating Oils	Litre	897,661	563,907	539,666	1,554,975	1,222,379
2710.0080	Lubricating Greases	Kg	15,241	9,818	8,092	16,050	28,545
2710.0090	Petroleum Oils & preparation, other kinds n.e.s.	Litre	23,676	51,773	248,674	15,060	67,607
2711.0000	Petroleum Gases & other Gaseous Hydrocarbons	Kg	666,139	404,411	526,245	103,860	2,541
2712.0000	Petroleum Jelly; Paraffin Wax, Micro-crystalline Petroleum Wax, Slack Wax Ozokerite, lignite Wax, Peat Wax, other Mineral Waxes, similar Products Obtained by Synthesis, other Processes; Cloured or not	Kg	7,152	15,617	224	91	146
2715.0000	Bituminous Mixtures Based on Natural Asphalt, on Natural Bitumen, on Petroleum Bitumen, on Mineral Tar or on Mineral Tar Pitch (e.g. Bitumenous Mastics, Cut-backs)	tonne	-	237	-	-	-

SOURCE: Statistics Department

SECTION 20 : ENERGY AND WATER STATISTICS

TABLE 224(cont'd) : IMPORTS OF ENERGY AND FUEL ITEMS IN VALUE (T\$)

HS Code	Commodity	Unit	Value (\$)				
			2000	2001	2002	2003	2004
Mineral Product							
2701.0000	Coal; briquettes, ovoidsand similar solid fuels manufactured from coal	tonne	17,022	1,052	3,023	95184	403
2705.0000	Coal Gas, Water Gas, Producer Gas and and similar Gases, other than Petroleum Gases and other Gaseous Hydrocarbons	tonne	509,709	730,242	417,174	1242188	1,433,150
2707.0000	Oils and other products of the distillation of high temperature coal tar; similar products in which the weight of the aromatic constituents exceeds that of the Non-aromatic	tonne		181	618		
2708.0000	Pitch and Pitch Coke; Obtained from Coal Tar or from other Mineral Tars	tonne	10,703	1,036			
2709.0000	Oils; Petroleum oils Obtained from Bituminous Minerals, Crude	Litre	86	-	60	1103	57
2710.0010	Motor Spirit	Litre	6,068,843	7,356,267	7,998,640	89,380,30	9,808,331
2710.0020	Aviation Gasoline	Litre	543,906	17,229	449,014	322,432	27,099
2710.0030	Jet Fuel and Aviation Kerosene	Litre	627,636	322,933	544,432	994,087	349,725
2710.0040	Kerosene and White Spirit, oher kinds	Litre	1,954,577	904,242	539,399	1,849,703	3693418
2710.0050	Disitillate Fuels	Litre	8,854,160	10,966,504	10,914,693	19,367,930	20,227,615
2710.0060	Residual Fuel Oils	Litre	19,714	-	274	48,997	34,485
2710.0070	Lubricating Oils	Litre	805,147	930,748	918,191	1,794,589	1,806,651
2710.0080	Lubricating Greases	Kg	27,890	29,924	35,428	26,232	25,407
2710.0090	Petroleum Oils & preparation, other kinds n.e.s.	Litre	59,310	60,986	185,977	23,936	156,088
2711.0000	Petroleum Gases & other Gaseous Hydrocarbons	Kg	528,949	451,816	852,510	139,516	13,596
2712.0000	Petroleum Jelly; Paraffin Wax, Micro-crystalline Petroleum Wax, Slack Wax Ozokerite, lignite Wax, Peat Wax, other Mineral Waxes, similar Products Obtained by Synthesis, other Processes; Cloured or not	Kg	21,935	41,423	735	314	1,040
2715.0000	Bituminous Mixtures Based on Natural Asphalt, on Natural Bitumen, on Petroleum Bitumen, on Mineral Tar or on Mineral Tar Pitch (e.g. Bitumenous Mastics, Cut-backs)	tonne	-	181,526	44	236	-

SOURCE: Statistics Department

SECTION 20 : ENERGY AND WATER STATISTICS

TABLE 225 : WATER PRODUCTION AND CONSUMPTION AND NUMBER OF WATER SUPPLY CONNECTIONS BY ISLAND DIVISION

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/2000	2000/01	2001/02	2002/03	2003/04
WATER PRODUCTION													
<i>Cubic meter (M³)/MLx10⁶</i>													
Total Production	2704319	1853400	0	0	2115	2375	2683	2941	3248	3316	3196	3248	3032
Tongatapu (1995/96-03/04= in MLx10 ⁶)	2217422	1,708,382	*	**	2,115	2,100	2,352	2,589	2,734	2,807	2,592	2,635	2,520
Vavau (1995/96-03/04= in MLx10 ⁶)	327920	134,870	n.a	n.a	n.a	275	282	301	354	326	358	340	288
Ha'apai (1995/96-03/04= in MLx10 ⁶)	27197	10,148	n.a	n.a	n.a	***	49	51	51	59	72	74	77
Eua (1995/96-03/04= in MLx10 ⁶)	131780	n.a	n.a	n.a	n.a	****	n.a	n.a	109	124	174	199	147
WATER CONSUMPTION													
<i>Cubic meter (M³)/MLx10⁶</i>													
Total Consumption	1,923,948	1,861,961	1,707,971	1,632,659	1,450.5	1,422	1,371	1,479	1,469	1,473	1,652	1,756	1,761
Tongatapu (1995/96-03/04= in MLx10 ⁶)	1628932	1,614,454	1,399,775	1,372,008	1,187.0	1,132.0	1,124.0	1,188.0	1,186.0	1,177.0	1,322.0	1,414.0	1,409.0
Vavau (1995/96-03/04= in MLx10 ⁶)	174493	181,568	159,323	164,653	169.0	197.0	156.0	164.0	180.0	179.0	200.0	188.0	196.6
Ha'apai (1995/96-03/04= in MLx10 ⁶)	13550	31,603	42,927	38,467	36.1	34.3	33.0	39.0	35.2	42.0	49.0	55.7	54.8
Eua (1995/96-03/04= in MLx10 ⁶)	106973	34,336	105,946	57,531	58.4	58.2	58.2	88.0	67.6	75.0	81.0	98.7	100.8
No. of New Water Connection													
Total	469	357	256	253	173	169	191	245	n.a	n.a	n.a	n.a	n.a
Tongatapu	338	185	168	186	116	108	71	147	n.a	n.a	n.a	n.a	n.a
Vavau	65	61	18	32	32	21	97	72	n.a	n.a	n.a	n.a	n.a
Ha'apai	34	82	43	18	8	15	7	8	n.a	n.a	n.a	n.a	n.a
Eua	32	29	27	17	17	25	16.0	18	n.a	n.a	n.a	n.a	n.a
No. of Total Water Connection													
Total	7,480	7,837	7,819	8,042	-	8,486	-	8,678	8,840	9,074	9,276	8,922	9,255
Tongatapu	5355	5,540	5,521	5,707	-	6,070	-	6,292	6,431	n.a	n.a	n.a	6,529
Vavau	918	979	967	999	-	1,047	-	1,193	1,255	n.a	n.a	n.a	1,462
Ha'apai	387	469	441	429	-	447	-	462	465	n.a	n.a	n.a	541
Eua	820	849	890	907	-	922	-	731	689	n.a	n.a	n.a	723

SOURCE: Tonga Water Board Annual Reports

Note: No data available (Total water production) for Eua for the Financial Year 1992/9

* - Total water production was not available due to the broken of the main meter at Mataki'eua, 93/94

** - Water production was not available due to the malfunction of the main meter at Mataki'eua, 94/95

*** - For Ha'apai (Pangai-Hihifo); the bulk water meter was broken during the financial year 1996/97 and the figure for total production is unavailable

**** - There is no bulk water meter installed and total amount of water production is unknown, 96/97

n.a. - Not available

- 1991/92 to 1994/95 - Water production and Consumption are in (̄)

- 1995/96 to 2003/04 - Water production Consumption are in MLx10⁶