Appendix 2 Sample Output of Energy Demand Forecast Model

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No.		Item	Unit	Code	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	95/85	2000/199	1995	1996	1997	1998	1999	2000	2000/95
1																								
2		Social statistics																						
3	E	Population (Middle of Years)	1000 Perso	POP	990	990	1,000	1,020	1,030	1,070	1,070	1,080	1,090	1,103	1,116	1.2	1.1	1,116	1,128	1,141	1,153	1,168	1,179	1.1
4	I	Independent Households	1000 Famil	HOH	165	165	167	170	172	178	178	180	182	184	186	1.2	1.1	186	188	190	192	194	196	1.1
5																								
6		Labour Forces																						
7	E	Agriculture, Hunting, Forestry, Mining, and Qu	Person	LABPRI	93,200	90,500	89,500	86,900	86,700	72,900	73,000	72,700	72,000	72,000	71,200	-2.7	-3.0	71,200	69,064	66,992	64,982	63,033	61,142	-3.0
8	E	Manufacturing	Person	LABMAN	66,200	90,300	110,200	124,300	126,200	139,000	144,000	142,500	141,100	142,000	143,500	8.0		143,500	141,538	139,707	138,004	136,427	134,971	-1.2
9	E	Sugar	Person	LABSUG						7,500	7,400	7,300	7,000	6,800	6,200	-4.3	-4.0	6,200	5,952	5,714	5,485	5,266	5,055	-4.0
10	E	EPZ	Person	LABEPZ						88,900	89,900	90,000	86,000	83,100	81,100	-2.5	-3.5	81,100	78,262	75,522	72,879	70,328	67,867	-3.5
11	E	Domestic Manufacturing	Person	LABDOM						42,600	43,100	45,200	48,100	52,100	56,200	6.9	2.0	56,200	57,324	58,470	59,640	60,833	62,049	2.0
12	E	Electricity, Gas, and Water	Person	LABELE	3,900	3,600	3,700	3,600	3,500	3,400	3,400	3,400	3,600	3,400	3,500	-1.1	-1.0	3,500	3,465	3,430	3,396	3,362	3,328	-1.0
13	E	Construction	Person	LABCON	12,800	13,400	19,300	25,100	26,800	31,000	31,400	33,800	35,300	36,200	36,000	10.5	3.0	36,000	37,080	38,192	39,338	40,518	41,734	3.0
14	E	Wholesale, Retail, Restaurants, and Hotels	Person	LABCOM	28,400	29,400	32,500	39,300	43,200	52,200	57,000	61,500	70,200	76,000	80,100	10.9	7.0	80,100	85,707	91,706	98,126	104,995	112,344	7.0
15	E	Transportation, Storage, and Communication	Person	LABTRA	18,900	19,400	21,900	23,200	28,800	28,700	31,100	33,800	34,600	35,600	36,600	6.8	6.0	36,600	38,796	41,124	43,591	46,207	48,979	6.0
16	E	Banking, Insurance, Real Estate, Business serv	Person	LABBAN	6,200	6,500	7,000	7,700	9,600	11,500	12,100	13,000	13,800	15,000	16,000	9.9	5.0	16,000	16,800	17,640	18,522	19,448	20,421	5.0
17	E	Other service	Person	LABSER	96,900	98,600	97,700	101,200	99,200	102,100	105,500	112,400	117,300	122,600	127,700	2.8	2.0	127,700	130,254	132,859	135,516	138,227	140,991	2.0
18	I	Total Labour Force	Person	LABTOT	326,500	349,800	381,800	411,900	421,800	440,800	457,500	473,200	487,900	502,800	514,600	4.7		514,600	522,704	531,651	541,476	552,216	563,911	1.8
19	I	Labour Force in Population	%	LABSHA	33	35	38	40	41	41	43	44	45	46	46			46	46	47	47	47	48	0.7
20																								
21		GDP at current Price																						
22	I	Agriculture, Hunting, Forestry, Mining, and Qu	Rs Million	NVAPRI	2,143	2,532	2,967	3,172	3,501	4,048	4,266	4,680	4,750	5,040	5,736	10.7		5,736	6,784	7,355	7,977	8,655	9,393	10.4
23	I	Manufacturing	Rs Million	NVAMAN	2,864	3,830	4,976	5,847	6,648	7,784	8,766	9,952	11,188	12,461	13,983	17.2		13,983	17,635	19,332	21,200	23,257	25,522	12.8
24	I	Sugar	Rs Million	NVASUG	438	605	678	597	652	720	727	821	778	810	950	8.1		950	1,099	1,191	1,292	1,402	1,521	[illegible]
25	I	EPZ	Rs Million	NVAEPZ	1,333	1,900	2,585	3,125	3,400	3,975	4,408	5,011	5,705	6,226	6,930	17.9		6,930	8,982	9,832	10,786	11,793	12,923	13.3
26	I	Domestic Manufacturing	Rs Million	NVADOM	1,093	1,325	1,715	2,125	2,596	3,089	3,633	4,120	4,710	5,425	6,103	18.8		6,103	7,555	8,309	9,142	10,062	11,078	12.7
27	I	Electricity, Gas, and Water	Rs Million	NVAELE	397	462	490	517	577	507	775	950	1,205	1,300	1,418	13.6		1,418	1,286	1,446	1,631	1,838	2,071	7.3
28	I	Construction	Rs Million	NVACON	775	880	1,090	1,410	1,790	2,285	2,680	3,065	3,540	4,019	4,100	18.1		4,100	5,430	5,944	6,509	7,130	7,813	13.8
29	I	Wholesale, Retail, Restaurants, and Hotels	Rs Million	NVACOM	1,324	2,300	3,004	3,837	4,602	5,529	6,225	7,042	8,222	9,155	10,029	18.5		10,029	13,281	14,746	16,378	18,197	20,224	15.1
30	I	Transportation, Storage, and Communication	Rs Million	NVATRA	1,510	1,775	2,097	2,390	2,981	3,528	4,248	4,863	5,388	6,340	7,155	18.8		7,155	8,923	9,907	11,003	12,225	13,587	12.7
31	I	Banking, Insurance, Real Estate, Business serv	Rs Million	NVABAN	2,190	2,335	3,092	3,551	4,233	5,087	5,812	6,833	7,677	8,508	9,645	18.0		9,645	12,176	13,519	15,018	16,683	18,542	14.9
32	I	Other service	Rs Million	NVASER	2,187	2,338	3,070	3,915	4,490	5,113	5,853	6,542	7,778	9,250	10,144	16.7		10,144	12,626	13,821	15,134	16,578	18,166	12.4
33	I	Imputed Bank Service Charge	Rs Million	NVABSC	0	0	-405	-552	-693	-861	-1,053	-1,455	-1,540	-1,873	-2,210			-2,210	-2,908	-3,365	-3,895	-4,511	-5,225	18.8
34	I	GDP at Factor cost	Rs Million	NVAFAC	13,880	16,450	20,381	24,087	28,129	33,018	37,570	42,452	48,206	54,280	60,000	15.8		60,000	75,235	82,709	90,954	100,052	110,093	12.9
35	I	Net Indirect Taxes	Rs Million	NVATAX	2,738	3,250	3,881	4,622	5,191	6,245	6,763	7,240	8,425	8,580	8,760	12.3		8,760	10,903	11,935	13,070	14,316	15,687	12.4
36	I	GDP at Current Price	Rs Million	NCDP	16,618	19,700	24,282	28,709	33,320	39,263	44,333	49,692	56,631	62,840	68,760	15.3		68,760	88,138	94,644	104,024	114,358	125,780	12.8
37																								
38	I	GDP Deflator	1990=100	DFLGDP	63.2	66.2	74.2	81.9	90.9	100.0	108.2	113.9	123.8	132.9	140.9	[illegible]		141	167.0	174.1	181.8	189.4	197.7	7.0
39																								
40		GDP at Constant Price (1990)																						
41	E	Agriculture, Hunting, Forestry, Mining, and Qu	Rs Million	RVAPRI	3,927	4,347	4,186	3,985	3,686	4,048	3,971	4,229	3,941	3,650	3,905	-0.1	4	3,905	4,061	4,224	4,393	4,569	4,751	4.0
42	I	Manufacturing	Rs Million	RVAMAN	4,630	5,564	6,362	6,872	7,228	7,784	8,147	8,681	9,081	9,493	10,041	8.1	5.2	10,041	10,558	11,102	11,675	12,276	12,909	5.2
43	E	Sugar	Rs Million	RVASUG	754	849	816	739	642	720	708	706	653	575	632	-1.7	4.0	632	658	684	711	740	769	4.0
44	E	EPZ	Rs Million	RVAEPZ	1,902	2,565	3,129	3,505	3,715	3,975	4,174	4,425	4,690	4,878	5,122	10.4	5.0	5,122	5,378	5,646	5,929	6,225	6,537	5.0
45	E	Domestic Manufacturing	Rs Million	RVADOM	1,974	2,150	2,416	2,634	2,871	3,089	3,265	3,490	3,738	4,041	4,287	8.1	5.5	4,287	4,523	4,772	5,034	5,311	5,603	5.5
46	E	Electricity, Gas, and Water	Rs Million	RVAELE	374	407	428	444	497	507	555	583	644	681	713	6.7	8.0	713	770	832	898	970	1,048	8.0
47	E	Construction	Rs Million	RVACON	1,313	1,444	1,574	1,828	2,031	2,285	2,479	2,702	2,864	3,036	3,098	9.0	5.0	3,098	3,251	3,414	3,585	3,764	3,952	5.0
48	E	Wholesale, Retail, Restaurants, and Hotels	Rs Million	RVACOM	3,307	3,631	4,365	4,871	5,231	5,529	5,762	6,177	6,671	7,111	7,467	8.5	6.5	7,467	7,952	8,469	9,019	9,605	10,230	6.5
49	E	Transportation, Storage, and Communication	Rs Million	RVATRA	2,406	2,567	2,837	3,092	3,339	3,526	3,706	3,986	4,224	4,698	5,018	7.6	6.5	5,018	5,342	5,690	6,059	6,453	6,873	6.5
50	E	Banking, Insurance, Real Estate, Business serv	Rs Million	RVABAN	3,465	3,419	4,167	4,336	4,657	5,087	5,372	5,999	6,201	6,447	6,845	7.0	6.5	6,845	7,290	7,764	8,269	8,806	9,379	6.5
51	E	Other service	Rs Million	RVASER	3,429	3,420	4,137	4,780	4,939	5,113	5,409	5,744	6,283	6,960	7,199	7.7	5.0	7,199	7,559	7,937	8,334	8,751	9,189	5.0
52	E	Imputed Bank Service Charge	Rs Million	RVABSC	0	0	-546	-674	-762	-861	-973	-1,277	-1,244	-1,409	-1,568	14.1	11.0	-1,568	-1,741	-1,933	-2,145	-2,381	-2,643	11.0
53	I	GDP at Factor cost	Rs Million	RVAFAC	22,850	24,800	27,510	29,533	30,846	33,019	34,428	36,802	38,665	40,657	42,715	6.5		42,715	45,044	47,499	50,087	52,814	55,687	5.4
54	I	Net Indirect Taxes	Rs Million	RVATAX	4,332	4,758	5,230	5,643	5,711	6,245	6,250	6,356	6,805	6,456	6,217	3.7	5.0	6,217	6,528	6,854	7,197	7,557	7,935	5.0
55	I	GDP at constant (1990)	Rs Million	RCDP	27,163	29,558	32,740	35,176	36,557	39,264	40,678	43,158	45,471	47,113	48,932	6.1		48,932	51,572	54,354	57,284	60,371	63,622	5.4
56																		0						
57	I	GDP per Capita at Constant Price	Rs/person	PERGDP	27,457	29,857	32,740	34,487	35,492	36,635	38,017	39,961	41,716	42,713	43,846	4.8		43846	45,709	47,650	49,672	51,779	53,974	4.2
58																								
59		Labour Productivity (1990)																						
60	I	Agriculture, Hunting, Forestry, Mining, and Qu	1000 Rs /	LPYPRI	42	48	47	45	43	50	54	58	55	51	55	2.7		55	59	63	68	72	78	7.2
61	I	Manufacturing	1000 Rs /	LPYMAN	70	62	58	55	57	56	57	61	64	67	70	4.3		70	75	79	85	90	96	6.4
62	I	Sugar	1000 Rs /	LPYSUG							96	105	93	85	102	1.2		102	10	120	130	140	152	8.3
63	I	EPZ	1000 Rs /	LPYEPZ							46	49	55	59	63	6.4		63	69	75	81	89	96	8.8
64	I	Domestic Manufacturing	1000 Rs /	LPYDOM							76	77	78	78	76	0.1		76	79	82	84	87	90	3.4
65	I	Electricity, Gas, and Water	1000 Rs /	LPYELE	96	113	116	123	142	149	183	171	179	200	204	7.8		204	222	242	265	289	315	9.1
66	I	Construction	1000 Rs /	LPYCON	103	108	82	73	76	74	79	80	81	84	86	-1.7		86	88	89	91	93	95	1.9
67	I	Wholesale, Retail, Restaurants, Hotels	1000 Rs /	LPYCOM	116	124	134	124	121	106	101	100	95	94	93	-2.2		93	93	92	92	91	91	-0.5
68	I	Transportation, Storage, and Communication	1000 Rs /	LPYTRA	127	132	130	133	126	123	119	117	122	132	137	0.7		137	138	138	139	140	140	0.5
69	I	Banking, Insurance, Real Estate, Business serv	1000 Rs /	LPYBAN	559	526	595	563	485	442	444	451	449	430	428	-2.6		428	434	440	446	453	459	1.4
70	I	Other service	1000 Rs /	LPYSER	35	35	42	47	50	50	51	57	54	57	56	4.8		56	58	60	61	63	65	2.9
71	I	Total Labour Productivity at Constant Price (	1000 Rs /	LPYTOT	83	85	86	85	87	89	89	91	93	94	95	1.3		95	99	102	106	109	113	3.5
72																								
73		Wage at Current Price																						
74	I	All Sectors (Skilled)	Rs / Month	WACSKL	1,478	1,581	2,078	2,815	3,335	3,524	4,080	4,530	4,787	5,167	5,567	14.2	5.0	5,567	5,846	6,138	6,445	6,767	7,105	5.0
75	I	Wage Index of all Sectors	1990=100	WACIND	41.9	44.9	59.0	79.9	94.6	100.0	115.8	128.5	135.8	146.6	158.0	14.2		158	165.9	174.2	182.9	192.0	201.6	5.0
76																								
77		Government Finance at Current Price																						
78	I	Revenue	RS Million	GFREV	3,593	4,128	5,203	6,467	7,631	8,885	10,115	11,378	12,363	14,076	14,295	14.8		14,295	17,793	19,477	21,328	23,362	25,599	12.4
79	I	Grants Received	RS Million	GFGRT	166	233	188	214	68	116	61	25	78	130	240			240	300	300	300	300	300	4.6
80	I	Expenditure	RS Million	GFEXP	4,229	4,445	5,125	6,377	7,483	8,880	9,944	11,518	12,148	14,271	15,868	14.1		15,868	19,732	21,579	23,607	25,834	28,281	12.3
81	I	Lending - Repayment	RS Million	GFNLD	110	263	211	217	683	279	231	244	275	-383	-380			-380	-500	-500	-500	-500	-500	5.6

2010/2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010/2000	2025/2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1.1	1.179	1.192	1.205	1.218	1.231	1.245	1.259	1.273	1.287	1.301	1.315	1.1	1.0	1.315	1.328	1.341	1.355	1.368	1.382	1.396	1.410	1.424	1.438	1.453	1.46
1.1	195	199	201	203	205	208	210	212	214	217	219	1.1	1.0	219	221	224	226	228	230	233	235	237	240	242	24
-3.0	61.142	59.308	57.528	55.803	54.128	52.505	50.929	49.402	47.920	46.482	45.087	-3.0	-2.0	45.087	44.186	43.302	42.430	41.587	40.756	39.940	39.142	38.359	37.592	36.840	36.10
	134.971	132.171	129.430	126.749	124.124	121.556	119.042	116.582	114.175	111.818	109.512	-2.1		109.512	110.848	112.203	113.576	114.969	116.381	117.812	119.262	120.733	122.224	123.735	125.26
-4.0	5.055	4.853	4.659	4.473	4.294	4.122	3.957	3.799	3.647	3.501	3.361	-4.0	-1.3	3.361	3.317	3.274	3.232	3.190	3.148	3.107	3.067	3.027	2.988	2.949	2.91
-2.0	57.867	56.509	55.179	53.876	52.598	51.346	50.119	58.917	57.739	56.584	55.452	-2.0	1.3	55.452	56.173	56.903	57.643	58.392	59.151	59.920	60.699	61.488	62.288	63.098	63.91
-2.0	52.049	60.808	59.592	58.400	57.232	56.088	54.966	53.867	52.789	51.733	50.699	-2.0	1.3	50.699	51.358	52.026	52.702	53.387	54.081	54.784	55.496	56.218	56.949	57.689	58.43
-1.0	3.328	3.295	3.262	3.230	3.197	3.165	3.134	3.102	3.071	3.041	3.010	-1.0	-1.0	3.010	2.980	2.950	2.921	2.892	2.863	2.834	2.806	2.778	2.750	2.722	2.69
3.0	41.734	42.986	44.275	45.604	46.972	48.381	49.832	51.327	52.867	54.453	56.087	3.0	3.0	56.087	57.769	59.503	61.288	63.126	65.020	66.971	68.980	71.049	73.181	75.376	77.63
5.0	112.344	117.962	123.860	130.053	136.555	143.383	150.552	158.080	165.984	174.283	182.997	5.0	1.3	182.997	185.376	187.786	190.227	192.700	195.205	197.743	200.314	202.918	205.556	208.228	210.93
4.5	48.979	51.183	53.486	55.893	58.408	61.037	63.783	66.654	69.653	72.788	76.063	4.5	1.1	76.063	76.900	77.746	78.601	79.465	80.339	81.223	82.117	83.020	83.933	84.856	85.79
4.0	20.421	21.237	22.087	22.970	23.889	24.845	25.838	26.872	27.947	29.065	30.227	4.0	3.0	30.227	31.134	32.068	33.030	34.021	35.042	36.093	37.176	38.291	39.440	40.623	41.84
1.0	140.991	142.401	143.825	145.263	146.716	148.183	149.665	151.162	152.673	154.200	155.742	1.0	1.0	155.742	157.299	158.872	160.461	162.066	163.686	165.323	166.976	168.646	170.333	172.036	173.75
	563.911	570.543	577.754	585.564	593.951	603.054	612.777	623.181	634.290	646.129	658.726	1.6		659.726	666.493	674.430	682.540	690.826	699.292	707.939	716.772	725.794	735.007	744.417	754.02
	48	48	48	48	48	48	49	49	49	50	50	[illegible]		50	50	50	50	50	51	51	51	51	51	51	5
	9.393	10.173	11.020	11.941	12.941	14.029	15.212	16.498	17.898	19.421	21.079	8.4		21.079	22.829	24.726	26.783	29.012	31.429	34.050	36.893	39.976	43.322	46.952	50.89
	25.522	28.010	30.753	33.778	37.115	40.796	44.864	49.353	54.312	59.790	65.848	9.9		55.846	73.864	82.878	93.015	104.416	117.239	131.667	147.901	166.171	180.737	209.891	235.96
	1.571	1.584	1.650	1.719	1.751	1.867	1.947	2.030	2.118	2.210	2.306	4.2		2.306	2.401	2.501	2.605	2.713	2.826	2.944	3.067	3.196	3.330	3.470	3.61
	12.923	14.197	15.601	17.148	18.853	20.733	22.805	25.090	27.611	30.393	33.464	10.0		33.464	37.637	42.332	47.616	53.563	60.257	67.793	76.278	85.833	96.593	108.714	122.36
	11.076	12.228	13.501	14.910	16.471	18.198	20.112	22.232	24.582	27.187	30.076	10.5		30.076	33.826	38.046	42.795	48.140	54.158	60.929	68.555	77.142	86.813	97.707	109.97
	2.071	2.330	2.621	2.949	3.319	3.736	4.207	4.733	5.338	6.015	6.780	12.6		6.780	7.625	8.576	9.647	10.851	12.208	13.734	15.453	17.389	19.569	22.025	24.79
	7.813	8.543	9.343	10.221	11.184	12.241	13.400	14.673	16.071	17.607	19.294	9.5		19.294	21.097	23.069	25.228	27.591	30.177	33.008	36.107	39.502	43.219	47.291	51.75
	20.224	22.324	24.649	27.221	30.069	33.223	36.717	40.588	44.878	49.634	54.908	10.5		54.908	60.038	65.652	71.796	78.520	85.879	93.938	102.757	112.417	122.998	134.584	147.28
	13.587	15.069	16.716	18.548	20.585	22.852	25.374	28.182	31.307	34.789	38.666	11.0		38.666	42.682	47.118	52.017	57.431	63.412	70.022	77.328	85.401	94.328	104.198	115.11
	18.542	20.564	22.811	25.311	28.091	31.184	34.626	38.457	42.723	47.473	52.765	11.0		52.765	58.245	64.298	70.984	78.371	86.533	95.553	105.521	116.540	128.721	142.190	157.08
	18.166	19.863	21.724	23.765	26.004	28.460	31.156	34.116	37.366	40.936	44.859	9.5		44.859	49.050	53.637	58.656	64.149	70.102	76.744	83.951	91.843	100.486	109.953	120.32
	-5.225	-6.094	-7.110	-8.296	-9.683	-11.304	-13.200	-15.417	-18.012	-21.048	-24.603	16.8		-24.603	-28.695	-33.470	-39.043	-45.546	-53.136	-61.995	-72.338	-84.414	-98.515	-114.963	-134.21
	110.093	120.791	132.528	145.432	159.626	175.219	192.356	211.188	231.881	254.617	279.593	9.8		279.593	306.735	336.484	369.093	404.795	443.904	486.719	533.572	584.824	640.862	702.100	768.98
	15.687	17.153	18.760	20.522	22.456	24.577	26.906	29.462	32.268	35.351	38.738	9.5		38.738	42.358	46.319	50.653	55.397	60.590	66.274	72.497	79.312	86.770	94.952	103.90
	125780	137.934	151.288	165.960	182.092	199.797	219.262	240.650	264.150	289.968	318.332	9.7		318.332	349.093	382.803	419.737	460.192	504.494	552.992	606.070	664.136	727.638	797.052	872.89
193.3	197.7	205.9	214.4	223.4	232.8	242.7	253.0	263.9	275.2	287.2	299.7	4.2	286.0	300	312.1	325.0	338.5	352.6	367.3	382.6	398.6	415.3	432.8	451.0	470.
4	4.751	4.941	5.139	5.345	5.558	5.781	6.012	6.252	6.502	6.763	7.033	4.0	4	7.033	7.314	7.607	7.911	8.228	8.557	8.893	9.255	9.625	10.010	10.411	10.82
5.5	12.909	13.605	14.341	15.119	15.941	16.811	17.731	18.703	19.732	20.819	21.970	5.5	5.9	21.970	23.666	25.497	27.476	29.612	31.910	34.411	37.103	40.009	43.149	46.539	50.20
0	769	769	769	769	769	769	769	769	769	769	769	0.0	0	769	769	769	769	769	769	769	769	769	769	769	76
5.5	6.537	6.896	7.275	7.675	8.098	8.543	9.013	9.509	10.031	10.583	11.165	5.5	8.0	11.165	12.059	13.023	14.065	15.190	16.405	17.718	19.135	20.666	22.319	24.105	26.03
6.0	5.603	5.940	6.296	6.674	7.074	7.499	7.949	8.425	8.931	9.467	10.035	6.0	8.0	10.035	10.838	11.705	12.641	13.652	14.744	15.924	17.198	18.574	20.060	21.664	23.39
8.0	1.048	1.132	1.222	1.320	1.425	1.539	1.663	1.796	1.939	2.094	2.262	8.0	8.0	2.262	2.443	2.638	2.849	3.077	3.324	3.590	3.877	4.187	4.522	4.884	5.27
5.0	3.952	4.150	4.357	4.575	4.804	5.044	5.296	5.561	5.839	6.131	6.437	5.0	5.0	6.437	6.759	7.097	7.452	7.825	8.216	8.627	9.058	9.511	9.986	10.486	11.01
6.0	10.230	10.844	11.494	12.184	12.915	13.690	14.511	15.382	16.305	17.283	18.320	6.0	5.0	18.320	19.236	20.198	21.208	22.268	23.381	24.550	25.778	27.067	28.420	29.841	31.33
6.5	6.873	7.319	7.795	8.302	8.841	9.416	10.028	10.680	11.374	12.114	12.901	6.5	6.0	12.901	13.675	14.496	15.365	16.287	17.264	18.300	19.398	20.562	21.790	23.104	24.49
6.5	9.379	9.988	10.637	11.329	12.065	12.850	13.685	14.574	15.522	16.530	17.605	6.5	6.0	17.605	18.661	19.781	20.968	22.226	23.559	24.973	26.471	28.060	29.743	31.528	33.41
5.0	9.189	9.648	10.130	10.637	11.169	11.727	12.313	12.929	13.576	14.254	14.967	5.0	5.0	14.967	15.715	16.501	17.326	18.193	19.102	20.057	21.060	22.113	23.219	24.380	25.59
12.0	-2.643	-2.960	-3.315	-3.713	-4.159	-4.658	-5.217	-5.843	-6.544	-7.329	-8.209	12.0	12.0	-8.209	-9.194	-10.297	-11.533	-12.917	-14.467	-16.203	-18.147	-20.325	-22.763	-25.495	-28.55
	55.687	58.667	61.801	65.098	68.560	72.200	76.022	80.035	84.245	88.680	93.286	5.3		93.286	98.278	103.518	109.023	114.799	120.857	127.205	133.853	140.810	148.082	155.676	163.59
5.0	7.935	8.332	8.748	9.186	9.645	10.127	10.633	11.165	11.723	12.310	12.925	5.0	5.0	12.925	13.571	14.250	14.962	15.710	16.496	17.321	18.187	19.096	20.051	21.054	22.10
	63.622	66.998	70.549	74.282	78.205	82.327	86.656	91.200	95.968	100.969	106.211	5.9		106.211	111.847	117.768	123.985	130.509	137.353	144.526	152.040	159.906	168.133	176.730	185.70
	0																								
	53.974	56.220	58.555	60.983	63.505	66.125	68.845	71.666	74.593	77.626	80.768	4.1		80.768	84.212	87.792	91.511	95.373	99.380	103.535	107.839	112.296	116.904	121.665	126.57
	76	83	89	96	103	110	118	127	136	145	156	7.3		156	166	176	186	198	210	223	236	251	266	283	30
	96	103	111	119	128	138	149	160	173	180	201	7.7		201	213	227	242	258	274	292	311	331	353	376	40
	152	159	165	172	179	187	194	203	211	220	229	4.2		229	232	235	238	241	244	248	251	254	258	261	2
	96	104	112	120	129	139	150	161	174	187	201	7.7		201	215	229	244	260	277	296	315	336	358	382	40
	90	98	106	114	124	134	145	156	169	183	198	8.2		198	211	225	240	256	273	291	310	330	352	376	40
	215	343	375	409	446	486	531	579	631	689	751	9.1		751	820	894	976	1.064	1.161	1.267	1.382	1.507	1.644	1.794	1.95
	95	97	98	100	102	104	106	108	110	113	115	1.9		115	117	119	122	124	128	129	131	134	136	139	14
	91	92	93	94	95	95	96	97	98	99	100	1.0		100	104	108	111	116	120	124	129	133	138	143	14
	140	143	146	149	151	154	157	160	163	166	170	1.9		170	178	186	195	205	215	225	236	248	260	272	28
	459	470	482	493	505	517	530	542	555	569	582	2.4		582	590	617	635	653	672	692	712	733	754	776	79
	65	68	70	73	76	79	82	86	89	92	96	4.0		96	100	104	108	112	117	121	126	131	136	142	14
	113	117	122	127	132	137	141	146	151	156	161	3.6		161	168	175	182	189	196	204	212	220	229	237	24
5.0	7.105	7.461	7.834	8.225	8.637	9.068	9.522	9.998	10.498	11.023	11.574	5.0	5.0	11574	12.152	12.760	13.398	14.068	14.772	15.510	16.286	17.100	17.955	18.853	19.7
	201.6	211.7	222.3	233.4	245.1	257.3	270.2	283.7	297.9	312.8	328.4	5.0		328	344.9	362.1	380.2	399.2	419.2	440.1	462.1	485.2	509.5	535.0	561.
	25.599	27.618	29.803	32.168	34.729	37.503	40.508	43.765	47.296	51.123	55.275	8.0		55.275	59.634	64.341	69.423	74.912	80.842	87.247	94.167	101.645	109.728	118.405	127.91
	300	300	300	300	300	300	300	300	300	300	300			300	300	300	300	300	300	300	300	300	300	300	3
	28.281	30.423	32.734	35.230	37.925	40.835	43.980	47.379	51.052	55.024	59.320	7.7		59.320	64.029	69.116	74.612	80.550	86.967	93.932	101.401	109.506	118.271	127.750	135.0
	-500	-800	-800	-800	-800	-800	-800	-800	-800	-800	-800			-800	-1.500	-1.500	-1.500	-1.500	-1.500	-1.500	-1.500	-1.500	-1.500	-1.500	-1.5

2022	2023	2024	2025	2025/2010	1995/1985	2000/1995	2010/2000	2025/2010	2025/1995
1,482	1,497	1,512	1,527	1.0	1.2	1.1	1.1	1.0	1.0
247	249	252	254	1.0	1.2	1.1	1.1	1.0	1.0
35,381	34,673	33,980	33,300	-2.0	-2.7	-3.0	-3.0	-2.0	-2.5
126,820	128,394	129,989	131,606	1.2	8.0	-1.2	-2.1	1.2	-0.3
2,873	2,835	2,798	2,762	-1.3		-4.0	-4.0	-1.3	-2.7
64,749	65,591	66,443	67,307	1.3		-3.5	-2.0	1.3	-0.8
59,199	59,968	60,748	61,537	1.3		2.0	-2.0	1.3	0.3
2,668	2,642	2,615	2,589	-1.0	-1.1	-1.0	-1.0	-1.0	-1.0
79,966	82,365	84,836	87,381	3.0	10.3	3.0	3.0	3.0	3.0
213,677	216,455	219,269	222,119	1.3	10.9	7.0	5.0	1.3	3.5
86,734	87,688	88,652	89,627	1.1	6.8	5.0	4.5	1.1	3.0
43,097	44,390	45,722	47,098	3.0	9.9	5.0	4.0	3.0	3.7
175,404	177,249	179,021	180,812	1.0	2.8	2.0	1.0	1.0	1.2
763,837	773,855	784,084	794,528	1.3	4.7	1.8	1.6	1.3	1.5
52	52	52	52	0.3	3.4	0.7	0.5	0.3	0.4
55,169	59,813	64,856	70,335	8.4	10.3	10.4	3.4	8.4	8.7
265,331	298,415	335,695	377,715	12.4	17.2	12.8	9.9	12.4	11.6
3,770	3,930	4,097	4,273	4.2	8.1	9.9	4.2	4.2	5.1
137,754	155,094	174,640	196,678	12.5	17.9	13.3	10.0	12.5	11.8
123,807	139,391	156,958	176,764	12.5	18.8	12.7	10.5	12.5	11.9
27,908	31,421	35,381	39,845	12.5	13.6	7.9	12.6	12.5	11.8
56,641	61,999	67,873	74,315	9.4	18.1	13.8	9.5	9.4	10.1
161,192	176,441	193,159	211,491	9.4	18.5	15.1	10.5	9.4	10.7
127,187	140,545	155,327	171,688	10.4	16.8	15.7	11.0	10.4	11.2
179,562	191,790	211,962	234,289	10.4	16.0	14.0	11.0	10.4	11.2
131,692	144,150	157,808	172,785	9.4	16.7	12.4	9.5	9.4	9.9
-156,690	-182,947	-213,633	-249,502	16.7		18.8	16.8	16.7	17.1
841,992	921,626	1,008,427	1,102,959	9.6	15.8	12.9	9.8	9.6	10.2
113,724	124,483	136,277	149,211	9.4	12.3	12.4	9.5	9.4	9.9
955,716	1,045,109	1,144,704	1,252,170	9.6	15.3	12.8	9.7	9.6	10.2
489.9	510.8	532.5	555.3	4.2	8.3	7.0	4.2	4.2	4.7
11,260	11,711	12,179	12,666	4.0	-0.1	4.0	4.0	4.0	4.0
54,155	58,426	63,038	68,020	7.8	8.1	5.2	5.5	7.8	6.6
769	769	769	769	0.0	-1.7	4.0	0.0	0.0	0.7
28,116	30,365	32,795	35,418	8.0	10.4	5.0	5.5	8.0	6.7
25,269	27,291	29,474	31,832	8.0	8.1	5.5	6.0	8.0	6.9
5,696	6,152	6,644	7,175	8.0	6.7	8.0	8.0	8.0	8.0
11,561	12,139	12,746	13,383	5.0	9.0	5.0	5.0	5.0	5.0
32,900	34,545	36,272	38,086	5.0	3.5	6.5	6.0	5.0	5.6
25,959	27,517	29,168	30,918	6.0	7.6	6.5	5.5	6.0	6.2
35,425	37,550	39,803	42,191	6.0	7.0	6.5	6.5	6.0	6.2
26,879	28,223	29,634	31,116	5.0	7.7	5.0	5.0	5.0	5.0
-31,981	-35,819	-40,117	-44,931	12.0		11.0	12.0	12.0	11.8
171,854	180,443	189,367	198,624	5.2	6.5	5.4	5.3	5.2	5.3
23,212	24,372	25,591	26,870	5.0	3.7	5.0	5.0	5.0	5.0
195,065	204,815	214,958	225,494	5.1	6.1	5.4	5.3	5.1	5.2
131,641	136,852	142,297	147,701	4.1	4.8	4.2	4.1	4.1	4.1
318	338	358	380	6.1	2.7	7.2	7.2	5.1	6.7
427	455	485	517	6.5	0.0	6.4	7.7	5.5	6.9
268	271	275	279	1.9		8.3	4.2	1.3	5.4
434	463	494	526	6.6		8.8	7.7	6.6	7.3
427	455	485	517	6.6		3.4	8.2	6.6	6.5
2,135	2,329	2,541	2,772	9.1	7.8	9.1	9.1	9.1	9.1
145	147	150	153	1.9	-1.7	1.9	1.9	1.9	1.9
154	160	165	171	3.7	-2.2	-0.5	1.0	3.7	2.1
299	314	329	345	4.8	0.7	0.5	1.9	4.8	3.1
822	846	871	896	2.9	-2.6	1.4	2.4	2.9	2.5
153	159	166	172	4.0	4.8	2.9	4.0	4.0	5.8
255	265	274	284	3.8	1.3	3.5	3.6	3.8	3.7
20,785	21,824	22,915	24,061	5.0	14.2	5.0	5.0	5.0	5.0
589.6	619.3	650.3	682.8	5.0	14.2	5.0	5.0	5.0	5.0
138,129	149,180	161,137	174,077	7.9	14.8	12.4	8.0	7.9	8.7
300	300	300	300						
149,098	161,105	174,101	188,174	8.0	14.1	12.3	7.7	8.0	8.6
-1,500	-1,500	-1,500	-1,500						

No.	Item	Unit / Code	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	95/85	2000/1995	1995	1996	1997	1998	1999	2000	2000/95
82 I	Deficit and Surplus	RS Million GFD&S	-580	-347	55	87	-467	-158	1	-359	18	318	-953			-953	-1,139	-1,302	-1,479	-1,672	-1,882	14.5
83																						
84	Government Finance at Constant Price (1990)																					
85 E	Revenue	RS Million RGFREV	5,685	6,044	7,012	7,896	8,395	8,885	9,348	9,989	9,986	10,591	10,145	6.0	6.0	10,145	10,653	11,185	11,745	12,332	12,949	5.0
86 E	Grants Received	RS Million RGFGRT	263	341	253	201	75	110	56	22	63	98	170			170	0	0	0	0	0	-100.0
87 E	Expenditure	RS Million RGFEXP	6,691	6,508	6,907	7,796	8,232	8,880	9,190	10,112	9,813	10,738	11,262	5.3	5.0	11,262	11,814	12,393	13,000	13,637	14,305	4.9
88 E	Lending - Repayment	RS Million RGFNLD	174	385	284	265	751	270	213	214	222	-288	-270			-270						-100.0
89 I	Deficit and Surplus	RS Million RGFD&S	-918	-508	74	105	-514	-158	1	-315	15	239	-876			-676	-1,161	-1,207	-1,255	-1,305	-1,357	14.9
90																						
91	Price Index and Exchange Rate																					
92 E	Consumer Price Index of South Africa	1990=100 CPISA	49.0	58.2	67.5	76.2	87.4	100.0	115.3	131.3	144.0	157.0	170.6	13.3	10.0	171	187.7	206.4	227.1	249.8	274.8	10.0
93 E	SA exchange Rates: Rand vs US Dollar	Rand/U.S. EXGSA	2.4	2.3	2.0	2.3	2.6	2.6	2.8	2.8	3.3	3.5	3.6	4.4	2.0	3.6	3.7	3.8	3.9	3.9	4.0	2.0
94 E	Exchange Rates: Rs vs US Dollar	RS/U.S. EXCHC	15.44	13.47	12.89	13.44	15.25	14.86	15.65	15.56	17.65	17.96	17.91	1.5	2.0	17.91	20.5	20.9	21.3	21.7	22.1	2.4
95 I	Import unit value Index	1990=100 IMVLIX	88.0	69.7	72.1	78.7	93.7	100.0	104.7	106.9	118.0	128.5	135.8	4.7		136	169.2	178.1	187.4	197.3	207.6	8.9
96 I	Export unit value Index	1990=100 EXVLIX	63.6	67.3	75.3	80.0	95.4	100.0	106.4	113.8	123.5	129.2	138.6	8.1		139	163.3	170.0	177.1	184.5	192.3	6.8
97 I	Consumer Price Index	1990=100 CPIMRT	70.1	71.3	71.6	78.2	88.1	100.0	107.0	112.0	123.7	132.8	141.0	7.2		141	166.0	172.8	179.9	187.4	195.2	6.7
98																						
99	GDE at Current Price																					
100 I	Private Consumption Expenditure	RS Million EPCON	11,118	12,000	14,090	17,215	20,850	24,840	27,542	30,999	35,738	40,360	44,730	14.9		44,730	66,960	59,217	72,813	75,621	80,653	12.5
101 I	Gov. Consumption Expenditure	RS Million EGCON	1,915	2,076	2,722	3,509	3,936	4,456	5,005	5,635	6,822	7,814	8,605	16.2		8,605	10,711	11,725	12,839	14,064	15,411	12.4
102 I	Gross Domestic Fixed Capital Formation	RS Million EDFIX	3,100	3,890	5,090	7,090	8,565	11,865	12,385	13,810	16,065	19,550	18,325	19.4		18,325	23,087	21,561	24,183	31,866	35,810	14.3
103 I	Private Fixed Capital Formation	RS Million EPFIX	2,100	2,515	3,415	4,655	6,330	7,560	8,870	8,980	11,025	13,855	12,460	19.5		12,460	16,006	13,809	15,695	22,568	25,622	15.5
104 I	Govern. Fixed Capital Formation	RS Million EGFIX	1,000	1,375	1,760	3,435	2,350	4,365	3,515	4,830	5,040	5,695	5,865	19.4		5,865	7,082	7,752	8,488	9,298	10,188	11.7
105 I	Export of Goods and Non-factor Services	RS Million EEXP	8,895	11,919	15,639	18,565	21,363	25,619	27,361	29,759	33,515	36,027	40,115	16.3		40,115	50,855	56,710	63,264	70,604	78,827	14.5
106 I	Import of Goods and Non-factor Service	RS Million EIMP	9,210	10,607	15,141	19,988	23,801	28,458	29,535	31,386	37,020	41,560	43,100	16.7		43,100	59,054	62,491	68,310	76,895	84,365	14.4
107																						
108	GDE at Constant Price (1990)																					
109 I	Private Consumption Expenditure	RS Million RPCON	17,592	17,570	19,798	21,020	22,937	24,840	25,455	27,216	28,858	30,389	31,746	8.1		31,746	39,551	39,751	40,097	40,445	40,796	5.1
110 I	Gov. Consumption Expenditure	RS Million RGCON	3,030	3,040	3,669	4,284	4,330	4,456	4,826	5,000	5,511	5,880	6,107	7.3		6,107	6,413	6,734	7,070	7,424	7,795	5.0
111 I	Gross Domestic Fixed Capital Formation	RS Million RDFIX	4,905	5,865	6,860	8,756	9,422	11,865	11,446	12,125	12,977	14,710	13,006	10.2		13,006	13,823	12,382	13,317	16,821	18,113	6.8
112 I	Private Fixed Capital Formation	RS Million RPFIX	3,323	3,682	4,602	5,684	6,904	7,560	8,198	7,884	8,905	10,425	8,843	10.3		8,843	9,583	7,930	8,643	11,913	12,960	7.9
113 I	Govern. Fixed Capital Formation	RS Million RGFIX	1,582	2,013	2,312	4,194	2,585	4,385	3,249	4,241	4,071	4,285	4,163	10.2		4,163	4,240	4,452	4,614	4,908	5,154	4.4
114 I	Export of Goods and Non-factor Services	RS Million REXP	14,074	17,451	21,077	22,669	23,502	25,019	25,750	26,127	27,072	27,108	28,471	7.3		28,467	30,443	32,568	34,838	37,269	39,872	7.0
115 I	Import of Goods and Non-factor Service	RS Million RIMP	14,573	15,530	20,406	24,405	26,184	29,458	27,297	27,556	29,903	31,272	30,589	7.7		30,589	35,356	35,888	37,617	40,590	42,673	6.9
116 I	Stock & Statiscal Error	RS Million RSSE	2,154	1,333	1,743	1,854	2,549	942	899	248	547	317	192	-21.5		192	-3,306	-1,193	-421	-998	-281	-207.9
117 I	GDE at Constant Price (1990)	RGDE	27,183	29,558	32,740	35,176	36,557	39,284	40,678	43,158	45,471	47,113	48,932	6.1		48,932	51,572	54,354	57,284	60,371	63,622	5.4
118																						
119	Macro Index																					
120 I	Marginal Capital Coefficient of Public & Private	None KCCTOT		2.4	2.2	4.0	6.8	4.4	8.1	4.9	5.8	9.0	7.1			7.1	5.2	4.5	4.5	5.4	5.6	4.8
121 I	Marginal Capital Coefficient of Private sector	None KCCPRT		1.6	1.4	2.3	5.0	2.8	5.8	3.2	3.9	6.3	4.9			4.9	3.6	2.9	2.9	3.9	4.0	2.9
122 I	RSSE/RGDE*100	%		4.5	5.3	5.3	7.0	2.4	1.7	0.6	2.1	0.7	0.4			0.4	-6.41	-2.19	-0.74	-2	-0.44	-202.4
123																						
124																						
125	>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>
126			1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	95/85	2000/199	1995	1996	1997	1998	1999	2000	2000/95
127	Conversion Factors	Conversion Factors																				
128 E	Gasoline (0.7440 Kg / L 1.344 Kl / Ton. 10500	TOE/T YGAS	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080		1.080	1.080	1.080	1.080	1.080	1.080	1.080	
129 E	Diesel (0.8463 Kg / L 1.1816 Kl / Ton. 10200	TOE/T YDIE	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010		1.010	1.010	1.010	1.010	1.010	1.010	1.010	
130 E	Kerosene (0.7973 Kg / L 1.2542 Kl / Ton. 1034	TOE/T YKER	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040		1.040	1.040	1.040	1.040	1.040	1.040	1.040	
131 E	Fuel oil (0.9516 Kg / L 1.0508 Kl / Ton. 9627	TOE/T YFUE	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960		0.960	0.960	0.960	0.960	0.960	0.960	0.960	
132 E	LPG (10812 Kcal / Kg)	TOE/T YLPG	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080		1.080	1.080	1.080	1.080	1.080	1.080	1.080	
133 E	Jet Fuel	TOE/T VJFL	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040		1.040	1.040	1.040	1.040	1.040	1.040	1.040	
134 E	Coal (6151 Kcal / Kg)	TOE/T YCOL	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620		0.620	0.620	0.620	0.620	0.620	0.620	0.620	
135 E	Bagasse (1851 Kcal / Kg)	TOE/T YBAG	0.150	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160		0.160	0.160	0.160	0.160	0.160	0.160	0.160	
136 E	Fuel Wood	TOE/T YFWD	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380		0.380	0.380	0.380	0.380	0.380	0.380	0.380	
137 E	Charcoal	TOE/T YCHL	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740		0.740	0.740	0.740	0.740	0.740	0.740	0.740	
138 E	Electricity (860 Kcal / Kwh)	TOE/MWh YELE	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086		0.086	0.086	0.086	0.086	0.086	0.086	0.086	
139 E	Hydo Electricity	TOE/MWh YHEL	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220		0.220	0.220	0.220	0.220	0.220	0.220	0.220	
140																						
141	World Energy Price Trends																					
142 E	Petroleum Spot Price (Dubai Fateh, FOB)	US$/bbl YPETDU	26.5	13.1	16.9	13.2	15.7	20.5	16.5	17.2	15.0	14.8	16.3	-4.7	3.0	16.3	16.8	17.3	17.8	18.3	18.9	3.0
143 E	Coal Price (South Africa, CIF)	Rp/T YCOLSA	443	443	443	568	760	721	760	785	848	900	908	7.4	1.8	908	924	941	958	975	993	1.8
144																						
145	Energy Wholesale Prices (PHY)																					
146 I	Gasoline	RS/Liter GPGAS	7.9	7.4	7.4	7.4	7.4	7.4	9.1	9.1	9.1	9.1	9.1	1.5	4.7	9.1	10.5	11.0	11.5	12.1	12.6	6.7
147 I	Diesel (Gas oil)	RS/Liter GPDIE	4.6	4.3	4.3	4.3	4.3	4.3	5.2	5.2	5.2	5.2	5.2	1.1	4.7	5.2	5.4	5.7	5.9	6.2	6.5	4.7
148 I	Kerosene	RS/Liter GPKER	3.8	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	-0.9	4.7	3.4	3.6	3.8	3.9	4.1	4.3	4.7
149 I	Fuel Oil	RS/Liter GPFUE	3.1	1.5	1.8	1.5	2.0	2.4	2.1	2.2	2.2	2.2	2.4	-2.4	4.7	2.4	2.5	2.6	2.8	2.9	3.0	4.7
150 I	LPG	RS/Kg GPLPG	13.8	14.5	7.8	7.8	8.6	10.2	10.2	10.2	10.2	10.2	11.8	-1.6	4.7	11.8	12.3	12.9	13.5	14.1	14.8	4.7
151 I	Coal	RS/T GPCOL	443.0	443.0	443.0	568.0	760.0	721.0	760.0	785.0	848.0	900.0	908.0	7.4	3.8	908	943	978	1,015	1,054	1,094	3.8
152																						
153	Energy Wholesale Prices (TOE)																					
154 I	Gasoline	RS/TOE TPGAS	7,292	6,884	6,884	6,884	6,884	6,884	8,444	8,444	8,444	8,444	8,444	1.5		8,444	9,725	10,183	10,661	11,162	11,687	6.7
155 I	Diesel (Gas oil)	RS/TOE TPDIE	4,595	4,269	4,269	4,269	4,269	4,269	5,129	5,129	5,129	5,129	5,129	1.1		5,129	5,370	5,622	5,886	6,163	6,453	4.7
156 I	Kerosene	RS/TOE TPKER	3,927	3,204	3,204	3,204	3,204	3,204	3,298	3,298	3,298	3,298	3,298	-0.9		3,298	3,453	3,615	3,785	3,963	4,149	4.7
157 I	Fuel oil	RS/TOE TPFUE	3,182	1,596	1,853	1,604	2,068	2,479	2,208	2,262	2,308	2,325	2,499	-2.4		2,499	2,617	2,740	2,868	3,003	3,144	4.7
158 I	LPG	RS/TOE TPLPG	12,756	13,467	7,244	7,244	7,926	9,407	9,407	9,407	9,407	9,407	10,889	-1.6		10,889	11,401	11,930	12,498	13,085	13,700	4.7
159 I	Coal	RS/TOE TPCOL	715	715	715	916	1,228	1,163	1,226	1,266	1,368	1,452	1,465	7.4		1,465	1,520	1,578	1,638	1,700	1,765	3.8
160																						
161	Energy Retail Prices (PHY)																					
162 I	Gasoline	RS/Liter GRGAS	8.11	7.7	7.7	7.7	7.7	7.7	9.4	9.4	9.4	9.4	9.4	1.5	4.0	9.4	11.6	12.1	12.7	13.3	13.9	8.2

	-1.882	-1.705	-1.832	-1.962	-2.096	-2.232	-2.372	-2.513	-2.657	-2.801	-2.945	
5.6	12.949	13.415	13.898	14.398	14.916	15.453	16.010	16.586	17.183	17.802	18.442	3.6
	0	0	0	0	0	0	0	0	0	0	0	
4.7	14.305	14.777	15.265	15.768	16.289	16.826	17.382	17.955	18.548	19.160	19.792	3.3
	0											
	-1.357	-1.362	-1.367	-1.371	-1.373	-1.373	-1.372	-1.369	-1.365	-1.358	-1.350	
10.0	274.8	302.2	302.5	365.7	402.3	442.5	486.7	535.4	589.0	647.9	712.6	10.0
2.0	4	4.1	4.2	4.3	4.3	4.4	4.5	4.6	4.7	4.8	4.9	2.0
2.0	22	22.6	23.0	23.5	24.0	24.5	24.9	25.4	25.9	26.5	27.0	2.0
218.9	208	218.5	230.0	242.1	254.9	268.2	282.3	297.1	312.7	329.2	346.5	5.3
192.3	192	200.0	208.1	216.5	225.4	234.6	244.3	254.5	265.1	276.3	287.9	4.1
195.9	195	203.0	211.1	219.6	228.5	237.8	247.5	257.7	268.4	279.6	291.3	4.1
	80.653	114.411	121.455	128.959	136.953	145.471	154.547	164.221	174.532	185.523	197.241	9.6
	15.411	16.626	17.941	19.365	20.907	22.577	24.386	26.347	28.472	30.776	33.275	8.0
	35.810	39.398	37.781	41.589	51.617	56.867	62.579	69.115	76.247	84.151	92.916	10.0
	25.622	28.406	25.920	28.787	37.795	41.941	46.556	51.697	57.423	63.804	70.917	10.7
	10.188	10.992	11.861	12.803	13.822	14.925	16.122	17.419	18.824	20.347	21.999	8.0
	78.827	87.113	96.303	106.498	117.811	130.308	144.311	159.797	177.003	196.124	217.382	10.7
	84.365	105.293	112.087	122.110	135.848	148.248	161.994	176.921	193.480	211.738	231.883	10.5
41,356	40795.85	55.572	58.637	57.721	58.822	59.342	61.080	62.235	63.409	64.601	65.810	4.9
7,795	7.795	8.076	8.366	8.668	8.980	9.303	9.638	9.985	10.344	10.717	11.102	3.6
18,113	18.113	19.137	17.618	18.615	22.170	23.432	24.772	28.193	27.701	29.302	31.002	5.5
12,066	12.967	13.798	12.087	12.884	15.233	17.282	18.400	19.592	20.862	22.217	23.651	8.2
5,154	5.154	5.339	5.531	5.730	5.937	6.150	6.372	6.601	6.839	7.085	7.340	3.6
53,880	39.872	42.313	44.908	47.667	50.600	53.719	57.034	60.559	64.307	68.292	72.529	6.2
56,839	42.673	51.143	52.268	54.655	58.347	61.086	63.983	67.048	70.293	73.729	77.368	6.5
	-281	-6.956	-4.713	-3.733	-4.019	-2.982	-1.884	-724	500	1.787	3.136	-201.0
	63.822	66.998	70.549	74.282	78.205	82.327	86.656	91.200	95.968	100.969	106.211	5.3
	5.6	5.7	5.0	5.0	5.7	5.7	5.7	5.8	5.8	5.9	5.9	0.8
	4.0	4.1	3.4	3.5	4.1	4.2	4.3	4.3	4.4	4.4	4.5	1.9
	-0.44	-10.39	-6.68	-5.03	-5.14	-3.62	-2.17	-0.79	0.5	1.8	3.0	[illegible]
>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>
2010/2000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010/200
1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	
1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	
1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	
0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	
1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	
1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	
0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	
0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	
0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	
0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	
0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	
0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	
3.0	19	19.5	20.0	20.6	21.3	21.9	22.6	23.2	23.9	24.7	25.4	3.0
1.8	992	1.011	1.029	1.047	1.066	1.085	1.105	1.125	1.145	1.168	1.187	1.8
4.7	12.6	13.2	13.8	14.5	15.2	15.9	16.6	17.4	18.2	19.1	20.0	4.7
4.7	6.5	6.8	7.1	7.5	7.8	8.2	8.6	9.0	9.4	9.9	10.3	4.7
4.7	4.3	4.5	4.7	5.0	5.2	5.4	5.7	6.0	6.2	6.5	6.8	4.7
4.7	3.0	3.2	3.3	3.5	3.6	3.8	4.0	4.2	4.4	4.6	4.8	4.7
4.7	14.8	15.5	16.2	17.0	17.8	18.6	19.5	20.4	21.4	22.4	23.4	4.7
3.8	1094	1135.7	1178.9	1223.7	1270.2	1318.4	1368.5	1420.5	1474.5	1530.6	1588.7	3.8
	11.687	12.236	12.811	13.413	14.044	14.704	15.395	16.118	16.876	17.669	18.500	4.7
	6.453	6.756	7.074	7.406	7.754	8.118	8.500	8.900	9.318	9.756	10.214	3.7
	4.149	4.345	4.549	4.762	4.986	5.221	5.466	5.723	5.992	6.274	6.568	4.7
	3.144	3.292	3.447	3.609	3.779	3.956	4.142	4.337	4.541	4.754	4.977	4.7
	13.700	14.344	15.018	15.724	16.463	17.237	18.047	18.895	19.783	20.713	21.686	4.7
	1.765	1.832	1.901	1.974	2.049	2.127	2.207	2.291	2.378	2.469	2.562	3.8
4.0	13.9	14.6	15.3	16.0	16.7	17.5	18.3	19.2	20.1	21.0	22.0	4.7

	-2945	-2.595	-2.575	-3.389	-3.838	-4.326	-4.857	-5.434	-6.061	-6.743	-7.485	-8.29
5.6	18442	19.106	19.794	20.507	21.245	22.010	22.802	23.623	24.473	25.354	26.267	27.21
	0	0	0	0	0	0	0	0	0	0	0	
4.0	19792	20.515	21.263	22.039	22.844	23.678	24.542	25.438	26.366	27.328	28.326	29.36
	0											
	-1350	-1.408	-1.469	-1.533	-1.599	-1.668	-1.740	-1.815	-1.893	-1.974	-2.059	-2.14
10.0	713	783.9	862.3	948.5	1043.4	1147.7	1262.5	1388.7	1527.6	1680.4	1848.4	2033.2
2.0	5	5.0	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	6.0	6.1
2.0	27.00	27.5	28.1	28.6	29.2	29.8	30.4	31.0	31.6	32.3	32.9	33.6
397.7	346	364.7	383.8	404.0	425.2	447.5	471.1	495.8	521.9	549.3	578.1	608.5
287.9	288	299.5	311.5	324.1	337.1	350.7	364.9	379.7	395.1	411.2	428.0	445.5
282.8	291	302.9	314.9	327.5	340.6	354.2	368.4	383.2	398.6	414.7	431.5	449.0
	197.241	268.018	286.529	306.315	327.463	350.065	374.217	400.023	427.593	457.042	488.494	522.07
	33.275	35.900	38.733	41.793	45.097	48.667	52.522	56.689	61.191	66.056	71.316	77.00
	92.916	101.761	99.395	108.990	131.948	144.673	158.668	174.059	190.997	209.643	230.175	252.79
	70.917	78.027	73.788	81.360	102.133	112.438	123.942	136.580	150.543	165.971	183.028	201.88
	21.999	23.734	25.608	27.630	29.815	32.175	34.724	37.478	40.455	43.672	47.149	50.90
	217.382	229.021	252.267	277.930	306.269	337.569	372.150	410.367	452.614	499.328	550.997	608.16
	231.883	276.400	295.702	322.828	358.762	391.969	428.402	468.390	512.299	560.532	613.539	671.81
67,517	65.810	85.871	88.150	90.482	92.868	95.308	97.803	100.351	102.953	105.607	108.314	111.07
11,102	11.102	11.502	11.916	12.345	12.789	13.250	13.727	14.221	14.733	15.263	15.813	16.38
31,002	31.002	32.604	30.579	32.194	37.420	39.383	41.468	43.665	45.987	48.442	51.037	53.78
22,514	23.660	24.999	22.701	24.033	28.965	30.629	32.393	34.263	36.247	38.350	40.582	42.95
7,340	7.340	7.604	7.878	8.162	8.456	8.760	9.075	9.402	9.740	10.091	10.454	10.83
96,535	69.386	73.377	77.609	82.097	86.857	91.906	97.262	102.946	108.977	115.378	122.172	129.38
111,386	77.368	88.557	90.972	95.359	101.744	106.717	111.964	117.502	123.348	129.520	136.040	142.92
	3.136	-2.950	486	2.220	2.319	4.217	6.230	8.359	10.604	12.963	15.434	18.01
	106.211	111.847	117.708	123.985	130.509	137.353	144.526	152.040	159.905	168.133	176.730	185.70
	5.9	5.8	5.2	5.2	5.7	5.8	5.8	5.8	5.8	5.9	5.9	6.0
	4.5	4.4	3.8	3.9	4.4	4.5	4.5	4.6	4.6	4.7	4.7	4.8
	3.0	-2.6	0.4	1.8	1.8	3.1	4.3	5.5	6.5	7.7	8.7	9.7
>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>
2025/2010	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	202
1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080
1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010	1.010
1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960	0.960
1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080	1.080
1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620	0.620
0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380
0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.740
0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086	0.086
0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220	0.220
4.0	25	26.4	27.5	28.6	29.7	30.9	32.1	33.4	34.8	36.1	37.6	39.1
2.4	1167	1.215	1.244	1.274	1.305	1.336	1.368	1.401	1.435	1.469	1.504	1.54
5.6	20.0	21.1	22.3	23.5	24.8	26.2	27.6	29.2	30.8	32.5	34.3	36.2
5.6	10.3	10.9	11.5	12.1	12.8	13.5	14.3	15.1	15.9	16.8	17.7	18.7
5.6	6.8	7.2	7.6	8.0	8.5	8.9	9.4	10.0	10.5	11.1	11.7	12.4
5.6	4.8	5.0	5.3	5.6	5.9	6.3	6.6	7.0	7.4	7.8	8.2	8.7
5.6	23.4	24.7	26.1	27.5	29.1	30.7	32.4	34.2	36.1	38.1	40.2	42.4
4.4	1.589	1658.6	1731.6	1807.8	1887.3	1970.4	2057.1	2147.6	2242.1	2340.7	2443.7	2551.2
	18.500	19.526	20.610	21.754	22.961	24.236	25.581	27.000	28.499	30.081	31.750	33.51
	10.214	10.781	11.380	12.011	12.678	13.381	14.124	14.908	15.735	16.609	17.530	18.50
	6.568	6.933	7.318	7.724	8.153	8.605	9.083	9.587	10.119	10.680	11.273	11.89
	4.977	5.254	5.545	5.853	6.178	6.521	6.863	7.265	7.668	8.093	8.543	9.01
	21.686	22.890	24.160	25.501	26.916	28.410	29.987	31.651	33.408	35.262	37.219	39.28
	2.562	2.675	2.793	2.916	3.044	3.178	3.318	3.464	3.616	3.775	3.941	4.11
4.0	22.0	23.2	24.5	25.9	27.3	28.9	30.5	32.1	33.9	35.8	37.8	39.9

-9.170	-10.125	-11.165	-12.297	10.0					
28.193	29.207	30.259	31.348	3.6	6.0	5.0	3.6	3.6	3.8
0	0	0	0						
30.432	31.542	32.694	33.887	3.7	5.3	4.9	3.3	3.7	3.7
-2.239	-2.335	-2.435	-2.539	4.8					
2.226.6	2.460.2	2.706.2	2.976.9	10.0	13.3	10.0	10.0	10.0	10.0
6.2	6.3	6.4	6.6	2.0	4.4	2.0	2.0	2.0	2.0
34.2	34.9	35.6	36.3	2.0	1.5	2.0	2.0	2.0	2.4
640.5	674.1	709.5	746.8	5.3	4.7	8.9	5.3	5.3	5.8
463.8	482.9	502.9	523.7	4.1	8.1	6.8	4.1	4.1	4.5
467.3	486.3	506.2	527.0	4.0	7.2	6.7	4.1	4.0	4.5
557.933	596.223	637.040	680.607	8.6	14.9	12.5	9.4	8.6	9.5
83.153	89.806	97.004	104.794	7.9	16.2	12.4	8.0	7.9	8.7
277.716	305.193	335.496	368.931	9.8	19.4	14.3	10.0	9.6	10.5
222.741	245.819	271.354	299.648	10.1	19.5	15.5	10.7	10.1	11.2
54.975	59.373	64.132	69.283	7.8	19.4	11.7	8.0	7.9	8.6
671.442	741.500	819.095	905.071	10.0	16.3	14.5	10.7	10.0	10.9
735.922	806.467	884.138	969.697	10.0	16.7	14.4	10.6	10.0	10.9
113.876	116.729	119.626	122.506	4.2	6.1	5.1	4.9	4.2	4.6
16.972	17.583	18.216	18.872	3.6	7.3	5.0	3.6	3.5	3.8
56.683	59.753	63.001	66.438	5.2	10.2	6.8	5.5	5.2	5.6
45.462	48.128	50.958	53.961	5.7	10.3	7.9	6.2	5.5	6.2
11.221	11.625	12.043	12.477	3.6	10.2	4.4	3.6	3.6	3.7
137.044	145.176	153.813	162.998	5.9	7.3	7.0	6.2	5.5	6.0
150.204	157.896	166.027	174.626	5.0	7.7	6.9	6.1	5.8	5.0
20.695	23.470	26.329	29.257	16.1	-21.5	-207.9	-138.9	16.1	
195.065	204.815	214.958	225.494	5.1	6.1	5.4	5.3	5.1	5.2
6.1	6.1	6.2	6.3	0.4		-4.9	0.6	0.4	-0.4
4.9	4.9	5.0	5.1	0.8		-3.9	1.3	0.8	0.2
10.6	11.5	12.2	13.0	10.4		-202.4	#NUM!	10.4	
>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>	>>>>>>>>>>	>>>>>>>>>
2022	2023	2024	2025	2025/2010	1995/1985	2000/1995	2010/2000		
1.080	1.080	1.080	1.080						
1.010	1.010	1.010	1.010						
1.040	1.040	1.040	1.040						
0.960	0.960	0.960	0.960						
1.080	1.080	1.080	1.080						
1.040	1.040	1.040	1.040						
0.620	0.620	0.620	0.620						
0.160	0.160	0.160	0.160						
0.380	0.380	0.380	0.380						
0.740	0.740	0.740	0.740						
0.086	0.086	0.086	0.086						
0.220	0.220	0.220	0.220						
40.7	42.3	44.0	45.7	4.0	-4.7	3.0	3.0	4.0	3.5
1.577	1.615	1.654	1.694	2.4	7.4	1.8	1.8	2.4	2.1
38.2	40.3	42.6	44.9	5.6	1.5	6.7	4.7	5.6	5.5
19.7	20.8	22.0	23.2	5.6	1.1	4.7	4.7	5.6	5.1
13.1	13.8	14.6	15.4	5.6	-0.9	4.7	4.7	5.6	5.1
9.1	9.6	10.2	10.7	5.6	-2.4	4.7	4.7	5.6	5.1
44.8	47.3	49.9	52.7	5.0	-1.6	4.7	4.7	5.6	5.1
2663.5	2780.7	2903.0	3030.8	4.4	7.4	3.8	3.8	4.4	4.1
35.372	37.335	39.408	41.595	5.6	1.5	6.7	4.7	5.6	5.5
19.530	20.614	21.758	22.966	5.6	1.1	4.7	4.7	5.6	5.1
12.559	13.256	13.992	14.768	5.6	-0.9	4.7	4.7	5.6	5.1
9.517	10.045	10.603	11.191	5.6	-2.4	4.7	4.7	5.6	5.1
41.465	43.766	46.195	48.759	5.6	-1.6	4.7	4.7	5.6	5.1
4.296	4.435	4.682	4.888	4.4	7.4	3.8	3.8	4.4	4.1
42.1	44.5	46.9	49.5	5.6	1.5	8.2	4.7	5.6	5.7

163 I Diesel (Gas oil)	RS / Liter GRDIE	4.85	4.51	4.51	4.51	4.51	4.51	5.41	5.41	5.41	5.41	5.41	1.1	4.0	5.4	6.3	6.8	6.9	7.3	7.6	7.0
164 I Kerosene	RS / Liter GRKER	3.8	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.5	-0.9	3.0	3.5	4.7	5.0	5.2	5.4	5.7	10.2
165 I Fuel Oil	RS / Liter GRFUE	3.1	1.5	1.8	1.8	2.0	2.4	2.1	2.2	2.2	2.3	2.4	-2.4	2.0	2.4	2.6	2.7	2.8	2.9	3.1	4.9
166 I LPG	RS / Kg GRLPG	14.1	14.8	8.0	8.0	8.7	10.4	10.4	10.4	10.4	10.4	12.0	-1.6	3.0	12.0	12.7	13.3	13.9	14.6	15.2	4.9
167 I Coal	RS / T GRCOL	766	766	766	906	1.121	1.090	1.136	1.142	1.218	1.284	1.290	5.4	1.0	1.230	1.333	1.383	1.436	1.490	1.547	3.7
168																					
169 Energy Retail Prices (TOE)																					
170 I Gasoline	RS / TOE TRGAS	7.510	7.091	7.091	7.091	7.091	7.091	8.698	8.698	8.698	8.698	8.698	4.5		8.698	10.721	11.225	11.753	12.305	12.884	8.2
171 I Diesel (Gas oil)	RS / TOE TRDIE	4.802	4.461	4.461	4.461	4.461	4.461	5.360	5.360	5.360	5.360	5.360	4.1		5.360	6.255	6.549	6.855	7.179	7.516	7.0
172 I Kerosene	RS / TOE TRKER	3.700	3.268	3.268	3.268	3.268	3.268	3.364	3.364	3.364	3.364	3.364	-0.9		3.364	4.553	4.787	4.991	5.225	5.471	10.2
173 I Fuel Oil	RS / TOE TRFUE	3.214	1.611	1.871	1.620	2.089	2.503	2.231	2.285	2.331	2.348	2.524	-2.4		2.524	2.669	2.794	2.926	3.063	3.207	4.9
174 I LPG	RS / TOE TRLPG	13.011	13.736	7.389	7.389	8.094	9.598	9.596	9.596	9.596	9.596	11.107	-1.6		11.107	11.743	12.295	12.872	13.477	14.111	4.9
175 I Coal	RS / TOE TRCOL	1.235	1.235	1.235	1.461	1.808	1.758	1.832	1.842	1.965	2.071	2.081	5.4		2.081	2.150	2.231	2.316	2.404	2.495	3.7
176																					
177 Electricity Prices (PHY)																					
178 I Electricity (Industry General)	RS / KWh GPELIG	1.72	1.68	1.66	1.66	1.65	1.64	1.80	1.85	1.91	1.90	1.87	0.8	0.9	1.9	1.9	1.9	1.9	1.9	2.0	0.9
179 I Electricity (Irrigation)	RS / KWh GPELIR	1.05	1.07	1.05	1.04	1.10	1.05	1.30	1.32	1.36	1.35	1.36	2.5	0.8	1.4	1.4	1.4	1.4	1.4	1.4	0.8
180 I Electricity (Residential)	RS / KWh GRELDO	1.62	1.62	1.62	1.62	1.61	1.61	1.87	1.98	2.16	2.17	2.19	3.1	1.1	2.2	2.2	2.2	2.3	2.3	2.3	1.1
181 I Electricity (Commercial)	RS / KWh GRELCO	1.97	1.94	1.93	1.93	1.94	1.94	2.31	2.43	2.63	2.62	2.59	2.9	1.4	2.6	2.7	2.7	2.7	2.8	2.8	1.4
182																					
183 Electricity Prices (TOE)																					
184 I Electricity (Industry General)	RS / TOE TPELIG	20.000	19.535	19.302	19.302	19.186	19.070	20.930	21.512	22.209	22.093	21.744	0.8		21.744	21.941	22.139	22.339	22.541	22.745	0.9
185 I Electricity (Irrigation)	RS / TOE TPELIR	12.326	12.442	12.209	12.093	12.791	12.209	15.116	15.349	15.814	15.698	15.814	2.5		15.814	15.933	16.065	16.192	16.320	16.449	0.8
186 I Electricity (Residential)	RS / TOE TRELDO	18.837	18.837	18.837	18.837	18.721	18.721	21.744	23.023	25.116	25.233	25.465	3.1		25.465	25.753	26.044	26.338	26.636	26.937	1.1
187 I Electricity (Commercial)	RS / TOE TRELCO	22.907	22.558	22.442	22.442	22.558	22.558	26.860	28.256	30.581	30.465	30.581	2.9		30.581	30.996	31.416	31.842	32.274	32.712	1.4
188																					
189 Transportation Equipment																					
190 I Car and Dual Purpose Car (Registered)	Vehicles ATCAR	33.932	35.124	37.544	40.566	43.379	46.793	50.016	53.942	57.393	61.378	65.374	6.8		65.374	66.885	69.464	72.891	77.033	81.810	4.6
191 I Motor cycle and Auto Cycle (Registered)	Vehicles ATCYC	26.528	29.564	33.560	39.093	46.404	57.094	68.574	77.739	85.540	92.970	97.809	13.9		97.809	104.391	115.269	129.592	147.087	167.781	11.4
192 I Lorry, Truck, and Van (Registered)	Vehicles ATTRU	7.936	8.157	8.474	9.172	10.322	11.506	13.201	14.828	16.525	17.829	18.851	9.0	0.36	18.851	18.591	19.593	20.649	21.742	22.934	4.0
193 I Bus (Registered)	Vehicles ATBUS	1.369	1.360	1.529	1.771	1.858	1.929	2.021	2.097	2.217	2.276	2.364	5.6	0.05	2.364	2.512	2.647	2.790	2.940	3.098	5.6
194 I Tractor, Dumper and Heavy motor car (Registere	Vehicles ATHVY	2.188	2.266	2.394	2.530	2.702	2.851	3.040	3.155	3.239	3.326	3.444	4.6	1.14	3.444	3.716	3.902	4.097	4.302	4.517	5.6
195 I Others (Registered)	Vehicles ATOTR	1.371	1.421	1.478	1.556	1.664	1.877	1.775	1.862	1.940	2.093	2.212	4.9	0.04	2.212	2.259	2.381	2.509	2.645	2.787	4.7
196																					
197 Consumption by Industry (PHY)																					
198 Gasoline	T GCIGAS	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
199 I Diesel	T GCIDIE	13.625	8.515	8.137	8.426	9.500	12.000	13.000	14.000	16.459	18.373	17.255	2.4		17.255	18.183	18.908	19.633	20.355	21.087	4.1
200 Kerosene	T GCIKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
201 I Fuel oil	T GCIFUE	18.335	17.250	15.435	19.554	22.270	23.780	33.479	32.441	44.511	32.711	39.860	8.1		39.860	44.235	47.848	51.762	56.002	60.595	8.7
202 I LPG	T GCILPG	0	0	199	270	350	500	600	1.724	2.127	2.470	2.550	27.8		2.550	2.830	3.061	3.311	3.583	3.877	8.7
203 I Coal	T GCICOL	2.844	4.036	14.496	10.213	12.000	15.000	16.000	17.500	31.583	30.647	32.797	27.7		32.797	35.796	38.233	40.840	43.627	46.609	7.3
204 I Fuel Wood	T GCIFWD	13.159	13.829	12.795	22.164	22.815	22.995	11.267	7.070	7.142	4.382	3.900	-11.5		3.900	0	0	0	0	0	-100.0
205 I Electricity including Irrigation	MWh GCIELE	103.900	125.200	149.200	174.000	191.600	226.200	246.400	260.200	272.700	295.800	322.476	12.0		322.476	363.420	394.084	427.393	463.580	502.898	8.3
206																					
207 Consumption by Industry (TOE)																					
208 Gasoline	TOE TCIGAS	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
209 I Diesel	TOE TCIDIE	13.761	8.600	8.218	8.510	9.595	12.120	13.130	14.140	16.624	18.557	17.428	2.4		17.428	18.364	19.097	19.830	20.558	21.278	4.1
210 Kerosene	TOE TCIKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
211 I Fuel Oil	TOE TCIFUE	17.602	16.566	14.818	18.772	21.379	22.829	32.140	31.143	42.731	31.403	38.266	8.1		38.266	42.465	45.934	49.692	53.762	58.171	8.7
212 I LPG	TOE TCILPG	0	0	215	292	378	540	648	1.962	2.297	2.668	2.754	37.6		2.754	3.056	3.305	3.576	3.869	4.187	8.7
213 E Coal	TOE TCICOL	1.763	2.502	8.988	6.332	7.440	9.300	9.920	10.850	19.588	19.001	20.334	27.7		20.334	22.194	23.705	25.321	27.049	28.898	7.3
214 E Fuel Wood	TOE TCIFWD	5.000	5.255	4.862	8.422	8.670	8.738	4.281	2.687	2.714	1.665	1.482	-11.5	1500	1.482	1.500	1.500	1.500	1.500	1.500	0.2
215 I Total Consumption by Industry	TOE TCITOE	38.127	32.923	37.101	42.328	47.462	53.527	60.119	60.682	83.953	73.293	80.263	7.7		80.241	87.580	93.542	99.918	106.738	114.034	7.3
216 E Energy Saving Rate	% TCIESR	0	0	0	0	0	0	0	0	0	0	0	0.0		0	0.5	0.5	0.5	0.5	0.5	0.5
217																					
218 Consumption by Commercial (PHY)																					
219 Gasoline	T GCCGAS	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
220 Diesel	T GCCDIE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
221 Kerosene	T GCCKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
222 Fuel Oil	T GCCFUE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
223 I LPG	T GCCLPG	572	657	797	1.079	1.200	1.500	1.700	2.587	3.264	3.281	3.150	18.6		3.150	3.844	4.324	4.861	5.460	5.130	14.2
224 Coal	T GCCCOL	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
225 I Charcoal	T GCCCHL	1.250	1.000	1.000	1.250	1.750	1.750	1.500	1.000	1.000	1.000	800	-4.4		800	405	405	405	405	405	-12.7
226 I Electricity	MWh GCCELE	73.000	81.600	92.000	102.000	108.500	120.400	149.400	168.300	185.000	206.800	227.327	12.9		227.326	243.620	261.982	281.529	302.666	325.408	7.4
227																					
228 Consumption by Commercial (TOE)															0						
229 Gasoline	TOE TCCGAS	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
230 Diesel	TOE TCCDIE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
231 Kerosene	TOE TCCKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
232 Fuel Oil	TOE TCCFUE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
233 I LPG	TOE TCCLPG	618	710	861	1.165	1.296	1.620	1.836	2.794	3.525	3.543	3.402	18.5		3.402	4.152	4.670	5.250	5.897	6.621	14.2
234 Coal	TOE TCCCOL	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
235 E Charcoal	TOE TCCCHL	925	740	740	925	1.295	1.295	1.110	740	740	740	592	-4.4	300	592	300	300	300	300	300	-12.7
236 I Total Consumption by Commercial	TOE TCCTOE	1.543	1.450	1.601	2.090	2.591	2.915	2.946	3.534	4.265	4.283	3.994	10.0		4.000	4.452	4.970	5.550	6.197	6.921	11.6
237 E Energy Saving Rate	% TCCESR	0	0	0	0	0	0	0	0	0	0	0	0.0	0.	0	0.3	0.3	0.3	0.3	0.3	
238																					
239 Consumption by Transport (PHY)																					
240 I Gasoline	T GCTGAS	34.795	38.181	43.264	47.462	52.931	59.199	61.453	67.848	72.308	79.595	83.958	9.2		83.953	94.905	88.846	93.626	99.666	106.676	4.9
241 I Diesel	T GCTDIE	41.211	53.881	60.266	66.216	69.493	75.850	77.197	84.818	93.398	97.614	100.453	9.3		100.453	101.095	105.027	115.441	123.370	131.848	5.6
242 Kerosene	T GCTKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
243 Fuel Oil	T GCTFUE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	

4.0	7.6	7.9	8.3	8.7	9.1	9.6	10.0	10.5	11.0	11.5	12.0	4.7
3.0	5.7	6.0	6.2	6.5	6.8	7.2	7.5	7.8	8.2	8.6	9.0	4.7
2.0	3.1	3.2	3.4	3.5	3.7	3.9	4.1	4.2	4.4	4.7	4.9	4.7
3.0	15.2	16.0	16.7	17.5	18.3	19.2	20.1	21.0	22.0	23.0	24.1	4.7
1.0	1547	1.606	1.667	1.730	1.796	1.864	1.935	2.009	2.085	2.164	2.246	3.9
	12.884	13.489	14.123	14.787	15.482	16.210	16.971	17.769	18.604	19.479	20.394	4.7
	7.516	7.869	8.239	8.626	9.032	9.456	9.901	10.366	10.853	11.364	11.898	4.7
	5.471	5.728	5.997	6.279	6.574	6.883	7.206	7.545	7.900	8.271	8.660	4.7
	3.207	3.358	3.516	3.681	3.854	4.035	4.225	4.424	4.631	4.849	5.077	4.7
	14.111	14.774	15.468	16.195	16.957	17.754	18.588	19.462	20.376	21.334	22.337	4.7
	2.495	2.590	2.689	2.791	2.897	3.007	3.121	3.240	3.363	3.491	3.623	3.8
0.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	0.9
0.8	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8
1.1	2.3	2.3	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.6	2.6	1.1
1.4	2.8	2.9	2.9	2.9	3.0	3.0	3.1	3.1	3.1	3.2	3.2	1.4
	22.745	22.951	23.158	23.367	23.579	23.792	24.007	24.224	24.443	24.664	24.887	0.9
	16.449	16.579	16.711	16.843	16.976	17.110	17.246	17.382	17.520	17.658	17.798	0.8
	26.937	27.241	27.549	27.860	28.175	28.493	28.815	29.141	29.470	29.803	30.140	1.1
	32.712	33.155	33.605	34.061	34.523	34.991	35.465	35.946	36.433	36.927	37.428	1.4
85291	81.810	87.151	93.033	99.453	106.415	113.932	122.024	130.717	140.039	150.028	160.704	7.0
196458	167.781	191.718	219.253	250.829	285.973	328.294	375.492	429.362	490.800	490.800	490.800	11.3
0.36	22.934	24.151	25.431	26.777	28.191	29.677	31.237	32.875	34.594	36.397	38.287	5.3
0.05	3.098	3.263	3.436	3.618	3.809	4.009	4.220	4.442	4.674	4.917	5.173	5.3
1.14	4.517	4.743	4.980	5.229	5.491	5.765	6.053	6.356	6.674	7.008	7.358	5.0
0.04	2.787	2.935	3.091	3.254	3.426	3.608	3.796	3.995	4.204	4.423	4.653	5.3
	0	0	0	0	0	0	0	0	0	0	0	
	21.067	21.482	22.147	22.780	23.375	23.921	24.408	24.821	25.148	25.373	25.476	1.9
	0	0	0	0	0	0	0	0	0	0	0	
	60.595	65.624	71.076	76.986	83.393	90.340	97.874	106.043	114.903	124.513	134.936	8.3
	3.877	4.198	4.547	4.925	5.335	5.779	6.261	6.784	7.351	7.966	8.632	8.3
	46.609	49.833	53.282	56.974	60.926	65.156	69.683	74.530	79.720	85.276	91.225	6.9
	0	0	0	0	0	0	0	0	0	0	0	
502882	502.898	546.831	594.791	647.157	704.344	766.805	835.039	909.591	991.000	1.080.100	1.177.432	8.9
	0	0	0	0	0	0	0	0	0	0	0	
	21.278	21.697	22.368	23.008	23.609	24.161	24.652	25.070	25.400	25.626	25.731	1.9
	0	0	0	0	0	0	0	0	0	0	0	
58,171	58.171	62.999	68.233	73.906	80.057	86.727	93.959	101.801	110.307	119.532	129.539	8.3
4,187	4.187	4.534	4.911	5.319	5.762	6.242	6.762	7.327	7.939	8.603	9.323	8.3
28,898	28.898	30.896	33.035	35.324	37.774	40.397	43.204	46.209	49.426	52.871	56.559	6.9
1,500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	0.0
116,666	113.759	121.627	130.046	139.057	148.702	159.025	170.076	181.906	194.572	208.132	222.652	6.9
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	6.130	6.857	7.665	8.567	9.571	10.689	11.936	13.325	14.873	16.598	18.521	11.7
	0	0	0	0	0	0	0	0	0	0	0	
	405	405	405	405	405	405	405	405	405	405	405	0.0
350789	325.408	349.151	374.642	402.010	431.396	462.949	496.830	533.213	572.283	614.242	659.303	7.3
	0											
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	6.621	7.405	8.279	9.252	10.336	11.545	12.891	14.391	16.063	17.926	20.003	11.2
	0	0	0	0	0	0	0	0	0	0	0	
600	300	300	300	300	300	300	300	300	300	300	300	0.0
5,925	6.921	7.705	8.579	9.552	10.636	11.845	13.191	14.691	16.363	18.226	20.303	11.4
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	0											
	0											
	106.576	112.543	118.961	125.929	133.457	141.565	150.283	159.647	169.697	175.985	182.623	5.5
	131.848	117.420	121.032	124.756	128.595	132.552	136.628	140.827	145.151	149.602	154.183	1.6
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

4.0	12.0	12.7	13.4	14.1	14.9	15.7	16.6	17.5	18.5	19.5	20.8	21.9
3.0	9.0	9.5	10.0	10.6	11.2	11.8	12.5	13.1	13.9	14.6	15.5	16.3
2.0	4.9	5.1	5.4	5.7	6.0	6.4	6.7	7.1	7.5	7.9	8.4	8.9
3.0	24.1	25.5	26.9	28.4	29.9	31.6	33.4	35.2	37.2	39.2	41.4	43.7
1.0	2.246	2.345	2.448	2.556	2.669	2.786	2.909	3.037	3.170	3.310	3.455	3.60
	20.394	21.526	22.721	23.982	25.313	26.717	28.200	29.765	31.417	33.161	35.001	36.94
	11.898	12.558	13.255	13.991	14.767	15.587	16.452	17.365	18.328	19.346	20.419	21.55
	8.660	9.140	9.648	10.182	10.748	11.345	11.975	12.639	13.341	14.081	14.862	15.65
	5.077	5.359	5.656	5.970	6.301	6.651	7.020	7.410	7.821	8.255	8.713	9.19
	22.337	23.576	24.885	26.236	27.724	29.263	30.887	32.601	34.410	36.320	38.336	40.46
	3.623	3.783	3.949	4.123	4.304	4.494	4.691	4.898	5.113	5.338	5.573	5.81
1.1	2.1	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4
0.9	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7
1.7	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.8	2.9	2.9	3.0	3.0
1.6	3.2	3.3	3.3	3.4	3.4	3.5	3.5	3.6	3.7	3.7	3.8	3.8
	24.887	25.152	25.419	25.690	25.963	26.239	26.518	26.801	27.086	27.374	27.665	27.96
	17.798	17.964	18.131	18.300	18.470	18.642	18.815	18.991	19.167	19.346	19.526	19.70
	30.140	30.541	30.947	31.359	31.776	32.199	32.627	33.061	33.500	33.946	34.397	34.85
	37.428	38.025	38.632	39.249	39.875	40.512	41.158	41.815	42.483	43.161	43.850	44.54
219,170	160.704	172.214	184.588	197.871	212.109	227.355	243.663	261.092	279.703	299.559	320.722	343.25
219170	490.800	490.800	490.800	490.800	490.800	490.800	490.800	490.800	490.800	490.800	490.800	490.80
0.36	38.287	40.318	42.453	44.694	47.046	49.512	52.098	54.807	57.642	60.608	63.707	66.94
0.05	5.173	5.447	5.735	6.038	6.356	6.689	7.039	7.405	7.788	8.188	8.607	9.04
1.14	7.358	7.726	8.112	8.518	8.944	9.391	9.860	10.353	10.871	11.415	11.985	12.58
0.04	4.653	4.900	5.159	5.431	5.717	6.017	6.331	6.660	7.005	7.365	7.742	8.13
	0	0	0	0	0	0	0	0	0	0	0	
	25.476	21.585	5.314	5.348	6.425	7.047	7.718	8.443	9.224	10.068	10.978	11.98
	0	0	0	0	0	0	0	0	0	0	0	
	134.936	145.542	169.322	182.635	196.999	212.495	229.215	247.255	266.720	287.724	310.389	334.84
	8.632	14.837	17.262	18.619	20.083	21.663	23.368	25.207	27.191	29.332	31.643	34.13
	91.225	98.395	114.471	123.472	133.183	143.659	154.953	167.159	180.318	194.518	209.841	226.37
	0	0	0	0	0	0	0	0	0	0	0	
1,110,102	1.177.432	1.104.196	1.201.909	1.308.525	1.424.861	1.551.812	1.690.354	1.841.556	2.006.587	2.186.722	2.383.359	2.598.0[illegible]
	0											
	0											
	0	0	0	0	0	0	0	0	0	0	0	
	25.731	21.502	5.367	5.907	6.489	7.117	7.796	8.527	9.317	10.188	11.087	12.07
	0	0	0	0	0	0	0	0	0	0	0	
129,539	129.539	139.720	162.549	175.330	189.119	203.996	220.046	237.365	256.051	276.215	297.974	321.45
9,323	9.323	16.024	18.643	20.108	21.690	23.396	25.237	27.223	29.366	31.679	34.174	36.86
56,559	56.559	61.005	70.972	76.553	82.573	89.069	96.077	103.638	111.797	120.601	130.101	140.35
1500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.50
262,344	222.651	240151	259.030	279.398	301.371	325.078	350.656	378.253	408.032	440.163	474.837	512.25
	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	18.521	20.466	22.612	24.982	27.598	30.486	33.675	37.196	41.083	45.376	50.116	55.35
	0	0	0	0	0	0	0	0	0	0	0	
	405	405	405	405	405	405	405	405	405	405	405	40
853,652	659.303	703.285	750.219	800.306	853.759	910.805	971.688	1.036.865	1.106.019	1.180.041	1.259.051	1.343.38
	0											
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	20.003	22.103	24.421	26.981	29.806	32.925	36.369	40.171	44.370	49.008	54.125	59.77
	0	0	0	0	0	0	0	0	0	0	0	
600	300	300	300	300	300	300	300	300	300	300	300	30
12,276	20.303	22.403	24.721	27.281	30.106	33.225	36.569	40.471	44.670	49.306	54.425	60.07
	0	0	0	0	0	0	0	0	0	0	0	
	0											
	0											
	182.623	190.180	197.206	203.602	212.445	220.676	228.182	238.415	247.944	256.640	268.381	279.30
	154.183	159.439	164.042	167.923	173.616	178.590	182.771	188.916	194.268	198.749	205.353	211.08
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	

23.0	24.3	25.6	27.0	5.6	1.1	7.0	4.7	5.6	5.5
17.2	18.2	19.2	20.2	5.6	-0.9	10.2	4.7	5.6	6.0
9.3	9.8	10.4	11.0	5.6	-2.4	4.9	4.7	5.6	5.2
46.1	48.7	51.4	54.2	5.6	-1.6	4.9	4.7	5.6	5.2
3,766	3,932	4,105	4,286	4.4	5.4	3.7	3.8	4.4	4.1
38,994	41,159	43,443	45,854	5.6	1.5	8.2	4.7	5.6	5.7
22,749	24,011	25,344	26,751	5.6	1.1	7.0	4.7	5.6	5.5
16,558	17,477	18,447	19,471	5.6	-0.9	10.2	4.7	5.6	6.0
9,707	10,246	10,815	11,415	5.6	-2.4	4.9	4.7	5.6	5.2
42,709	45,079	47,581	50,222	5.6	-1.6	4.9	4.7	5.6	5.2
6,074	6,342	6,621	6,912	4.4	5.4	3.7	3.6	4.4	4.1
2.4	2.5	2.5	2.5	1.1	0.8	0.9	0.9	1.1	1.0
1.7	1.7	1.7	1.8	0.9	2.5	0.8	0.8	0.9	0.9
3.0	3.1	3.1	3.2	1.3	3.1	1.1	1.1	1.3	1.2
3.9	4.0	4.0	4.1	1.6	2.9	1.4	1.4	1.6	1.5
28,257	28,558	28,862	29,169	1.1	0.8	0.9	0.9	1.1	1.0
19,891	20,076	20,263	20,452	0.9	2.5	0.8	0.8	0.9	0.9
35,319	35,788	36,264	36,747	1.3	3.1	1.1	1.1	1.3	1.2
45,260	45,983	46,717	47,462	1.6	2.9	1.4	1.4	1.6	1.5
367,232	392,706	419,741	448,394	7.1	6.8	4.6	7.0	7.1	6.6
490,800	490,800	490,800	490,800	0.0	13.1	11.4	11.3	0.0	5.5
70,316	73,831	77,487	81,285	5.1	9.0	4.0	5.3	5.1	5.0
9,500	9,975	10,469	10,982	5.1	5.6	5.6	5.3	5.1	5.3
13,214	13,874	14,568	15,297	5.0	4.6	5.6	5.0	5.0	5.1
8,545	8,972	9,417	9,878	5.1	4.9	4.7	5.3	5.1	5.1
0	0	0	0						
13,020	14,164	15,398	16,731	-2.8	2.4	4.1	1.9	-2.8	-0.1
0	0	0	0						
361,244	389,733	420,480	453,669	8.4	8.1	8.7	8.3	8.4	8.4
36,827	39,732	42,866	46,250	11.8		8.7	8.3	11.8	10.1
244,222	263,482	284,269	306,707	8.4	27.7	7.3	6.9	8.4	7.7
0	0	0	0						
2,832,397	3,088,301	3,367,741	3,672,913	7.9	12.0	9.3	8.9	7.9	8.4
0	0	0	0						
13,150	14,305	15,552	16,898	-2.8	2.4	4.1	1.9	-2.8	-0.1
0	0	0	0						
346,795	374,143	403,661	435,523	8.4	8.1	8.7	8.3	8.4	8.4
39,774	42,910	46,296	49,950	11.8		8.7	8.3	11.8	10.1
151,418	163,350	176,247	190,158	8.4	27.7	7.3	6.9	8.4	7.7
1,500	1,500	1,500	1,500	0.0	-11.5	0.2	0.0	0.0	0.0
552,636	596,217	643,256	694,029	7.9	7.7	7.3	8.9	7.9	7.5
0.5	0.5	0.5	0.5	0.5			1.0	1.0	
0	0	0	0						
0	0	0	0						
0	0	0	0						
0	0	0	0						
61,130	67,514	74,564	82,351	10.5	18.6	14.2	11.7	10.5	11.5
0	0	0	0						
405	405	405	405	0.0	-4.4	-12.7	0.0	0.0	-2.2
1,433,405	1,529,497	1,632,073	1,741,575	6.7	12.0	7.4	7.3	6.7	7.0
0	0	0	0						
0	0	0	0						
0	0	0	0						
0	0	0	0						
66,021	72,915	80,529	88,939	10.5	18.6	14.2	11.7	10.5	11.5
0	0	0	0						
300	300	300	300	0.0	-4.4	-12.7	0.0	0.0	-2.2
66,321	73,215	80,829	89,239	10.4	10.0	11.6	11.4	10.4	10.9
0	0	0	0		0.0	1.0	1.0	1.0	
289,266	302,623	315,026	326,290	3.9	9.2	4.9	5.5	3.9	4.6
215,849	222,906	228,995	234,020	2.8	9.3	5.6	1.6	2.8	2.9
0	0	0	0						
0	0	0	0						

244	LPG	T	GCTLPG	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
245	Coal	T	GCTCOL	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
246 I	Electricity	MWh	GCTELE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
247																							
248	Consumption by Transport (TOE)																						
249 I	Gasoline	TOE	TCTGAS	37.579	41.214	46.725	51.259	57.165	63.935	66.369	73.276	78.093	85.963	90.675	9.2		90.673	91.697	95.738	101.116	107.639	115.210	4.9
250 I	Diesel	TOE	TCTDIE	41.623	54.420	60.859	66.878	70.188	76.710	77.969	85.666	94.332	98.590	101.458	9.3		101.500	102.106	109.108	116.596	124.603	133.166	5.6
251	Kerosene	TOE	TCTKER	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
252	Fuel Oil	TOE	TCTFUE	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
253	LPG	TOE	TCTLPG	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
254	Coal	TOE	TCTCOL	0	0	0	0	0	0	0	0	0	0	0			0	0	0	0	0	0	
255 I	Total Consumption by Transport	TOE	TCTTOE	79.202	95.634	107.594	118.137	127.353	140.644	144.338	156.942	172.425	184.553	192.132	9.3		192.132	193.803	204.845	217.712	232.243	248.376	5.3
256 E	Energy Saving Rate (Reduction of total mileag	%	TCTESR	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0.5	0.5	0.5	0.5	0.5	
257																							
258	Consumption by Residential (PHY)																						
259 I	Kerosene	T	GCDKER	17.362	19.908	21.347	18.170	16.349	15.472	14.082	12.296	11.699	10.793	10.590	-4.8		10.590	9.531	8.578	7.720	6.948	6.253	-10.0
260 I	Fuel Wood	T	GCDFWD	38.044	32.267	29.855	41.161	42.370	42.705	26.291	16.498	16.664	10.226	9.100	-13.9		9.100	7.368	7.280	5.895	5.824	4.716	-12.3
261 I	LPG	T	GCDLPG	1.966	2.833	7.110	11.200	18.370	20.543	23.413	25.978	26.761	27.030	28.000	30.4		28.000	31.310	33.538	35.909	37.580	39.433	7.1
262 I	Charcoal	T	GCDCHL	1.250	1.000	1.000	1.250	1.250	1.250	1.000	1.000	1.000	500	500	-8.8		500	430	320	256	205	164	-20.0
263 I	Electricity	MWh	GCDELE	138.200	143.400	154.400	167.300	179.800	198.900	220.400	249.300	274.300	295.600	330.792	9.1		330.774	379.397	415.970	443.169	463.288	478.302	7.7
264																							
265	Consumption by Residential (TOE)																						
266 I	Kerosene	TOE	TCDKER	18.056	20.704	22.201	18.897	17.003	16.091	14.645	12.788	12.167	11.225	11.014	-4.8	11,000	11.014	9.912	8.921	8.029	7.226	6.503	-10.0
267 E	Fuel Wood	TOE	TCDFWD	14.457	12.261	11.345	15.641	16.101	16.228	9.991	6.269	6.332	3.886	3.458	-13.3	3,500	3.458	2.800	2.766	2.240	2.213	1.792	-12.3
268 I	LPG	TOE	TCDLPG	2.123	3.060	7.679	12.096	19.840	22.186	25.286	28.056	28.902	29.160	30.240	30.4		30.240	33.815	36.221	38.782	40.586	42.587	7.1
269 E	Charcoal	TOE	TCDCHL	925	740	740	925	925	925	740	740	740	370	370	-8.8	370	370	296	237	189	152	121	-20.0
270 I	Total Consumption by Residential	TOE	TCDTOE	35.561	36.765	41.965	47.559	53.868	55.430	50.662	47.853	48.141	44.641	45.082	2.4		45.082	46.823	48.146	49.240	50.177	51.004	2.5
271 E	Energy Saving Rate	%	TCDESR	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0.3	0.3	0.3	0.3	0.3	
272																							
273	Electricity Consumption as Whole																						
274 I	Electricity Consumption (PHY)	MWh	GCEMWh	315.100	350.200	395.600	443.300	480.000	551.500	616.200	677.800	732.000	798.200	880.595	10.8		880.595	986.438	1,071.936	1,152.091	1,229.534	1,306.608	8.2
275	Electricity Consumption by Others	MWh	GCOMWh	5.800	6.000	6.300	6.600	6.600	7.600	8.500	10.300	10.900	11.800	14.490	9.8		14.600	15.783	17.151	18.433	19.673	20.906	7.4
276	Total Electricity Consumption(PHY)	MWh	GCTMWh	320.900	356.200	401.900	449.900	486.600	559.100	624.700	688.100	742.900	810.000	895.085	10.8		895.195	1,002.221	1,089.087	1,170.524	1,249.206	1,327.514	8.2
277 I	Electricity Consumption per Hour	MWh	GCPMWh	36.0	40.0	45.2	50.6	54.8	63.0	70.3	77.4	83.8	91.1	100.5	10.8		101	114.4	124.3	133.6	142.6	151.5	8.5
278 E	Load Factor	%	GCLOAD	51.1	52.0	53.6	55.5	53.7	56.4	55.7	57.7	56.7	55.9	57.9	1.3		58	60.0	60.3	60.6	60.9	61.2	1.1
279 I	Peak Electricity Demand per Hour	MWh	GCPEAK	85.0	92.0	101.1	108.8	120.8	131.0	147.1	155.7	169.6	175.0	200.0	8.9		200	221	240	255	270	286	7.4
280 E	Self consumption & Loss	%	GCSELF	22.4	22.4	21.2	20.9	19.5	19.0	17.9	17.5	16.5	16.6	16.9	-2.8		16.9	15.2	15.5	15.0	14.5	14.8	-2.6
281																							
282																							
283	Electricity Generation by Sources (PHY)																						
284 I	Total Generation	MWh	GEGMWh	391.500	438.100	467.100	545.000	584.000	667.000	737.200	808.700	869.200	915.100	1,047.330	10.3		1,047.330	1,163.252	1,268.563	1,355.401	1,438.051	1,532.578	7.9
285 E	Hydro	MWh	GEGHYD	114.900	109.800	139.800	99.700	148.300	84.900	75.500	113.100	103.700	75.500	134.400	1.6	130,000	134.400	130.000	130.000	130.000	130.000	130.000	-0.7
286 I	Kerosene	MWh	GEGKER	0	0	0	5.100	7.100	36.000	43.800	89.300	39.600	47.600	105.840	54.2	100,000	105.840	100.000	100.000	100.000	100.000	100.000	-1.1
287 I	Diesel and Fuel Oil	MWh	GEGFUDI	173.600	213.100	244.000	334.000	303.900	448.700	494.300	497.900	514.800	669.300	682.090	14.7		682.090	799.047	894.943	972.144	1,044.927	1,130.342	10.6
288 E	Coal	MWh	GEGCOL	45.200	43.500	28.600	32.300	68.500	44.900	53.500	43.100	40.300	46.100	40.900	-1.0	5,000	40.900	45.900	50.900	55.900	60.900	65.900	10.0
289 E	Bagasse	MWh	GEGBAG	57.800	71.700	74.700	73.900	56.200	52.500	70.100	85.300	70.500	76.600	84.100	3.8	5.0	84.100	88.305	92.720	97.356	102.224	107.335	5.0
290																							
291	Generation Efficiency by Sources																						
292 E	Diesel	T/MWh	EFFDIE	0.1996	0.1996	0.2042	0.2048	0.2025	0.2009	0.2029	0.2075	0.1908	0.1917	0.1908	-0.6	0.1908	0.191	0.1908	0.1908	0.1908	0.1908	0.1908	0.0
293 E	Kerosene	T/MWh	EFFKER	0.3268	0.3268	0.3268	0.3268	0.3175	0.3129	0.3137	0.3150	0.3154	0.3161	0.3078	-0.9	0.3100	0.308	0.3100	0.3100	0.3100	0.3100	0.3100	0.1
294 E	Fuel Oil	T/MWh	EFFFUE	0.2244	0.2244	0.2296	0.2301	0.2277	0.2259	0.2281	0.2333	0.2145	0.2155	0.2145	-0.5	0.2150	0.214	0.2150	0.2150	0.2150	0.2150	0.2150	0.0
295 E	Coal	T/MWh	EFFCOL	0.7345	0.7345	0.7729	0.8207	0.7229	0.8075	0.7190	0.7709	0.7683	0.6936	0.7407	0.1	0.7400	0.741	0.7400	0.7400	0.7400	0.7400	0.7400	0.0
296 E	Bagasse	T/MWh	EFFBAG	3.5935	3.5935	3.8184	3.5825	3.6193	3.6565	3.5864	3.5681	3.5801	3.5743	3.5743	-0.1	2.3671	3.574	3.5743	3.5743	3.5743	3.5743	3.5743	0.0
297																							
298	Fuel Input for Electricity Generation (PHY)																						
299 I	Diesel	T	GFIDIE	1.452	1.493	1.905	2.237	2.128	3.189	3.801	3.646	2.768	2.844	2.599	6.0		2.599	3.045	3.411	3.705	3.582	4.308	10.6
300 I	Kerosene	T	GFIKER	0	0	0	3.226	3.787	11.132	13.558	29.252	12.272	14.789	32.332	29.0		32.332	31.000	31.000	31.000	31.000	31.000	-0.8
301 I	Fuel Oil	T	GFIFUE	37.588	46.073	53.687	74.242	66.944	97.999	108.897	102.129	128.125	147.129	142.886	14.3		142.886	167.784	187.920	204.131	219.414	237.349	10.7
302 I	Coal	T	GFICOL	33.218	31.921	22.104	27.787	49.500	36.289	38.468	30.262	30.953	31.949	30.289	-0.9		30.289	33.366	37.666	41.366	45.066	48.766	10.0
303 I	Bagasse	T	GFIBAG	142.086	170.772	185.310	180.242	182.882	173.571	179.020	191.070	172.700	184.232	197.389	3.3		197.389	315.630	331.412	347.983	365.382	383.651	14.2
304																							
305	Fuel input for Electricity Generation (TOE)																						
306 I	Diesel	TOE	TFIDIE	1.457	1.508	1.924	2.259	2.149	3.221	3.839	3.682	2.796	2.872	2.625	6.0		2.625	3.167	3.547	3.853	4.142	4.480	11.3
307 I	Kerosene	TOE	TFIKER	0	0	0	3.355	3.938	11.577	14.100	30.422	12.763	15.381	33.625	29.0		33.625	29.760	29.760	29.760	29.760	29.760	-2.4
308 I	Fuel Oil	TOE	TFIFUE	36.083	44.230	51.540	71.272	64.266	94.079	104.541	98.044	123.000	141.244	137.171	14.3		137.171	161.073	180.403	195.966	210.637	227.855	10.7
309 I	Coal	TOE	TFICOL	20.595	19.791	13.704	17.228	30.690	22.499	23.850	20.622	19.129	19.808	18.779	-0.9		18.779	21.059	23.353	25.647	27.941	30.235	10.0
310 I	Bagasse	TOE	TFIBAG	22.734	27.324	29.650	28.839	29.261	27.771	28.843	30.571	27.632	29.477	31.582	3.3		31.582	50.501	53.026	55.677	58.461	61.384	14.2
311 I	Total Fuel Input for Electricity	TOE	TFITOE	80.878	92.853	96.818	122.953	130.305	153.148	174.974	183.342	185.319	208.782	223.782	10.7		223.782	265.560	290.030	310.903	330.941	353.715	9.6
312																							
313	Energy Consumption (PHY)																						
314 I	Gasoline (Consumption)	T	GESGAS	34.795	38.161	43.264	47.462	52.931	59.199	61.453	67.848	72.308	79.595	83.958	9.2		83.958	84.905	88.646	93.628	99.666	106.676	4.9
315 I	Diesel (Consumption)	T	GESDIE	56.288	63.889	70.308	76.879	81.121	91.139	93.998	102.464	112.625	118.831	120.307	7.9		120.307	122.323	130.346	138.780	147.707	157.223	5.5
316 I	Kerosene (Consumption)	T	GESKER	17.362	19.908	21.347	21.396	20.136	26.604	27.640	41.548	23.971	25.582	42.922	9.5		42.922	40.531	39.578	38.720	37.948	37.253	-2.8
317 I	Fuel Oil (Consumption)	T	GESFUE	55.921	63.329	69.122	93.796	89.214	121.779	142.376	134.570	172.536	179.840	182.746	12.6		182.746	212.019	235.768	255.893	275.416	297.345	10.3
318 I	LPG (Consumption)	T	GESLPG	2.538	3.490	8.106	12.549	19.920	22.543	25.713	30.289	32.152	32.751	33.700	29.5		33.700	37.985	40.924	44.082	46.623	49.440	8.0
319 I	Coal (Consumption)	T	GESCOL	36.062	35.957	36.600	38.000	61.500	51.289	54.468	50.762	62.446	62.596	63.086	5.8		63.086	69.762	75.899	82.208	88.693	95.375	8.6
320 I	Fuel Wood (Consumption)	T	GESFWD	51.203	46.096	42.650	63.325	65.185	65.700	37.558	23.568	23.806	14.608	13.000	-12.8		13.000	7.368	7.280	5.895	5.824	4.716	-18.4
321 I	Charcoal (Consumption)	T	GESCHL	2.500	2.000	2.000	2.500	3.000	3.000	2.500	2.000	2.000	1.500	1.300	-6.3		1.300	805	725	561	610	569	-15.2
322 I	Bagasse (For National Grid)	T	GESBAG	142.086	170.772	185.310	180.242	182.882	173.571	179.020	191.070	172.700	184.232	197.389	3.3		197.389	315.630	331.412	347.983	365.382	383.651	14.2
323 E	Hydro (Consumption)	MWh	GEGHYD	114.900	109.800	139.800	99.700	148.300	84.900	75.500	113.100	103.700	75.500	134.400	1.6	130,000	134.400	130.000	130.000	130.000	130.000	130.000	-0.7
324																							

	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
116,374	115.211	121.546	128.478	136.003	144.133	152.890	162.306	172.419	183.273	190.084	197.233	3.5
112,304	133.166	118.595	122.243	126.004	129.881	133.977	137.994	142.235	146.602	151.098	155.725	1.8
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	248.376	240.141	250.721	262.007	274.014	286.787	300.300	314.654	329.876	341.162	352.958	3.4
0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	6.253	5.003	4.002	3.202	2.561	2.049	1.639	1.311	1.049	839	671	-20.0
	4.715	3.773	3.018	2.414	1.932	1.545	1.236	989	791	633	506	-20.0
	39.433	43.497	46.632	49.064	50.973	52.494	53.728	54.750	55.615	56.363	57.023	5.3
	164	131	105	84	67	54	43	34	27	22	18	-20.0
#REF!	477.815	537.353	593.653	646.576	696.228	742.873	786.854	828.554	868.354	906.614	943.567	7.0
11,000	6.503	5.203	4.162	3.330	2.664	2.131	1.705	1.364	1.091	873	698	-20.0
3,500	1.792	1.434	1.147	918	734	587	470	376	301	241	192	-20.0
42,587	42.587	46.977	50.362	52.989	55.050	56.693	58.026	59.130	60.064	60.872	61.585	1.8
370	121	97	78	62	50	40	32	25	20	16	13	-20.0
49,592	51.004	53.711	55.749	57.298	58.498	59.451	60.233	60.895	61.476	62.002	62.488	2.1
0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
	1.306.808	1.433.335	1.563.086	1.695.743	1.831.968	1.972.626	2.118.723	2.271.358	2.431.697	2.600.956	2.780.403	7.8
	20.906	22.933	25.009	27.132	29.311	31.562	33.900	36.342	38.907	41.615	44.486	7.8
	1.327.514	1.456.268	1.589.095	1.722.875	1.861.280	2.004.188	2.152.323	2.307.700	2.470.604	2.642.572	2.824.889	7.8
	152	166.2	181.3	198.7	212.5	228.3	245.7	263.4	282.0	301.7	322.5	7.8
	61.2	61.5	61.8	62.1	62.4	52.7	63.0	63.0	63.0	63.0	63.0	0.3
	286	313	341	370	399	425	452	481	512	545	579	7.3
	14.8	15.1	15.4	15.7	16.0	15.5	15.0	14.5	14.0	13.5	13.0	-1.2
	1.533.578	1.688.262	1.847.619	2.011.558	2.180.914	2.334.485	2.492.616	2.656.559	2.827.554	3.006.886	3.195.865	7.6
130,000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	0.0
100,000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	0.0
	1.130.342	1.274.660	1.423.382	1.576.404	1.734.548	1.876.579	2.022.876	2.174.628	2.333.071	2.499.474	2.675.127	9.9
5,000	65.900	70.900	75.900	80.900	85.900	90.900	95.900	100.900	105.900	110.900	115.900	5.8
5.0	107.335	112.702	118.337	124.254	130.467	136.990	143.840	151.032	158.583	166.512	174.838	5.0
0.1908	0.191	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.0
0.3100	0.310	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.0
0.2150	0.215	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.0
0.7400	0.740	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.0
2.3671	3.574	2.7932	2.7932	2.7982	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	-2.6
	4.308	4.658	5.425	6.008	6.611	7.152	7.710	8.288	8.892	9.526	10.196	9.0
	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	0.0
	237.349	267.653	298.882	331.013	364.220	394.044	424.764	456.629	489.898	524.840	561.723	9.0
	48.766	52.460	56.166	59.865	63.566	67.266	70.966	74.666	78.366	82.066	85.766	5.8
	383.651	314.797	330.537	347.064	364.417	382.638	401.769	421.858	442.951	465.098	488.353	2.4
	4.480	5.052	5.642	6.248	6.875	7.438	8.018	8.620	9.248	9.907	10.603	9.0
	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	0.0
	227.855	256.947	286.927	317.773	349.652	378.282	407.773	438.363	470.303	503.846	539.255	9.0
	30.235	32.529	34.823	37.117	39.411	41.705	43.999	46.293	48.587	50.881	53.175	5.8
	61.384	50.367	52.886	55.530	53.307	61.222	64.283	67.497	70.872	74.416	78.137	2.4
	353.715	374.656	410.037	446.428	484.004	518.408	553.833	590.533	628.769	668.810	710.929	7.2
	106.676	112.543	118.961	125.929	133.457	141.565	150.283	159.647	169.697	175.985	182.623	5.5
	157.223	143.761	148.304	153.545	158.581	163.525	168.745	173.936	179.191	184.501	189.855	1.9
	37.253	36.003	35.002	34.202	33.561	33.049	32.639	32.311	32.049	31.839	31.671	-1.6
	297.945	333.277	369.958	407.999	447.613	484.384	522.637	562.671	604.801	649.352	696.660	8.9
	49.440	54.552	58.844	62.559	65.878	68.983	71.925	74.859	77.839	80.927	84.177	5.5
	95.375	102.299	109.448	116.840	124.492	132.422	140.649	149.196	158.086	167.342	176.991	6.4
	4.716	3.773	3.018	2.414	1.932	1.545	1.230	989	791	633	506	-20.0
	569	536	510	489	473	459	445	440	433	427	423	-2.9
	383.651	314.797	330.537	347.064	364.417	382.638	401.769	421.858	442.951	465.098	488.353	2.4
130,000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	0.0

	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
222,069	197.233	205.395	212.982	219.890	229.441	238.330	246.437	257.488	267.780	277.171	289.851	301.65
146,191	146.188	161.034	165.682	169.602	175.352	180.375	184.599	190.805	198.211	200.736	207.406	213.19
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	
	352.958	366.428	378.665	389.492	404.792	418.706	431.036	448.292	463.991	477.907	497.257	514.64
	0.5	0	0	0.5	0	0	0.5	0	0	0.5	0	
	671	537	430	344	275	220	176	141	113	90	72	5
	506	405	324	259	207	168	133	106	85	68	54	4
	57.023	63.844	68.953	72.680	75.354	77.254	78.600	79.555	80.236	80.727	81.387	81.35
	18	14	11	9	7	6	5	4	3	2	2	
#REF!	943.666	1.049.044	1.132.633	1.199.867	1.255.481	1.303.071	1.345.369	1.384.237	1.420.971	1.456.450	1.491.262	1.525.79
11,000	698	559	447	358	286	229	183	146	117	94	75	6
3,500	192	154	123	99	79	63	50	40	32	26	21	1
61,585	61.585	68.952	74.470	78.494	81.382	83.434	84.888	85.920	86.655	87.186	87.574	87.86
370	13	10	8	7	5	4	3	3	2	2	1	
55,502	62.488	69.675	75.048	78.957	81.752	83.731	85.125	86.109	86.807	87.307	87.671	87.94
	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.
	2.780.403	2.856.525	3.084.761	3.308.698	3.534.081	3.765.688	4.007.411	4.262.460	4.533.577	4.823.214	5.133.672	5.467.20
	44.486	45.704	49.356	52.939	56.545	60.251	64.119	68.199	72.537	77.171	82.139	87.47
	2.824.889	2.902.230	3.134.118	3.361.637	3.590.626	3.825.939	4.071.529	4.330.659	4.606.114	4.900.385	5.215.811	5.554.68
	322	331.3	357.8	383.7	409.9	436.8	464.8	494.4	525.8	559.4	595.4	634.1
63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
	579	595	642	689	736	784	835	888	944	1005	1069	113
13.0	13.	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.
	3.195.865	3.283.362	3.545.703	3.803.101	4.062.182	4.328.377	4.606.219	4.899.379	5.211.008	5.543.924	5.900.773	6.284.14
130,000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.00
100,000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.00
	2.675.127	2.753.882	3.007.044	3.254.805	3.503.745	3.759.334	4.026.020	4.307.465	4.606.793	4.926.793	5.270.080	4.763.21
0	115.900	115.900	115.900	115.900	115.900	115.900	115.900	115.900	115.900	115.900	115.900	991.90
5.0	174.838	183.580	192.759	202.397	212.517	223.142	234.299	246.014	258.315	271.231	284.792	299.03
0.1908	0.1908	0.1903	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908	0.1908
0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100	0.3100
0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150	0.2150
0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400	0.7400
2.3671	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932	2.7932
	10.196	10.496	11.461	12.405	13.354	14.328	15.344	16.417	17.558	18.777	20.085	18.15
	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.000	31.00
	561.723	578.260	631.419	683.444	735.717	789.385	845.384	904.482	967.335	1.034.528	1.106.612	1.300.16
	85.766	85.766	85.766	85.766	85.766	85.766	85.766	85.766	85.766	85.766	85.766	734.00
	488.353	512.771	538.409	565.330	593.596	623.276	654.440	687.162	721.520	757.596	795.476	835.25
	10.603	10.915	11.919	12.901	13.888	14.901	15.958	17.073	18.260	19.528	20.889	18.88
	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.760	29.76
	539.255	555.130	606.163	656.136	706.288	757.810	811.569	868.303	928.641	993.147	1.062.347	960.17
	53.175	53.175	53.175	53.175	53.175	53.175	53.175	53.175	53.175	53.175	53.175	455.08
	78.137	82.043	86.146	90.453	94.975	99.724	104.710	109.946	115.443	121.215	127.276	133.64
	710.929	731.024	787.162	842.395	898.086	955.370	1.015.172	1.078.257	1.145.279	1.216.826	1.293.447	1.597.53
	182.623	190.120	197.206	203.602	212.445	220.676	228.182	238.415	247.944	256.640	268.381	279.30
	189.855	191.620	190.816	186.176	193.394	199.964	205.833	213.775	221.050	227.594	236.416	241.19
	31.671	31.537	31.430	31.344	31.275	31.220	31.176	31.141	31.113	31.090	31.072	31.05
	696.660	723.802	800.741	866.079	932.715	1.001.881	1.074.599	1.151.737	1.234.055	1.322.252	1.417.001	1.335.02
	84.177	99.148	108.627	115.281	123.035	129.404	135.643	141.958	148.511	155.435	162.845	170.84
	176.991	184.161	200.237	209.238	218.949	229.425	240.729	252.925	266.084	280.284	295.607	960.38
	506	405	324	259	207	166	133	106	85	68	54	4
	423	419	417	414	413	411	410	409	408	408	407	40
	488.353	512.771	538.409	565.330	593.596	623.276	654.440	687.162	721.520	757.596	795.476	835.25
130,000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.000	130.00

0	0	0	0						
0	0	0	0						
0	0	0	0						
312.407	326.833	340.228	352.393	3.8	9.2	4.9	5.5	3.9	4.6
218.008	225.135	231.285	236.560	3.5	9.3	5.6	1.6	2.8	2.9
0	0	0	0						
0	0	0	0						
0	0	0	0						
0	0	0	0						
530.415	551.968	571.512	588.753	3.5	9.3	5.3	3.6	3.5	3.8
0.5	0	0	0.5				1.0	1.0	
46	37	30	24	-20.0	-4.8	-10.0	-20.0	-20.0	-18.4
35	28	22	18	-20.0	-13.3	-12.3	-20.0	-20.0	-18.8
81.560	81.722	81.854	81.964	2.4	30.4	7.1	3.8	2.4	3.6
1	1	1	1	-20.0	-8.8	-20.0	-20.0	-20.0	-20.0
1.560.306	1.594.950	1.625.824	1.664.980	3.9	9.1	7.7	7.0	3.9	5.5
48	38	31	25	-20.0	-4.6	-10.0	-20.0	-20.0	-18.4
13	11	8	7	-20.0	-13.3	-12.3	-20.0	-20.0	-18.8
88.085	88.260	88.402	88.522	2.4	30.4	7.1	3.8	2.4	3.6
1	1	1	0	-20.0	-8.8	-20.0	-20.0	-20.0	-20.0
88.147	88.310	88.442	88.558	2.4	2.4	2.5	2.1	2.4	2.3
0.3	0.3	0.3	0.3		0.0	0.0	1.0	1.0	
5.826.108	6.212.747	6.625.638	7.079.468	6.4	10.8	8.2	7.8	6.4	7.2
93.218	99.404	106.074	113.271	6.4	9.6	7.6	7.8	6.4	7.1
5.919.326	6.312.151	6.735.713	7.192.740		10.8	8.2	7.8	6.4	7.2
675.7	720.6	768.9	821.1	6.4	10.8	8.6	7.8	6.4	7.9
63.0	63.0	63.0	63.0	0.0	1.3	1.1	0.3	0.0	0.3
1213	1294	1381	1474	6.4	8.9	7.4	7.3	6.4	6.9
13.0	13.0	13.0	13.0	0.0	-2.8	-2.6	-1.3	0.0	-0.9
6.696.876	7.141.089	7.520.274	8.137.320	6.4	10.9	7.9	7.6	6.4	7.1
130.000	130.000	130.000	130.000	0.0	1.6	-0.7	0.0	0.0	-0.1
100.000	100.000	100.000	100.000	0.0		-1.1	0.0	0.0	-0.2
4.284.792	3.837.506	3.424.207	3.047.945	0.9	14.7	10.6	9.0	0.9	5.1
1.867.900	2.743.900	3.619.900	4.495.900	27.6	-1.0	10.0	5.8	27.6	17.0
313.984	329.683	346.167	363.475	5.0	3.8	5.0	5.0	5.0	5.0
0.1908	0.1908	0.1908	0.1908	0.0	-0.5	0.0	0.0	0.0	0.0
0.3100	0.3100	0.3100	0.3100	0.0	-0.6	0.1	0.0	0.0	0.0
0.2150	0.2150	0.2150	0.2150	0.0	-0.5	0.0	0.0	0.0	0.0
0.7400	0.7400	0.7400	0.7400	0.0	0.1	0.0	0.0	0.0	0.0
2.7932	2.7932	2.7932	2.7932	0.0	-0.1	0.0	-2.4	0.0	-0.8
16.330	14.626	13.050	11.616	0.9	6.0	10.6	9.0	0.9	5.1
31.000	31.000	31.000	31.000	0.0		-0.5	0.0	0.0	-0.1
899.721	805.800	719.015	640.008	0.9	14.8	10.7	9.0	0.9	5.1
1.382.246	2.030.486	2.678.725	3.326.966	27.6	-0.9	10.0	5.8	27.6	17.0
877.012	920.863	966.906	1.015.251	5.0	3.3	14.2	2.4	5.0	5.6
16.984	15.211	13.572	12.081	0.9	6.0	11.3	9.0	0.9	5.2
29.760	29.760	29.760	29.760	0.0		-2.4	0.0	0.0	-0.4
860.732	773.568	690.255	614.407	0.9	14.3	10.7	9.0	0.9	5.1
856.993	1.258.901	1.660.810	2.062.719	27.6	-0.9	10.0	5.8	27.6	17.0
140.322	147.338	154.705	162.440	5.0	3.3	14.2	2.4	5.0	5.6
1.907.790	2.224.778	2.543.102	2.881.408	9.8	10.7	9.6	7.2	9.8	8.9
285.266	302.629	315.026	326.290	3.9	9.2	4.9	5.5	3.9	4.6
245.199	251.695	257.443	262.367	2.2	7.9	5.5	1.9	2.2	2.6
31.046	31.037	31.030	31.024	-0.1	9.5	-2.8	-1.6	-0.1	-1.1
1.260.965	1.195.532	1.139.496	1.093.677	[illegible]	12.3	10.3	8.9	3.1	6.1
179.518	189.568	199.234	210.565	6.3	29.5	8.0	5.5	6.3	6.3
1.626.468	2.293.968	2.962.995	3.633.673	22.6	5.8	8.6	5.4	22.3	14.5
35	28	22	18	-20.0	-12.8	-18.4	-20.0	-20.0	-19.7
407	406	406	406	-0.3	-5.3	-15.2	-2.9	-0.3	-3.8
877.012	920.863	966.906	1.015.251	5.0	3.3	14.2	2.4	5.0	5.6
130.000	130.000	130.000	130.000	0.0	1.6	-0.7	0.0	0.0	-0.1

Row	Unit	Code												Growth								Growth
325 Energy Consumption (TOE)																						
326 I Gasoline (Consumation)	TOE	TESGAS	37,579	41,214	46,725	51,259	57,165	68,935	66,369	73,276	78,093	85,963	90,675	9.2		90,675	91,697	95,738	101,118	107,539	115,210	4.9
327 I Diesel (Consumption)	TOE	TESDIE	56,851	64,528	71,011	77,648	81,932	92,050	94,938	103,489	113,751	120,019	121,510	7.9		121,510	123,546	131,649	140,157	149,184	158,796	5.5
328 I Kerosene (Consumption)	TOE	TESKER	18,056	20,706	22,201	22,252	20,941	27,668	28,746	43,210	24,930	26,605	44,639	9.5		44,639	42,152	41,161	40,283	39,466	38,743	-2.8
329 I Fuel Oil (Consumption)	TOE	TESFUE	53,684	60,796	66,357	90,044	85,645	116,908	136,681	129,187	165,731	172,645	175,436	12.6		175,436	203,538	226,338	245,657	264,399	286,027	10.3
330 I LPG (Consumption)	TOE	TESLPG	2,741	3,769	8,754	13,553	21,514	24,346	27,770	32,712	34,724	35,371	36,396	29.5		36,396	41,023	44,198	47,608	50,353	53,395	8.0
331 I Coal (Consumption)	TOE	TESCOL	22,358	22,293	22,692	23,560	38,130	31,799	33,770	31,472	38,717	38,810	39,113	5.8		39,113	43,253	47,058	50,968	54,990	59,135	8.6
332 I Fuel Wood (Consumption)	TOE	TESFWD	19,457	17,516	16,207	24,064	24,770	24,966	14,272	8,956	9,046	5,551	4,940	-12.8		4,940	2,800	2,766	2,240	2,213	1,792	-18.4
333 I Charcoal (Consumption)	TOE	TESCHL	1,850	1,480	1,480	1,850	2,220	2,220	1,850	1,480	1,480	1,110	962	-6.0		962	596	537	489	452	421	-15.2
334 I Bagasse (For National Grid)	TOE	TESBAG	22,734	27,324	29,650	28,839	29,261	27,771	28,643	30,571	27,632	29,477	31,582	3.5		31,582	50,501	53,026	55,677	58,461	61,384	14.2
335 E Hydro (Consumption)	TOE	TESHYD	9,981	9,443	12,023	8,574	12,754	7,301	6,493	9,727	8,918	6,493	11,558	1.6		11,558	11,180	11,180	11,180	11,180	11,180	-0.7
336 I Total Inland Energy Consumption (TOE)	TOE	TESTOE	245,192	269,067	297,100	341,642	374,333	418,960	439,532	464,080	503,021	522,045	556,812	8.5		556,812	610,256	653,650	695,372	738,337	786,080	7.1
337																						
338 Energy for bunkers (PHY)																						
339 E Diesel	T	GEXDIE	36,095	46,923	63,538	71,949	82,205	58,630	53,385	50,061	36,780	101,868	133,950	14.0		133,960	136,639	139,372	142,159	145,003	152,253	
340 E Fuel	T	GEXFUE	19,600	20,777	24,104	25,074	21,190	20,335	19,375	33,804	25,259	34,567	21,419	0.9		21,419	21,847	22,284	22,730	23,185	23,648	
341 I Jet Fuel	T	GCTJFL	55,329	57,406	77,539	119,099	121,000	138,664	136,254	146,369	123,604	122,555	120,232	8.1		120,232	122,637	125,089	127,591	130,143	132,746	2.0
342																						
343 Energy for bunkers (TOE)																						
344 I Diesel	TOE	TEXDIE	36,456	47,392	64,173	72,668	83,027	59,216	53,919	50,562	37,148	102,887	135,300			135,300	138,006	140,766	143,581	146,453	153,775	
345 I Fuel	TOE	TEXFUE	18,816	19,946	23,140	24,071	20,342	19,522	18,501	32,452	24,249	33,184	20,562			20,562	20,973	21,393	21,821	22,257	22,702	
346 I Jet Fuel	TOE	TCTJFL	57,542	70,102	80,641	124,487	125,840	144,211	141,704	152,224	128,548	127,457	125,041	8.1		125,041	127,542	130,093	132,695	135,349	138,056	2.0
347																						
348 Total energy demand including bunkers (TOE)	TOE	TSTOB	358,006	406,508	465,054	562,869	603,543	641,914	653,756	699,317	692,566	785,574	837,715	8.9		837,715	896,807	945,902	993,469	1,042,396	1,100,614	5.6
349																						
350 Bagasse Production and Utilization (PHY)																						
351 E Bagasse Production	T	CBGPRD	1,516,994	1,642,706	1,716,558	1,572,831	1,602,868	1,575,992	1,543,273	1,625,479	1,562,267	1,424,144	1,639,810	0.8	1,600,000	1,639,810	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000	-0.5
352 I Electricity	T	CBGELE	142,085	170,772	185,310	180,242	182,882	173,571	179,020	191,070	172,700	184,232	197,389	3.9		197,389	315,630	331,412	347,983	365,382	383,651	14.2
353 I Bagasse Remaining for Sugar Manufacturing	T	CBGSUG	1,374,908	1,471,934	1,531,248	1,392,589	1,479,985	1,402,421	1,364,253	1,434,409	1,389,567	1,239,912	1,442,421	0.5		1,442,421	1,284,370	1,268,588	1,252,017	1,234,618	1,216,349	-3.4
354																						
355 Bagasse Production and Utilization (TOE)																						
356 I Bagasse Production	TOE	TBGPRD	242,719	262,833	274,649	251,653	256,059	252,159	246,924	260,077	249,963	227,853	262,370	3.8	256,000	262,370	256,000	256,000	256,000	256,000	256,000	-0.5
357 I Electricity	TOE	TBGELE	12,219	14,686	15,937	15,501	15,728	14,927	15,396	16,432	14,852	15,844	16,975	3.3		16,975	50,501	53,026	55,677	58,461	61,384	29.3
358 I Bagasse for Sugar Manufacturing and Remaining	TOE	TBGSUG	230,500	248,147	258,713	236,152	250,331	237,232	231,528	243,645	235,111	212,019	245,394	0.6		245,394	205,499	202,974	200,323	197,539	194,616	-4.5
359																						

	115.210	121.546	128.478	136.003	144.133	152.890	162.306	172.419	183.273	190.064	197.233	5.5
	156.796	145.198	150.090	155.080	160.167	165.261	170.433	175.676	180.983	186.346	191.754	1.9
	38.743	37.443	36.402	35.570	34.904	34.371	33.945	33.604	33.331	33.113	32.938	-1.6
	286.027	319.946	355.159	391.679	429.739	465.009	501.732	540.165	580.609	623.378	668.793	8.9
	53.395	58.916	63.552	67.560	71.149	74.460	77.679	80.848	84.066	87.401	90.911	5.5
	59.133	63.425	67.858	72.441	77.185	82.101	87.203	92.562	98.013	103.752	109.734	6.4
	1.792	1.434	1.147	918	734	587	470	376	301	241	192	-20.0
	421	397	378	362	350	340	332	325	320	316	313	-2.9
	61.384	50.367	52.886	55.530	58.307	61.222	64.283	67.497	70.872	74.416	78.137	2.4
	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	0.0
	786.080	809.854	867.129	925.323	987.817	1.047.441	1.109.562	1.174.591	1.242.949	1.310.206	1.381.185	5.8
	152.253	155.298	158.404	161.572	164.803	168.099	171.461	174.891	178.388	181.956	185.595	
	23.648	24.121	24.604	25.096	25.558	26.110	26.632	27.164	27.708	28.262	28.827	
	132.746	135.401	138.109	140.871	143.688	146.562	149.493	152.483	155.533	158.644	161.816	2.0
	153.775	156.851	159.988	163.188	166.451	169.780	173.176	176.639	180.172	183.776	187.451	
	22.702	23.156	23.620	24.092	24.574	25.065	25.567	26.078	26.599	27.131	27.674	
205,229	138.056	140.817	143.633	146.506	149.436	152.425	155.473	158.583	161.754	164.989	168.289	2.0
	1.100.614	1.130.678	1.194.370	1.260.108	1.328.278	1.394.712	1.463.777	1.535.891	1.611.475	1.686.102	1.764.600	4.8
1,600,000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	0.0
	383.651	314.797	330.537	347.064	364.417	382.638	401.769	421.858	442.951	465.098	488.353	2.4
	1.216.349	1.285.203	1.269.463	1.252.936	1.235.583	1.217.362	1.198.231	1.178.142	1.157.049	1.134.902	1.111.647	-0.9
256,000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	0.0
	61.384	50.367	52.886	55.530	58.307	61.222	64.283	67.497	70.872	74.416	78.137	2.4
	194.616	205.633	203.114	200.470	197.693	194.778	191.717	188.503	185.128	181.584	177.863	-0.9

	197.233	205.395	212.382	219.690	229.441	238.330	246.437	257.488	267.780	277.171	289.851	301.65
	191.754	193.537	192.624	188.038	195.328	201.964	207.892	215.913	223.261	229.870	238.780	243.60
	32.938	32.799	32.687	32.598	32.526	32.469	32.423	32.386	32.357	32.334	32.315	32.30
	668.793	694.850	768.711	831.436	895.407	961.805	1.031.615	1.105.667	1.184.693	1.269.362	1.360.321	1.281.62
	90.911	107.080	117.534	125.583	132.878	139.756	146.494	153.314	160.391	167.870	175.873	184.50
	109.734	114.180	124.147	129.728	135.748	142.244	149.252	156.813	164.972	173.776	183.276	595.43
	192	154	123	99	79	63	50	40	32	26	21	1
	313	310	308	307	305	304	303	303	302	302	301	30
	78.137	82.043	86.146	90.453	94.975	99.724	104.710	109.946	115.443	121.215	127.276	133.64
	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.180	11.18
	1.381.185	1.441.527	1.536.443	1.629.310	1.727.867	1.827.839	1.930.357	2.043.051	2.160.412	2.283.106	2.419.194	2.784.27
	185.595	189.307	193.093	196.955	200.894	204.912	209.010	213.191	217.454	221.803	226.240	230.76
	28.827	29.404	29.992	30.592	31.203	31.828	32.464	33.113	33.776	34.451	35.140	35.84
	161.816	165.053	168.354	171.721	175.155	178.658	182.232	185.876	189.594	193.385	197.253	201.19
	187.451	191.200	195.024	198.925	202.905	206.961	211.100	215.323	219.629	224.022	228.502	233.07
	27.674	28.228	28.792	29.368	29.955	30.554	31.165	31.789	32.425	33.073	33.735	34.40
405,877	168.289	171.555	175.088	178.590	182.162	185.805	189.521	193.311	197.178	201.121	205.143	209.24
	1.764.600	1.832.610	1.935.347	2.036.193	2.142.887	2.251.160	2.362.144	2.483.473	2.609.643	2.741.321	2.885.574	3.260.99
1,600,000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.000	1.600.00
	488.353	512.771	538.409	565.330	593.595	623.276	654.440	687.162	721.520	757.596	795.476	835.25
	1.111.647	1.087.229	1.061.591	1.034.670	1.006.404	976.724	945.560	912.838	878.480	842.404	804.524	764.75
256,000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.000	256.00
	78.137	82.043	86.146	90.453	94.975	99.724	104.710	109.946	115.443	121.215	127.276	133.64
	177.863	173.957	169.854	165.547	161.025	156.276	151.290	146.054	140.557	134.785	128.724	122.36

312.407	326.833	340.228	352.393	3.9	9.2	4.9	5.5	3.9	4.6
247.651	254.212	260.018	264.991	2.2	7.9	5.5	1.9	2.2	2.6
32.288	32.278	32.271	32.265	-0.1	9.5	-2.8	-1.6	-0.1	-1.1
1.210.527	1.147.711	1.093.916	1.043.939	3.1	12.6	10.3	8.9	3.1	6.1
193.879	204.085	215.227	227.410	6.3	29.5	8.0	5.5	6.3	6.8
1.008.410	1.422.260	1.837.057	2.252.877	22.3	5.8	8.6	6.4	22.3	14.5
13	11	8	7	-20.0	-12.8	-18.4	-20.0	-20.0	-19.7
301	301	301	300	-0.3	-5.3	-15.2	-2.9	-0.3	-3.8
140.322	147.338	154.705	162.440	5.0	3.3	14.2	2.4	5.0	5.6
11.180	11.180	11.180	11.180	0.0	1.6	-0.7	0.0	0.0	-0.1
3.156.978	3.546.209	3.944.910	4.353.793	8.0	8.5	7.1	5.8	8.0	7.1
235.380	240.087	244.889	249.787	2.0	14.0	2.6	2.0	2.0	2.1
36.560	37.291	38.037	38.798	2.0	0.9	2.0	2.0	2.0	2.0
205.222	209.327	213.513	217.784	2.0	8.1	2.0	2.0	2.0	2.0
237.733	242.488	247.338	252.285	2.0					
35.097	35.799	36.515	37.246	2.0					
213.431	217.700	222.054	226.495	2.0	8.1	2.0	2.0	2.0	2.0
3.643.241	4.042.197	4.450.817	4.869.319	7.0	8.9	5.5	4.8	7.0	6.0
1.600.000	1.600.000	1.600.000	1.600.000	0.0	0.8	-0.5	0.0	0.0	-0.1
877.012	920.863	966.906	1.015.251	5.0	3.3	14.2	2.4	5.0	5.6
722.988	679.137	633.094	584.749	-4.2	0.5	-3.4	-0.9	-4.2	-3.0
256.000	256.000	256.000	256.000	0.0	0.8	-0.5	0.0	0.0	-0.1
140.322	147.338	154.705	162.440	5.0	3.3	29.3	2.4	5.0	7.8
115.678	108.562	101.295	93.560	-4.2	0.6	-4.5	-0.9	-4.2	-3.2

◆ Appendix 3 Sample Form for Energy Audit ◆

Appendix 3 Sample Form for Energy Audit

MONTHLY REPORT FOR ENERGY USE

Company and Factory Name :
Manager Energy Controller :

Name of Facilities :
Design Capacity :

Summary of Operation :
Operation Capacity :
Operation Factor :

Energy Consumed :

	Design	Normal	Current	Ope. Hrs.	Mon. Cons.
FACILITIES					
Fuel (Kg/Hr)					
Fuel oil					
LPG					
Coal					
Elec. Power(Kwh)					
Driver					
Heating					
Lighting					
Steam (Kg/Hr)					
Heating					
Driver					
Heat Media (Kcal/Hr)					

Specific Item : (Data shall be filled for each equipment specified)
(a) Combustion Equipment (Steam boiler and other heater) :
- Fuel Consumption :
- Thermal Efficiency :
- Evaluation by comparing with design efficiency :

(b) Electric Motor :
- Power Consumption :
- Evaluation comparing design and operating conditions :

(c) Indirect Heater (by steam, heating media, etc.) :
-Heat transferred :
-Evaluation comparing design and operating conditions :

(d) Steam Turbine (for driver):
-Steam Consumption:
-Evaluation comparing standered value and operating conditions :

(e) Steam turbine - Alternator :
-Steam Rate : (inlet, extructed, exhaust or condensate)
-Power Generated :
-Efficiency :
-Evaluation by comparing stadard value and operating conditions :

Plan to Improve Energy Efficiency :

Attachment :
* Operation Record
* Simplified Flow Scheme (showing equipment specified as above)

Attachment - 1 for Monthly Report

DAILY OPERATION RECORD

(1) Whole Factory

	Standard					
Fuel (Kg/Hr)						
Fuel Oil						
LPG						
Coal						
Elec. Power(Kwh)						
Purchased						
Generated						
Consumed						
Loss						
Elec. for Lighting						
Steam (Kg/Hr)						
Generated(HP)						
(MP)						
(LP)						
to Power Generator						
from Power Generator						
extruct						
exhaust						
condensate						
Power Gener. Eff.						
Boiler(for power gen.)						
Fuel consump.						
O2 in flue gas						
Flue gas temp.						
Boiler Eff.						

(2) Production / Process Facilities

	Standard					
Combustion Equip.						
Fuel cons.(Kg/Hr)						
O2 Cont. in flue gas						
Flue gas temp.						
Cold side fluid						
flow rate						
in/out temp.						
Heater Eff.						
Electric Motor						
Ampare						
Power factor						
Power cons.(Kwh)						
Indirect Heater						
Heating Media.						
Flow rate(Kg/Hr)						
Temp.(in/out)						
Cold side fluid						
Flow rate(Kg/Hr)						
Temp.(in/out)						
Heat transferred						
Steam Turbine						
Steam cons.(kg/hr)						
Press. (in/out)						
Temp.(in/out)						

◆ Appendix 4 Supplement Technical Information ◆

Appendix 4 Supplement Technical Information

A. WIND POWER

1. Wind Power

(1) Potential of Wind Power Generation

1) We estimated potential of wind power generation shown as Table A4.1
   This estimation is based on UNDP and we select the type of wind turbine is MICON in Denmark (capacity is 600kW).
   Main specification is shown as Figure A4.1.
2) Case study of Wind Power Generation in Mauritius is given in Table A4.2.
   Figure A4.2 shows Annual production toward Mean wind speed.

(2) Situation of Wind Power Generation

1) Installed capacity
   Table A4.3 shows development of wind power generation of IEA major countries.
2) Trend of wind power turbine
   Table A4.4 shows big turbine in the world.
3) Operation record on Japan
   Table A4.5-6 show operation record of Miyakojima wind power station and Tappi wind park.

2. Subsidy System for Photovoltaic Power Generation in Japan

MITI (Ministry of International Trade and Industry) operates the subsidy system to introduce photovoltaic Power Generation.
In fiscal 1994, number of scope was 700, subsidiary rate was half of cost of equipment (including installation cost) and subsidy was upper 900,000YEN per 1kW.

3. Waste Power Generation in Japan

In Japan, practical power generation in a waste incineration facility was started in 1965.

Initially, the calorific value of waste was low at 1,500 to 2,000 kcal/kg. the power generation efficiency was also low at 5-10%. For these reasons, the power generated was used only for the station service.

Recently, however, as it now contains more plastic and paper, the calorific value of waste has increased to 2,500 to 3,000kcal/kg. The power generation efficiency has also increased to 15% to 20%.

Accordingly, the utility companies now purchase excess power from waste plants.

As of the end of fiscal 1994, a total of 390MW of power was generated by approximately 1,900 waste incineration plants.

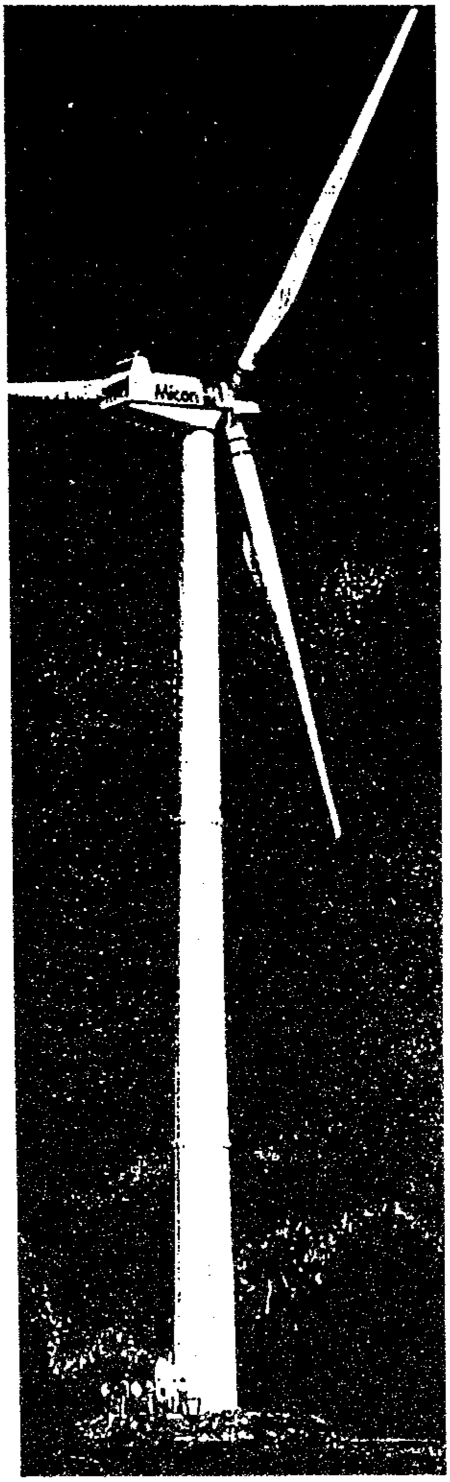
4. Demand and installed capacity in the other countries

Table A4.7 shows demand and installed capacity in the other countries.

Table A4.1 POTENTIAL OF WIND POWER GENERATION

Mauritius				
Site	Mean Speed m/s	Mean Speed (at 40m height) m/s	Annual Average Generation Power GWh/year	Utilization %
Grand Basin	5.10	6.8	1.60	30.4
Bois Cheri	3.70	5.0	0.74	14.1
Gris Gris	6.07	8.2	2.20	41.9
St Felix	4.10	5.5	0.85	16.2
Bel Ombre	6.00	8.1	2.10	40.0
Union Park	3.40	4.6		
Grand Port	5.60	7.5	1.80	34.2
Palmar	4.60	6.2	1.20	22.8
St Antonie	5.30	7.1	1.70	32.3
M.G.I. (Moka)	4.10	5.5	0.90	17.1
Bigara	5.00	6.7	1.40	26.6

Rodrigues				
Site	Mean Speed m/s	Mean Speed (at 40m height) m/s	Annual Average Generation Power GWh/year	Utilization %
Batarand	4.90	6.6	1.30	24.7
Anse Quitor	5.90	7.9	1.80	34.2
Roche Bon Dieu	5.10	6.8	1.60	30.4
Rivere Coco	4.90	6.6	1.30	24.7



Main Specifications

Type:
3-bladed, strallregulated, grid-connected, up-wind turbine.

Generator type:
Asynchronous, 3-phase, 2-speed (1000/1500 rpm.).

Nominal Rating:
600 kW.

Nominal Voltage:
690 V.

Frequency:
50 Hz or 60 Hz.

Cut-in wind speed:
3.5 m/s.

Cut-out wind speed:
25 m/s.

Survival wind speed:
69 m/s.

Rotor revolutions:
27/18 rpm.

Rotor Diameter:
43.0 m.

Swept rotor-area:
1452 m^2.

Hub height:
40 m or 46 m.

Tower:
Painted, 24-edged, conical, tubular steel tower.

Brake system:
Fail safe disc brake and blade tip brakes.

Control system:
Selfdiagnostic Computer Control.

Weights:
Tower: 40 t.
Nacelle: 19 t.
Rotor: 13 t.

Under usual reserve for changes.

Figure A4.1 MAIN SPECIFICATION OF WIND TURBINE

Table A4.2 CASE STUDY OF WIND POWER GENERATION IN MAURITIUS

1. Location	Gris Gris
2. Data	
1) Mean Wind Speed	8.2m/s (at 40m height)
2) Annual Production	2.2 x 10^6kWh/year/unit
3) Area	1km^2
4) Number of Unit	25
5) Output	600kW/unit x 25 units = 15MW
6) Construction Cost	30 x 10^3Rs/kW
3. Generation Cost	
1) Total Construction Cost	450 Million Rs
2) Annual Expenditure Rate	0.15 p.u.
3) Annual Production	55 x 10^6kWh
450 x 0.15 x 10^6Rs/55 x 10^6 kWh = 1.23Rs/kWh	

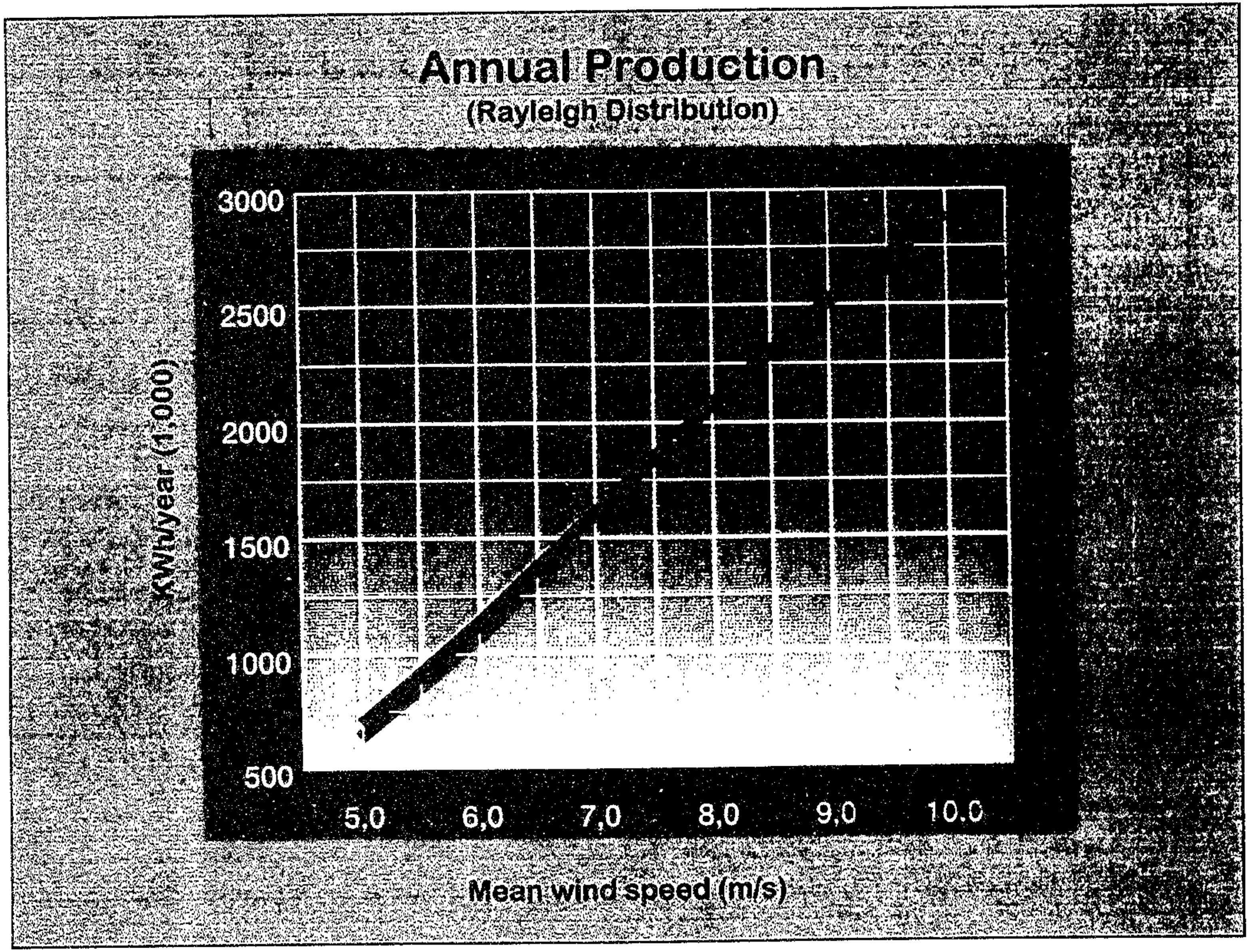


Figure A4.2 ANNUAL PRODUCTION TOWARD MEAN WIND SPEED

Table A4.3 WIND POWER GENERATION IN THE WORLD

as of Dec.,1995

Country	Output (MW)		Main sites & Output (MW)	
	Dec.,1994	Dec.,1995		
U.S.A.	1,630	1,770	Califolnia Altamont Pass	667
			Califolnia Tehachapi	643
			Califolnia San Gorgonia Pass	225
Germany	643	1,137	Schleswig Holstein Region	7
			Ostfriesland Region	7
			Wilheimshaben	5
Denmark	540	630	Kappel	9.6
			Vindeby Off-Shore Plant	3.7
India	120	550		
Netherland	153	250	North Holland	40
			Sexbirum Regin	40
			Maasvlakte	12
U.K.	147	193	Cornwall	16
			Burgur Hill	4
Spain	72	126		
Sweden	40	67		
China	25	36		
Greece	27	28		
Italy	22	23		
Canada	23	21		
Japan	5	10		
Others	52	56		
Total	3,499	4,897	140% up	

Source:IEA

Table A4.4 MAJOR WIND TURBINE IN THE WORLD

Country	Equipment		Type	Number	Specification				Annual Average Power Generation			Operation Recard		Commissioning
	Manufacture	Model			Number of Blade	Diameter of Roter (m)	Wind Velocity (m/s)	Output (kW)	Wind Velocity at 10m 5m/s	6.5m/s	8.0m/s	Operating Hours (h)	Total Generation (MWh)	
Canada	Shawinigan	EOLE	P	1	2	61.0	23.0	4,000	3,990	7,105	9,230	480	360	3/88
	Indal Technol	6100	C	2	2	24.4	18.2	522	297	602	1,064	3,000	300	3/88
Denmark	DWT(Blade)	NIBE-A	P	1	3	40.0	13.0	630		1,000		6,146	1,313	3/88
	DWT(Blade)	NIBE-B	P	1	3	40.0	13.0	630		1,300	14,597	17,800	4,744	3/88
	DWT	WINDANE 40	C	5	3	40.0	15.0	750	947	1,861	2,693			3/86
	DWT(Blade)	2MW	P	1	3	60.0	15.0	2,000		4,500				3/88
Italy	Aeritalia	GAMMA 60	P	0	2	60.0	13.3	1,500		4,300				3/88
Germany	M.A.N.	WKA60	P	0	3	60.0	12.2	1,200			2,400			10/87
	M.A.N.	GROWLAN	P	1	2	100.0	12.0	3,000				350		3/88
	MBB	MONOPT.50	C	3	1	56.0	11.0	610			2,000			6/88
	MBB	MONOPT.50	P	1	1			5,000						8/88
Netherlands	Stork-FDD	NEWECS 45	P	1	2	45.0	13.9	1,000			2,300			10/87
Spain	Asinel.M.A.N.	AWEC 60	P	0	3	60.0	12.2	1,200						8/88
Sweden	KMWAB	WTS-75	P	1	2	75.0	12.5	2,000	4,082	6,989	8,821	11,258	13,185	2/88
	Kariskrona-varvet AB	WTS-3	P	1	2	78.0	14.0	3,000	4,883	8,703	11,158	12,732	18,541	8/88
U.K.	WEG	LS-1	P	1	2	60.0	17.0	3,000	1,695	4,319	7,371			10/87
	WEG	LS-2	P	0	2	70.0		2,400						10/87
	Howden	750kW	P	1	3	45.0		750						1/86
	Howden	1MW	P	0	3	55.0		1,000						
U.S.A	Boeing	MOD-2	P	4	2	91.4	12.3	2,500	5,171	8,740	10,929	14,400	18,000	1/88
	Boeing	MOD-2(PG&E)	P	1	2	91.4	12.3	2,500	5,171	8,740	10,929	9,198	15,165	8/88
	Boeing	MOD-5B	P	1	2	99.0	20.5	3,200	6,112	10,623	14,128	4,510	4,996	8/88
	Hami. Standard	WTS-4	P	1	2	78.0	15.0	4,000	4,954	9,919	14,221	4,100	8,000	8/87
	Westinghouse	WWG 0600	C	14	2	43.0	13.0	600	935	1,766	2,447	143,800	34,560	8/88

Table A4.5 OPERATION RECORD OF MIYAKOJIMA WIND POWER STATION

	No.1		No.2	
1993	Generation (kWh)	Utilization (%)	Generation (kWh)	Utilization (%)
4	47,940	26.6	47,580	26.4
5	26,640	14.3	24,830	13.3
6	46,350	25.8	47,480	26.4
7	16,860	9.1	22,740	12.2
8	36,050	19.4	34,450	18.5
9	21,690	12.1	24,070	13.4
10	28,270	15.2	83,860	45.1
11	61,220	34.0	64,760	36.0
12	96,980	52.1	101,030	54.3
1	57,430	30.9	60,730	32.7
2	61,390	36.5	62,840	37.4
3	63,790	34.3	67,760	36.4
Total	564,610	25.8	642,130	29.3

	No.1		No.2	
1994	Generation (kWh)	Utilization (%)	Generation (kWh)	Utilization (%)
4	27,280	15.2	28,150	15.6
5	38,950	20.9	39,970	21.5
6	39,220	21.8	38,890	21.6
7	20,290	10.9	23,520	12.6
8	36,750	19.8	40,170	21.6
9	50,250	27.9	52,110	29.0
10	82,530	44.4	84,700	45.5
11	51,840	28.8	59,090	32.8
12	80,850	43.5	78,780	42.4
1	82,100	44.1	84,400	45.4
2	71,260	42.4	75,160	44.7
3	66,460	35.7	68,530	36.8
Total	647,780	29.6	673,470	30.8

1995	No.1		No.2	
	Generation (kWh)	Utilization (%)	Generation (kWh)	Utilization (%)
4	48,570	27.0	49,460	27.5
5	41,890	22.5	43,900	23.6
6	57,420	31.9	56,070	31.2
7	40,980	22.0	42,620	22.9
8	18,990	10.2	20,470	11.0
9	40,290	22.4	41,700	23.2
10	62,280	33.5	67,250	36.2
11	68,910	38.3	77,640	43.1
12	56,450	30.3	79,190	42.6
1	68,420	36.8	72,500	39.0
2	78,850	45.3	79,180	45.5
3	33,490	18.0	38,600	20.8
Total	616,540	28.2	668,580	30.5

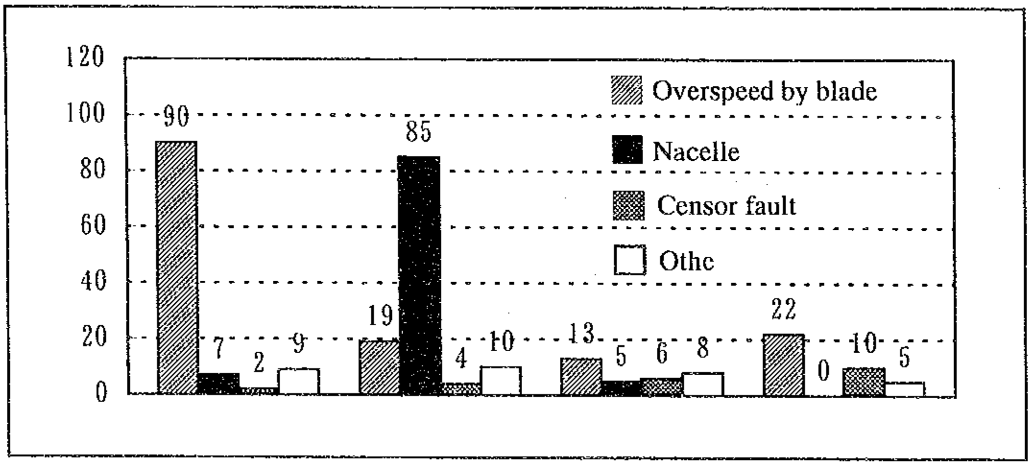
1996	No.1		No.2	
	Generation (kWh)	Utilization (%)	Generation (kWh)	Utilization (%)
4	68,910	38.3	70,990	39.4
5	55,210	29.7	57,550	30.9
6	45,050	25.0	42,320	23.5
7	33,050	17.8	32,770	17.6
8	21,180	11.4	20,570	11.1
9	57,750	32.1	56,960	31.6
10	59,840	32.2	51,740	27.8
11				
12				
1				
2				
3				
Total	340,990	26.6	332,900	25.9

Table A4.6 OPERATION RECORD OF TAPPI WIND PARK

1. Performance

	No.1~5	No.6~10	NEDO
Installation date	1991.10	1995.9	1996.10
Commissioning	1992.4	1995.1	1996.10
Number of units	5	5	1
Type of rotor	upwind	Horizontal shaf propeller	Horizontal shaf propeller
Orientation	upwind	upwind	upwind
Rated power	275kW	300kW	500kW
Hub Height	30m	30m	38m
Rotor Diameter	28m	29m	38.5m
Rotational speed	43rpm	43rpm	32rpm
Cut in wind speed	5.5m/s	5.5m/s	5.5m/s
Rated wind speed	13.0m/s	14.5m/s	12.5m/s
Cut out wind speed	24.0m/s	24.0m/s	24m/s
Power control	full span blade pitch	full span blade pitch	full span blade pitch

Trouble Record



2. Operation record of No.1 - No.5 from 1992 - 1995

		1992	1993	1994	1995	Average
Mean wind speed	(m/s)	6.1	6.7	6.0	6.8	6.4
Generation	(MWh)	2,290	2,880	2,290	2,950	2,600
Utilization factor	(%)	19.1	24.0	19.0	24.5	21.7
Availability	(%)	85.7	88.3	86.4	97.3	89.4
Standby time rate	(%)	38.1	30.8	37.7	40.6	36.8
Operation time rate	(%)	47.6	57.6	48.7	56.6	52.6
O/M time rate	(%)	2.0	3.8	5.1	0.9	3.0
Breakdown time rate	(%)	2.4	1.7	4.1	0.4	2.2
Other breakdown time rate	(%)	9.9	6.1	4.4	1.4	5.4

3. Operation record of No.1 - No.10 in 1996

			1996												Total
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
No.1 ~ No.5	Mean wind speed	(m/s)	9.9	8.0	7.6	6.8	6.2	6.0	6.0	6.1	4.8	6.0	8.4	7.5	6.9
	Generation	(MWh)	471.0	347.2	338.8	282.7	214.9	168.2	213.2	182.2	107.0	185.6	343.3	328.3	3182.4
	Utilization factor	(%)	46.0	36.3	33.1	28.6	21.0	17.0	20.8	17.8	10.8	18.1	34.7	32.1	26.4
	Operation time rate	(%)	77.3	74.8	66.2	61.8	57.4	62.8	59.4	54.8	39.8	49.8	67.1	62.2	61.1
	Availability	(%)	99.5	100	100	95.7	97.9	100	100	100	100	96.9	94.1	95.6	98.3
No.6 ~ No.10	Mean wind speed	(m/s)	10.7	9.6	9.5	10.2	9.0	8.4	9.5	7.7	6.3	7.6	9.2	8.9	8.9
	Generation	(MWh)	539.2	430.3	459.0	510.2	379.1	332.6	463.5	295.0	185.6	266.9	407.6	424.9	4687.6
	Utilization factor	(%)	47.8	41.2	41.1	47.2	34.0	30.8	41.5	26.4	17.2	23.9	37.7	38.1	35.6
	Operation time rate	(%)	80.0	80.5	76.9	80.0	70.0	80.1	78.0	73.2	55.3	58.4	69.4	70.8	72.7
	Availability	(%)	100	100	100	100	91.3	100	100	100	99.2	92.1	92.4	94.9	97.5

4. Utilization factor of each unit

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
No.1	52.5	56.1	50.9	48.1	34.0	27.4	33.9	25.6	18.8	29.4	46.2	49.5	39.4
No.2	53.4	45.8	37.2	30.9	26.3	19.2	21.0	19.9	13.1	19.6	40.7	37.6	30.4
No.3	50.4	36.6	30.1	19.7	14.7	9.5	8.9	10.8	7.2	15.1	36.3	32.0	22.6
No.4	43.6	26.5	27.9	25.5	16.8	14.9	20.3	17.2	8.2	15.9	30.6	25.6	22.7
No.5	45.1	16.5	19.5	18.6	13.2	13.9	20.1	15.6	6.8	10.7	19.7	15.8	16.7
No.6	45.1	40.5	40.6	49.6	36.7	33.7	43.4	29.2	18.7	25.2	32.4	38.1	36.1
No.7	31.9	28.1	32.7	44.3	25.8	30.0	40.7	26.3	14.0	16.8	30.7	27.7	29.1
No.8	54.7	43.8	40.6	42.7	33.2	27.2	38.6	26.1	16.2	22.8	39.8	38.2	35.3
No.9	42.6	35.6	38.0	46.0	35.1	31.1	43.2	25.1	16.2	21.8	37.9	33.2	33.8
No.10	64.5	58.1	53.7	53.6	39.1	31.9	41.8	25.5	20.9	32.9	47.9	53.1	43.6
No.1-5(Average)	46.0	36.3	33.1	28.6	21.0	17.0	20.8	17.8	10.8	18.1	34.7	32.1	26.4
No.6-10(Average)	47.8	41.2	41.1	47.2	34.0	30.8	41.5	26.4	17.2	23.9	37.7	38.1	35.6
No.1-10(Average)	46.9	38.7	37.1	37.8	27.5	23.9	31.2	22.1	14.0	21.0	36.2	35.1	31.0

5. Generation Cost

		1992	1993	1994	1995	1996-1	1996-12
		No.1 - No.5	No.1 - No.5	No.1 - No.5	No.1 - No.10	No.1 - No.10	NEDO
Construction cost	(yen/unit)	174,900,000	174,900,000	174,900,000	174,900,000	174,900,000	185,500,000
(a) O&M Cost	(yen/unit)	5,280,000	5,280,000	5,280,000	5,280,000	3,000,000	3,000,000
(b) O&M Cost	(yen/kWh)	11.5	9.2	11.5	8.9	4.7	3.2
(c) O&M Cost / Construction cost	(%)	3.0	3.0	3.0	3.0	1.7	1.6
Expenditure rate / year	(%)	0.102	0.102	0.102	0.102	0.102	0.102
Interest rate	(%)	8	8	8	8	8	8
Durable period	(year)	20	20	20	20	20	20
Average generation per annum	(kWh/unit)	458,680	576,840	458,220	590,640	636,480	937,520
Generation cost	(Yen/kWh)	50.3	40.0	50.4	39.1	32.7	23.4

TableA4.7 DEMAND AND INSTALLED CAPACITY IN OTHER COUNTRIES

1. Taiwan

Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1973	4,582	3,134	1.46
1974	4,842	3,452	1.40
1975	5,889	3,765	1.56
1976	6,538	4,302	1.52
1977	7,800	4,818	1.62
1978	8,537	5,630	1.52
1979	9,092	6,070	1.50
1980	10,066	6,703	1.50
1981	11,288	6,797	1.66

2. Thailand

Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1980	3,831	2,379	1.61
1981	4,453	2,561	1.74
1982	4,892	2,823	1.73
1983	5,591	3,200	1.75
1984	6,809	3,545	1.92
1985	7,450	3,826	1.95
1986	7,539	4,202	1.79
1987	7,761	4,842	1.60
1988	7,774	5,414	1.44
1989	8,151	6,208	1.31

3. Indonesia

Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1986	6,889	3,403	2.02
1987	8,041	3,890	2.07
1988	9,477	4,497	2.11
1989	10,098	5,167	1.95
1990	10,130	5,897	1.72
1991	10,208	6,167	1.66
1992	12,081	6,415	1.88
1993	15,111	7,122	2.12

4. Israel

Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1986	4,061	2,820	1.44
1987	4,061	3,240	1.25
1988	4,061	3,510	1.16
1989	4,926	3,760	1.31
1990	5,066	3,800	1.33
1991	5,886	4,540	1.30
1992	5,886	5,010	1.17
1993	6,116	5,090	1.20
1994	6,346	5,490	1.16
1995	6,920	5,600	1.24

5. Central America

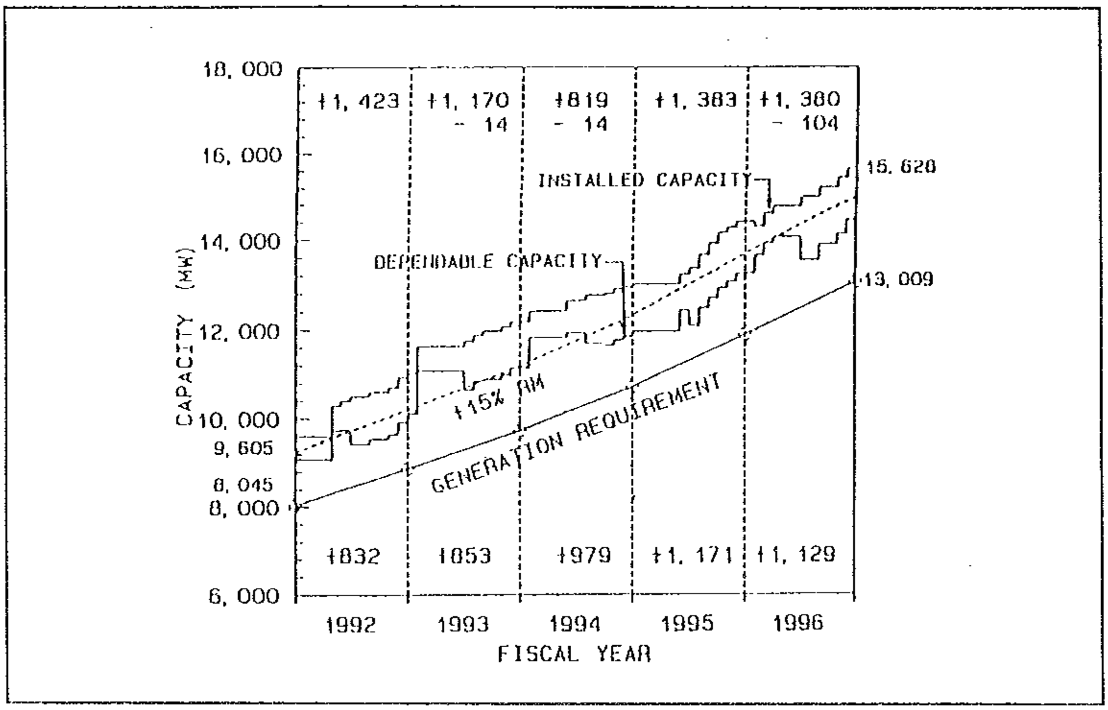
Country	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
Guatemala	836	495	1.69
El Sadvador	650	447	1.45
Honduras	525	377	1.39
Nicaragua	363	271	1.34
Costa Rica	1,006	717	1.40

6. Okinawa in Japan

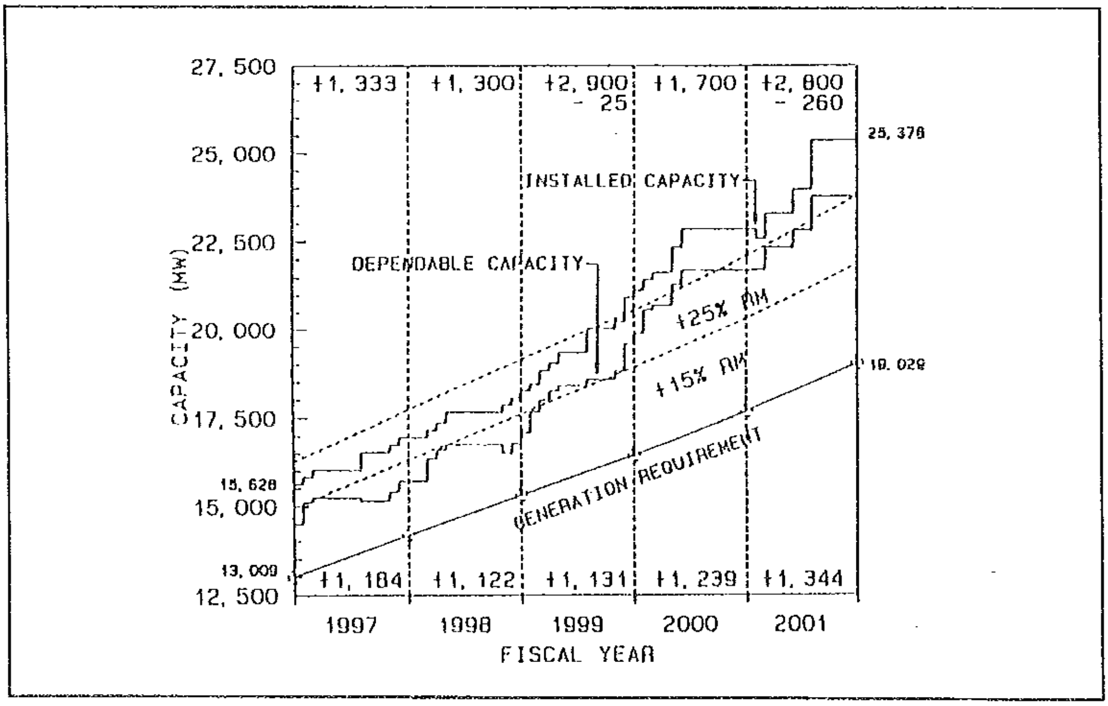
Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1996	1,630	1,280	1.27

7. Mauritius

Year	Installed capacity(MW)	Peak demand (MW)	I.C/P.D
1990	297	131	2.27
1991	320	147	2.18
1992	332	156	2.13
1993	339	170	1.99
1994	339	187	1.81
1995	364	201	1.81
1996	393	217	1.81
1997	421	232	1.81
1998	421	249	1.69
1999	440	271	1.62
2000	465	288	1.61
2001	469	315	1.49
2002	494	344	1.44
2003	525	372	1.41



INSTALLED CAPACITY AND PEAK GENERATION PROFILE IN THE 7TH PLAN



INSTALLED CAPACITY AND PEAK GENERATION PROFILE IN THE 8TH PLAN

B. CO-GENERATION

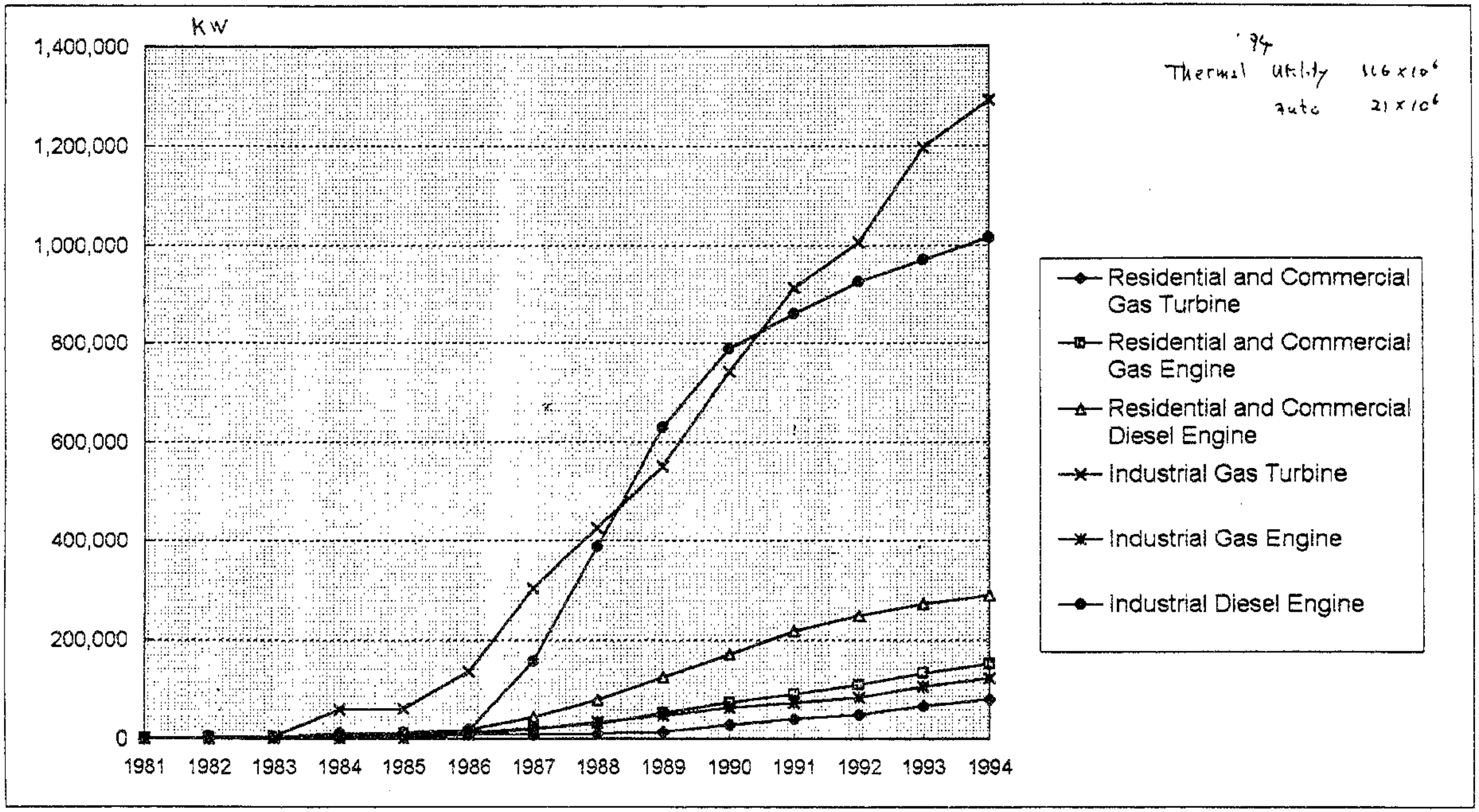
CO-GENERATION PROJECTS IN JAPAN

E: ELECTRICITY C:COOLING W:HOT WATER H:HEATING
GT: GAS TURBINE E:GAS ENGINE DE:DIESEL ENGINE

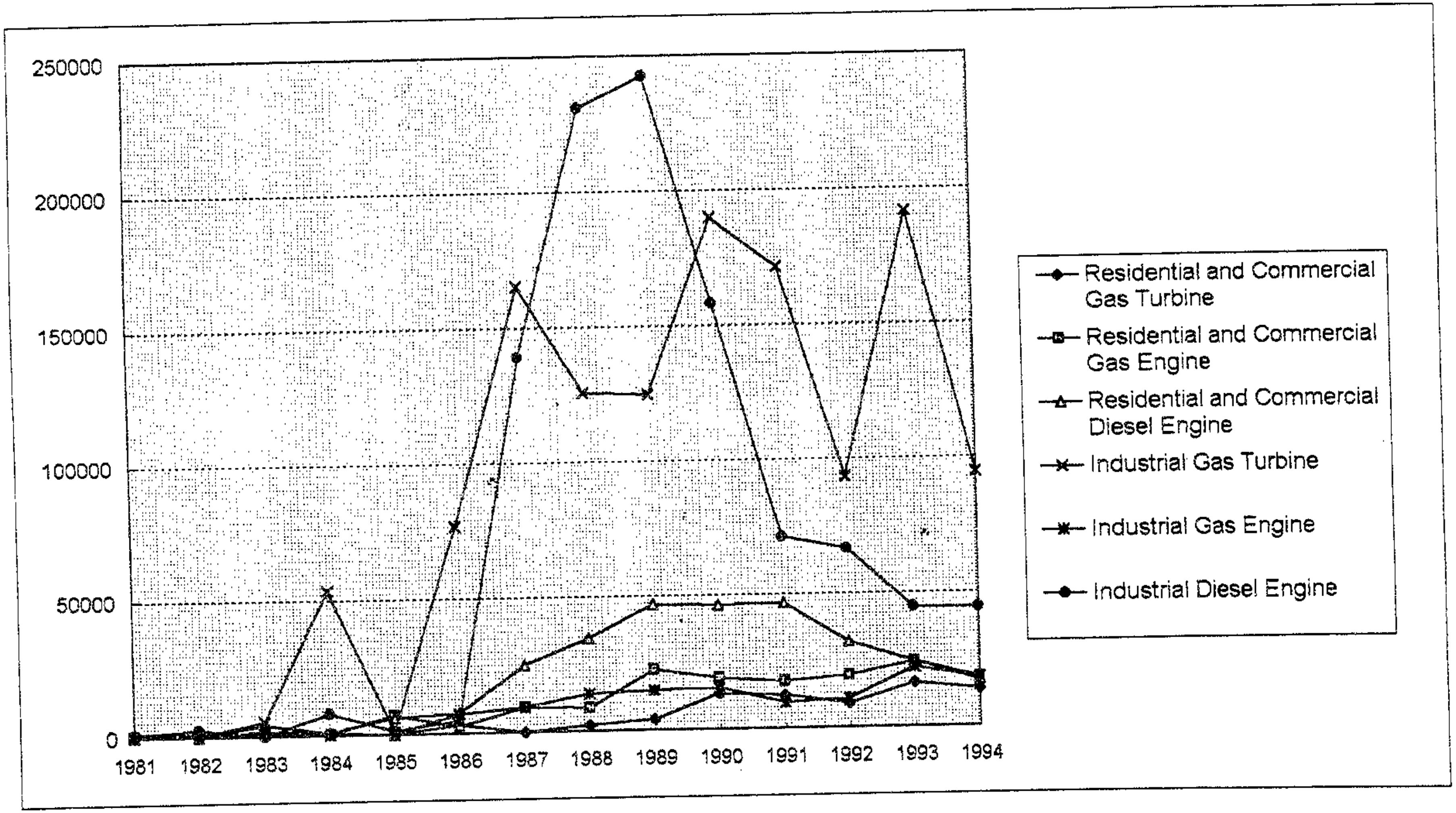
Time Completion Commercial	Type of Owner	Type	Engine	KW
(1) 1986 June	Computer Center Town Gas Company	E.H.C.	G.E	1,100 x 3
(2) 1986 March	Commercial Building	E.H.	G.E	2,178
(3) 1986 February	Hotel (Central)	E.H.C.W	D.E (F.O.A)	600
(4) 1985 December	Research Center	E.C.H.	D.E (F.O.A)	96
(5) 1985 June	Hotel (North)	E.H.W	D.E	400 x 2
(6) 1984 February	Hotel (Okinawa)	E.H.C.W	G.T (Kerosene)	400
(7) 1983 December	Office Building of Town Gas Co.	E.H.C.W	G.T (Town Gas)	1,000 x 2

GENERAL STATISTICS

Engine Type	Number of Project		Total Cap (x 10^3 kwh)	Average Cap kwg/project
Gas Turbine	Commercial	36	86	2,381
Gas Turbine	Industry	201	1,522	2,573
Gas Engine	Commercial	513	168	328
Gas Engine	Industry	202	130	648
Diesel Engine	Commercial	656	333	507
Diesel Engine	Industry	477	1,203	2,522



DEVELOPMENT OF CO-GENERATION PROJECTS IN JAPAN



DEVELOPMENT OF CO-GENERATION PROJECTS IN JAPAN

CHARACTERISTIC OF CO-GENERATION BY TYPE OF ENGINE

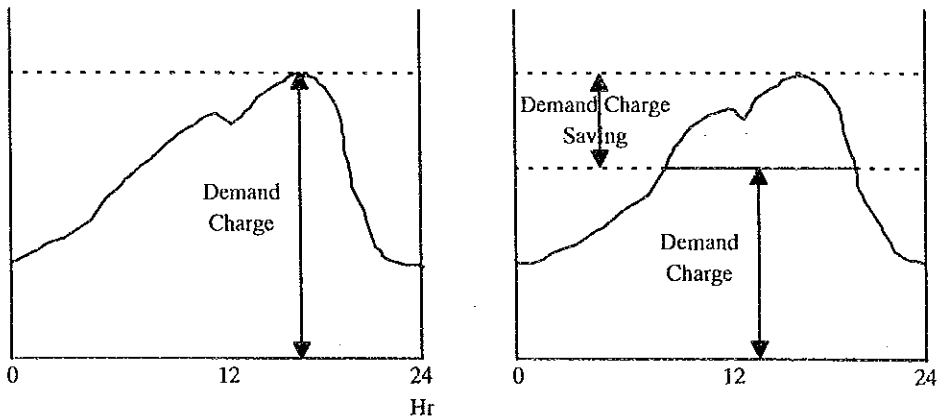
	Diesel Engine	Gas Engine	Gas Turbine
Adequate Size (kw)	15 - 10,000	20 - 5,000	1,000 - 230,000
Power Gene Efficiency (%)	30 - 45	28 - 38	25 - 40
Overall Efficiency (%)	40 - 70	60 - 80	60 - 85
Fuel	Gas oil Fuel oil	Natural Gas LPG	Gas Oil Kerosene Natural Gas
Temp of Engine (℃) Exhaust	350 - 450	400 - 500	500 - 600

Gas Turbine suitable to heat load oriented system, Diesel/Gas Engine suitable to electricity oriented system any case. The heat requirement throught the day is to be significant for economy improvement.

Viability Depend

* Demand Charge V.S. Energy Charge
* Tariff (Energy Charge) during peak time
* Cost of Fuel for hot water or steam
* Cost of energy for air cooling

ELECTRICITY DEMAND



C. BIO-COAL

DESCRIPTION

1. Features of Bio-Coal

(1) Little smoke generation

The smoke generation rate of Bio-Coal is reduced to 1/5 to 1/10 of the rate of the unblended coal. The combustion of wood fibre or other Biomass with a low ignition temperature present between the coal particles, creates the phenomenon that no volatile matters in coal remain unburnt at a low temperature zone (200 to 400℃) and thus emission smoke will not occur. Since each Bio-Coal briquette has been formed by high compressive force, during combustion, briquettes will not disintegrate to cause separation of coal particles and wood fibre.

(2) Good ignitability and burning quality

The Bio-Coal has a low ignition temperature because of the blended wood fibre, and will burn evenly at low combustion rates.

(3) No clinker produced

Since wood fibre is present between coal particles, clinkering is prevented by wood ash. The ash will pass like sand gravitationally through a fire grate, thus causing no impediment to combustion. No clinker generation means that there is less unburnt coal contained in clinker, thus leaving almost no unburnt residue.
Moreover, disposal of ash is easy.

(4) Less SOx in the flue gases

Since the Bio-Coal has been formed by high compressive force with a desulfurizing agent such as $Ca(OH)_2$ dispersed between coal particles, catalytic reaction between the sulfur content and desulfurizing agent is achieved effectively during combustion, thus leading to the fixation of 60% to 80% of sulfur in the coal.

2. Features of Production Process

(1) The production flow is simple and high in safety

As a technique for making coal smokeless, the dry distillation (carbonization) process has conventionally been used. The Bio-Coal process can eliminate such complicated operations as may be required in the dry distillation process and causes no problems such as disposal of tar and other by-products.

Moreover, The Bio-Coal process involves no danger because it is not performed at high temperatures.

(2) Briquetting by high compressive force

Since the coal particles, biomass materials and desulfurizing agent are subjected to briquetting by high compressive force, they are bound strongly to each other, with the result that separation does not occur even during combustion.

Though a binder may be added depending on the coal grades, the addition rate of such binder can be reduced due to the briquetting by high compressive force.

(3) A variety of coal grades and biomass materials can be used as raw materials.

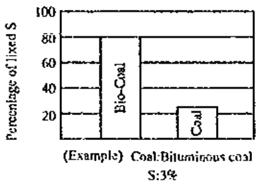
A wide variety of coal grades ranging from low grade coal such as brown coal and lignite to bituminous coal and anthracite can be used.

As for the biomass materials, waste wood, bagasse, peat pulp etc, can be used.

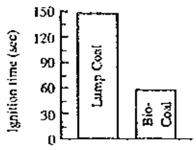
3. Applications of Bio-Coal

The Bio-coal is suitable as a domestic clean burning fuel for stove, boiler or cooking, as well as industrial applications : such as greenhouse boilers, and boilers for office, apartment or institutions.

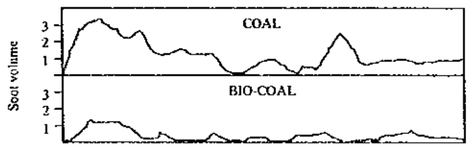
Percentage of fixed S in ash



Ignition property



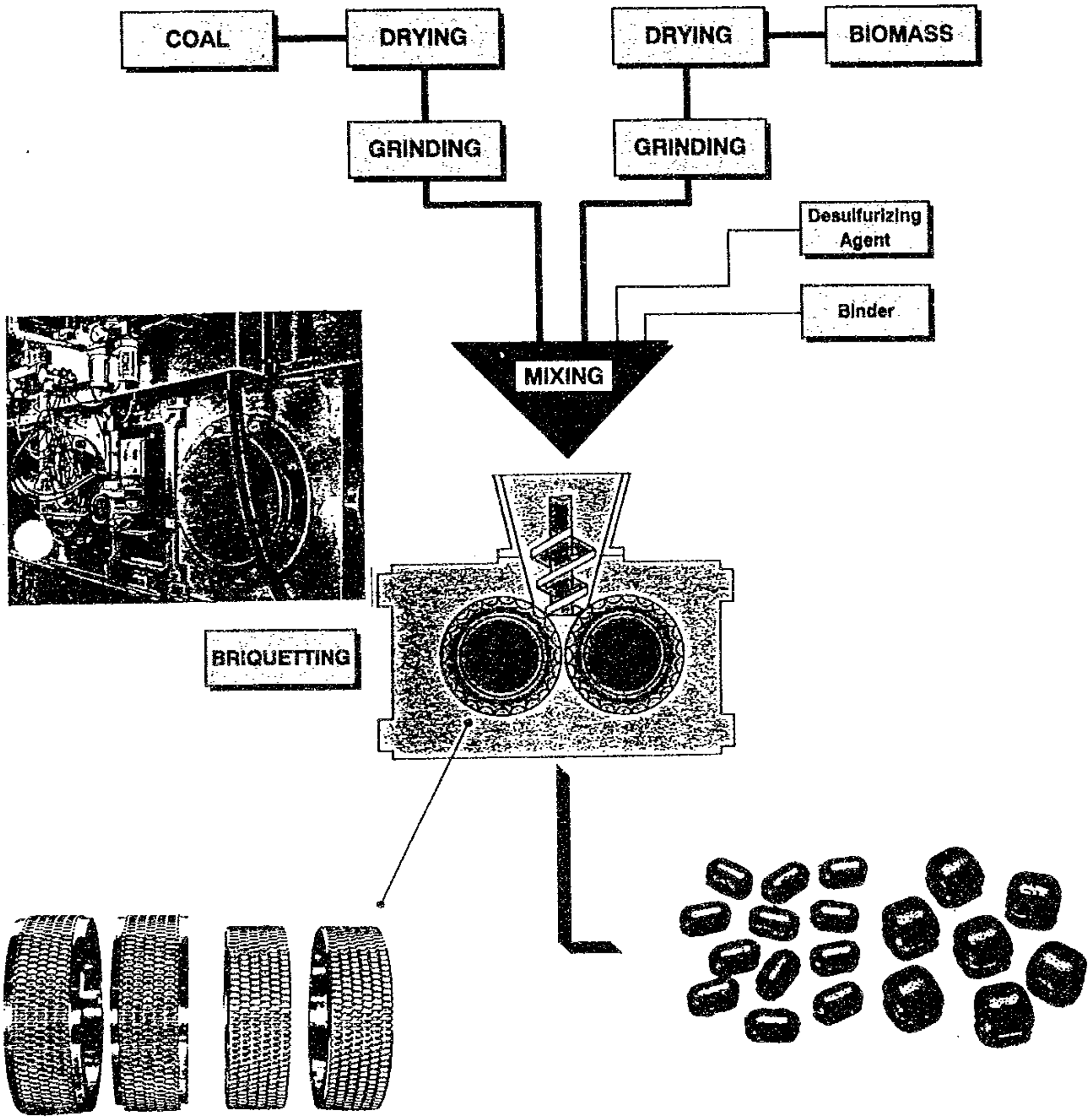
Soot in flue gas



BIO-COAL

The New Clean Burning Fuel by the New Production Process

Bio-Coal is produced by mixing biomass materials (vegetable matter) such as wood fibre or bagasse with coal in a ratio of 10% to 25% and briquetting the mixture with a high compressive force. Depending on the coal grades, a small amount of binder and desulfurizing agent may be required.



Briquetting Rolls

BIO-COAL

Appendix 5 Case Study in the Philippines
◆ *Successful Privatization of Power Generation Business* ◆

Appendix 5 Case Study in the Philippines Successful Privatization of Power Generation Business

The country experienced persistent and extensive power failure in 1989 through 1991 due to the shortage of generation capacity, seriously affecting people's life and industrial activity. The government decided to mobilize private investment, including large-scale international investment, by using the built-operate-transfer (BOT) approach. Between 1991 and 1994, it successfully add 3,000MW of new capacities which represented 33% of the country's total generation capacity. Notably, 96% of the new facilities were built by private investment. To ensure smooth implementation of BOT-based construction projects, the government amended laws and regulations as follows.

1) Executive Order No.215, July 1987

   It clearly defines responsibility of National Power Corporation (NPC) for nationwide power transmission and allows private investment in the following types of electricity production, with well-defined conditions:

   (a) Cogeneration
   (b) Power generation in line with NPC's development plan
   (c) Private power generation capacity with planned sales of surplus electricity
   (d) Power generation outside NPC's grid

   - Electricity production by private enterprises is governed by rules and regulations established by NPC.
   - The rules and regulations are decided by Office of Energy Affair (Department of Energy) in consultation with affected private organizations, including the following:

   (a) Qualification of private power generation operator
   (b) Licensing procedures
   (c) Obligations of private operator (energy efficiency, technical reliability, penalty)
   (d) Conditions of electricity purchase, transmission and distribution
   (e) Other requirements for enactment of the law

At the same time, existing laws and regulations conflicting the new law have been repealed.

2) Executive Order No.215: Energy Regulations No.1-95 "Implementing Rules and Regulations

   As regulations to enforce the previous order, it was issued by Department Energy in January 1995 to allow entry of private enterprises to the power generation business. The general outline is as follows:

Part I	**GENERAL PROVISIONS OF THE RULES AND REGULATION**	
	Article I	Statement of Policy, Scope and Definition of Term
	Article II	Juridiction of the DOE, NAPOCOR, NEA and ERB
	Article III	Qualification of A Private Sector Generation Facility and a Private Sector Generator
	Article IV	General Procedures for Applying for Accreditation as A Private Sector Generation Facility
	Article V	Right of NAPOCOR & Others on the Design and Operation of the Private Sector Generation Facility
	Article VI	Obligation of Concerned Parties
	Article VII	Purchase of Power
	Article VIII	Rates of Sales
	Article IX	Operating Standards, Environmental Concerns and Other Matters
Part II	**SPECIFIC PROVISIONS FOR COGENERATION AND RENEWABLE**	
	Article I	Definition of Cogeneration and Renewable Power Production
	Article II	Facilities
	Article III	Qualification RRPPPFs and Cogeneration Facilities
	Article IV	Procedurs for Applying for Accreditation as Cogene-RRPPPF
	Article V	Obligation of NAPCOCOR And Owner of Qualified Cogene, RRPPPF
		Rates for Purchase
Part III	**SPECIFIC PROVISIONS ON BLOCK POWER PRODUCTION FACILITIES**	
	Article I	Definition and Qualification of A Block Power Production facility as A Qualified PSGF
	Article II	Procedures for Applying for Accreditation as A Block Power Production Facility
	Article III	Obligation of NAPOCOR and Owners of Block Power Production Facilities
	Article IV	Rates for Purchases and Sales
	Article V	Operating Procedures and Environmental Concerns

Part IV	**SPECIFIC PROVISION ON ELECTRIC-UTILITY-OWNED GENERATION FACILITY**	
	Article I	Qualification as A Private Sector Generation Facility
	Article II	Procudures for Applying for Accreditation as A Private Sector Generation Facility
	Article III	NAPOCOR's Relationship
Part V	**OTHER PROVISIONS**	

3) Other BOT-related laws and regulations

(a) Executive Order on Omnibus Investment (Executive Order 226)

This sets forth government incentives for private investors under the BOT system (covering investment projects desirable for the government, not limited to power generation). A variety of incentives are granted to domestic and foreign investment in any of the areas approved by Board of Investment; namely tax exemption, lowered tariff rates on imported capital goods, double deduction of labor cost, and employment of expatriate workers.

(b) Foreign Investment Act (Republic Act No.7042)

Power generation projects by private enterprises are granted pioneer status to guarantee six-year tax exemption, non-tariff imports of capital goods, tax exemption on locally produced goods, guarantee of fund transfer to foreign countries, and authorized employment of expatriate workers.

(c) Department of Energy Act (Republic Act No.7638)

The act authorizes the establishment of DOE as a government agency to prepare, integrate, coordinate government activities related to energy development, utilization, distribution, and conservation, and to manage all projects. DOE was established in 1992 and has contributed greatly to early realization of privatization of power generation business.

Extraction from Republic Act No-7638 (Department of Energy Act 1992)

Power and Functions - The Department of Energy shall have the following powers and functions:

a. Formulate policies for the planning and implementation of a comprehensive program for the efficient supply and economical use of energy consistent with the approved national economic plan and with the policies on environmental protection and conservation and maintenance of ecological balance, and provide a mechanism for the integration, rationalization, and coordination of the various energy programs of the Government;

b. Develop and update the existing Philippine energy program which shall provide for an integrated and comprehensive exploration, development, utilization, distribution, and conservation of energy resources, with preferential bias for environment friendly, indigenous, and low-cost sources of energy. The program shall include a policy direction towards the privatization of government agencies related to energy, deregulation of the power and energy industry, and reduction of dependency on oil-fired plants. Said program shall be updated within nine (9) months from the effectivity of this Act and submitted to Congress within ten (10) days from its completion and not later than the fifteenth day of September every year thereafter;

c. Establish and administer programs for the exploration, transportation, marketing, distribution, utilization, conservation, stockpiling, and storage of energy resources of all forms, whether conventional or nonconventional;

d. Exercise supervision and control over all government activities relative to energy projects in order to attain the goals embodied in Section 2 of this Act;

e. Regulate private sector activities relative to energy projects as provided for under existing laws: *Provided*, That the Department shall endeavor to provide for an environment conducive to free and active private sector participation and investment in all energy activities;

(d) BOT Act (Republic Act No.6957)

The act enables the use of various innovative mechanisms for participation of the private sector in infrastructure projects which serve the national interest,. These mechanisms include BOO, BLT, BTO, and CAO, in addition to BOT.

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