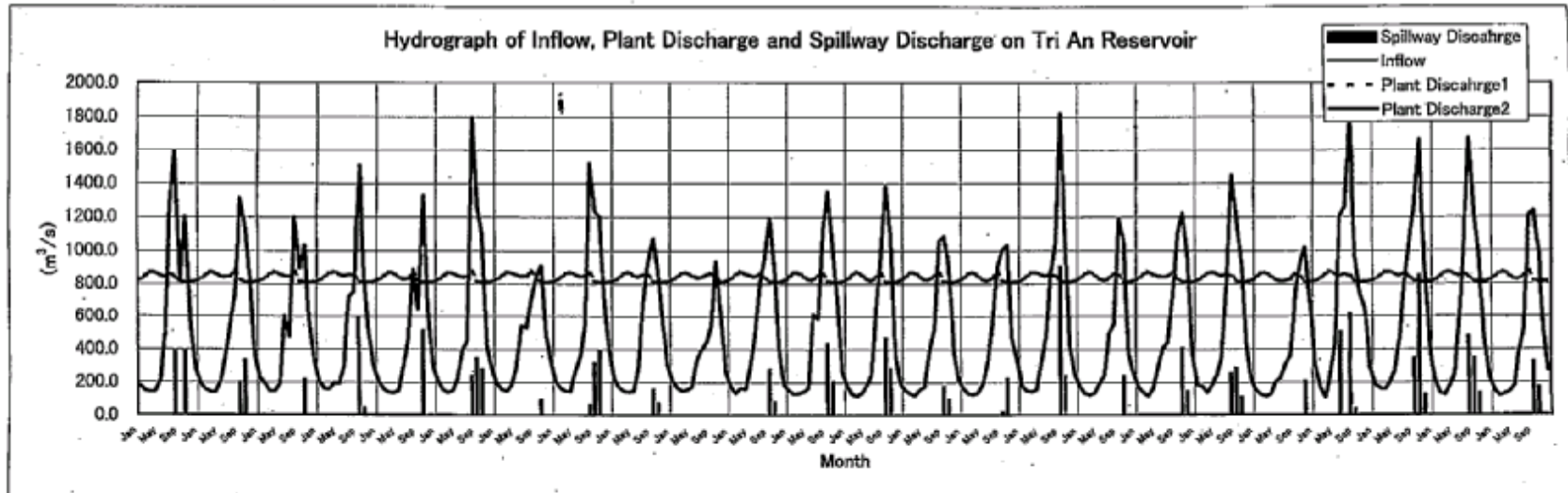
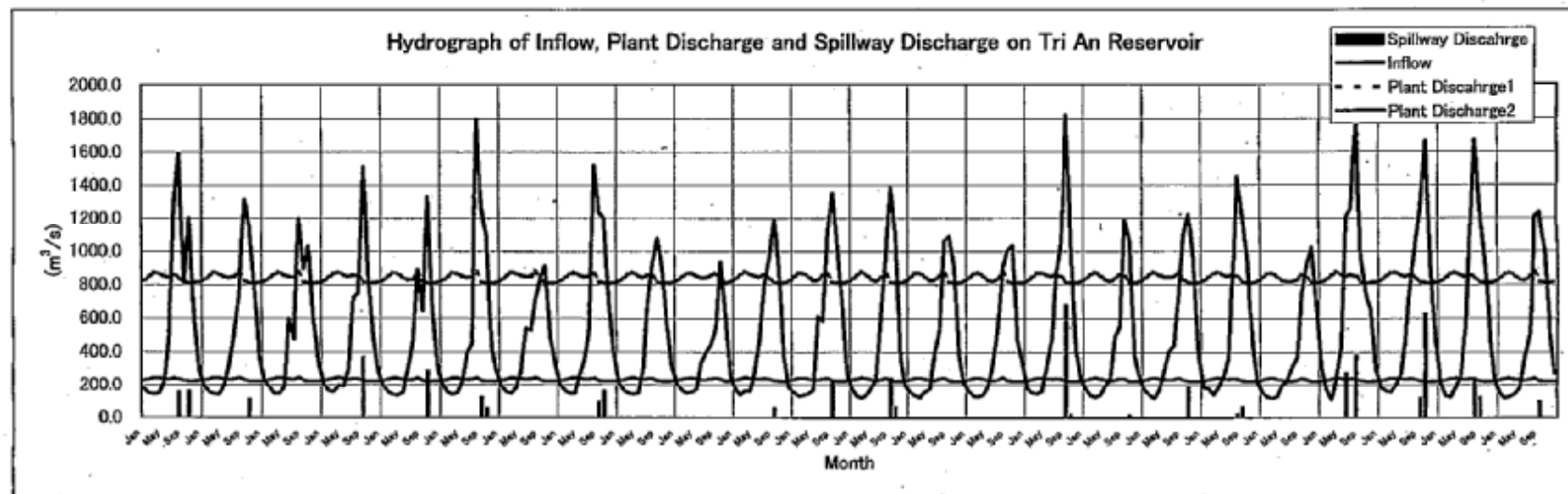


Differential Mass Curve Calculated by Reservoir Operation Study with 95% Firm Discharge



(1) Without Extension Project



(2) With Extension Project

Reduction of Spillway Discharge Estimated by Reservoir Operation Study for the period from 1979 to 2002

APPENDIX 6-1

Results of supply and demand simulation of the power development cases

APPENDIX 6-1: Results of Supply and Demand simulation of The Power Development Case

- 1 IE Demand (Revised 5th M/P)
 - 1.1 Original (2020)
 - 1.2 Interconnection;1,300MW (2015)
 - 1.3 Interconnection;1,300MW PSPP;750MW in N (2020)

- 2 Peak Shift Demand
 - 2.1 Interconnection; 1,300MW (2015)
 - 2.2 Interconnection; 1,300MW (2020)
 - 2.3 Interconnection; 1,300MW No Import (2015)
 - 2.4 Interconnection; 1,300MW Fuel price × 2 (2015)
 - 2.5 Interconnection; 1,300MW Fuel price × 2 (2020)
 - 2.6 Interconnection; 1,300MW PSPP;2000MW in C&S (2015)
 - 2.7 Interconnection; 1,300MW Gas;1500MW in C& S (2015)
 - 2.8 Interconnection; 1,300MW PSPP;750MW in N (2015)
 - 2.9 Interconnection; 1,300MW PSPP;750MW in N (2020)
 - 2.10 Interconnection; 1,300MW PSPP;750MW in N(2020) Cool;3000MW in C & S

1.1 IE Demand (revised 5th M/P) Original 2020

TABLE 1-1-1 kW BALANCE (MARGINAL OPERATION)
(WHOLE)

FY. 2020

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	28,287	27,853	28,884	30,049	30,457	29,804	29,767	30,051	30,294	31,821	32,259	32,606	362,132
PURCHASE	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	1,020	1,013	986	997	996	1,140	1,140	1,140	1,088	1,140	1,140	1,050	12,847
AB	13,141	13,162	12,423	12,739	12,339	15,066	15,829	15,980	16,384	16,949	14,786	16,126	174,924
PA	322	289	398	429	500	500	614	1,000	518	1,000	1,000	399	6,969
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	14,482	14,464	13,807	14,166	13,835	16,706	17,583	18,120	17,990	19,089	16,926	17,574	194,741
THERMAL,NUCLEAR.	23,272	23,272	23,272	23,272	23,272	23,272	23,272	23,272	23,272	23,272	23,272	23,272	279,260
SUPPLY CAPACITY	37,754	37,735	37,079	37,438	37,107	39,978	40,854	41,392	41,262	42,360	40,197	40,846	474,001
MAINTENANCE	4,002	4,501	2,614	1,583	766	4,415	5,337	5,535	5,115	4,392	1,706	1,941	41,907
RESERVE CAPACITY	5,465	5,381	5,580	5,805	5,884	5,758	5,751	5,806	5,853	6,148	6,232	6,299	69,962
RESERVE RATE (%)	19	19	19	19	19	19	19	19	19	19	19	19	19
(REFERENCE) MAINTENANCE	3,675	4,179	2,280	1,235	413	4,071	4,992	5,187	4,765	4,023	1,333	1,563	37,716

TABLE 1-1-2 kWh BALANCE (ECONOMIC OPERATION)
(WHOLE)

FY. 2020

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL. (GWH)	INS.CAP (MW)	AVAIL.F (%)
DEMAND	16,190	13,942	16,649	16,899	17,607	17,150	17,782	17,473	16,608	17,178	16,439	17,451	201,367	0	0
PURCHASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CONVEN HYDRO	5,221	4,870	5,036	4,930	5,105	7,992	9,103	10,273	7,975	8,454	6,983	5,979	81,922	19,196	49
PUMPED HYDRO	84	90	30	5	136	127	82	113	77	12	13	58	826	1,000	9
NUCLEAR	1,006	858	1,161	1,235	1,368	931	860	838	857	967	1,225	1,240	12,547	2,000	72
GAS ST	1,124	990	1,113	1,094	1,159	1,027	983	661	984	770	999	1,124	12,027	2,040	67
GAS C/C	4,472	3,373	4,668	4,912	4,961	3,067	2,730	1,789	2,776	2,652	2,525	4,249	42,173	9,987	48
GAS GT	0	0	0	0	0	0	0	0	0	0	0	0	0	527	0
OIL ST	375	335	396	392	435	361	357	355	348	379	392	460	4,586	1,173	45
OIL GT	0	0	0	0	0	0	0	0	0	0	0	0	0	263	0
DIESEL.	0	0	0	0	0	0	0	0	0	0	0	0	0	232	0
COAL ST	4,028	3,553	4,289	4,338	4,636	3,827	3,782	3,605	3,701	3,963	4,322	4,422	48,467	7,050	78
GENE TOTAL.	16,311	14,071	16,692	16,906	17,800	17,331	17,899	17,634	16,717	17,195	16,458	17,534	202,548	43,467	53
OVER FLOW SHORTAGE	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 0	0 0	0 0	0 0	0 0	1 0	0 0	0 0
PUMPING UP	-120	-129	-43	-7	-194	-182	-117	-161	-110	-17	-19	-83	-1,180	0	0

1.2 IE Demand (Revised 5th M/P) Interconnection;1,300MW (2015)

**TABLE 1-2-1 kW BALANCE (MARGINAL OPERATION)
(NORTH)**

FY. 2015

(MW)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	7,766	7,553	7,471	7,841	8,017	7,773	7,771	8,112	8,070	8,692	8,843	8,741	96,650
PURCHASE	-194	-240	-187	-151	-154	0	0	0	0	-38	0	0	-964
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	57	59	53	59	59	106	106	106	64	77	106	71	923
AB	5,204	4,968	4,730	4,793	4,615	6,274	6,251	6,388	5,228	6,505	5,667	5,791	66,414
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	5,261	5,027	4,783	4,851	4,674	6,380	6,357	6,494	5,292	6,581	5,773	5,862	67,337
THERMAL,NUCLEAR.	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	57,838
SUPPLY CAPACITY	9,887	9,607	9,416	9,520	9,340	11,200	11,177	11,314	10,112	11,363	10,593	10,682	124,211
MAINTENANCE	452	430	340	0	0	1,756	1,735	1,458	308	803	0	62	7,344
RESERVE CAPACITY	1,669	1,623	1,606	1,679	1,323	1,671	1,670	1,744	1,735	1,868	1,750	1,879	20,217
RESERVE RATE (%)	21	21	21	21	16	21	21	21	21	21	20	21	21
(REFERENCE) MAINTENANCE	465	501	353	0	0	1,608	1,587	1,304	154	639	0	0	6,611

**TABLE 1-2-2 kW BALANCE (MARGINAL OPERATION)
(CENTRAL&SOUTH)**

FY. 2015

(MW)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	12,422	12,465	13,296	13,628	13,932	13,746	13,599	13,343	13,462	14,319	14,212	14,552	162,976
PURCHASE	194	240	187	151	154	0	0	0	0	38	0	0	964
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	229	253	196	217	225	221	237	312	312	312	312	244	3,066
AB	5,817	6,068	5,372	5,322	5,386	5,825	6,216	6,665	7,063	7,176	7,042	7,069	75,023
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	6,045	6,321	5,568	5,539	5,611	6,046	6,452	6,977	7,375	7,488	7,354	7,313	78,088
THERMAL,NUCLEAR.	9,257	9,257	9,257	9,257	9,257	9,257	9,257	9,257	9,257	9,257	9,257	9,257	111,083
SUPPLY CAPACITY	15,496	15,819	15,012	14,946	15,022	15,303	15,709	16,234	16,632	16,783	16,611	16,570	190,135
MAINTENANCE	2,139	2,416	716	294	42	523	1,088	1,888	2,157	1,387	1,330	923	14,904
RESERVE CAPACITY	934	937	1,000	1,025	1,048	1,034	1,023	1,003	1,012	1,077	1,069	1,094	12,255
RESERVE RATE (%)	8	8	8	8	8	8	8	8	8	8	8	8	8
(REFERENCE) MAINTENANCE	1,900	2,130	476	85	0	462	1,027	1,828	2,097	1,285	1,266	858	13,414

**TABLE 1-2-5 FUEL CONSUMPTION
(NORTH)**

FY. 2,015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	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
GAS C/C (EQUIVALENT)	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
GAS GT (EQUIVALENT)	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
OIL ST (EQUIVALENT).	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
OIL GT (EQUIVALENT)	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
DIESEL (EQUIVALENT)	0 0	0 0	0 0	0 0	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1
COAL ST (EQUIVALENT)	1,171 650	1,048 582	1,202 667	1,263 701	1,317 731	802 445	813 451	872 484	1,199 665	1,038 576	1,183 657	1,295 719	13,203 7,328
(EQUIV.TOTAL)	650	582	667	701	732	445	451	484	665	576	657	719	7,329

**TABLE 1-2-6 FUEL CONSUMPTION
(CENTRAL&SOUTH)**

FY. 2,015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	239 241	198 200	261 264	264 267	273 276	204 205	202 204	187 189	177 179	196 197	189 191	243 245	2,633 2,657
GAS C/C (EQUIVALENT)	506 511	388 392	633 639	666 672	688 694	542 546	536 541	397 400	387 390	420 424	439 443	610 616	6,212 6,269
GAS GT (EQUIVALENT)	35 35	21 22	47 48	44 45	47 48	24 25	26 26	19 19	2 2	2 2	2 2	30 31	301 303
OIL ST (EQUIVALENT).	126 126	101 101	129 129	126 126	145 145	117 117	116 116	108 108	102 102	113 113	110 110	117 117	1,409 1,409
OIL GT (EQUIVALENT)	17 17	7 7	5 5	13 13	16 16	13 13	14 14	1 1	0 0	1 1	0 0	2 2	88 88
DIESEL (EQUIVALENT)	33 34	4 4	4 4	4 4	4 4	1 1	2 2	0 0	0 0	2 2	0 0	1 1	55 56
COAL ST (EQUIVALENT)	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
(EQUIV.TOTAL)	964	726	1,089	1,127	1,183	907	903	717	673	739	746	1,012	10,782

GAS ST	10,000 KCAL	KG	UNIT	KG.
GAS C/C	10,000 KCAL	KG	UNIT	KG.
GAS GT	10,000 KCAL	KG	UNIT	KG.
OIL ST	9,910 KCAL	KG	UNIT	KG.
OIL GT	9,910 KCAL	KG	UNIT	KG.
DIESEL	10,150 KCAL	KG	UNIT	KG.
COAL ST	5,500 KCAL	KG	UNIT	KG.
(EQUIVALENT)	9,910 KCAL	KG	UNIT	KG.

**TABLE 1-2-7 ECONOMIC EVALUATION-1
(NORTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	29,424	108,809	3.7	0	0.0			108,809	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	0	0	0.0	0	0.0			0	0.0
GAS C/C	0	0	0.0	0	0.0			0	0.0
GAS GT	0	0	0.0	0	0.0			0	0.0
OIL ST	0	0	0.0	0	0.0			0	0.0
OIL GT	0	0	0.0	0	0.0			0	0.0
DIESEL	1	345	345.2	18	18.0			363	363.2
COAL ST	32,175	70,712	2.2	43,354	1.3			114,066	3.5
TOTAL	61,601	179,867	2.9	43,372	0.7			223,239	3.6
PURCHASE TOTAL	-8,881	0	0.0	-2,381	0.3	-12,693	1.4	-15,075	1.7
RECEIVE KW	0	0	0.0	0	0.0			0	0.0
EC	0			0	0.0	0	0.0	0	0.0
SEND KW	-43			-45	1.0	-399	9.3	-444	10.4
EC	-8,838			-2,337	0.3	-12,294	1.4	-14,631	1.7
(DEMAND)	51,282	179,867	3.5	40,991	0.8			208,164	4.1
SHORTAGE	0	179,867	3.5	40,991	0.8			0	0.0

**TABLE 1-2-8 ECONOMIC EVALUATION-1
(CENTRAL&SOUTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	33,089	125,882	3.8	0	0.0			125,882	3.8
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	7,284	17,685	2.4	45,406	6.2			63,091	8.7
GAS C/C	33,996	56,681	1.7	107,215	3.2			163,896	4.8
GAS GT	1,039	2,860	2.8	5,199	5.0			8,059	7.8
OIL ST	4,641	13,450	2.9	26,654	5.7			40,104	8.6
OIL GT	160	1,684	10.5	2,902	18.1			4,586	28.7
DIESEL	112	2,881	25.7	1,891	16.9			4,772	42.6
COAL ST	0	0	0.0	0	0.0			0	0.0
TOTAL	80,320	221,122	2.8	189,268	2.4			410,390	5.1
PURCHASE TOTAL	8,881	4	0.0	28,253	3.2	-12294	-1.4	15,963	1.8
RECEIVE KW	43	4	0.1	444	10.4			448	10.5
EC	8,838			27,809	3.1	-12294	-1.4	15,515	1.8
SEND KW	0			0	0.0	0	0.0	0	0.0
EC	0			0	0.0	0	0.0	0	0.0
(DEMAND)	89,201	221,127	2.5	217,521	2.4			426,353	4.8
SHORTAGE	0	221,127	2.5	217,521	2.4			0	0.0

1.3 IE Demand (Revised 5th M/P) Interconnection;1,300MW、PSPP;750 MW in N (2020)

**TABLE 1-3-1 kW BALANCE (MARGINAL OPERATION)
(NORTH)**

FY. 2020

(MW)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	10,614	10,330	10,226	10,716	10,956	10,624	10,621	11,085	11,027	11,869	12,074	11,935	132,077
PURCHASE	0	0	0	7	297	0	0	0	0	0	0	0	304
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	56	59	53	59	57	106	106	106	68	77	106	71	924
AB	5,807	5,500	5,228	5,369	5,161	7,514	7,632	7,738	6,920	7,929	6,155	6,749	77,703
PA	186	194	168	120	108	78	465	750	90	136	750	183	3,227
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	6,049	5,753	5,450	5,549	5,326	7,698	8,203	8,594	7,078	8,141	7,011	7,003	81,854
THERMAL,NUCLEAR	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	6,705	80,458
SUPPLY CAPACITY	12,753	12,457	12,154	12,261	12,328	14,403	14,908	15,299	13,783	14,846	13,716	13,707	162,616
MAINTENANCE	552	583	399	0	0	2,190	2,699	2,557	1,107	1,202	0	0	11,289
RESERVE CAPACITY	1,587	1,545	1,529	1,545	1,372	1,589	1,588	1,658	1,649	1,775	1,642	1,772	19,250
RESERVE RATE (%)	15	15	15	14	13	15	15	15	15	15	14	15	15
(REFERENCE) MAINTENANCE	414	448	266	0	0	2,051	2,560	2,412	963	1,047	0	0	10,161

**TABLE 1-3-2 kW BALANCE (MARGINAL OPERATION)
(CENTRAL&SOUTH)**

FY. 2020

(MW)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	17,600	17,657	18,798	19,264	19,691	19,426	19,218	18,856	19,029	20,236	20,084	20,564	230,423
PURCHASE	0	0	0	-7	-297	0	0	0	0	0	0	0	-304
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	242	260	204	225	237	297	295	312	312	312	312	312	3,317
AB	6,415	6,730	5,869	5,895	5,967	6,412	6,988	7,173	7,623	7,710	7,562	7,894	82,238
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	6,657	6,990	6,072	6,120	6,204	6,708	7,283	7,485	7,935	8,022	7,874	8,205	85,555
THERMAL,NUCLEAR.	15,777	15,777	15,777	15,777	15,777	15,777	15,777	15,777	15,777	15,777	15,777	15,777	189,323
SUPPLY CAPACITY	22,434	22,767	21,849	21,890	21,684	22,485	23,060	23,261	23,712	23,799	23,651	23,982	274,573
MAINTENANCE	3,736	4,008	1,878	1,424	764	1,847	2,643	3,229	3,495	2,300	2,313	2,135	29,770
RESERVE CAPACITY	1,098	1,102	1,173	1,202	1,229	1,212	1,199	1,177	1,188	1,263	1,253	1,283	14,380
RESERVE RATE (%)	6	6	6	6	6	6	6	6	6	6	6	6	6
(REFERENCE) MAINTENANCE	3,486	3,757	1,611	1,157	773	1,571	2,370	2,961	3,225	2,012	2,028	1,843	26,794

**TABLE 1-3-5 FUEL CONSUMPTION
(NORTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	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
GAS C/C (EQUIVALENT)	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
GAS GT (EQUIVALENT)	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
OIL ST (EQUIVALENT)	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
OIL GT (EQUIVALENT)	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
DIESEL (EQUIVALENT)	0 0	1 1	1 1	1 1	4 4	0 0	0 0	0 0	0 0	0 0	0 0	0 0	6 6
COAL ST (EQUIVALENT)	1,735 963	1,549 860	1,780 988	1,789 993	1,851 1,027	1,227 681	1,083 601	1,083 601	1,502 834	1,466 814	1,722 956	1,850 1,027	18,639 10,345
(EQUIV.TOTAL)	963	861	989	994	1,031	681	601	601	834	814	956	1,027	10,351

**TABLE 1-3-6 FUEL CONSUMPTION
(CENTRAL&SOUTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	339 342	295 298	362 366	360 364	370 373	276 278	283 285	266 269	257 260	277 279	269 271	345 348	3,699 3,733
GAS C/C (EQUIVALENT)	741 748	572 577	841 849	880 888	912 921	740 747	764 771	644 650	614 619	604 610	622 628	827 835	8,762 8,842
GAS GT (EQUIVALENT)	37 37	5 5	23 23	24 24	47 48	27 27	29 29	3 3	3 3	25 25	0 0	2 2	224 226
OIL ST (EQUIVALENT)	123 123	101 101	122 122	143 143	128 128	114 114	115 115	111 111	107 107	116 116	112 112	116 116	1,406 1,406
OIL GT (EQUIVALENT)	1 1	2 2	1 1	2 2	3 3	0 0	2 2	0 0	0 0	1 1	0 0	0 0	12 12
DIESEL (EQUIVALENT)	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
COAL ST (EQUIVALENT)	212 118	186 103	251 140	252 140	269 149	244 135	235 131	223 124	210 117	243 135	235 130	247 137	2,808 1,559
(EQUIV.TOTAL)	1,369	1,086	1,501	1,561	1,622	1,301	1,333	1,157	1,106	1,166	1,141	1,438	15,778

GAS ST	10,000 KCAL	KG	UNIT	KG.
GAS C/C	10,000 KCAL	KG	UNIT	KG.
GAS GT	10,000 KCAL	KG	UNIT	KG.
OIL ST	9,910 KCAL	KG	UNIT	KG.
OIL GT	9,910 KCAL	KG	UNIT	KG.
DIESEL	10,150 KCAL	KG	UNIT	KG.
COAL ST	5,500 KCAL	KG	UNIT	KG.
(EQUIVALENT)	9,910 KCAL	KG	UNIT	KG.

**TABLE 1-3-7 ECONOMIC EVALUATION-1
(NORTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST (10*6CENT)	(CENT/KWH)	FUEL COST (10*6CENT)	(CENT/KWH)	PURCHASE MERIT (10*6CENT)	(CENT/KWH)	TOTAL COST (10*6CENT)	(CENT/KWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	34,788	128,617	3.7	0	0.0			128,617	3.7
PUMPED HYDRO	508	5,363	10.6	0	0.0			5,363	10.6
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	0	0	0.0	0	0.0			0	0.0
GAS C/C	0	0	0.0	0	0.0			0	0.0
GAS GT	0	0	0.0	0	0.0			0	0.0
OIL ST	0	0	0.0	0	0.0			0	0.0
OIL GT	0	0	0.0	0	0.0			0	0.0
DIESEL	5	345	69.0	200	40.0			545	109.0
COAL ST	45,942	94,235	2.1	68,069	1.5			162,304	3.5
TOTAL	81,244	228,560	2.8	68,269	0.8			296,829	3.7
PURCHASE TOTAL	-6,885	1	0.0	-3,919	0.6	-8,341	1.2	-12,259	1.8
RECEIVE KW EC	14 0	1	0.1	42 0	3.0 0.0	0	0.0	43 0	3.1 0.0
SEND KW EC	0 -6,899			0 -3,961	0.0 0.6	0 -8,341	0.0 1.2	0 -12,302	0.0 1.8
(DEMAND)	72,557	228,561	3.2	64,350	0.9			284,570	3.9
SHORTAGE	6	228,561	3.2	64,350	0.9			0	0.0

**TABLE 1-3-8 ECONOMIC EVALUATION-1
(CENTRAL&SOUTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST (10*6CENT)	(CENT/KWH)	FUEL COST (10*6CENT)	(CENT/KWH)	PURCHASE MERIT (10*6CENT)	(CENT/KWH)	TOTAL COST (10*6CENT)	(CENT/KWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	36,497	136,521	3.7	0	0.0			136,521	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	12,558	57,200	4.6	13,157	1.0			70,357	5.6
GAS ST	10,270	24,243	2.4	70,399	6.9			94,642	9.2
GAS C/C	48,860	83,129	1.7	166,910	3.4			250,039	5.1
GAS GT	753	3,372	4.5	4,262	5.7			7,634	10.1
OIL ST	4,630	13,450	2.9	27,775	6.0			41,225	8.9
OIL GT	30	1,684	56.1	423	14.1			2,107	70.2
DIESEL	0	2,881	0.0	7	0.0			2,888	0.0
COAL ST	7,107	12,194	1.7	12,218	1.7			24,412	3.4
TOTAL	120,705	334,673	2.8	295,151	2.4			629,825	5.2
PURCHASE TOTAL	6,885	0	0.0	21,255	3.1	-8,305	-1.2	12,950	1.9
RECEIVE KW EC	0 6,899	0	0.0	0 21,333	0.0 3.1	-8,341	-1.2	0 12,992	0.0 1.9
SEND KW EC	-14 0			-78 0	5.5 0.0	36 0	-2.6 0.0	-42 0	3.0 0.0
(DEMAND)	127,590	334,673	2.6	316,406	2.5			642,775	5.0
SHORTAGE	0	334,673	2.6	316,406	2.5			0	0.0

2.1 Peak Shift Demand Interconnection;1,300MW (2015)

**TABLE 2-1-1 kW BALANCE (MARGINAL OPERATION)
(NORTH)**

FY. 2015		(MW)											
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	7,967	8,019	8,103	8,220	8,340	8,438	8,499	8,520	8,529	8,529	8,512	8,503	100,179
PURCHASE	72	60	28	26	0	0	0	0	0	0	0	0	185
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	63	69	62	64	65	106	106	106	73	87	105	84	991
AB	4,675	4,759	4,672	4,752	4,624	6,491	6,294	6,388	5,120	5,589	4,564	4,761	62,690
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	4,738	4,828	4,734	4,817	4,689	6,597	6,400	6,494	5,193	5,677	4,669	4,845	63,681
THERMAL,NUCLEAR.	5,175	5,175	5,175	5,175	5,175	5,175	5,175	5,175	5,175	5,175	5,175	5,175	62,098
SUPPLY CAPACITY	9,985	10,063	9,937	10,017	9,864	11,771	11,575	11,669	10,367	10,851	9,844	10,020	125,964
MAINTENANCE	574	590	365	307	13	1,804	1,536	1,605	293	777	0	0	7,863
RESERVE CAPACITY	1,444	1,453	1,469	1,490	1,512	1,529	1,540	1,544	1,546	1,546	1,332	1,517	17,922
RESERVE RATE (%)	18	18	18	18	18	18	18	18	18	18	16	18	18
(REFERENCE) MAINTENANCE	447	476	273	217	0	1,735	1,466	1,535	222	706	0	0	7,077

**TABLE 2-1-2 kW BALANCE (MARGINAL OPERATION)
(CENTRAL&SOUTH)**

FY. 2015		(MW)											
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	13,095	13,239	13,436	13,573	13,680	13,790	13,884	13,962	14,009	14,068	14,122	14,172	165,030
PURCHASE	-72	-60	-28	-26	0	0	0	0	0	0	0	0	-185
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	201	232	206	208	210	234	270	312	312	312	312	256	3,063
AB	5,178	5,524	4,958	5,037	4,869	5,302	5,677	6,190	6,588	6,701	6,567	6,045	68,638
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	5,379	5,756	5,163	5,246	5,079	5,536	5,947	6,502	6,900	7,013	6,879	6,302	71,701
THERMAL,NUCLEAR.	10,377	10,377	10,377	10,377	10,377	10,377	10,377	10,377	10,377	10,377	10,377	10,377	124,523
SUPPLY CAPACITY	15,684	16,073	15,513	15,597	15,456	15,913	16,324	16,879	17,277	17,390	17,256	16,679	196,039
MAINTENANCE	1,447	1,680	905	840	583	920	1,229	1,699	2,046	2,095	1,902	1,271	16,619
RESERVE CAPACITY	1,142	1,154	1,172	1,183	1,193	1,202	1,211	1,217	1,221	1,227	1,231	1,236	14,389
RESERVE RATE (%)	9	9	9	9	9	9	9	9	9	9	9	9	9
(REFERENCE) MAINTENANCE	1,364	1,585	784	714	431	768	1,076	1,545	1,891	1,939	1,746	1,114	14,957

**TABLE2-1-5 FUEL CONSUMPTION
(NORTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	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
GAS C/C (EQUIVALENT)	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
GAS GT (EQUIVALENT)	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
OIL ST (EQUIVALENT)	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
OIL GT (EQUIVALENT)	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
DIESEL (EQUIVALENT)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	2 2
COAL ST (EQUIVALENT)	1,256 697	1,127 626	1,300 722	1,274 707	1,373 762	856 475	942 523	908 504	1,262 700	1,140 633	1,312 728	1,372 762	14,121 7,837
(EQUIV.TOTAL)	697	626	722	707	762	475	523	504	700	633	728	762	7,839

**TABLE2-1-6 FUEL CONSUMPTION
(CENTRAL&SOUTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	338 341	295 298	351 355	336 339	349 353	280 282	286 289	269 271	274 276	263 266	260 262	337 340	3,639 3,672
GAS C/C (EQUIVALENT)	567 572	477 482	606 611	600 606	635 640	552 557	565 571	488 492	433 437	431 435	476 481	598 603	6,428 6,487
GAS GT (EQUIVALENT)	37 37	23 24	23 23	23 23	24 24	14 14	16 16	2 2	21 22	20 20	0 0	2 2	206 208
OIL ST (EQUIVALENT)	136 136	118 118	154 154	145 145	134 134	115 115	116 116	112 112	106 106	109 109	107 107	130 130	1,482 1,482
OIL GT (EQUIVALENT)	2 2	2 2	1 1	1 1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	6 6
DIESEL (EQUIVALENT)	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
COAL ST (EQUIVALENT)	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
(EQUIV.TOTAL)	1,088	924	1,144	1,114	1,151	968	992	877	841	830	850	1,075	11,855

GAS ST	10,000 KCAL	KG	UNIT	KG.
GAS C/C	10,000 KCAL	KG	UNIT	KG.
GAS GT	10,000 KCAL	KG	UNIT	KG.
OIL ST	9,910 KCAL	KG	UNIT	KG.
OIL GT	9,910 KCAL	KG	UNIT	KG.
DIESEL	10,150 KCAL	KG	UNIT	KG.
COAL ST	5,500 KCAL	KG	UNIT	KG.
(EQUIVALENT)	9,910 KCAL	KG	UNIT	KG.

**TABLE2-1-7 ECONOMIC EVALUATION-1
(NORTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	29,424	108,809	3.7	0	0.0			108,809	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	0	0	0.0	0	0.0			0	0.0
GAS C/C	0	0	0.0	0	0.0			0	0.0
GAS GT	0	0	0.0	0	0.0			0	0.0
OIL ST	0	0	0.0	0	0.0			0	0.0
OIL GT	0	0	0.0	0	0.0			0	0.0
DIESEL	3	345	115.1	55	18.3			400	133.4
COAL ST	34,452	75,789	2.2	46,367	1.3			122,156	3.5
TOTAL	63,880	184,943	2.9	46,422	0.7			231,365	3.6
PURCHASE TOTAL	-8,120	1	0.0	-1,613	0.2	-10,261	1.3	-11,873	1.5
RECEIVE KW	7	1	0.1	37	5.2			38	5.3
EC	0			0	0.0	0	0.0	0	0.0
SEND KW	0			0	0.0	0	0.0	0	0.0
EC	-8,128			-1,650	0.2	-10,261	1.3	-11,911	1.5
(DEMAND)	51,743	184,944	3.6	44,809	0.9			219,492	4.2
SHORTAGE	0	184,944	3.6	44,809	0.9			0	0.0

**TABLE 2-1-8 ECONOMIC EVALUATION-1
(CENTRAL&SOUTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)	(10*6CENT)	(CENT/KWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	31,292	118,237	3.8	0	0.0			118,237	3.8
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	9,944	24,243	2.4	62,630	6.3			86,873	8.7
GAS C/C	35,438	61,241	1.7	110,916	3.1			172,157	4.9
GAS GT	720	3,372	4.7	3,549	4.9			6,921	9.6
OIL ST	4,898	13,450	2.7	28,035	5.7			41,485	8.5
OIL GT	17	1,684	99.0	201	11.8			1,885	110.9
DIESEL	0	2,881	0.0	7	0.0			2,888	0.0
COAL ST	0	0	0.0	0	0.0			0	0.0
TOTAL	82,309	225,107	2.7	205,338	2.5			430,445	5.2
PURCHASE TOTAL	8,120	0	0.0	22,946	2.8	-10,260	-1.3	12,687	1.6
RECEIVE KW	0	0	0.0	0	0.0			0	0.0
EC	8,128			22,986	2.8	-10,261	-1.3	12,724	1.6
SEND KW	-7			-39	5.4	2	-0.3	-37	5.2
EC	0			0	0.0	0	0.0	0	0.0
(DEMAND)	90,429	225,107	2.5	228,284	2.5			443,132	4.9
SHORTAGE	0	225,107	2.5	228,284	2.5			0	0.0

2.2 Peak Shift Demand Interconnection;1,300MW (2020)

**TABLE 2-2-1 kW BALANCE (MARGINAL OPERATION)
(NORTH)**

FY. 2020		(MW)											
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	11,353	11,422	11,524	11,660	11,798	11,914	11,993	12,031	12,056	12,073	12,073	12,080	141,977
PURCHASE	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	70	72	68	71	69	106	106	106	78	89	106	89	1,030
AB	5,391	5,510	5,403	5,492	5,365	7,841	7,644	7,738	6,891	6,953	5,391	5,503	75,123
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	5,460	5,583	5,471	5,563	5,434	7,947	7,750	7,844	6,969	7,042	5,496	5,592	76,153
THERMAL,NUCLEAR.	8,625	8,625	8,625	8,625	8,625	8,625	8,625	8,625	8,625	8,625	8,625	8,625	103,498
SUPPLY CAPACITY	14,085	14,208	14,096	14,188	14,059	16,571	16,375	16,469	15,594	15,667	14,121	14,217	179,651
MAINTENANCE	959	1,001	772	707	418	2,797	2,509	2,559	1,655	1,708	162	250	15,498
RESERVE CAPACITY	1,773	1,784	1,800	1,821	1,843	1,861	1,873	1,879	1,883	1,886	1,886	1,887	22,176
RESERVE RATE (%)	16	16	16	16	16	16	16	16	16	16	16	16	16
(REFERENCE) MAINTENANCE	835	877	646	580	289	2,666	2,378	2,428	1,523	1,577	31	118	13,948

**TABLE 2-2-2 kW BALANCE (MARGINAL OPERATION)
(CENTRAL&SOUTH)**

FY. 2020		(MW)											
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
DEMAND	18,913	19,091	19,319	19,492	19,638	19,785	19,917	20,034	20,121	20,220	20,315	20,406	237,251
PURCHASE	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO A	238	273	240	261	277	312	304	312	312	312	312	267	3,417
AB	6,448	6,866	6,186	6,355	6,059	6,609	7,053	7,173	7,623	7,710	7,562	7,435	83,079
PA	0	0	0	0	0	0	0	0	0	0	0	0	0
PB	0	0	0	0	0	0	0	0	0	0	0	0	0
HYDRO TOTAL	6,686	7,139	6,427	6,615	6,336	6,921	7,357	7,485	7,935	8,022	7,874	7,701	86,496
THERMAL,NUCLEAR.	17,117	17,117	17,117	17,117	17,117	17,117	17,117	17,117	17,117	17,117	17,117	17,117	205,403
SUPPLY CAPACITY	23,803	24,256	23,543	23,732	23,453	24,038	24,474	24,601	25,052	25,139	24,991	24,818	291,899
MAINTENANCE	3,102	3,360	2,398	2,397	1,958	2,382	2,674	2,673	3,028	3,007	2,755	2,483	32,217
RESERVE CAPACITY	1,788	1,805	1,826	1,843	1,857	1,871	1,883	1,894	1,902	1,912	1,921	1,929	22,430
RESERVE RATE (%)	9	9	9	9	9	9	9	9	9	9	9	9	9
(REFERENCE) MAINTENANCE	2,845	3,101	2,136	2,133	1,691	2,113	2,403	2,401	2,755	2,732	2,479	2,206	28,995

**TABLE 2-2-5 FUEL CONSUMPTION
(NORTH)**

FY. 2020

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS C/C (EQUIVALENT)	0	0	0	0	0	0	0	0	0	0	0	0	0
GAS GT (EQUIVALENT)	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL ST (EQUIVALENT).	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL GT (EQUIVALENT)	0	0	0	0	0	0	0	0	0	0	0	0	0
DIESEL (EQUIVALENT)	0	0	0	0	0	0	0	0	0	0	0	0	0
COAL ST (EQUIVALENT)	2,014 1,118	1,801 999	2,063 1,145	2,010 1,116	2,130 1,182	1,448 804	1,569 871	1,557 864	1,728 959	1,772 983	2,092 1,161	2,162 1,200	22,346 12,402
(EQUIV.TOTAL)	1,118	999	1,145	1,116	1,182	804	871	864	959	983	1,161	1,200	12,402

**TABLE 2-2-6 FUEL CONSUMPTION
(CENTRAL&SOUTH)**

FY. 2020

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	352 355	327 330	370 373	364 367	365 368	349 352	369 373	311 314	313 316	320 323	353 357	374 377	4,166 4,203
GAS C/C (EQUIVALENT)	857 865	724 730	877 885	849 857	907 915	813 821	831 838	789 796	717 723	748 755	743 750	860 868	9,715 9,803
GAS GT (EQUIVALENT)	0 0	0 0	0 0	0 0	0 0	4 4	0 0	0 0	0 0	0 0	0 0	0 0	4 4
OIL ST (EQUIVALENT).	143 143	132 132	154 154	155 155	137 137	131 131	144 144	118 118	124 124	131 131	126 126	137 137	1,632 1,632
OIL GT (EQUIVALENT)	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
DIESEL (EQUIVALENT)	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
COAL ST (EQUIVALENT)	230 128	203 113	244 135	236 131	252 140	236 131	239 132	239 132	224 124	232 129	229 127	242 135	2,807 1,558
(EQUIV.TOTAL)	1,491	1,305	1,547	1,510	1,560	1,439	1,487	1,360	1,287	1,338	1,360	1,517	17,200

GAS ST	10,000 KCAL	KG	UNIT	KG.
GAS C/C	10,000 KCAL	KG	UNIT	KG.
GAS GT	10,000 KCAL	KG	UNIT	KG.
OIL ST	9,910 KCAL	KG	UNIT	KG.
OIL GT	9,910 KCAL	KG	UNIT	KG.
DIESEL	10,150 KCAL	KG	UNIT	KG.
COAL ST	5,500 KCAL	KG	UNIT	KG.
(EQUIVALENT)	9,910 KCAL	KG	UNIT	KG.

**TABLE2-2-7 ECONOMIC EVALUATION-1
(NORTH)**

FY. 2020

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	34,788	128,617	3.7	0	0.0			128,617	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	0	0	0.0	0	0.0			0	0.0
GAS C/C	0	0	0.0	0	0.0			0	0.0
GAS GT	0	0	0.0	0	0.0			0	0.0
OIL ST	0	0	0.0	0	0.0			0	0.0
OIL GT	0	0	0.0	0	0.0			0	0.0
DIESEL	0	345	0.0	1	0.0			346	0.0
COAL ST	55,261	117,648	2.1	81,608	1.5			199,256	3.6
TOTAL	90,049	246,610	2.7	81,609	0.9			328,219	3.6
PURCHASE TOTAL	0	0	0.0	0	0.0	0	0.0	0	0.0
RECEIVE KW	0	0	0.0	0	0.0			0	0.0
EC	0			0	0.0	0	0.0	0	0.0
SEND KW	0			0	0.0	0	0.0	0	0.0
EC	0			0	0.0	0	0.0	0	0.0
(DEMAND)	73,207	246,610	3.4	81,609	1.1			328,219	4.5
SHORTAGE	0	246,610	3.4	81,609	1.1			0	0.0

**TABLE2-2-8 ECONOMIC EVALUATION-1
(CENTRAL&SOUTH)**

FY. 2020

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	36,497	136,521	3.7	0	0.0			136,521	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	12,549	57,200	4.6	13,147	1.0			70,347	5.6
GAS ST	12,786	24,243	1.9	79,355	6.2			103,598	8.1
GAS C/C	54,780	95,350	1.7	185,115	3.4			280,465	5.1
GAS GT	14	3,372	240.8	73	5.2			3,445	246.0
OIL ST	5,427	13,450	2.5	32,253	5.9			45,703	8.4
OIL GT	0	1,684	0.0	2	0.0			1,686	0.0
DIESEL	0	2,881	0.0	7	0.0			2,888	0.0
COAL ST	7,103	12,194	1.7	12,213	1.7			24,407	3.4
TOTAL	129,156	346,894	2.7	322,167	2.5			669,061	5.2
PURCHASE TOTAL	0	0	0.0	0	0.0	0	0.0	0	0.0
RECEIVE KW	0	0	0.0	0	0.0			0	0.0
EC	0			0	0.0	0	0.0	0	0.0
SEND KW	0			0	0.0	0	0.0	0	0.0
EC	0			0	0.0	0	0.0	0	0.0
(DEMAND)	129,156	346,894	2.7	322,167	2.5			669,061	5.2
SHORTAGE	0	346,894	2.7	322,167	2.5			0	0.0

2.3 Peak Shift Demand Interconnection;1,300MW No Import (2015)

**TABLE 2-3-1 kW BALANCE (MARGINAL OPERATION)
(NORTH)**

FY. 2015														(MW)
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	
DEMAND	7,967	8,019	8,103	8,220	8,340	8,438	8,499	8,520	8,529	8,529	8,512	8,503	100,179	
PURCHASE	79	37	31	0	0	0	0	0	0	0	0	0	147	
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	
HYDRO A	63	69	62	64	65	106	106	106	73	88	105	84	991	
AB	4,449	4,500	4,432	4,454	4,386	6,082	5,844	5,918	4,743	5,288	4,329	4,541	58,966	
PA	0	0	0	0	0	0	0	0	0	0	0	0	0	
PB	0	0	0	0	0	0	0	0	0	0	0	0	0	
HYDRO TOTAL	4,512	4,569	4,494	4,518	4,452	6,188	5,950	6,024	4,816	5,376	4,435	4,625	59,958	
THERMAL,NUCLEAR	5,610	5,610	5,610	5,610	5,610	5,610	5,610	5,610	5,610	5,610	5,610	5,610	67,318	
SUPPLY CAPACITY	10,200	10,216	10,135	10,128	10,061	11,798	11,560	11,634	10,426	10,985	10,044	10,235	127,422	
MAINTENANCE	765	719	539	393	184	1,804	1,494	1,544	325	885	0	164	8,816	
RESERVE CAPACITY	1,468	1,478	1,493	1,515	1,537	1,555	1,566	1,570	1,572	1,572	1,532	1,567	18,427	
RESERVE RATE (%)	18	18	18	18	18	18	18	18	18	18	18	18	18	
(REFERENCE) MAINTENANCE	629	619	446	326	116	1,735	1,425	1,474	255	815	0	95	7,935	

**TABLE 2-3-2 kW BALANCE (MARGINAL OPERATION)
(CENTRAL&SOUTH)**

FY. 2015														(MW)
MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL	
DEMAND	13,095	13,239	13,436	13,573	13,680	13,790	13,884	13,962	14,009	14,068	14,122	14,172	165,030	
PURCHASE	-79	-37	-31	0	0	0	0	0	0	0	0	0	-147	
OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	
HYDRO A	200	232	209	208	210	234	270	312	312	312	312	256	3,066	
AB	4,952	5,252	4,710	4,718	4,620	4,965	5,251	5,721	6,088	6,218	6,090	5,832	64,416	
PA	0	0	0	0	0	0	0	0	0	0	0	0	0	
PB	0	0	0	0	0	0	0	0	0	0	0	0	0	
HYDRO TOTAL	5,153	5,483	4,918	4,926	4,830	5,200	5,521	6,032	6,400	6,529	6,402	6,088	67,482	
THERMAL,NUCLEAR	10,757	10,757	10,757	10,757	10,757	10,757	10,757	10,757	10,757	10,757	10,757	10,757	129,083	
SUPPLY CAPACITY	15,831	16,204	15,644	15,683	15,587	15,956	16,278	16,789	17,157	17,286	17,159	16,845	196,418	
MAINTENANCE	1,619	1,836	1,062	952	740	990	1,209	1,637	1,953	2,018	1,832	1,465	17,313	
RESERVE CAPACITY	1,117	1,129	1,146	1,158	1,167	1,176	1,184	1,191	1,195	1,200	1,204	1,209	14,075	
RESERVE RATE (%)	9	9	9	9	9	9	9	9	9	9	9	9	9	
(REFERENCE) MAINTENANCE	1,542	1,722	939	799	585	834	1,052	1,479	1,794	1,859	1,672	1,304	15,581	

**TABLE2-3-5 FUEL CONSUMPTION
(NORTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	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
GAS C/C (EQUIVALENT)	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
GAS GT (EQUIVALENT)	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
OIL ST (EQUIVALENT).	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
OIL GT (EQUIVALENT)	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
DIESEL (EQUIVALENT)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	1 1
COAL ST (EQUIVALENT)	1,326 736	1,199 666	1,373 762	1,360 755	1,460 810	963 535	1,060 588	1,034 574	1,368 759	1,239 687	1,421 789	1,466 814	15,269 8,474
(EQUIV.TOTAL)	736	666	762	755	810	535	588	574	759	687	789	814	8,475

**TABLE2-3-6 FUEL CONSUMPTION
(CENTRAL&SOUTH)**

FY. 2015

(UNIT 10*6)

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
GAS ST (EQUIVALENT)	327 330	295 298	346 349	337 340	345 349	280 283	287 289	272 274	270 273	266 269	260 262	335 338	3,621 3,654
GAS C/C (EQUIVALENT)	602 608	503 507	633 639	625 630	660 666	586 591	608 614	537 542	501 506	481 485	515 520	622 628	6,873 6,936
GAS GT (EQUIVALENT)	36 36	23 23	40 40	22 22	23 24	14 15	16 17	3 3	3 3	21 21	0 0	4 4	205 207
OIL ST (EQUIVALENT).	142 142	118 118	145 145	145 145	136 136	115 115	117 117	113 113	107 107	110 110	108 108	142 142	1,497 1,497
OIL GT (EQUIVALENT)	3 3	2 2	3 3	1 1	0 0	1 1	0 0	0 0	0 0	0 0	0 0	0 0	10 10
DIESEL (EQUIVALENT)	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
COAL ST (EQUIVALENT)	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
(EQUIV.TOTAL)	1,119	948	1,176	1,138	1,175	1,005	1,037	932	889	885	890	1,112	12,304

GAS ST	10,000 KCAL	KG	UNIT	KG.
GAS C/C	10,000 KCAL	KG	UNIT	KG.
GAS GT	10,000 KCAL	KG	UNIT	KG.
OIL ST	9,910 KCAL	KG	UNIT	KG.
OIL GT	9,910 KCAL	KG	UNIT	KG.
DIESEL	10,150 KCAL	KG	UNIT	KG.
COAL ST	5,500 KCAL	KG	UNIT	KG.
(EQUIVALENT)	9,910 KCAL	KG	UNIT	KG.

**TABLE2-3-7 ECONOMIC EVALUATION-1
(NORTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	26,941	100,762	3.7	0	0.0			100,762	3.7
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	0	0	0.0	0	0.0			0	0.0
GAS C/C	0	0	0.0	0	0.0			0	0.0
GAS GT	0	0	0.0	0	0.0			0	0.0
OIL ST	0	0	0.0	0	0.0			0	0.0
OIL GT	0	0	0.0	0	0.0			0	0.0
DIESEL	3	345	115.1	46	15.3			391	130.4
COAL ST	37,357	81,093	2.2	50,136	1.3			131,229	3.5
TOTAL	64,300	182,200	2.8	50,182	0.8			232,382	3.6
PURCHASE TOTAL	-8,318	1	0.0	-1,770	0.2	-10,527	1.3	-12,296	1.5
RECEIVE KW	6	1	0.1	29	5.2			29	5.3
EC	0			0	0.0	0	0.0	0	0.0
SEND KW	0			0	0.0	0	0.0	0	0.0
EC	-8,324			-1,798	0.2	-10,527	1.3	-12,326	1.5
(DEMAND)	51,743	182,201	3.5	48,412	0.9			220,086	4.3
SHORTAGE	0	182,201	3.5	48,412	0.9			0	0.0

**TABLE2-3-8 ECONOMIC EVALUATION-1
(CENTRAL&SOUTH)**

FY. 2015

	ENERGY (GWH)	FIXED COST		FUEL COST		PURCHASE MERIT		TOTAL COST	
		(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)	(10*6CENT)	(CENT/kWH)
OTHERS	0	0	0.0	0	0.0			0	0.0
CONVEN HYDRO	28,812	110,189	3.8	0	0.0			110,189	3.8
PUMPED HYDRO	0	0	0.0	0	0.0			0	0.0
NUCLEAR	0	0	0.0	0	0.0			0	0.0
GAS ST	9,848	24,243	2.5	62,363	6.3			86,606	8.8
GAS C/C	37,749	64,706	1.7	118,605	3.1			183,311	4.9
GAS GT	723	3,372	4.7	3,542	4.9			6,914	9.6
OIL ST	4,951	13,450	2.7	28,314	5.7			41,764	8.4
OIL GT	27	1,684	62.4	318	11.8			2,002	74.1
DIESEL	0	2,881	0.0	7	0.0			2,888	0.0
COAL ST	0	0	0.0	0	0.0			0	0.0
TOTAL	82,111	220,526	2.7	213,149	2.6			433,675	5.3
PURCHASE TOTAL	8,318	0	0.0	23,655	2.8	-10,526	-1.3	13,129	1.6
RECEIVE KW	0	0	0.0	0	0.0			0	0.0
EC	8,324			23,685	2.8	-10,527	-1.3	13,158	1.6
SEND KW	-6			-30	5.5	2	-0.3	-29	5.2
EC	0			0	0.0	0	0.0	0	0.0
(DEMAND)	90,429	220,526	2.4	236,804	2.6			446,804	4.9
SHORTAGE	0	220,526	2.4	236,804	2.6			0	0.0