

C - 13 PRIORITY RANKING STUDY



\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPFS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12                    1.00

CASE A-3

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2307.0	14147.0
1986	2400.0	14714.0
1987	2496.0	15304.0
1988	2605.0	15975.0
1989	2746.0	16641.0
1990	2928.0	17954.0
1991	3090.0	18947.0
1992	3256.0	19964.0
1993	3431.0	21038.0
1994	3618.0	22185.0
1995	3694.0	22653.0
1996	4016.0	24628.0
1997	4229.0	25931.0
1998	4456.0	27326.0
1999	4696.0	28795.0
2000	4954.0	30375.0
2001	5220.0	32009.0
2002	5502.0	33738.0
2003	5793.0	35523.0
2004	6105.0	37433.0
2005	6429.0	39422.0

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	TYPE COMIS. YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF REMARK UNIT
1	1-1-2-8-1	MAGAT	0	6	1983	360.00	0.26	4 EXISTING
2	1-1-2-8-2	CASECNAN T&D	2	6	1995	268.00	0.59	3 COMMITTED. POWER UP IN PANTABANG
3	1-1-3-25-3	ANGAT	0	6	1967	228.00	0.26	7 EXISTING
4	1-1-3-25-4	PANTABANGAN	0	6	1977	100.00	0.26	2 EXISTING
5	1-1-3-25-5	MASTWAY	0	6	1981	12.00	0.26	1 EXISTING
6	1-1-3-77-1	AMBUKLAO	0	6	1956	75.00	0.26	3 EXISTING
7	1-1-3-77-2	BINGA	0	6	1960	100.00	0.26	4 EXISTING
8	1-1-4-7-4	PANTAI	2	6	1993	23.00	0.76	2 COMMITTED
9	1-1-4-15-1	CALIRAYA	0	6	1945	32.00	0.26	4 EXISTING
10	1-1-4-15-2	BOTOCAN	0	6	1948	17.00	0.26	3 EXISTING
11	1-1-4-15-3	KALAYAAN	0	6	1983	300.00	0.26	2 EXISTING PUMPED STORAGE
12	1-1-5-48-1	BUHI-BARIT	0	6	1957	1.80	4.10	1 EXISTING
13	1-1-5-91-2	CAWYAN	0	6	1959	0.40	0.90	1 EXISTING

NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED

TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1- 1- 2- 1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
2	1- 1- 2- 1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
3	1- 1- 3- 1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
4	1- 1- 3- 1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
5	1- 1- 4- 1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
6	1- 1- 4- 1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
7	1- 1- 4- 2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
8	1- 1- 4- 2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
9	1- 1- 4- 2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
10	1- 1- 4- 2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
11	1- 1- 4- 3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
12	1- 1- 4- 3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
13	1- 1- 4- 4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
14	1- 1- 4- 4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
15	1- 1- 4- 4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1- 1- 4- 5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
17	1- 1- 4- 5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
18	1- 1- 4- 6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1- 1- 5- 1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1- 1-88-88-2	GEO-THERMAL 2	9	2	1997	55000.	6	0.730	LUZON GRID
21	1- 1-88-88-1	GEO-THERMAL 1	9	2	1995	55000.	6	0.730	LUZON GRID
22	1- 1-88-88-4	GEO-THERMAL 4	9	2	2005	55000.	6	0.730	LUZON GRID
23	1- 1-88-88-3	GEO-THERMAL 3	9	2	2003	55000.	6	0.730	LUZON GRID
24	1- 1-89-89-2	COAL THERMAL 2	9	4	1998	300000.	1	0.700	LUZON GRID
25	1- 1-89-89-1	COAL THERMAL 1	9	4	1996	300000.	1	0.700	LUZON GRID
26	1- 1-89-99-4	COAL THERMAL 4	9	4	2002	600000.	1	0.700	LUZON GRID
27	1- 1-89-99-3	COAL THERMAL 3	9	4	2000	600000.	1	0.700	LUZON GRID
28	1- 1-89-99-5	COAL THERMAL 5	9	4	2004	300000.	1	0.700	LUZON GRID

\*\*\*\*\*  
 NOTES:  
 DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR  
 TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE  
 \*\*\*\*\*

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT I D	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)			
1	1	1-1	1-1	6 SAN ROQUE	390.0	0.32	409.2	6.1	0	0	5
2	2	1-1	1-1	6 DIDUYON	352.0	0.29	469.2	7.0	0	0	5
3	3	1-1	1-1	6 MATUNO	180.0	0.30	267.0	4.0	0	0	5
4	4	1-1	1-1	6 BINONGAN	175.0	0.41	269.2	4.0	0	0	5
5	5	1-1	1-1	6 CHICO-4	360.0	0.23	534.9	8.0	0	0	5
6	6	1-1	1-1	6 GENED	600.0	0.24	801.5	12.0	0	0	5
7	7	1-1	1-1	6 AGOS	140.0	0.44	361.4	5.4	0	0	5
8	8	1-1	1-1	6 BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4
9	9	1-1	1-1	6 PALSTIGUAN	42.0	0.50	173.1	2.6	0	0	5
10	10	1-1	1-1	6 SUPO	141.8	0.32	258.0	3.9	0	0	5
11	11	1-1	1-1	6 ETEB	107.2	0.30	225.8	3.4	0	0	5
12	12	1-1	1-1	6 SISIRITAN	417.6	0.26	610.5	9.2	0	0	5
13	13	1-1	1-1	6 AGBULU	216.2	0.31	403.0	6.0	0	0	5
14	14	1-1	1-1	6 SADANGA ALT	299.4	0.28	600.1	9.0	0	0	5
15	15	1-1	1-1	6 TABU	138.6	0.31	312.2	4.7	0	0	5
16	16	1-1	1-1	6 UP-AGOS-2	135.4	0.36	285.2	4.3	0	0	5
17	17	1-1	1-1	6 WAWA	61.0	0.37	175.2	2.6	0	0	5
18	18	1-1	1-2	1 NAGUILIAN	36.9	0.35	48.5	0.7	0	0	4
19	19	1-1	1-2	1 LUYA	40.8	0.35	60.3	0.9	0	0	4
20	20	1-1	1-2	1 BAKUM	33.0	0.35	35.4	0.5	0	0	4
21	21	1-1	1-2	1 AMBURAYAN	64.0	0.34	75.4	1.1	0	0	4
22	22	1-1	1-2	1 ABRA	10.9	0.41	21.5	0.3	0	0	4
23	23	1-1	1-2	1 APAYAO	15.8	0.46	39.4	0.6	0	0	4
24	24	1-1	1-2	1 CHICO-1R	27.3	0.46	40.7	0.6	0	0	4
25	25	1-1	1-2	1 CHICO-2R	34.5	0.46	43.3	0.6	0	0	4
26	26	1-1	1-2	1 SALTAN	12.6	0.46	25.2	0.4	0	0	4
27	27	1-1	1-2	1 PASIL	20.2	0.46	30.0	0.4	0	0	4
28	28	1-1	1-2	1 TANUDAN	24.8	0.46	34.0	0.5	0	0	4
29	29	1-1	1-2	1 IBULAO	16.5	0.44	29.3	0.4	0	0	4
30	30	1-1	1-2	1 CASECNAN	11.5	0.46	28.1	0.4	0	0	4
31	31	1-1	1-2	1 UP-CASECNAN	12.4	0.46	31.6	0.5	0	0	4
32	32	1-1	1-2	1 AGNO-2	10.9	0.47	24.5	0.4	0	0	4
33	33	1-1	1-2	1 AGNO-3	9.5	0.48	21.9	0.3	0	0	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA-CITY (MW)	ASSUMED MAXIMUM P.F.	COST		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1-1 LUZON GRID									
01	GEO-THERMAL 1	2	1995	-	330.0	0.73	495.0	16.5	227.3
02	BINONGAN	6	1995	-	175.0	0.41	269.2	4.0	115.0
03	COAL THERMAL 1	4	1996	-	300.0	0.70	360.0	42.1	209.9
04	ABRA	1	1996	-	10.9	0.41	21.5	0.3	7.7
05	GEO-THERMAL 2	2	1997	-	330.0	0.73	495.0	16.5	181.2
06	COAL THERMAL 2	4	1998	-	300.0	0.70	360.0	42.1	167.4
07	SAN ROQUE	6	1999	-	390.0	0.32	409.2	6.1	111.1
08	COAL THERMAL 3	4	2000	-	600.0	0.70	720.0	84.3	266.8
09	SALTAN	1	2000	-	12.6	0.46	25.2	0.4	5.7
10	DIDUYON	6	2001	-	352.0	0.29	469.2	7.0	101.5
11	COAL THERMAL 4	4	2002	-	600.0	0.70	720.0	84.3	212.7
12	AGNO-3	1	2002	-	9.5	0.48	21.9	0.3	3.9
13	GEO-THERMAL 3	2	2003	-	330.0	0.73	495.0	16.5	91.8
14	MATUNO	6	2003	-	180.0	0.30	267.0	4.0	46.0
15	COAL THERMAL 5	4	2004	-	300.0	0.70	360.0	42.1	84.8
16	SUPO	6	2004	-	141.8	0.32	258.0	3.9	39.7
17	GEO-THERMAL 4	2	2005	-	330.0	0.73	495.0	16.5	73.2



\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12                    1.00

CASE...A-4.

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2307.0	14147.0
1986	2400.0	14714.0
1987	2496.0	15304.0
1988	2605.0	15975.0
1989	2746.0	16841.0
1990	2928.0	17954.0
1991	3090.0	18947.0
1992	3256.0	19964.0
1993	3431.0	21038.0
1994	3618.0	22185.0
1995	3694.0	22653.0
1996	4016.0	24628.0
1997	4229.0	25931.0
1998	4456.0	27326.0
1999	4596.0	28795.0
2000	4954.0	30375.0
2001	5220.0	32009.0
2002	5502.0	33738.0
2003	5793.0	35523.0
2004	6105.0	37433.0
2005	6429.0	39422.0

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. TYPE	COMIS. GRADE	PLANT YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR UNIT	NO. OF REMARK
1	1-1-2-8-1	MAGAT	0	6	1983	360.00	814.40	0.26	4. EXISTING
2	1-1-2-8-2	CASECNAI TBD	2	6	1995	268.00	1379.00	0.59	3. COMMITTED. POWER UP IN PANTABANG
3	1-1-3-25-3	ANGAT	0	6	1997	228.00	515.70	0.26	7. EXISTING
4	1-1-3-25-4	PANTABANGAN	0	6	1977	100.00	226.20	0.26	2. EXISTING
5	1-1-3-25-5	MASINAY	0	6	1981	12.00	27.10	0.26	1. EXISTING
6	1-1-3-77-1	AMBUKLAO	0	6	1956	75.00	169.70	0.26	3. EXISTING
7	1-1-3-77-2	BINGA	0	6	1960	100.00	226.20	0.26	4. EXISTING
8	1-1-4-7-4	PANTAI	2	6	1993	23.00	154.00	0.76	2. COMMITTED
9	1-1-4-15-1	CALIRAYA	0	6	1945	32.00	72.40	0.26	4. EXISTING
10	1-1-4-15-2	BOTOCAN	0	6	1948	17.00	38.50	0.26	3. EXISTING
11	1-1-4-15-3	KALAYAAN	0	6	1983	300.00	678.60	0.26	2. EXISTING PUMPED STORAGE
12	1-1-5-43-1	BUHI-BARIT	0	6	1957	1.80	4.10	0.26	1. EXISTING
13	1-1-5-91-2	CAWAYAN	0	6	1959	0.40	0.90	0.26	1. EXISTING

TYPE OF PLANTS:

- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTHERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

NOTES: DEVELOPMENT GRADE:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1-1-2-1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
2	1-1-2-1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
3	1-1-3-1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
4	1-1-3-1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
5	1-1-4-1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
6	1-1-4-1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
7	1-1-4-2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
8	1-1-4-2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
9	1-1-4-2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
10	1-1-4-2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
11	1-1-4-3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
12	1-1-4-3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
13	1-1-4-4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
14	1-1-4-4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
15	1-1-4-4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1-1-4-5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
17	1-1-4-5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
18	1-1-4-6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1-5-1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1-88-88-1	GEO-THERMAL 1	9	2	1996	55000.	6	0.730	LUZON GRID
21	1-88-88-2	GEO-THERMAL 2	9	2	1996	55000.	6	0.730	LUZON GRID
22	1-88-88-3	GEO-THERMAL 3	9	2	2002	55000.	5	0.730	LUZON GRID
23	1-88-88-4	GEO-THERMAL 4	9	2	2003	55000.	6	0.730	LUZON GRID
24	1-89-99-1	COAL THERMAL 1	9	4	1995	300000.	1	0.700	LUZON GRID
25	1-89-99-2	COAL THERMAL 2	9	4	1999	600000.	1	0.700	LUZON GRID
26	1-1-89-99-3	COAL THERMAL 3	9	4	2001	600000.	1	0.700	LUZON GRID
27	1-1-89-99-4	COAL THERMAL 4	9	4	2004	600000.	1	0.700	LUZON GRID

NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR

TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT I D	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T CAPITAL OPERATION (MIL US\$)	1/		2/		CONST- RUTION PERIOD (YEARS)		
								STAGE DEVELOP. INDEX	PRE- CON- ST RUTION LEAD TIME (YEARS)	PRE- CON- ST RUTION LEAD TIME (YEARS)	STAGE DEVELOP. INDEX			
1	1	1-	1-	1	6	SAN ROQUE	390.0	0.32	409.2	6.1	0	0	4	5
2	2	1-	1-	1	6	DIDUYON	352.0	0.29	469.2	7.0	0	0	4	5
3	3	1-	1-	1	6	MATUNO	180.0	0.30	267.0	4.0	0	0	4	5
4	4	1-	1-	1	6	BINONGAN	175.0	0.41	269.2	4.0	0	0	4	5
5	5	1-	1-	1	6	CHICO-4	360.0	0.23	534.9	8.0	0	0	2	5
6	6	1-	1-	1	6	GENED	600.0	0.24	801.5	12.0	0	0	4	5
7	7	1-	1-	1	6	AGOS	140.0	0.44	361.4	5.4	0	0	4	5
8	8	1-	1-	1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4	4
9	9	1-	1-	1	6	PALSIGUAN	42.0	0.50	173.1	2.6	0	0	4	5
10	10	1-	1-	1	6	SUPQ	141.8	0.32	258.0	3.9	0	0	6	5
11	10	1-	1-	1	6	ETEB	107.2	0.30	225.8	3.4	0	0	6	5
12	6	1-	1-	1	6	SISIRITAN	417.6	0.26	810.5	9.2	0	0	6	5
13	11	1-	1-	1	6	AGBULU	216.2	0.31	403.0	6.0	0	0	6	5
14	12	1-	1-	1	6	SADANGA ALT	299.4	0.28	600.1	9.0	0	0	6	5
15	13	1-	1-	1	6	TABU	138.6	0.31	312.2	4.7	0	0	6	5
16	14	1-	1-	1	6	UP. AGOS-2	135.4	0.36	285.2	4.3	0	0	6	5
17	15	1-	1-	1	6	WAWA	61.0	0.37	175.2	2.6	0	0	6	5
18	16	1-	1-	2	1	NAGUILIAN	36.9	0.35	48.5	0.7	0	0	6	4
19	17	1-	1-	2	1	LUYA	40.8	0.35	60.3	0.9	0	0	6	4
20	18	1-	1-	2	1	BAKUM	33.0	0.35	35.4	0.5	0	0	6	4
21	19	1-	1-	2	1	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	6	4
22	20	1-	1-	2	1	ABRA	10.9	0.41	21.5	0.3	0	0	6	4
23	21	1-	1-	2	1	APAYAO	15.8	0.46	39.4	0.6	0	0	6	4
24	22	1-	1-	2	1	CHICO-1R	27.3	0.46	40.7	0.6	0	0	6	4
25	12	1-	1-	2	1	CHICO-2R	34.5	0.46	43.3	0.6	0	0	6	4
26	23	1-	1-	2	1	SALTAN	12.6	0.46	25.2	0.4	0	0	6	4
27	24	1-	1-	2	1	PASIL	20.2	0.46	30.0	0.4	0	0	6	4
28	25	1-	1-	2	1	TANUDAN	24.8	0.46	34.0	0.5	0	0	6	4
29	26	1-	1-	2	1	IBULAO	16.5	0.44	29.3	0.4	0	0	6	4
30	27	1-	1-	2	1	CASECNAN	11.5	0.46	28.1	0.4	0	0	6	4
31	28	1-	1-	2	1	UP. CASECNAN	12.4	0.46	31.6	0.5	0	0	6	4
32	29	1-	1-	2	1	AGNO-2	10.9	0.47	24.5	0.4	0	0	6	4
33	30	1-	1-	2	1	AGNO-3	9.5	0.48	21.9	0.3	0	0	6	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA-CITY (MW)	ASSUMED MAXIMUM P.F.	COST		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1- 1 LUZON GRID									
01	COAL THERMAL 1	4	1995	-	300.0	0.70	360.0	42.1	235.1
02	BINONGAN	6	1995	-	175.0	0.41	269.2	4.0	115.0
03	GEO-THERMAL 1	2	1996	-	330.0	0.73	495.0	16.5	203.0
04	SAN ROQUE	6	1997	-	390.0	0.32	409.2	6.1	139.4
05	GEO-THERMAL 2	2	1998	-	330.0	0.73	495.0	16.5	161.8
06	COAL THERMAL 2	4	1999	-	600.0	0.70	720.0	84.3	298.8
07	IBULAO	1	1999	-	16.5	0.44	29.3	0.4	7.4
08	AMBURAYAN	1	2000	-	64.0	0.34	75.4	1.1	17.0
09	COAL THERMAL 3	4	2001	-	600.0	0.70	720.0	84.3	238.2
10	GEO-THERMAL 3	2	2002	-	330.0	0.73	495.0	16.5	102.8
11	TANUDAN	1	2002	-	24.8	0.46	34.0	0.5	6.1
12	GEO-THERMAL 4	2	2003	-	330.0	0.73	495.0	16.5	91.8
13	COAL THERMAL 4	4	2004	-	600.0	0.70	720.0	84.3	169.6
14	AGSULU	6	2004	-	216.2	0.31	403.0	6.0	52.0
15	DIDUYON	6	2005	-	352.0	0.29	469.2	7.0	64.4

\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12 1.00

CASE B-8.

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2307.0	14147.0
1986	2400.0	14714.0
1987	2496.0	15304.0
1988	2605.0	15975.0
1989	2746.0	16841.0
1990	2929.0	17954.0
1991	3090.0	18947.0
1992	3256.0	19964.0
1993	3431.0	21038.0
1994	3618.0	22189.0
1995	3694.0	22653.0
1996	3966.0	24318.0
1997	4124.0	25290.0
1998	4289.0	26302.0
1999	4461.0	27354.0
2000	4639.0	28449.0
2001	4825.0	29586.0
2002	5018.0	30770.0
2003	5219.0	32000.0
2004	5427.0	33280.0
2005	5644.0	34612.0



\*\*\*\*\*  
 \* \* TABLE OF EXISTING - HYDRO POWER PLANTS \* \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	TYPE	COMIS. YEAR	INSTALL. CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF UNIT	REMARK :
1	1- 2- 8-1	MAGAT	0	6	1983	360.00	814.40	0.26	4	EXISTING
2	1- 1- 2- 8-2	CASECNAN TBD	2	6	1995	268.00	1379.00	0.59	3	COMMITTED, POWER UP IN PANTABANG
3	1- 1- 3-25-3	ANGAT	0	6	1967	228.00	515.70	0.26	7	EXISTING
4	1- 1- 3-25-4	PANTABANGAN	0	6	1977	100.00	226.20	0.26	2	EXISTING
5	1- 1- 3-25-5	MASIWAY	0	6	1981	12.00	27.10	0.26	1	EXISTING
6	1- 1- 3-77-1	AMBUKLAO	0	6	1956	75.00	169.70	0.26	3	EXISTING
7	1- 1- 3-77-2	BINGA	0	6	1960	100.00	226.20	0.26	4	EXISTING
8	1- 1- 4- 7-4	PANTAI	2	6	1993	23.00	154.00	0.76	2	COMMITTED
9	1- 1- 4-15-1	CALIRAYA	0	6	1945	32.00	72.40	0.26	4	EXISTING
10	1- 1- 4-15-2	BOTOCAN	0	6	1948	17.00	38.50	0.26	3	EXISTING
11	1- 1- 4-15-3	KALAYAAN	0	6	1983	300.00	678.60	0.26	2	EXISTING PUMPED STORAGE
12	1- 1- 5-48-1	BUHI-BARIT	0	6	1957	1.80	4.10	0.26	1	EXISTING
13	1- 1- 5-91-2	CAWAYAN	0	6	1959	0.40	0.90	0.26	1	EXISTING

NOTES: DEVELOPMENT GRADE:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED

TYPE OF PLANTS:

- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1- 1- 2- 1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
2	1- 1- 2- 1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
3	1- 1- 3- 1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
4	1- 1- 3- 1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
5	1- 1- 4- 1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
6	1- 1- 4- 1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
7	1- 1- 4- 2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
8	1- 1- 4- 2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
9	1- 1- 4- 2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
10	1- 1- 4- 2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
11	1- 1- 4- 3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
12	1- 1- 4- 3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
13	1- 1- 4- 4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
14	1- 1- 4- 4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
15	1- 1- 4- 4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1- 1- 4- 5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
17	1- 1- 4- 5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
18	1- 1- 4- 6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1- 1- 5- 1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1- 1- 88- 88-1	GEO-THERMAL 1	9	2	1995	55000.	6	0.730	LUZON GRID
21	1- 1- 88- 88-2	GEO-THERMAL 2	9	2	1996	55000.	6	0.730	LUZON GRID
22	1- 1- 88- 88-3	GEO-THERMAL 3	9	2	2001	55000.	6	0.730	LUZON GRID
23	1- 1- 88- 88-4	GEO-THERMAL 4	9	2	2002	55000.	6	0.730	LUZON GRID
24	1- 1- 89- 89-1	COAL THERMAL 1	9	4	1998	300000.	1	0.700	LUZON GRID
25	1- 1- 89- 89-2	COAL THERMAL 2	9	4	2000	300000.	1	0.700	LUZON GRID
26	1- 1- 89- 89-3	COAL THERMAL 3	9	4	2002	300000.	1	0.700	LUZON GRID
27	1- 1- 89- 89-4	COAL THERMAL 4	9	4	2004	600000.	1	0.700	LUZON GRID

\*\*\*\*\*  
 NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR

\*\*\*\*\*  
 TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT ID	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST- RUTION PERIOD (YEARS)	
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)				
1	1	1-1	6	SAN ROQUE	350.0	0.32	409.2	6.1	0	0	4	5
2	2	1-1	6	DIDUYON	352.0	0.29	469.2	7.0	0	0	4	5
3	3	1-1	6	MATUNO	180.0	0.30	267.0	4.0	0	0	4	5
4	4	1-1	6	BINONGAN	175.0	0.41	269.2	4.0	0	0	4	5
5	5	1-1	6	CHICO-4	360.0	0.23	534.9	8.0	0	0	2	5
6	6	1-1	6	GENED	600.0	0.24	801.5	12.0	0	0	4	5
7	7	1-1	6	AGOS	140.0	0.44	361.4	5.4	0	0	4	5
8	8	1-1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4	4
9	9	1-1	6	PALSTIGUAN	42.0	0.50	179.1	2.6	0	0	4	4
10	10	1-1	6	SUPO	141.8	0.32	258.0	3.9	0	0	6	5
11	11	1-1	6	EYEB	107.2	0.30	225.8	3.4	0	0	6	5
12	12	1-1	6	SISIRITAN	417.6	0.26	610.5	9.2	0	0	6	5
13	13	1-1	6	AGBULU	216.2	0.31	403.0	6.0	0	0	6	5
14	14	1-1	6	SADANGA ALT	289.4	0.28	600.1	9.0	0	0	6	5
15	15	1-1	6	TABU	138.6	0.31	312.2	4.7	0	0	6	5
16	16	1-1	6	WAWA	135.4	0.36	285.2	4.3	0	0	6	5
17	17	1-1	6	UP-AGOS-2	61.0	0.37	175.2	2.6	0	0	6	5
18	18	1-1	2	NAGUILIAN	36.9	0.35	48.5	0.7	0	0	6	4
19	19	1-1	2	LUYA	40.8	0.35	60.3	0.9	0	0	6	4
20	20	1-1	2	BAKUM	33.0	0.35	35.4	0.5	0	0	6	4
21	21	1-1	2	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	6	4
22	22	1-1	2	ABRA	10.9	0.41	21.5	0.3	0	0	6	4
23	23	1-1	2	APAYAO	15.8	0.46	39.4	0.6	0	0	6	4
24	24	1-1	2	CHICO-1R	27.3	0.46	40.7	0.6	0	0	6	4
25	25	1-1	2	CHICO-2R	34.5	0.46	43.3	0.6	0	0	6	4
26	26	1-1	2	SALTAN	12.6	0.46	25.2	0.4	0	0	6	4
27	27	1-1	2	PASIL	20.2	0.46	30.0	0.4	0	0	6	4
28	28	1-1	2	TANUDAN	24.8	0.46	34.0	0.5	0	0	6	4
29	29	1-1	2	IBULAO	16.5	0.44	29.3	0.4	0	0	6	4
30	30	1-1	2	CASECNAN	11.5	0.46	28.1	0.4	0	0	6	4
31	31	1-1	2	UP-CASECNAN	12.4	0.46	31.6	0.5	0	0	6	4
32	32	1-1	2	AGNO-2	10.9	0.47	24.5	0.4	0	0	6	4
33	33	1-1	2	AGNO-3	9.5	0.48	21.9	0.3	0	0	6	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA- CITY (MW)	ASSUMED MAXIMUM P.F.	COST		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1-1 LUZON GRID									
01	GEO-THERMAL 1	2	1995	-	330.0	0.73	495.0	16.5	227.3
02	CHICO-1R	1	1995	-	27.3	0.46	40.7	0.6	16.2
03	GEO-THERMAL 2	2	1996	-	330.0	0.73	495.0	16.5	203.0
04	AMBURAYAN	1	1997	-	54.0	0.34	75.4	1.1	24.0
05	COAL THERMAL 1	4	1998	-	300.0	0.70	350.0	42.1	157.4
06	SAN ROQUE	6	1999	-	390.0	0.32	409.2	6.1	111.1
07	COAL THERMAL 2	4	2000	-	300.0	0.70	360.0	42.1	139.4
08	GEO-THERMAL 3	2	2001	-	330.0	0.73	495.0	16.5	115.2
09	COAL THERMAL 3	4	2002	-	300.0	0.70	360.0	42.1	105.4
10	GEO-THERMAL 4	2	2002	-	330.0	0.73	495.0	16.5	102.6
11	PASIL	1	2003	-	20.2	0.46	30.0	0.4	4.8
12	COAL THERMAL 4	4	2004	-	600.0	0.70	720.0	84.3	169.6
13	WAWA	6	2005	-	51.0	0.37	175.2	2.6	24.1

\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12                    1.00

CASE...B-9.

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2307.0	14147.0
1986	2400.0	14714.0
1987	2496.0	15304.0
1988	2605.0	15975.0
1989	2745.0	16841.0
1990	2928.0	17954.0
1991	3090.0	18947.0
1992	3256.0	19964.0
1993	3431.0	21038.0
1994	3618.0	22185.0
1995	3694.0	22653.0
1996	3965.0	24310.0
1997	4124.0	25290.0
1998	4289.0	26302.0
1999	4461.0	27354.0
2000	4639.0	28449.0
2001	4825.0	29586.0
2002	5018.0	30770.0
2003	5219.0	32000.0
2004	5427.0	33280.0
2005	5644.0	34612.0

\*\*\*\*\*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \* \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. TYPE	COMIS. GRADE	PLANT YEAR	INSTALL. CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF REMARK
1	1-1-2-8-1	MAGAT	0	6	1983	350.00	814.40	0.25	4 EXISTING
2	1-1-2-8-2	CASECNAN T8D	2	6	1995	268.00	1379.00	0.59	3 COMMITTED, POWER UP IN PANTABANG
3	1-1-3-25-3	ANGAT	0	6	1967	228.00	515.70	0.26	7 EXISTING
4	1-1-3-25-4	PANTABANGAN	0	6	1977	100.00	226.20	0.26	2 EXISTING
5	1-1-3-25-5	MASIRAY	0	6	1981	12.00	27.10	0.26	1 EXISTING
6	1-1-3-77-1	AMBUKLAO	0	6	1956	75.00	169.70	0.26	3 EXISTING
7	1-1-3-77-2	BINGA	0	6	1960	100.00	226.20	0.26	4 EXISTING
8	1-1-4-7-4	PANTAI	2	6	1993	23.00	154.00	0.76	2 COMMITTED
9	1-1-4-15-1	CALIRAYA	0	6	1945	32.00	72.40	0.26	4 EXISTING
10	1-1-4-15-2	BOTOCAN	0	6	1948	17.00	38.50	0.26	3 EXISTING
11	1-1-4-15-3	KALAYAAN	0	6	1983	300.00	678.60	0.26	2 EXISTING PUMPED STORAGE
12	1-1-5-48-1	BUHI-BARIT	0	6	1957	1.80	4.10	0.26	1 EXISTING
13	1-1-5-91-2	CAWAYAN	0	6	1959	0.40	0.90	0.26	1 EXISTING

NOTES: DEVELOPMENT GRADE: TYPE OF PLANTS:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED
- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTHERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

\*\*\*\*\*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1-2-1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
2	1-2-1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
3	1-3-1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
4	1-3-1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
5	1-4-1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
6	1-4-1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
7	1-4-2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
8	1-4-2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
9	1-4-2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
10	1-4-2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
11	1-4-3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
12	1-4-3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
13	1-4-4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
14	1-4-4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
15	1-4-4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1-4-5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
17	1-4-5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
18	1-4-6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1-5-1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1-88-88-2	GEO-THERMAL 2	9	2	1995	55000.	6	0.730	LUZON GRID
21	1-88-88-1	GEO-THERMAL 1	9	2	1995	55000.	6	0.730	LUZON GRID
22	1-88-88-4	GEO-THERMAL 4	9	2	2002	55000.	6	0.730	LUZON GRID
23	1-88-88-3	GEO-THERMAL 3	9	2	1999	55000.	6	0.730	LUZON GRID
24	1-89-89-2	COAL THERMAL 2	9	4	2001	600000.	1	0.700	LUZON GRID
25	1-89-89-1	COAL THERMAL 1	9	4	1998	300000.	1	0.700	LUZON GRID
26	1-89-89-3	COAL THERMAL 3	9	4	2004	600000.	1	0.700	LUZON GRID

NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR

TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE



RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE : 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT I D	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)			
1	1	1-1	6	SAN ROQUE	390.0	0.32	409.2	6.1	0	0	5
2	2	1-1	6	DIDUYON	352.0	0.29	469.2	7.0	0	0	5
3	3	1-1	6	MATUNO	180.0	0.30	267.0	4.0	0	0	5
4	4	1-1	6	BINONGAN	175.0	0.41	269.2	4.0	0	0	5
5	5	1-1	6	CHICO-4	600.0	0.23	534.9	8.0	0	0	5
6	6	1-1	6	GENED	300.0	0.24	801.5	12.0	0	0	5
7	7	1-1	6	AGOS	140.0	0.44	361.4	5.4	0	0	5
8	8	1-1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4
9	9	1-1	6	PALISIGUAN	42.0	0.50	173.1	2.6	0	0	4
10	10	1-1	6	SUPO	141.8	0.32	258.0	3.9	0	0	5
11	10	1-1	6	ETEB	107.2	0.30	225.8	3.4	0	0	5
12	6	1-1	6	SISIRITAN	417.6	0.26	610.5	9.2	0	0	5
13	11	1-1	6	AGBULU	216.2	0.31	403.0	6.0	0	0	5
14	12	1-1	6	SADANGA ALT	299.4	0.28	800.1	9.0	0	0	5
15	13	1-1	6	TABU	138.6	0.31	312.2	4.7	0	0	5
16	14	1-1	6	UP-AGOS-2	135.4	0.36	285.2	4.3	0	0	5
17	15	1-1	6	WAWA	61.0	0.37	175.2	2.6	0	0	5
18	16	1-1	2	NAGUILIAN	36.9	0.35	48.5	0.7	0	0	4
19	17	1-1	2	LUYA	40.8	0.35	60.3	0.9	0	0	4
20	18	1-1	2	BAKUM	33.0	0.35	35.4	0.5	0	0	4
21	19	1-1	2	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	4
22	20	1-1	2	ABRA	10.9	0.41	21.5	0.3	0	0	4
23	21	1-1	2	APAYAO	15.8	0.46	39.4	0.6	0	0	4
24	22	1-1	2	CHICO-1R	27.3	0.46	40.7	0.6	0	0	4
25	12	1-1	2	CHICO-2R	34.5	0.46	43.3	0.6	0	0	4
26	23	1-1	2	SALTAN	12.6	0.46	25.2	0.4	0	0	4
27	24	1-1	2	PASIL	20.2	0.46	30.0	0.4	0	0	4
28	25	1-1	2	TANUDAN	24.8	0.46	34.0	0.5	0	0	4
29	26	1-1	2	IBULAO	16.5	0.44	29.3	0.4	0	0	4
30	27	1-1	2	CASECNAN	11.5	0.46	23.1	0.4	0	0	4
31	28	1-1	2	UP-CASECNAN	12.4	0.46	31.6	0.5	0	0	4
32	29	1-1	2	AGNO-2	10.9	0.47	24.5	0.4	0	0	4
33	30	1-1	2	AGNO-3	9.5	0.48	21.9	0.3	0	0	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS  
 -----

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA-CITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1-1 LUZON GRID									
01	GEO-THERMAL 1	2	1995	-	330.0	0.73	495.0	16.5	227.3
02	CHICO-1R	1	1995	-	27.3	0.46	40.7	0.6	16.2
03	GEO-THERMAL 2	2	1996	-	330.0	0.73	495.0	16.5	203.0
04	AMBURAYAN	1	1997	-	64.0	0.34	75.4	1.1	24.0
05	COAL THERMAL 1	4	1998	-	300.0	0.70	360.0	42.1	167.4
06	GEO-THERMAL 3	2	1999	-	330.0	0.73	495.0	16.5	144.5
07	SAN-ROQUE	6	2000	-	390.0	0.32	409.2	6.1	99.1
08	COAL THERMAL 2	4	2001	-	600.0	0.70	720.0	84.3	238.2
09	GEO-THERMAL 4	2	2002	-	330.0	0.73	495.0	16.5	102.8
10	PASIL	1	2003	-	20.2	0.46	30.0	0.4	4.8
11	COAL THERMAL 3	4	2004	-	600.0	0.70	720.0	84.3	169.6
12	WAWA	6	2005	-	61.0	0.37	175.2	2.6	24.1

\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12 1.00

CASE...C7.

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2308.0	14148.0
1986	2400.0	14714.0
1987	2496.0	15303.0
1988	2595.0	15914.0
1989	2699.0	16551.0
1990	2807.0	17213.0
1991	2919.0	17902.0
1992	3036.0	18618.0
1993	3158.0	19363.0
1994	3284.0	20138.0
1995	3415.0	20943.0
1996	3586.0	21991.0
1997	3765.0	23090.0
1998	3954.0	24244.0
1999	4152.0	25457.0
2000	4359.0	26729.0
2001	4577.0	28066.0
2002	4806.0	29469.0
2003	5046.0	30942.0
2004	5298.0	32488.0
2005	5563.0	34113.0

\*\*\*\*\*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	TYPE COMIS. YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (COWH)	PLANT FACTOR UNIT	NO. OF REMARK
1	1-2-8-1	MAGAT	0	1983	360.00	814.40	0.26	4 EXISTING
2	1-2-8-2	CASEC NAN T8D	2	1995	268.00	1379.00	0.59	3 COMMITTED, POWER UP IN PANTABANG
3	1-3-25-3	ANGAT	0	1967	228.00	515.70	0.26	7 EXISTING
4	1-3-25-4	PANTABANGAN	0	1977	100.00	226.20	0.26	2 EXISTING
5	1-3-25-5	MASIWAY	0	1981	12.00	27.10	0.26	1 EXISTING
6	1-3-77-1	AMBUKLAC	0	1956	75.00	169.70	0.26	3 EXISTING
7	1-3-77-2	BINGA	0	1960	100.00	226.20	0.26	4 EXISTING
8	1-4-7-4	PANTAI	2	1993	23.00	154.00	0.76	2 COMMITTED
9	1-4-15-1	CALIRAYA	0	1945	32.00	72.40	0.26	4 EXISTING
10	1-4-15-2	BOTOCAN	0	1948	17.00	38.50	0.26	3 EXISTING
11	1-4-15-3	KALAYAAN	0	1983	300.00	678.60	0.26	2 EXISTING PUMPED STORAGE
12	1-5-48-1	BUHI-BARIT	0	1957	1.80	4.10	0.26	1 EXISTING
13	1-5-91-2	CAWAYAN	0	1959	0.40	0.90	0.26	1 EXISTING

NOTES: DEVELOPMENT GRADE:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED

TYPE OF PLANTS:

- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1-1-2-1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
2	1-1-2-1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
3	1-1-3-1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
4	1-1-3-1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
5	1-1-4-1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
6	1-1-4-1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
7	1-1-4-2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
8	1-1-4-2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
9	1-1-4-2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
10	1-1-4-2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
11	1-1-4-3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
12	1-1-4-3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
13	1-1-4-4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
14	1-1-4-4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
15	1-1-4-4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1-1-4-5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
17	1-1-4-5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
18	1-1-4-5-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1-1-5-1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1-83-88-2	GEO-THERMAL 2	9	2	2001	55000.	6	0.730	LUZON GRID
21	1-88-88-1	GEO-THERMAL 1	9	2	1997	55000.	6	0.730	LUZON GRID
22	1-88-88-4	GEO-THERMAL 4	9	2	2004	55000.	6	0.730	LUZON GRID
23	1-88-88-3	GEO-THERMAL 3	9	2	2002	55000.	6	0.730	LUZON GRID
24	1-89-99-2	COAL THERMAL 2	9	4	1998	300000.	1	0.700	LUZON GRID
25	1-89-99-1	COAL THERMAL 1	9	4	1996	300000.	1	0.700	LUZON GRID
26	1-89-99-4	COAL THERMAL 4	9	4	2002	300000.	1	0.700	LUZON GRID
27	1-89-99-3	COAL THERMAL 3	9	4	2000	300000.	1	0.700	LUZON GRID
28	1-89-99-5	COAL THERMAL 5	9	4	2005	300000.	1	0.700	LUZON GRID

\*\*\*\*\*  
 NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR

\*\*\*\*\*  
 TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT I D	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)		
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)					
1	1-	1-	1	6	SAN ROQUE	390.0	0.32	409.2	6.1	0	0	4	5
2	2	1-	1-	1	DIDUYON	352.0	0.29	469.2	7.0	0	0	4	5
3	3	1-	1-	1	MATUNO	180.0	0.30	267.0	4.0	0	0	4	5
4	4	1-	1-	1	BINONGAN	175.0	0.41	269.2	4.0	0	0	4	5
5	5	1-	1-	1	CHICO-4	360.0	0.23	534.9	8.0	0	0	2	5
6	6	1-	1-	1	GENED	600.0	0.24	801.5	12.0	0	0	4	5
7	7	1-	1-	1	AGOS	140.0	0.44	361.4	5.4	0	0	4	5
8	8	1-	1-	1	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4	4
9	9	1-	1-	1	PALSIGUAN	42.0	0.50	173.1	2.6	0	0	4	5
10	10	1-	1-	1	SUPO	141.8	0.32	258.0	3.9	0	0	6	5
11	11	1-	1-	1	ETER	107.2	0.30	225.8	3.4	0	0	6	5
12	12	1-	1-	1	SISTRITAN	417.6	0.26	610.5	9.2	0	0	6	5
13	13	1-	1-	1	AGBULU	216.2	0.31	403.0	6.0	0	0	6	5
14	14	1-	1-	1	SADANGA ALT	299.4	0.28	600.1	9.0	0	0	6	5
15	15	1-	1-	1	TABU	138.6	0.31	312.2	4.7	0	0	6	5
16	16	1-	1-	1	UP-AGOS-2	135.4	0.36	285.2	4.3	0	0	6	5
17	17	1-	1-	1	WAWA	61.0	0.37	175.2	2.6	0	0	6	5
18	18	1-	1-	2	MAGULILIAN	36.9	0.35	48.5	0.7	0	0	6	4
19	19	1-	1-	2	LUYA	40.8	0.35	60.3	0.9	0	0	6	4
20	20	1-	1-	2	BAKUM	33.0	0.35	35.4	0.5	0	0	6	4
21	21	1-	1-	2	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	6	4
22	22	1-	1-	2	ABRA	10.9	0.41	21.5	0.3	0	0	6	4
23	23	1-	1-	2	APAYAO	15.8	0.46	39.4	0.6	0	0	6	4
24	24	1-	1-	2	CHICO-1R	27.3	0.46	40.7	0.6	0	0	6	4
25	25	1-	1-	2	CHICO-2R	34.5	0.46	43.3	0.6	0	0	6	4
26	26	1-	1-	2	SALTAN	12.6	0.46	25.2	0.4	0	0	6	4
27	27	1-	1-	2	PASIL	20.2	0.46	30.0	0.4	0	0	6	4
28	28	1-	1-	2	TANUDAN	24.8	0.46	34.0	0.5	0	0	6	4
29	29	1-	1-	2	IBULAO	16.5	0.44	29.3	0.4	0	0	6	4
30	30	1-	1-	2	CASECNAN	11.5	0.46	28.1	0.4	0	0	6	4
31	31	1-	1-	2	UP-CASECNAN	12.4	0.46	31.6	0.5	0	0	6	4
32	32	1-	1-	2	AGNO-2	10.9	0.47	24.5	0.4	0	0	6	4
33	33	1-	1-	2	AGNO-3	9.5	0.48	21.9	0.3	0	0	6	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. CONNE. YEAR	CAPA- CITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		PRESENT WORTH (MIL US\$)
						CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1- 1 LUZON GRID								
01	COAL THERMAL 1	4	1996	300.0	0.70	360.0	42.1	209.9
02	GEO-THERMAL 1	2	1997	330.0	0.73	495.0	16.5	181.2
03	COAL THERMAL 2	4	1998	300.0	0.70	360.0	42.1	167.4
04	COAL THERMAL 3	4	2000	300.0	0.70	360.0	42.1	133.4
05	CHICO-2R	1	2000	34.5	0.46	43.3	0.6	9.8
06	GEO-THERMAL 2	2	2001	330.0	0.73	495.0	16.5	115.2
07	LUYA	1	2001	46.8	0.35	60.3	0.9	12.2
08	GEO-THERMAL 3	2	2002	330.0	0.73	495.0	16.5	102.8
09	COAL THERMAL 4	4	2002	300.0	0.70	360.0	42.1	106.4
10	SAN ROQUE	6	2003	390.0	0.32	409.2	6.1	70.5
11	GEO-THERMAL 4	2	2004	330.0	0.73	495.0	16.5	82.0
12	ETEB	6	2004	107.2	0.30	225.8	3.4	34.7
13	COAL THERMAL 5	4	2005	300.0	0.70	360.0	42.1	75.7



\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12                    1.00

CASE...C-8

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2308.0	14148.0
1986	2400.0	14714.0
1987	2496.0	15303.0
1988	2595.0	15914.0
1989	2699.0	16551.0
1990	2807.0	17213.0
1991	2919.0	17902.0
1992	3036.0	18618.0
1993	3158.0	19363.0
1994	3284.0	20138.0
1995	3415.0	20943.0
1996	3586.0	21991.0
1997	3765.0	23090.0
1998	3954.0	24244.0
1999	4152.0	25457.0
2000	4359.0	26729.0
2001	4577.0	28066.0
2002	4806.0	29469.0
2003	5046.0	30942.0
2004	5298.0	32488.0
2005	5563.0	34113.0

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. TYPE	COMIS. GRADE	PLANT YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF REMARK UNIT
1	1-1-2-8-1	MAGAT	0	6	1983	380.00	814.40	0.26	4 EXISTING
2	1-1-2-8-2	CASECNAH TBD	2	6	1995	288.00	1379.00	0.59	3 COMMITTED. POWER UP IN PANTABANG
3	1-1-3-25-3	ANGAT	0	6	1967	228.00	515.70	0.26	7 EXISTING
4	1-1-3-25-4	PANTABANGAN	0	6	1977	100.00	226.20	0.26	2 EXISTING
5	1-1-3-25-5	MASIWAY	0	6	1981	12.00	27.10	0.26	1 EXISTING
6	1-1-3-77-1	AMBUKLAO	0	6	1956	75.00	169.70	0.26	3 EXISTING
7	1-1-3-77-2	BINGA	0	6	1960	100.00	226.20	0.26	4 EXISTING
8	1-1-4-7-4	PANTAI	2	6	1993	23.00	154.00	0.76	2 COMMITTED
9	1-1-4-15-1	CALIRAYA	0	6	1945	32.00	72.40	0.26	4 EXISTING
10	1-1-4-15-2	BOTOCAN	0	6	1948	17.00	38.50	0.26	3 EXISTING
11	1-1-4-15-3	KALAYAAN	0	6	1983	300.00	578.60	0.26	2 EXISTING PUMPED STORAGE
12	1-1-5-48-1	BUHI-BARIT	0	6	1957	1.80	4.10	0.26	1 EXISTING
13	1-1-5-91-2	CAWAYAN	0	6	1959	0.40	0.90	0.26	1 EXISTING

NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED

TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1- 1- 2- 1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
2	1- 1- 2- 1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
3	1- 1- 3- 1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
4	1- 1- 3- 1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
5	1- 1- 4- 1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
6	1- 1- 4- 1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
7	1- 1- 4- 2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
8	1- 1- 4- 2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
9	1- 1- 4- 2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
10	1- 1- 4- 2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
11	1- 1- 4- 3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
12	1- 1- 4- 3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
13	1- 1- 4- 4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
14	1- 1- 4- 4-1	MAK-DAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
15	1- 1- 4- 4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1- 1- 4- 5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
17	1- 1- 4- 5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
18	1- 1- 4- 6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1- 1- 5- 1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1- 1- 88- 88-1	GEO-THERMAL 1	9	2	1996	55000.	6	0.730	LUZON GRID
21	1- 1- 88- 88-2	GEO-THERMAL 2	9	2	1999	55000.	6	0.730	LUZON GRID
22	1- 1- 88- 88-3	GEO-THERMAL 3	9	2	2001	55000.	6	0.730	LUZON GRID
23	1- 1- 88- 88-4	GEO-THERMAL 4	9	2	2003	55000.	6	0.730	LUZON GRID
24	1- 1- 89- 99-1	COAL THERMAL 1	9	4	1998	300000.	1	0.700	LUZON GRID
25	1- 1- 89- 99-2	COAL THERMAL 2	9	4	2000	300000.	1	0.700	LUZON GRID
26	1- 1- 89- 99-3	COAL THERMAL 3	9	4	2002	600000.	1	0.700	LUZON GRID
27	1- 1- 89- 99-4	COAL THERMAL 4	9	4	2004	300000.	1	0.700	LUZON GRID

- \*\*\*\*\*  
 NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR
- \*\*\*\*\*  
 TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT ID	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)	
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)			
1	1	1-1	5	SAN ROGUE	330.0	0.32	409.2	6.1	0	4	5
2	1	1-1	6	DIDUYON	352.0	0.29	469.2	7.0	0	4	5
3	1	1-1	6	MATUNO	180.0	0.30	267.0	4.0	0	4	5
4	1	1-1	6	BINONGAN	175.0	0.41	269.2	4.0	0	4	5
5	1	1-1	6	CHICO-4	360.0	0.23	534.9	8.0	0	2	5
6	1	1-1	6	GENED	600.0	0.24	801.5	12.0	0	4	5
7	1	1-1	6	AGOS	140.0	0.44	361.4	5.4	0	4	5
8	1	1-1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	4	4
9	1	1-1	6	PALSIGUAN	42.0	0.50	173.1	2.6	0	4	5
10	1	1-1	6	ETEB	107.2	0.30	225.8	3.4	0	6	5
11	6	1-1	6	SISIRITAN	417.6	0.26	610.5	9.2	0	6	5
12	11	1-1	6	AGBULU	216.2	0.31	403.0	6.0	0	6	5
13	12	1-1	6	SADANGA ALT	299.4	0.28	600.1	9.0	0	6	5
14	13	1-1	6	TABU	138.6	0.31	312.2	4.7	0	6	5
15	14	1-1	6	UP-AGOS-2	135.4	0.36	285.2	4.3	0	6	5
16	15	1-1	6	WAWA	61.0	0.37	175.2	2.6	0	6	5
17	16	1-1	2	NAGUILIAN	36.9	0.35	48.5	0.7	0	6	4
18	17	1-1	2	LUYA	40.8	0.35	60.3	0.9	0	6	4
19	18	1-1	2	BAKUM	33.0	0.35	35.4	0.5	0	6	4
20	19	1-1	2	AMBURAYAN	64.0	0.34	75.4	1.1	0	6	4
21	20	1-1	2	ABRA	10.9	0.41	21.5	0.3	0	6	4
22	21	1-1	2	APAYAO	15.8	0.46	39.4	0.6	0	6	4
23	22	1-1	2	CHICO-1R	27.3	0.46	40.7	0.6	0	6	4
24	12	1-1	2	CHICO-2R	34.5	0.46	43.3	0.6	0	6	4
25	23	1-1	2	SALTAN	12.6	0.46	25.2	0.4	0	6	4
26	24	1-1	2	PASIL	20.2	0.46	30.0	0.4	0	6	4
27	25	1-1	2	TANJAN	24.8	0.46	34.0	0.5	0	6	4
28	26	1-1	2	IBULAO	16.5	0.44	29.3	0.4	0	6	4
29	27	1-1	2	CASECNAN	11.5	0.46	28.1	0.4	0	6	4
30	28	1-1	2	UP-CASECNAN	12.4	0.46	31.6	0.5	0	6	4
31	29	1-1	2	AGNO-2	10.9	0.47	24.5	0.4	0	6	4
32	30	1-1	2	AGNO-3	9.5	0.48	21.9	0.3	0	6	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA-CITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1- 1 LUZON GRID.									
01	GEO-THERMAL 1	2	1995	-	330.0	0.73	495.0	16.5	203.0
02	MATUNO	5	1997	-	180.0	0.30	267.0	4.0	90.9
03	COAL THERMAL 1	4	1998	-	300.0	0.70	360.0	42.1	167.4
04	GEO-THERMAL 2	2	1999	-	330.0	0.73	495.0	15.5	144.5
05	COAL THERMAL 2	4	2000	-	300.0	0.70	360.0	42.1	133.4
06	GEO-THERMAL 3	2	2001	-	330.0	0.73	495.0	16.5	115.2
07	COAL THERMAL 3	4	2002	-	600.0	0.70	720.0	84.3	212.7
08	GEO-THERMAL 4	2	2003	-	330.0	0.73	495.0	16.5	91.8
09	COAL THERMAL 4	4	2004	-	300.0	0.70	360.0	42.1	84.8
10	SAN ROGUE	6	2005	-	390.0	0.32	409.2	6.1	56.2

\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12 1.00

CASE...D-5

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2308.0	14148.0
1986	2400.0	14714.0
1987	2496.0	15303.0
1988	2595.0	15914.0
1989	2699.0	16551.0
1990	2807.0	17213.0
1991	2919.0	17902.0
1992	3036.0	18618.0
1993	3158.0	19363.0
1994	3284.0	20138.0
1995	3415.0	20943.0
1996	3552.0	21781.0
1997	3694.0	22652.0
1998	3842.0	23558.0
1999	3995.0	24501.0
2000	4155.0	25481.0
2001	4321.0	26500.0
2002	4494.0	27561.0
2003	4674.0	28663.0
2004	4861.0	29810.0
2005	5055.0	31002.0



\*\*\*\*\*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	TYPE	COMIS. YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF UNIT	REMARK :
1	1-2-8-1	MAGAT	0	6	1983	360.00	814.40	0.26	4	EXISTING
2	1-2-8-2	CASECNAN TBD	2	6	1995	268.00	1379.00	0.59	3	COMMITTED. POWER UP IN PANTABANG
3	1-3-25-3	ANGAT	0	6	1967	228.00	515.70	0.26	7	EXISTING
4	1-3-25-4	PANTABANGAN	0	6	1977	100.00	226.20	0.26	2	EXISTING
5	1-3-25-5	MASINAY	0	6	1981	12.00	27.10	0.26	1	EXISTING
6	1-3-77-1	AMBUKLAO	0	6	1956	75.00	169.70	0.26	3	EXISTING
7	1-3-77-2	BINGA	0	6	1960	100.00	226.20	0.26	4	EXISTING
8	1-4-7-4	PANTAI	2	6	1993	23.00	154.00	0.76	2	COMMITTED
9	1-4-15-1	CALIRAYA	0	6	1945	32.00	72.40	0.26	4	EXISTING
10	1-4-15-2	BOTOCAN	0	6	1948	17.00	38.50	0.26	3	EXISTING
11	1-4-15-3	KALAYAAN	0	6	1983	300.00	678.60	0.26	2	EXISTINGE PUMPED STORAGE
12	1-5-48-1	BUHI-BARIT	0	6	1957	1.80	4.10	0.26	1	EXISTING
13	1-5-91-2	CAWAYAN	0	6	1959	0.40	0.90	0.26	1	EXISTING

NOTES: DEVELOPMENT GRADE:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED

TYPE OF PLANTS:

- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTHERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	UNIT CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1- 1- 2- 1-1	ISABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
2	1- 1- 2- 1-2	ISABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
3	1- 1- 3- 1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
4	1- 1- 3- 1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
5	1- 1- 4- 1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
6	1- 1- 4- 1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
7	1- 1- 4- 2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
8	1- 1- 4- 2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
9	1- 1- 4- 2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
10	1- 1- 4- 2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
11	1- 1- 4- 3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
12	1- 1- 4- 3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
13	1- 1- 4- 4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
14	1- 1- 4- 4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
15	1- 1- 4- 4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1- 1- 4- 5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
17	1- 1- 4- 5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
18	1- 1- 4- 6-1	SACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1- 1- 5- 1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1- 1- 88- 88-2	GEO-THERMAL 2	9	2	2000	55000.	6	0.730	LUZON GRID
21	1- 1- 88- 88-1	GEO-THERMAL 1	9	2	1996	55000.	6	0.730	LUZON GRID
22	1- 1- 88- 88-4	GEO-THERMAL 4	9	2	2003	55000.	6	0.730	LUZON GRID
23	1- 1- 88- 88-3	GEO-THERMAL 3	9	2	2002	55000.	6	0.730	LUZON GRID
24	1- 1- 88- 99-2	COAL THERMAL 2	9	4	2001	300000.	1	0.700	LUZON GRID
25	1- 1- 88- 99-1	COAL THERMAL 1	9	4	1998	300000.	1	0.700	LUZON GRID
26	1- 1- 89- 99-3	COAL THERMAL 3	9	4	2004	300000.	1	0.700	LUZON GRID

\*\*\*\*\*  
 NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED  
 9 - CANDIDATE OF FIXED INST. YEAR

\*\*\*\*\*  
 TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE

RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT ID	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)			
1	1	1-1	6	SAN ROQUE	390.0	0.32	409.2	6.1	0	0	5
2	2	1-1	6	DIDUYON	352.0	0.29	469.2	7.0	0	0	5
3	3	1-1	6	MATUNO	180.0	0.30	267.0	4.0	0	0	5
4	4	1-1	6	BINONGAN	175.0	0.41	269.2	4.0	0	0	5
5	5	1-1	6	CHICO-4	360.0	0.23	534.9	8.0	0	0	5
6	6	1-1	6	GENED	600.0	0.24	801.5	12.0	0	0	5
7	7	1-1	6	AGOS	140.0	0.44	361.4	5.4	0	0	5
8	8	1-1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4
9	9	1-1	6	PALSIGUAN	42.0	0.50	173.1	2.6	0	0	5
10	10	1-1	6	SUPO	141.8	0.32	258.0	3.9	0	0	5
11	11	1-1	6	ETEB	107.2	0.30	225.8	3.4	0	0	5
12	12	1-1	6	SISTRITAN	417.6	0.26	610.5	9.2	0	0	5
13	13	1-1	6	AGBULU	216.2	0.31	403.0	6.0	0	0	5
14	14	1-1	6	SADANGA ALT	299.4	0.28	600.1	9.0	0	0	5
15	15	1-1	6	TABU	138.6	0.31	312.2	4.7	0	0	5
16	16	1-1	6	UP.AGOS-2	135.4	0.36	285.2	4.3	0	0	5
17	17	1-1	6	WAWA	61.0	0.37	175.2	2.6	0	0	5
18	18	1-1	6	NAGUILIAN	36.9	0.35	48.5	0.7	0	0	4
19	19	1-1	6	LUYA	40.8	0.35	60.3	0.9	0	0	4
20	20	1-1	6	BAKUM	33.0	0.35	35.4	0.5	0	0	4
21	21	1-1	6	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	4
22	22	1-1	6	ABRA	10.9	0.41	21.5	0.3	0	0	4
23	23	1-1	6	APAYAO	15.8	0.46	39.4	0.6	0	0	4
24	24	1-1	6	CHICO-1R	27.3	0.46	40.7	0.6	0	0	4
25	25	1-1	6	CHICO-2R	34.5	0.46	43.3	0.6	0	0	4
26	26	1-1	6	SALTAN	12.6	0.46	25.2	0.4	0	0	4
27	27	1-1	6	PASIL	20.2	0.46	30.0	0.4	0	0	4
28	28	1-1	6	TANUDAN	24.8	0.46	34.0	0.5	0	0	4
29	29	1-1	6	IBULAO	16.5	0.44	29.3	0.4	0	0	4
30	30	1-1	6	CASECNAN	11.5	0.46	28.1	0.4	0	0	4
31	31	1-1	6	UP.CASECNAN	12.4	0.46	31.6	0.5	0	0	4
32	32	1-1	6	AGNO-2	10.9	0.47	24.5	0.4	0	0	4
33	33	1-1	6	AGNO-3	9.5	0.48	21.9	0.3	0	0	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. CONNE. YEAR	CAPA- CITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		PRESENT WORTH (MIL US\$)
						CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1- 1 LUZON GRID								
01	GEO-THERMAL 1	2	1996	330.0	0.73	495.0	16.5	203.0
02	COAL THERMAL 1	4	1998	300.0	0.70	360.0	42.1	167.4
03	BINONGAN	6	1999	175.0	0.41	269.2	4.0	73.1
04	GEO-THERMAL 2	2	2000	330.0	0.73	495.0	16.5	129.0
05	COAL THERMAL 2	4	2001	300.0	0.70	360.0	42.1	119.1
06	GEO-THERMAL 3	2	2002	330.0	0.73	495.0	16.5	102.8
07	TANUDAN	1	2002	24.8	0.46	34.0	0.5	6.1
08	GEO-THERMAL 4	2	2003	330.0	0.73	495.0	16.5	91.8
09	COAL THERMAL 3	4	2004	300.0	0.70	360.0	42.1	84.8
10	SAN ROQUE	6	2005	390.0	0.32	409.2	6.1	56.2

\*\*\*\*\*  
\* PRIORITY RANKING STUDY \*  
\*\*\*\*\*

LUZON GRID

SYSTEM NAME: LUZON HPPS  
AREA ID : 1- 1

-----  
PARAMETERS FOR THE DISCOUNTING TECHNIQUE  
-----

BASE YEAR : 1985  
YEAR ON INVESTMENT HORIZON : 2005  
YEAR ON PLANNING HORIZON : 2035  
RESERVE CAPACITY : 0.

-----  
CALCULATION COMBINATION  
-----

DISCOUNT RATE COST ESCALATION

0.12 1.00

CASE...D-6.

DEMAND CURVE

YEAR	POWER (MW)	ENERGY (GWH)
1985	2308.0	14148.0
1986	2400.0	14714.0
1987	2496.0	15303.0
1988	2595.0	15914.0
1989	2699.0	16551.0
1990	2807.0	17213.0
1991	2919.0	17902.0
1992	3036.0	18618.0
1993	3158.0	19363.0
1994	3284.0	20138.0
1995	3415.0	20943.0
1996	3552.0	21781.0
1997	3694.0	22652.0
1998	3842.0	23558.0
1999	3995.0	24501.0
2000	4155.0	25481.0
2001	4321.0	26500.0
2002	4494.0	27561.0
2003	4674.0	28663.0
2004	4861.0	29810.0
2005	5055.0	31002.0

\*\*\*\*\*  
 \* TABLE OF EXISTING - HYDRO POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. TYPE	COMIS. YEAR	INSTALL CAPACITY (MW)	GENERATED ENERGY (GWH)	PLANT FACTOR	NO. OF UNIT	REMARK :
1	1-2-8-1	MAGAT	0	1983	360.00	814.40	0.26	4	EXISTING
2	1-2-8-2	CASECNAI TBD	2	1995	268.00	1379.00	0.59	3	COMMITTED, POWER UP IN PANTABANG
3	1-3-25-3	ANGAT	0	1967	228.00	515.70	0.26	7	EXISTING
4	1-3-25-4	PANTABANGAN	0	1977	100.00	226.20	0.26	2	EXISTING
5	1-3-25-5	MASIWAY	0	1981	12.00	27.10	0.26	1	EXISTING
6	1-3-77-1	AMBUKLAO	0	1956	75.00	169.70	0.26	3	EXISTING
7	1-3-77-2	BINGA	0	1960	100.00	226.20	0.26	4	EXISTING
8	1-4-7-4	PANTAI	2	1993	23.00	154.00	0.76	2	COMMITTED
9	1-4-15-1	CALIRAYA	0	1945	32.00	72.40	0.26	4	EXISTING
10	1-4-15-2	BOTOCAN	0	1948	17.00	38.50	0.26	3	EXISTING
11	1-4-15-3	KALAYAAN	0	1983	300.00	678.60	0.26	2	EXISTINGE PUMPED STORAGE
12	1-5-48-1	BUHI-BARIT	0	1957	1.80	4.10	0.26	1	EXISTING
13	1-5-91-2	CAWAYAN	0	1959	0.40	0.90	0.26	1	EXISTING

NOTES: DEVELOPMENT GRADE:

- 0 - EXISTING
- 1 - UNDER CONSTRUCTION
- 2 - COMMITTED

TYPE OF PLANTS:

- 1 - R-O-R FOR BASE LOAD
- 2 - GEOTHERMAL
- 3 - R-O-R FOR DAILY PEAKING
- 4 - COAL FIRED
- 5 - OIL FIRED
- 6 - HYDRO WITH RESERVOIR TYPE
- 7 - DIESEL
- 8 - GAS TURBINE

\*\*\*\*\*  
 \*  
 \* TABLE OF EXISTING THERMAL POWER PLANTS \*  
 \*  
 \*\*\*\*\*

NO.	ID NO.	NAME OF PLANTS	DEVEL. GRADE	PLANT TYPE	COMIS. YEAR	CAPACITY (KW)	NO. OF UNIT	PLANT FACTOR	REMARK :
1	1-1-2-1-2	SABELA 3	2	4	1994	100000.	1	0.700	LUZON GRID
2	1-1-2-1-1	SABELA 1-2	2	4	1993	100000.	2	0.700	LUZON GRID
3	1-1-3-1-2	BATAAN 2	0	5	1977	150000.	1	0.470	LUZON GRID
4	1-1-3-1-1	BATAAN 1	0	5	1972	75000.	1	0.470	LUZON GRID
5	1-1-4-1-1	MANILA 1	0	5	1965	100000.	1	0.470	LUZON GRID
6	1-1-4-1-2	MANILA 2	0	5	1966	100000.	1	0.470	LUZON GRID
7	1-1-4-2-1	SUCAT 1	0	5	1968	150000.	1	0.470	LUZON GRID
8	1-1-4-2-2	SUCAT 2	0	5	1970	200000.	1	0.470	LUZON GRID
9	1-1-4-2-3	SUCAT 3	0	5	1971	200000.	1	0.470	LUZON GRID
10	1-1-4-2-4	SUCAT 4	0	5	1972	300000.	1	0.470	LUZON GRID
11	1-1-4-3-1	MALAYA 1	0	5	1974	300000.	1	0.470	LUZON GRID
12	1-1-4-3-2	MALAYA 2	0	5	1979	350000.	1	0.470	LUZON GRID
13	1-1-4-4-2	MAK-BAN 3-4	0	2	1980	55000.	2	0.730	LUZON GRID
14	1-1-4-4-1	MAK-BAN 1-2	0	2	1979	55000.	2	0.730	LUZON GRID
15	1-1-4-4-3	MAK-BAN 5-6	0	2	1984	55000.	2	0.730	LUZON GRID
16	1-1-4-5-2	CALACA 2	2	4	1992	300000.	1	0.700	LUZON GRID
17	1-1-4-5-1	CALACA 1	0	4	1984	300000.	1	0.700	LUZON GRID
18	1-1-4-6-1	BACON MANITO	2	2	1991	55000.	2	0.730	LUZON GRID
19	1-1-5-1-1	TIWI	0	2	1979	55000.	6	0.730	LUZON GRID
20	1-88-88-1	GEO-THERMAL 1	9	2	1996	55000.	6	0.730	LUZON GRID
21	1-88-88-2	GEO-THERMAL 2	9	2	1998	55000.	6	0.730	LUZON GRID
22	1-88-88-3	GEO-THERMAL 3	9	2	2001	55000.	6	0.730	LUZON GRID
23	1-88-88-4	GEO-THERMAL 4	9	2	2002	55000.	6	0.730	LUZON GRID
24	1-89-89-1	COAL THERMAL 1	9	4	2000	300000.	1	0.700	LUZON GRID
25	1-89-89-2	COAL THERMAL 2	9	4	2004	600000.	1	0.700	LUZON GRID

NOTES: DEVELOPMENT GRADE:  
 0 - EXISTING  
 1 - UNDER CONSTRUCTION  
 2 - COMMITTED OF FIXED INST. YEAR  
 9 - CANDIDATE OF FIXED INST. YEAR

TYPE OF PLANTS:  
 1 - R-O-R FOR BASE LOAD  
 2 - GEOTHERMAL  
 3 - R-O-R FOR DAILY PEAKING  
 4 - COAL FIRED  
 5 - OIL FIRED  
 6 - HYDRO WITH RESERVOIR TYPE  
 7 - DIESEL  
 8 - GAS TURBINE



RESULTS OF PRIORITY RANKING STUDY

CALCULATION CASE: 1  
 DISCOUNT RATE : 0.12  
 COST ESCALATION : 1.00

LIST OF CANDIDATE PROJECTS

SER. NO.	PLANT NO.	PROJECT ID	TYPE	NAME OF PROJECT	INSTALLED CAPACITY (MW)	ASSUMED MAXIMUM P.F.	C O S T		STAGE DEVELOP. INDEX	PRE-CONSTRUCTION LEAD TIME (YEARS)	CONST-RUCTION PERIOD (YEARS)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)			
1	1	1-1	6	SAN ROQUE	390.0	0.32	409.2	6.1	0	0	5
2	2	1-1	6	DIDUYON	352.0	0.29	465.2	7.0	0	0	5
3	3	1-1	6	MATUNO	180.0	0.30	267.0	4.0	0	0	5
4	4	1-1	6	BINONGAN	175.0	0.41	269.2	4.0	0	0	5
5	5	1-1	6	CHICO-4	360.0	0.23	534.9	9.0	0	0	5
6	6	1-1	6	GENED	600.0	0.24	801.5	12.0	0	0	5
7	7	1-1	6	AGOS	140.0	0.44	361.4	5.4	0	0	5
8	8	1-1	6	BALOG-BALOG	33.0	0.27	39.9	0.6	0	0	4
9	9	1-1	6	PALSIGUAN	42.0	0.50	173.1	2.6	0	0	4
10	10	1-1	6	SUPO	141.8	0.32	258.0	3.9	0	0	5
11	11	1-1	6	ETEB	107.2	0.30	225.8	3.4	0	0	5
12	12	1-1	6	SISRITAN	417.6	0.26	610.5	9.2	0	0	5
13	13	1-1	6	AGBULU	216.2	0.31	403.0	6.0	0	0	5
14	14	1-1	6	SADANGA ALT	299.4	0.28	600.1	9.0	0	0	5
15	15	1-1	6	TABU	138.6	0.31	312.2	4.7	0	0	5
16	16	1-1	6	UP-AGOS-2	135.4	0.36	285.2	4.3	0	0	5
17	17	1-1	6	WAWA	61.0	0.37	175.2	2.6	0	0	5
18	18	1-1	2	NAGULIAN	36.9	0.35	48.5	0.7	0	0	4
19	19	1-1	2	LUYA	40.8	0.35	60.3	0.9	0	0	4
20	20	1-1	2	BAKUM	33.0	0.35	35.4	0.5	0	0	4
21	21	1-1	2	AMBURAYAN	64.0	0.34	75.4	1.1	0	0	4
22	22	1-1	2	ABRA	10.9	0.41	21.5	0.3	0	0	4
23	23	1-1	2	APAYAO	15.8	0.46	39.4	0.6	0	0	4
24	24	1-1	2	CHICO-1R	27.3	0.46	40.7	0.6	0	0	4
25	25	1-1	2	CHICO-2R	34.5	0.46	43.3	0.6	0	0	4
26	26	1-1	2	SALTAN	12.6	0.46	25.2	0.4	0	0	4
27	27	1-1	2	PASIL	20.2	0.46	30.0	0.4	0	0	4
28	28	1-1	2	TANUDAN	24.8	0.46	34.0	0.5	0	0	4
29	29	1-1	2	IBULAO	16.5	0.44	25.3	0.4	0	0	4
30	30	1-1	2	CASECNAV	11.5	0.46	28.1	0.4	0	0	4
31	31	1-1	2	UP-CASECNAV	12.4	0.46	31.6	0.5	0	0	4
32	32	1-1	2	AGNO-2	10.9	0.47	24.5	0.4	0	0	4
33	33	1-1	2	AGNO-3	9.5	0.48	21.9	0.3	0	0	4

\*\*\*\*\*  
 \* SUMMARY OF PRIORITY RANKING \*  
 \*\*\*\*\*

LIST OF SCREENED PROJECTS

NO	NAME	TYPE	INST. YEAR	CONNE. YEAR	CAPA- CITY (MW)	ASSUMED MAXIMUM P.F.	COST		PRESENT WORTH (MIL US\$)
							CAPITAL (MIL US\$)	OPERATION (MIL US\$)	
STUDY AREA : 1-1 LUZON GRID									
01	GEO-THERMAL 1	2	1986	-	330.0	0.73	495.0	16.5	203.0
02	GEO-THERMAL 2	2	1998	-	330.0	0.73	495.0	16.5	161.6
03	AMBURAYAN	1	1999	-	64.0	0.34	75.4	1.1	19.1
04	COAL THERMAL 1	4	2000	-	300.0	0.70	360.0	42.1	133.4
05	GEO-THERMAL 3	2	2001	-	330.0	0.73	495.0	16.5	115.2
06	CHICO-2R	1	2001	-	34.5	0.46	43.3	0.6	8.7
07	GEO-THERMAL 4	2	2002	-	330.0	0.73	495.0	16.5	102.8
08	PALSIGUAN	6	2002	-	42.0	0.50	173.1	2.6	33.4
09	SAN ROQUE	6	2003	-	390.0	0.32	409.2	6.1	70.5
10	COAL THERMAL 2	4	2004	-	600.0	0.70	720.0	84.3	169.6







