

国際協力事業団

タイ国発電公社

タイ王国

タイ国首都圏送変電設備増強計画調査

最終報告書

付 録

1993年 8 月

電源開発株式会社

鉦 調 資

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タイ王国 タイ国首都圏送変電設備増強計画調査 最終報告書 付 録

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国際協力事業団

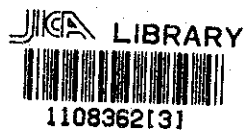
タイ国発電公社

タ イ 王 国

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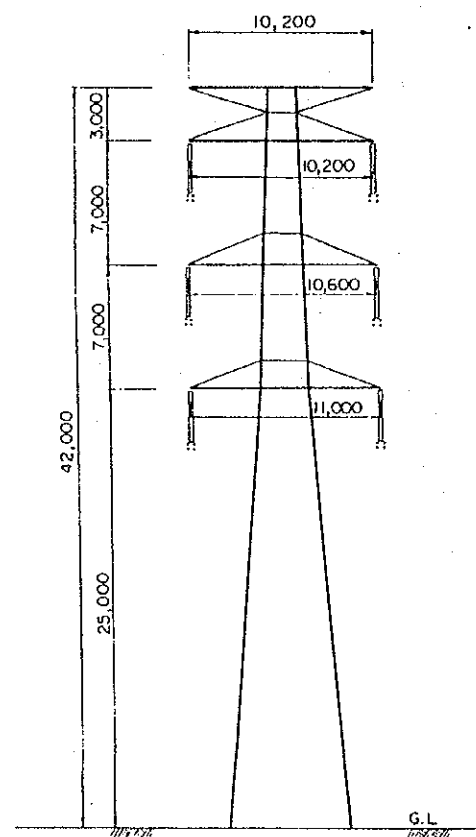
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APPENDIX 1

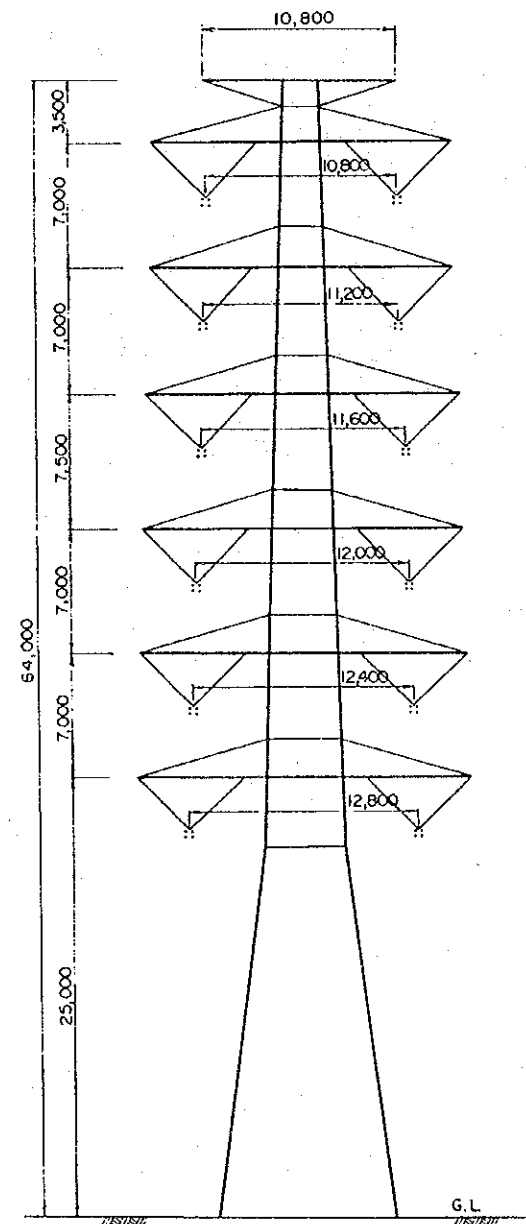
Appendix
Table 6-A
full name and abbreviation of each substation in Thailand

NO.	SUBSTATIONS	ABBR.	NO.	SUBSTATIONS	ABBR.	NO.	SUBSTATIONS	ABBR.
1.	AMNAT CHAROEN	AN	81.	LAM TAKHONG	LTK	161.	PHRAE	PR
2.	ANG THONG 1&2	AT1&2	82.	LAMPANG 1&2	LP1&2	162.	PHUKET 1&2	PK1&2
3.	AO PHAI 1&2	AP1&2*	83.	LAMPHUN 1&2	LN1&2	163.	PHUNPHIT	PP
4.	AO UDOM	AU	84.	LAN KRABU	LKB	164.	PONG BOK	PBO
5.	ARANYAPRATHEI	AR	85.	LAT PHRAO	LPR	165.	PRACHIN BURI 1&2	PA1&2
6.	AYUTTHAYA 1&2	AY1&2	86.	LANG SUAN	LSN	166.	PRACHUAP KHITRI KHAN	PKK
7.	BAHNET NARONG	BNN	87.	LI	LI	167.	PRAKHON CHAI	PKC
8.	BAN BUNG	BBC	88.	LOEI	LE	168.	PRAN BURI	PRB
9.	BAN COK CHANG	BCC	89.	LOM SAK	LS	169.	PRAN BURI POWER STATION	PRP
10.	BAN DON	BON	90.	LOP BURI 1&2	LB1&2	170.	RAJAPRABHA (CHIEW LARN)	RPB
11.	BAN DUNG	BDC	91.	LOWER MAE PING	LMP	171.	RAOCHIT	RS
12.	BAN KHUN KLANG	BKG	92.	MAE CHAEM	MC	172.	RANDONG	RN
13.	BAN NA SAN	BNS	93.	MAE CHAN	MCH	173.	RANOT	RA
14.	BAN PHAI	BPI	94.	MAE HONG SON	MH	174.	RATCHABURI 112	RB1&2
15.	BAN PONG 1&2	BP1&2	95.	MAE KHAM	MKH*	175.	RATCHADAPHISEK	RPS
16.	BAN SANTI	BST	96.	MAE KOK	MKK	176.	RAYONG 1,2&3	RY1,2&3
17.	BAN YANG	BYG	97.	MAE KUM LUANG (NEA)	MKL	177.	ROI ET	RE
18.	BANG KAPI	BK	98.	MAE KUANG	MKG	178.	SABA YOT	SBY
19.	BANG LAHUNG	BL	99.	MAE LAHA LUANG	MLL	179.	SABAO	SBO
20.	BANG LANG	BLG	100.	MAE MOH 1,2&3	MM1,2&3	180.	SAI NOI	SNO
21.	BANG MUN NAK	BMN	101.	MAE NGAI	MNG	181.	SAI BURI	SBR
22.	BANG PA-IN 1&2	BI1&2	102.	MAE SA-NGA	MSH	182.	SAKON NAKHON	SON
23.	BANG PAKONG	BPK	103.	MAE SARIANG	MSR	183.	SALOKBAT	SLB
24.	BANG PHLI	BPL	104.	MAE SOT	MS	184.	SAM PHRAN 1&2	SA1&2
25.	BANG SAPHAN	BSP	105.	MAE TAENG	MTG	185.	SAHUT SAKHON 1&2	SN1&2
26.	BANGKOK NOI	BN	106.	MAHA SARAKHAM	MK	186.	SAHUT SONOKIRAM	SH
27.	BETONG	BT	107.	MANDROM	MR	187.	SAN KAMPHAENG	SKP
28.	BHUMIBOL	BB	108.	MAP TA PHUT	MTP	188.	SARABURI 1&2	SR1&2
29.	BO WIN	BWN	109.	MUKDAHAN	MD	189.	SARABURI 3&4	SR3&4
30.	BUNG KAN	BKN	110.	NA KAE (OUT OF SERVICE)	NE	190.	SATTAPHI 1&2	SH1&2
31.	BUNG SAM PHAN	BGS	111.	NAKHON CHAI SI	NCS	191.	SATUN	STU
32.	BURI RAM	BR	112.	NAKHON NAYOK	NY	192.	SAWANKHALOK	SL
33.	CHA-AM	CA	113.	NAKHON PATHOM	NPT	193.	SI RACHA	SC
34.	CHACHOENGSAO	CC	114.	NAKHON PHANOM	NN	194.	SI SA KET	SS
35.	CHAEANG WATTHANA	CHW	115.	NAKHON RATCHASIMA 1&2	NR1&2	195.	SIKHIT	SKI
36.	CHAI BADAN	CBD	116.	NAKHON SAWAN	NS	196.	SING BURI	SI
37.	CHAIYAPHUM	CYP	117.	NAKHON SI THAMMARAT	NT	197.	SIN PHU	SPU
38.	CHANITHABURI	CT	118.	NAM CHOEN	NCE	198.	SIRIKIT	SK
39.	CHIANG KAN	CKN	119.	NAM CHON	NCN	199.	STRINDHORN	SRD
40.	CHIANG MAI 1,2&3	CM1,2&3	120.	NAM HAENG	NHA	200.	SOMDET	SD
41.	CHIANG RAI	CR	121.	NAM KHEK	NAK	201.	SONGKHLA	SKL
42.	CHOK CHAI	CCI	122.	NAM LOEI	NLE	202.	SOUTH BANGKOK	SO
43.	CHOM THONG	CTG	123.	NAM MAN	NM	203.	SOUTH THON BURI	STB
44.	CHOM THIEU	CTN	124.	NAM NGAO	NNA	204.	SIRINAGARIND	SNR
45.	CHON BURI	CB	125.	NAM NGUAM	NNG	205.	SUKHOTHAI	ST
46.	CHONG KHAM	CHK	126.	NAM PAI	NPI	206.	SUNGAI KOLOK	SUK
47.	CHONG MEK	CMK	127.	NAM PHONG 1&2	NPDI&2	207.	SUPHAN BURI	SP
48.	CHULABHORN	CLB	128.	NAM PUNG	NP	208.	SURAT THANI	SRT
49.	CHUM PHAE	CPA	129.	NAM SAN	NSN	209.	SURIN	SU
50.	CHUMPHON	CP	130.	NAM SU	NAS	210.	TAK 1&2	TA1&2
51.	DET UDOM	DD	131.	NAM THEUN	NTN	211.	TAKILI 1&2	TK1&2
52.	DOEMBANG NANGBUAT	DBN	132.	NAM YUAM	NYU	212.	TAKUA PA	TP
53.	FANG	FA	133.	NAN	NA	213.	TA MOON	TMO
54.	GREATER BANGKOK	BKK	134.	NARATHIWAT	NV	214.	THA HUANG	TH
55.	HAT YAI 1&2	HY1&2	135.	NONG BUA LAM PHU	NBL	215.	THALAN 1,2&3	TL1,2&3
56.	HUA HIN	HH	136.	NONG CHOK	NCO	216.	THAP THANI	TTN
57.	HUAI KUM	HK	137.	NONG HAN	NH	217.	THA TAKO	TTK
58.	HUAI NGAED	HNG	138.	NONG KHAI	NK	218.	THA THUNG NA	TH
59.	HUAI PHUKHI	HPK	139.	NORTH BANGKOK	NB	219.	THAI PHANOM	TH
60.	HUAI SAK	HSK	140.	NUCLEAR	NC	220.	THEPHARAK	TPR
61.	KABIN BURI	KBB	141.	ON NUCH	ON	221.	THI KHONG	TKH
62.	KAENG KRUNG	KKU	142.	PAK CHONG	PCH	222.	THOEN	TE
63.	KAENG SUA TEN	KST	143.	PAK MUN	PMN	223.	THONG	THG
64.	KALASIN	KL	144.	PAK SE	PSE	224.	THUNG SONG	TS
65.	KAMPHAENGPHET	KP	145.	PATHUM THANI	PT	225.	TRANG	TR
66.	KAMPHAENG SAEN	KS	146.	PATTANI	PTN	226.	TRAI	TR
67.	KANCHANABURI	KB	147.	PHACHIT	PH	227.	UBOL RATAHA	UR
68.	KAENG KRACHAN	KKC	148.	PHANAT NIKHOM	PNH	228.	UBON RATCHATHANI 1&2	UB1&2
69.	KANTANG	KY	149.	PHANG KHON	PHK	229.	UDON THANI 1&2	UD1&2
70.	KANTHARALAK	KRL	150.	PHANGNGA	PN	230.	UPPER MAE PING	UMP
71.	KHANOH	KN	151.	PHAT THALUNG	PTU	231.	UPPER PA SAK	UPS
72.	KHAO LAEM	KHL	152.	PHAYAKKAPHUM PHISAI	PYK	232.	U THONG	UTG
73.	KHILONG MAI	KLM	153.	PHAYAO	PY	233.	UTARADIT	UT
74.	KHON KAEN 1,2&3	KK1,2&3	154.	PHETCHABUN	PE	234.	WANG NOI	WN
75.	KHONG	KNG	155.	PHETCHABURI	PB	235.	WATTHANA NAKHON	WNK
76.	KIRIDHARN (HUA) SAPHAN HIN	KRD	156.	PHICHIT	PC	236.	WUENHANG	WHG
77.	KLAENG	KLA	157.	PHITSANULOK 1&2	PL1&2	237.	XESAI	XSE
78.	KRABI	KA	158.	PHOI	PO	238.	YALA	YL
79.	KUD	KUD	159.	PHON THONG	POT	239.	YASOTHON	YT
80.	LAM POK RA	LPR	160.	PHRA PHUTHABAT	PTB			

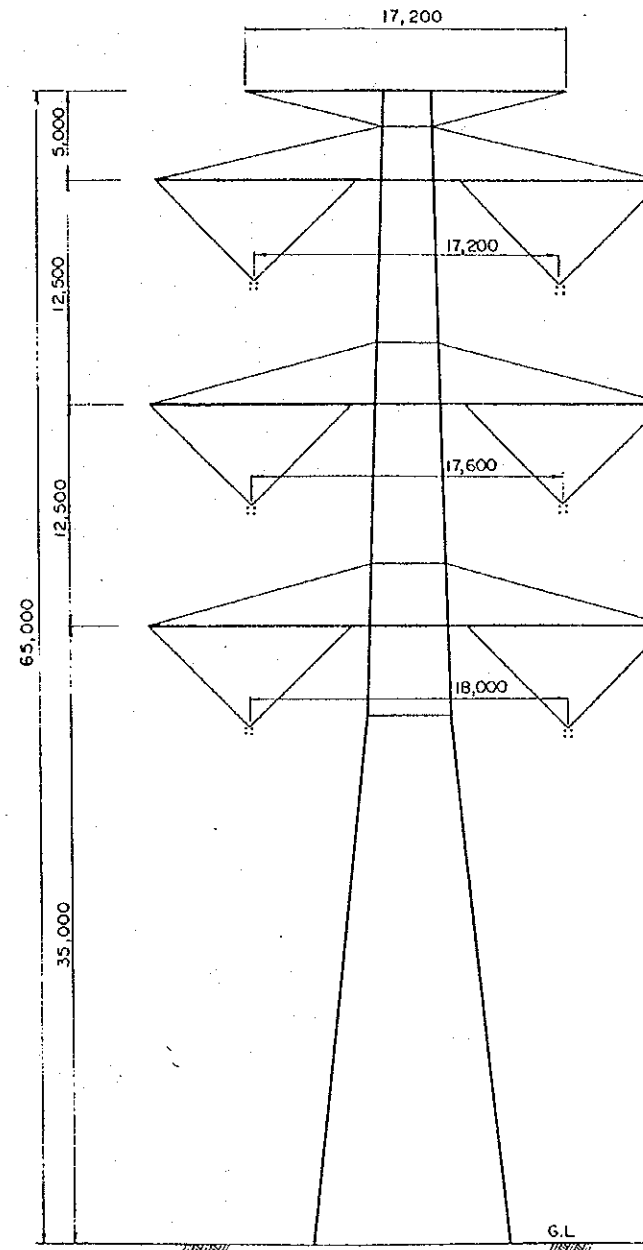
APPENDIX 2



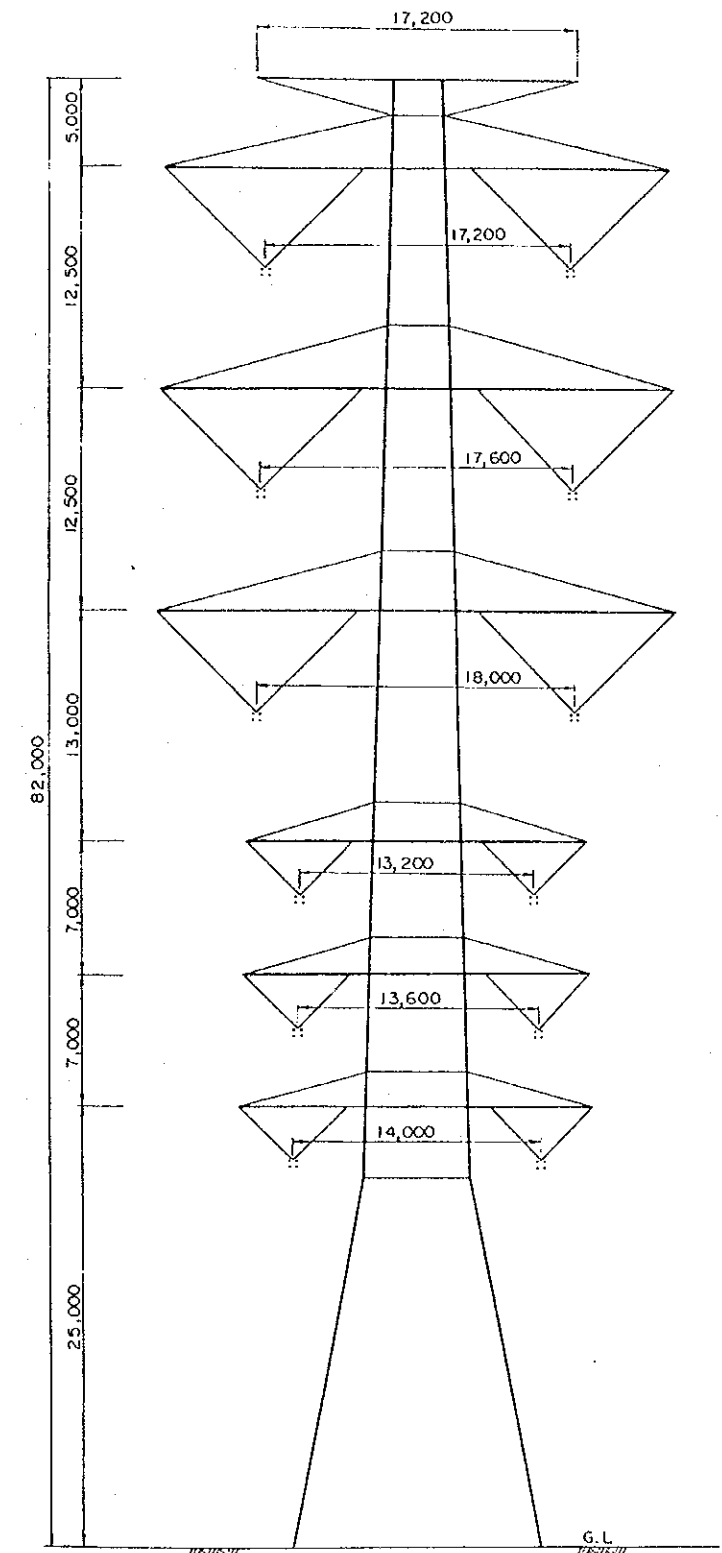
230 kV Double Circuit
Suspension Tower



230 kV 4 Circuit
Suspension Tower

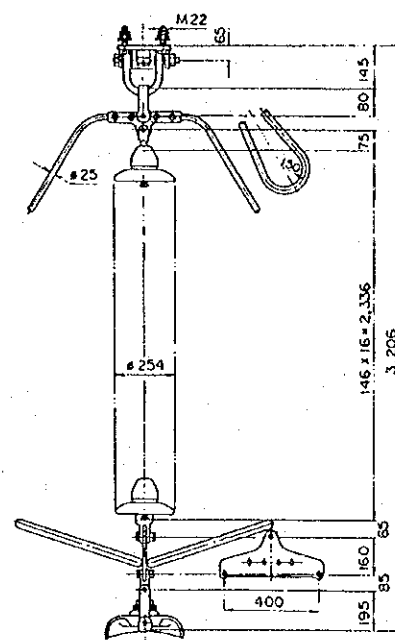


500kV Double Circuit
Suspension Tower

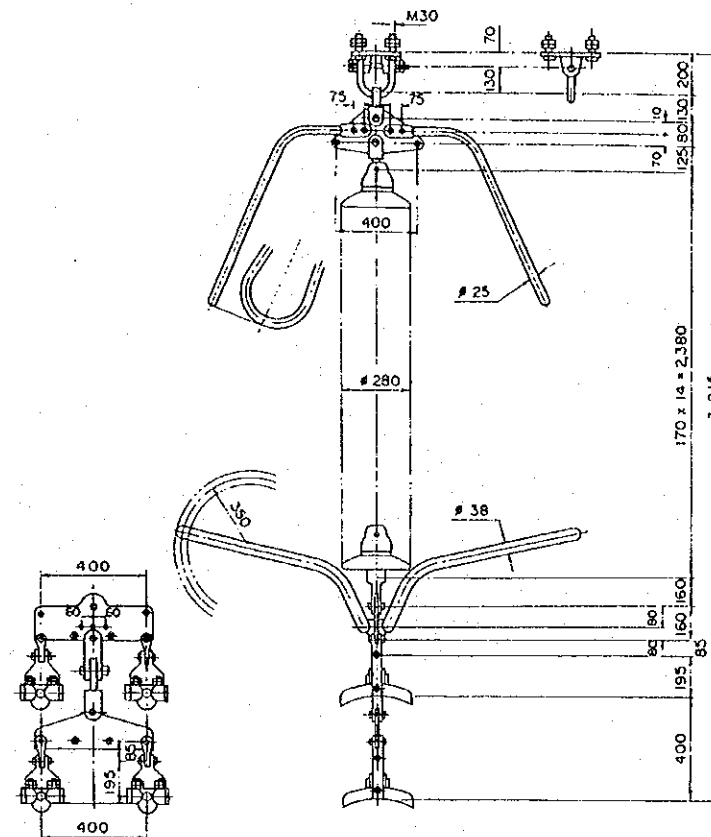


500kV & 275kV 4 Circuit
Suspension Tower

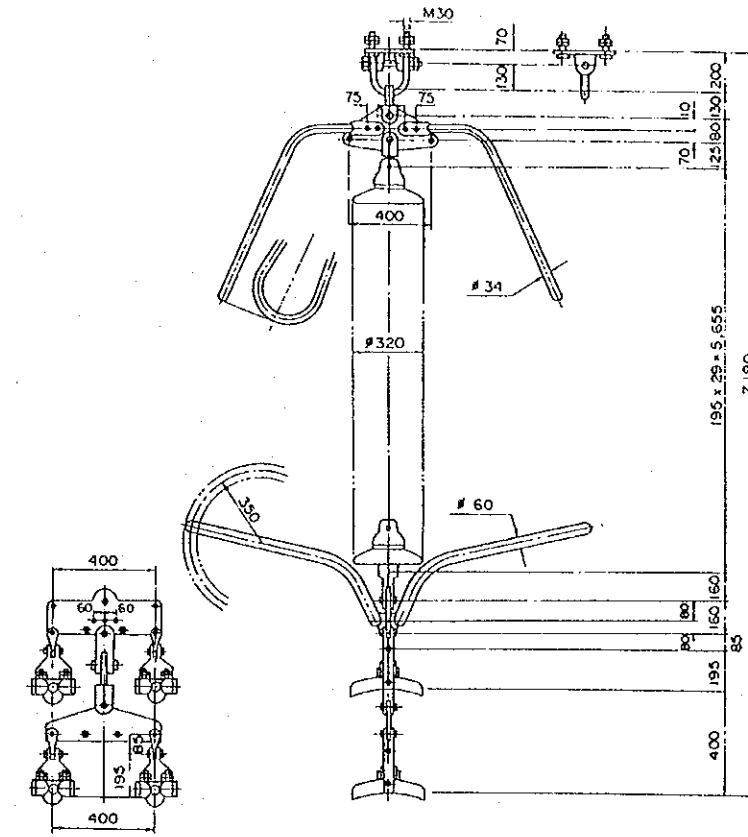
PRINCIPAL DIMENSION OF TOWERS



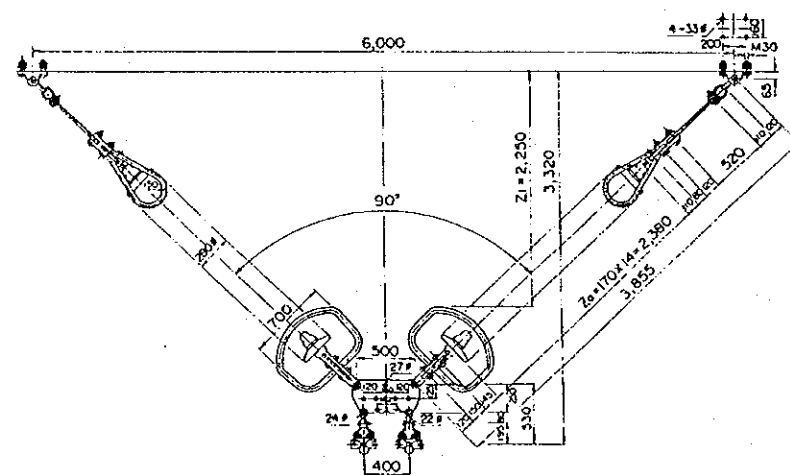
SINGLE SUSPENSION STRING
TWIN CONDUCTORS



SINGLE SUSPENSION STRING
4 BUNDLE CONDUCTORS

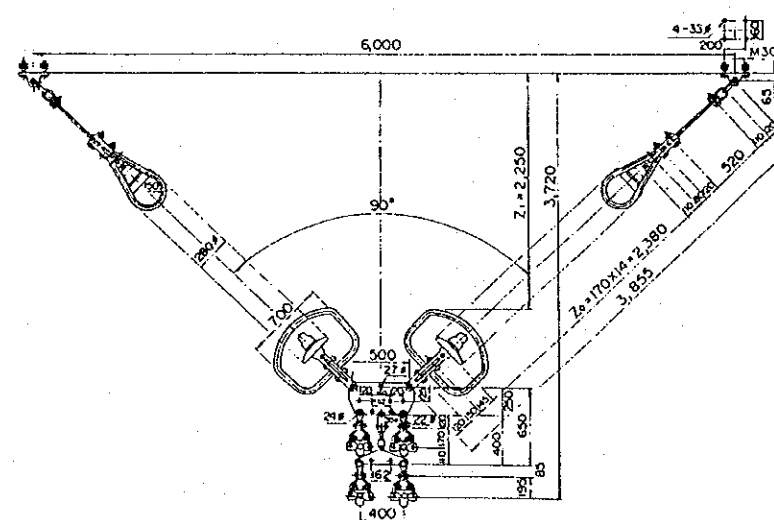


SINGLE SUSPENSION STRING
4 BUNDLE CONDUCTORS



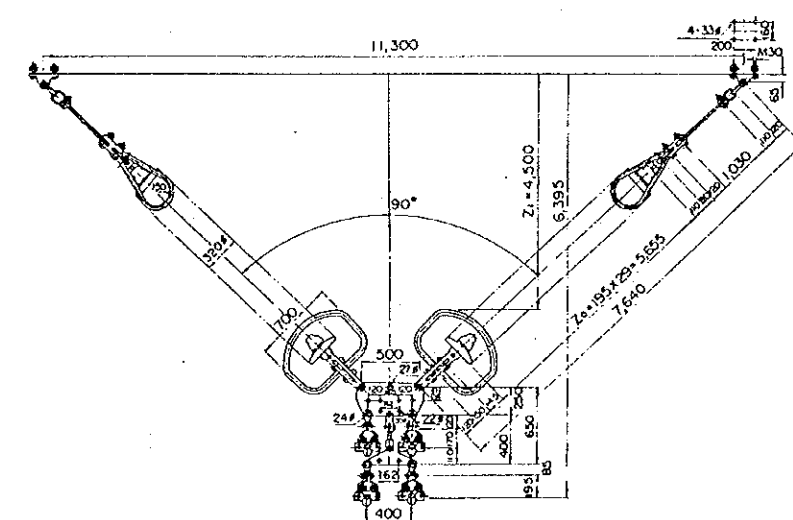
V TYPE SUSPENSION STRING
TWIN CONDUCTORS

230 kV LINE



V TYPE SUSPENSION STRING
4 BUNDLE CONDUCTORS

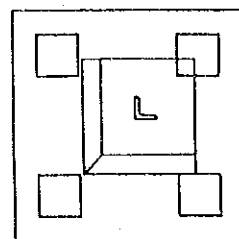
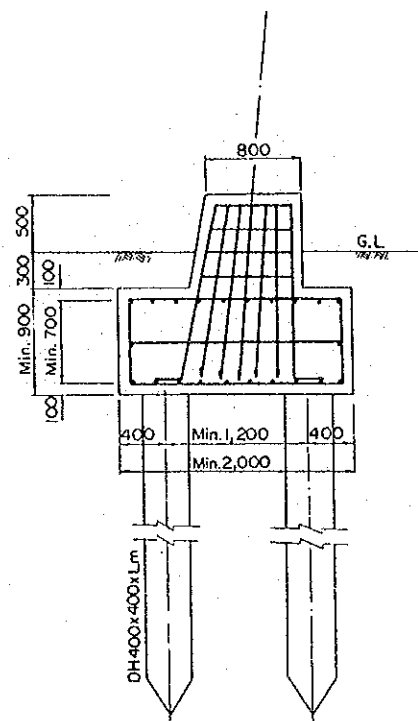
230 kV LINE



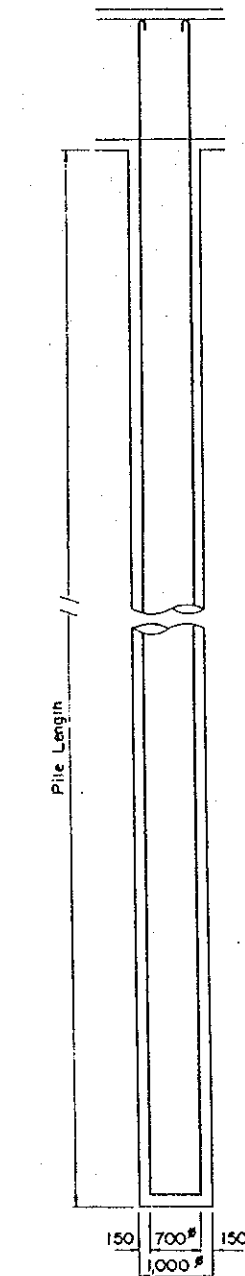
V TYPE SUSPENSION INSULATOR STRING
4 BUNDLE CONDUCTORS

500KV LINE

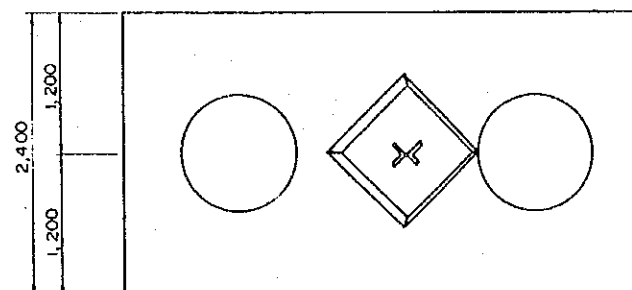
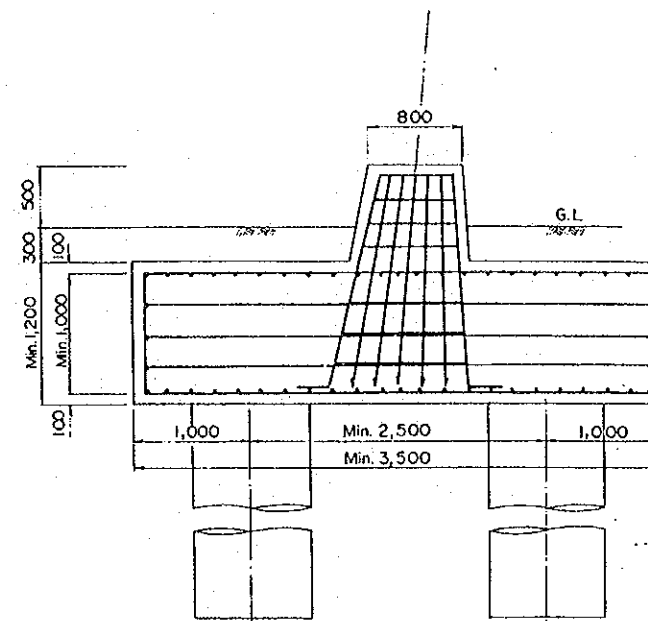
PRINCIPAL DIMENSION INSULATOR STRINGS



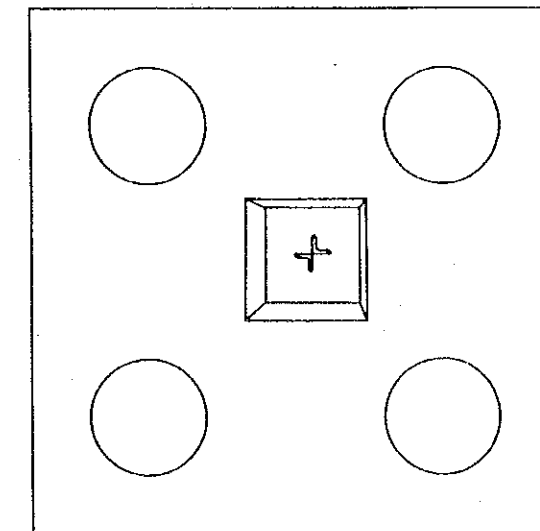
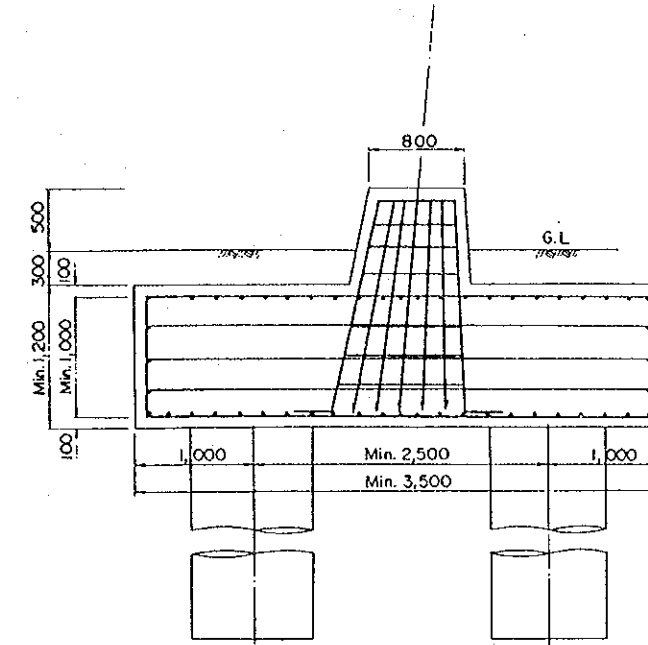
PILE FOUNDATION



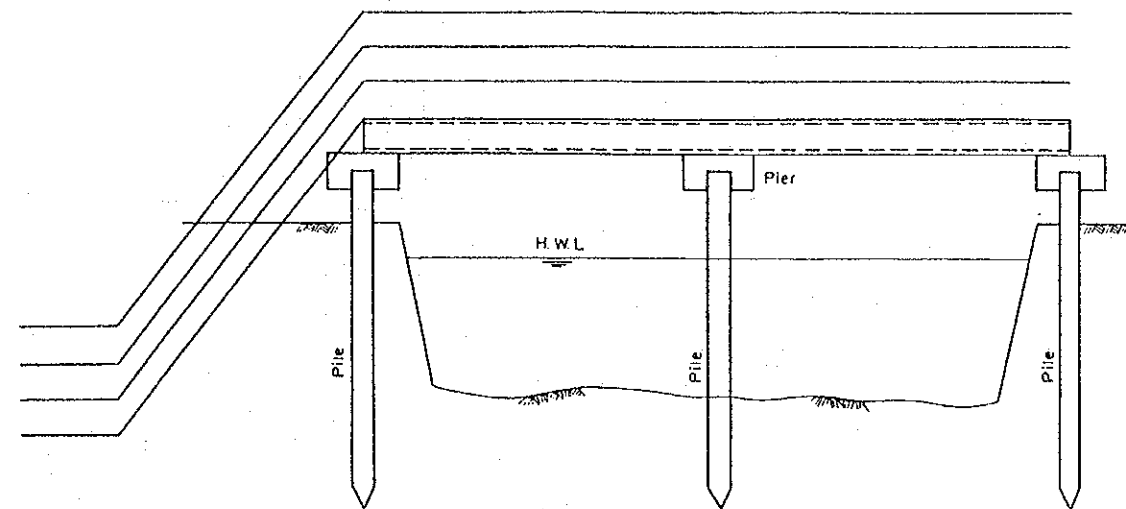
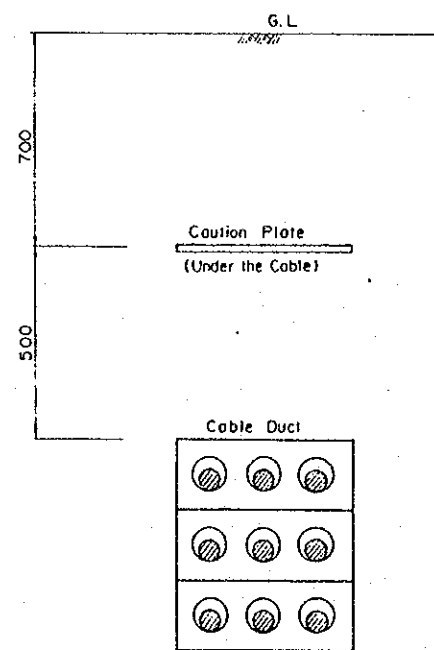
PLACE CASTING CONCRETE PILE



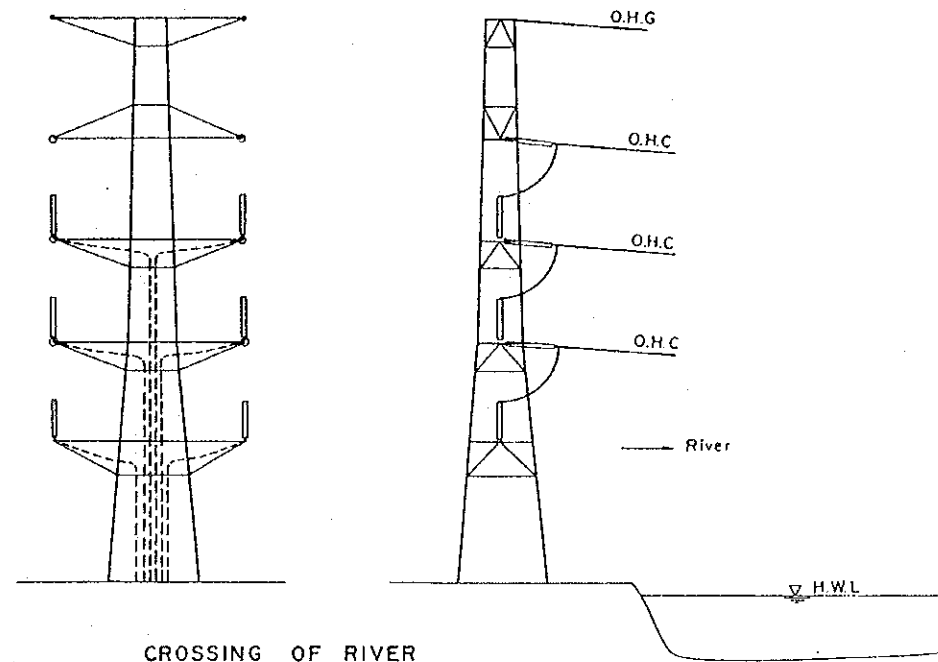
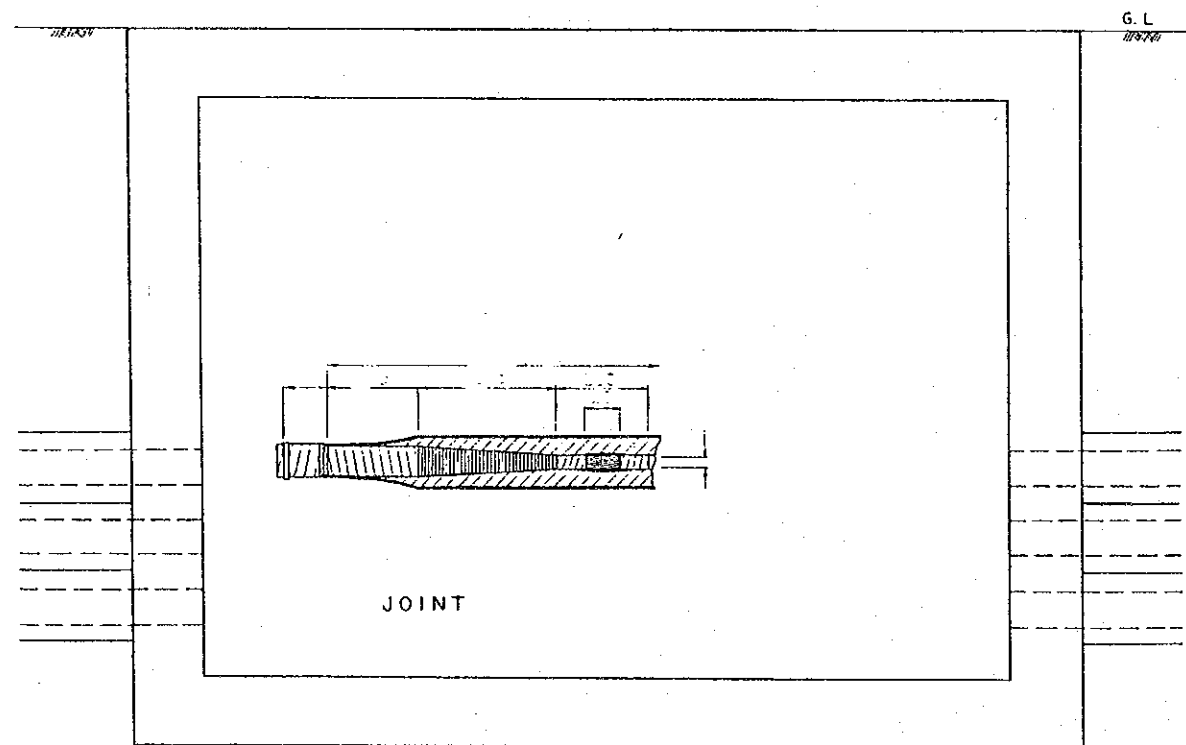
PILE FOUNDATION
(2 Piles)



PILE FOUNDATION
(4 Piles)

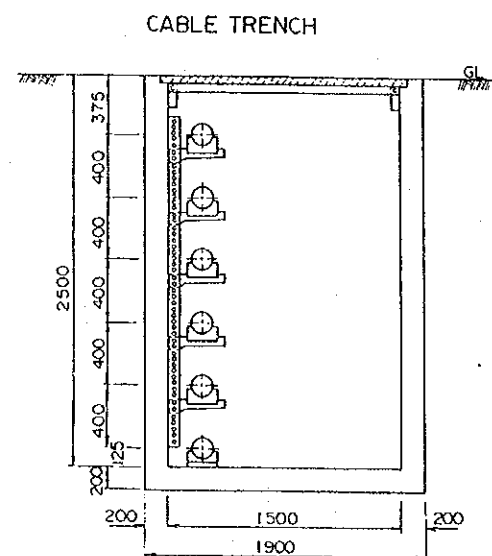
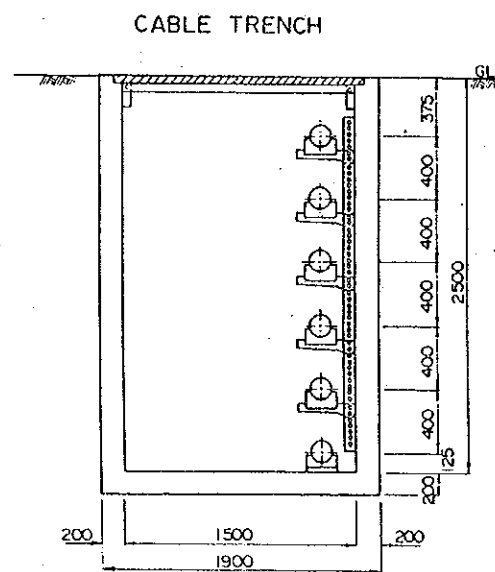
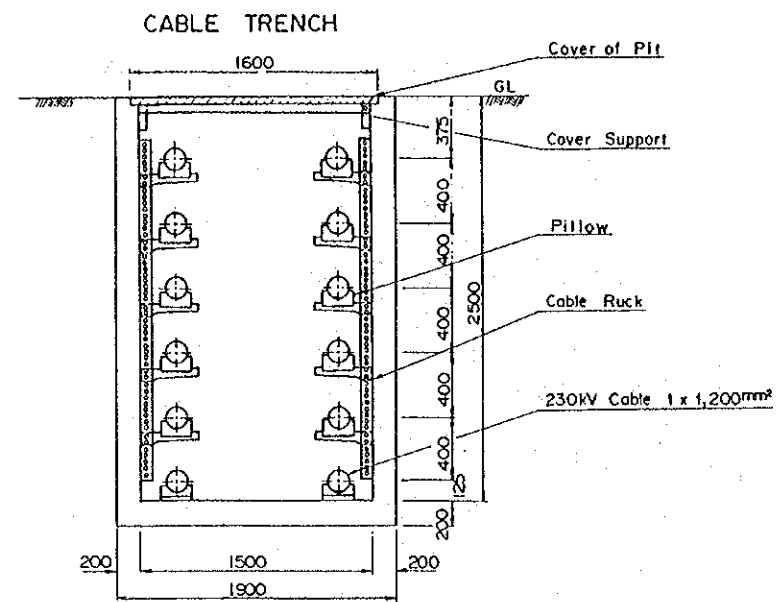


CROSSING OF CHANNEL

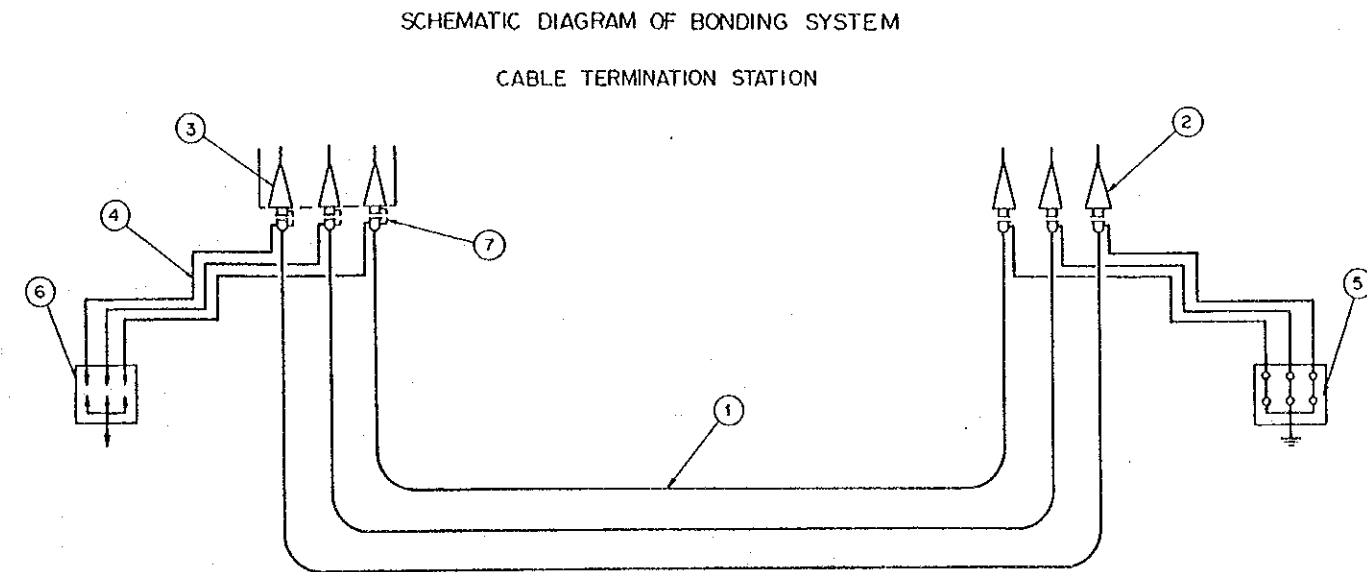


CROSSING OF RIVER

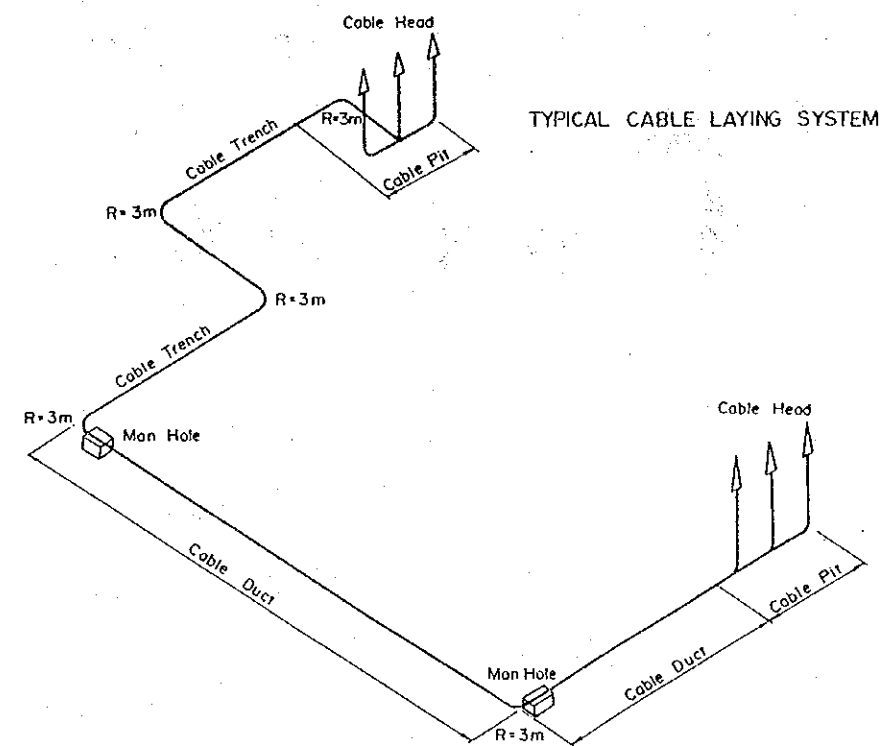
PRINCIPAL UNDERGROUND
TRANSMISSION LINE



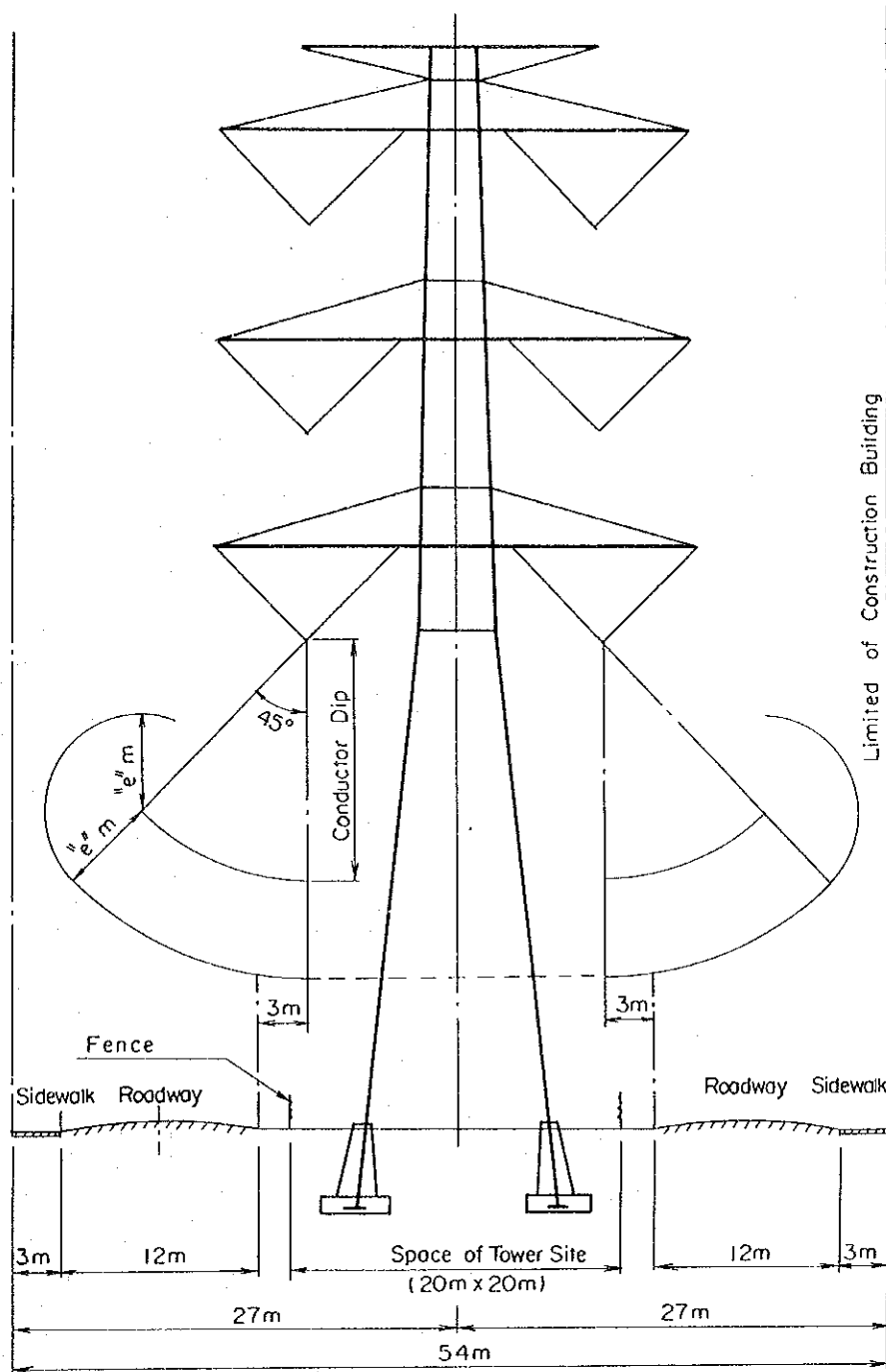
The Cover of Pit. (Width 1600mm , Length 1000mm, Thickness 14mm)

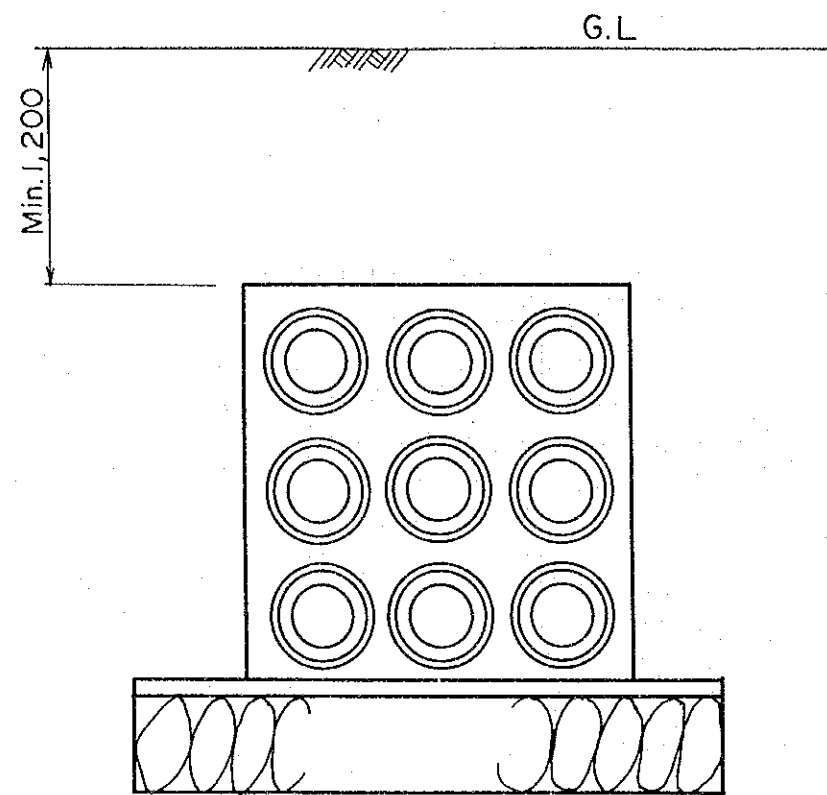


No	Description
1	Power Cable
2	Outdoor Termination
3	SFG Gas Immersed Termination
4	Single Bonding Wire
5	Solid Bond Link Box (3-Way)
6	Solid Bond Link Box with Arrestor (3-Way)
7	Arrestor for Insulating Flange

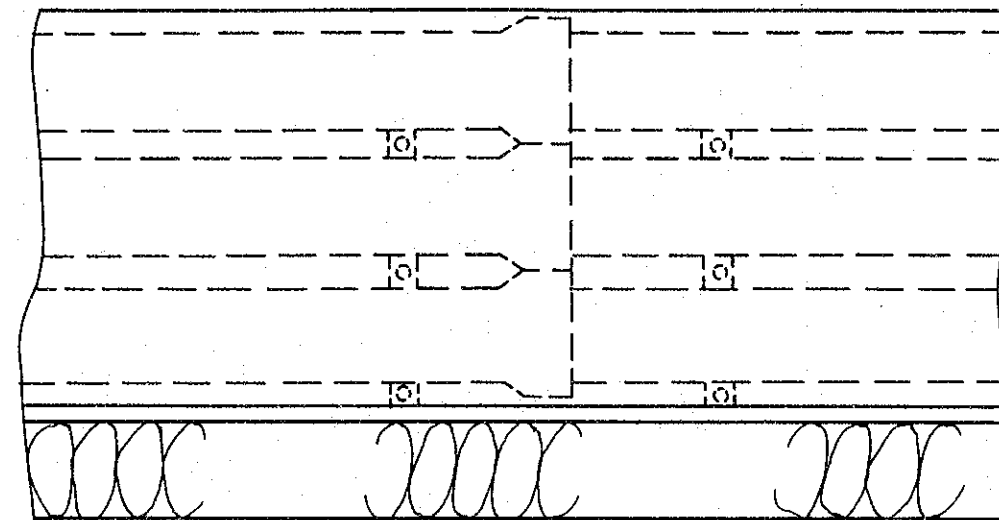


TYPICAL CABLE ARRANGMENT



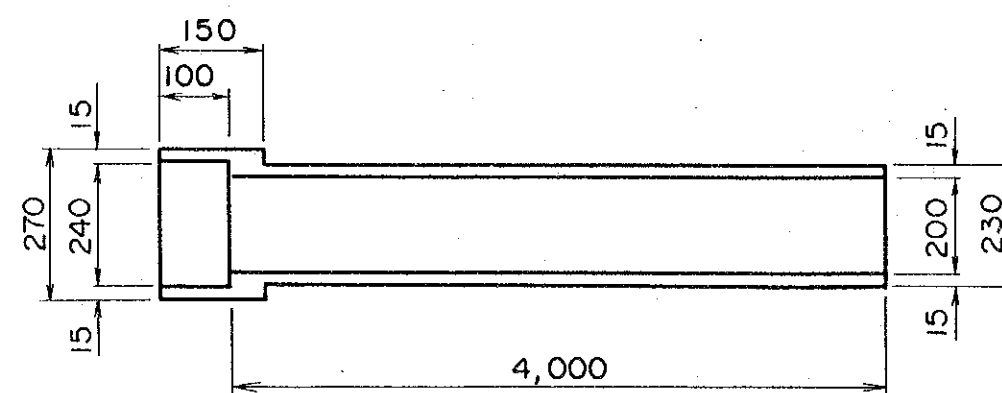
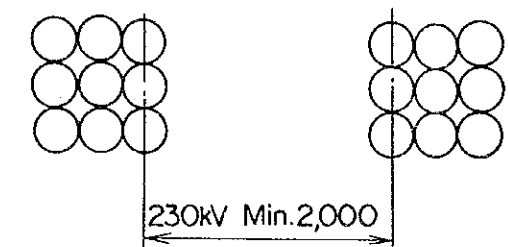


CROSS SECTION



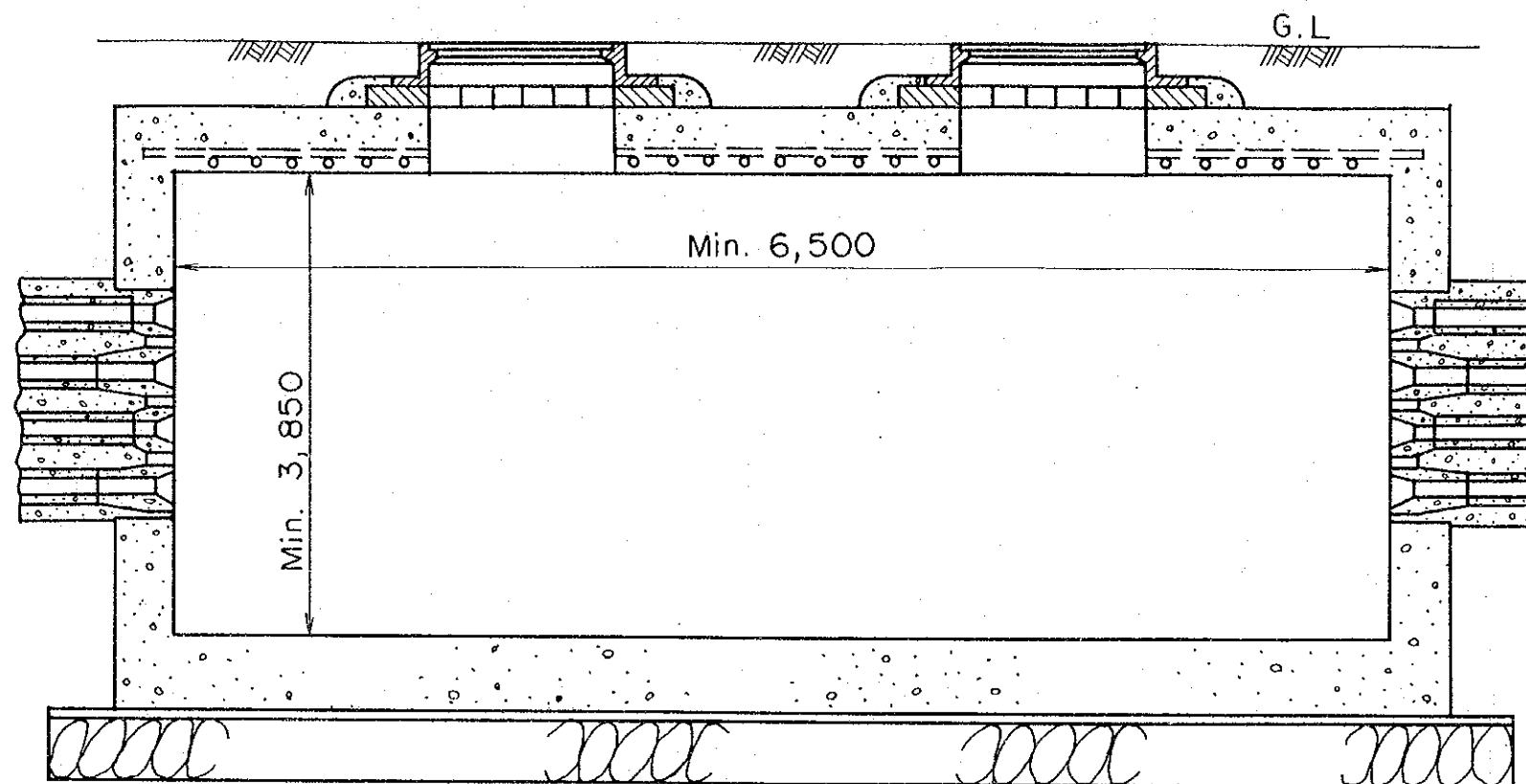
SIDE VIEW

CONDUIT WITH CONCRETE SHEATH

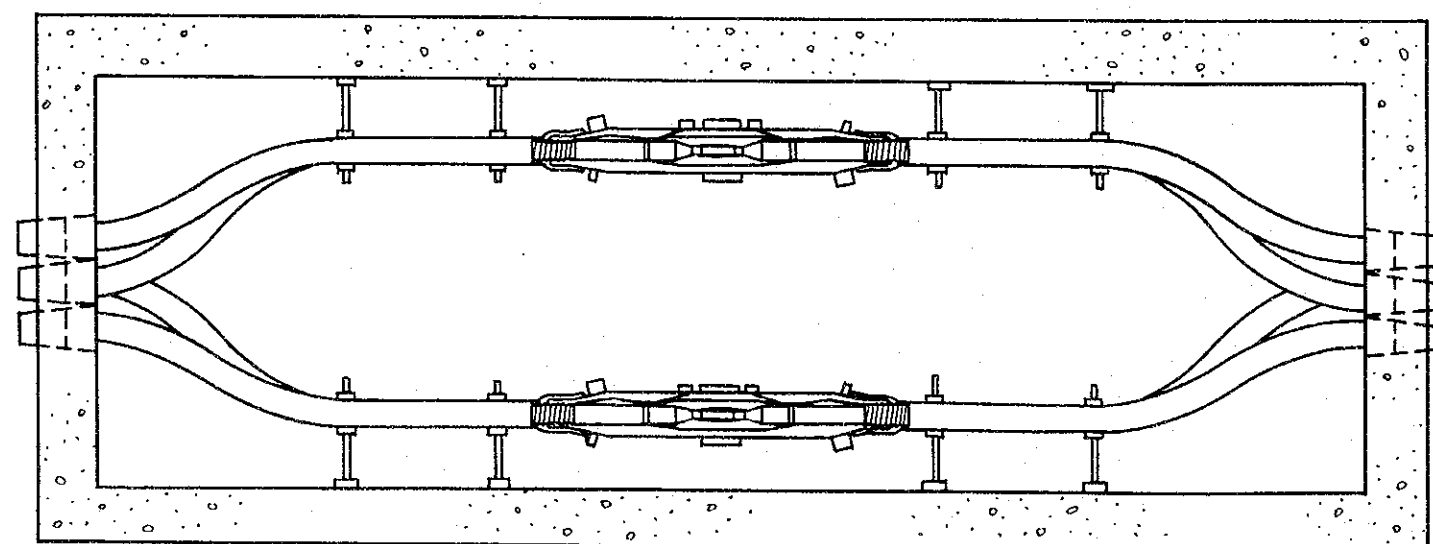


DUCT PIPE (PFP)

CONDUIT WITH CONCRETE SHEATH



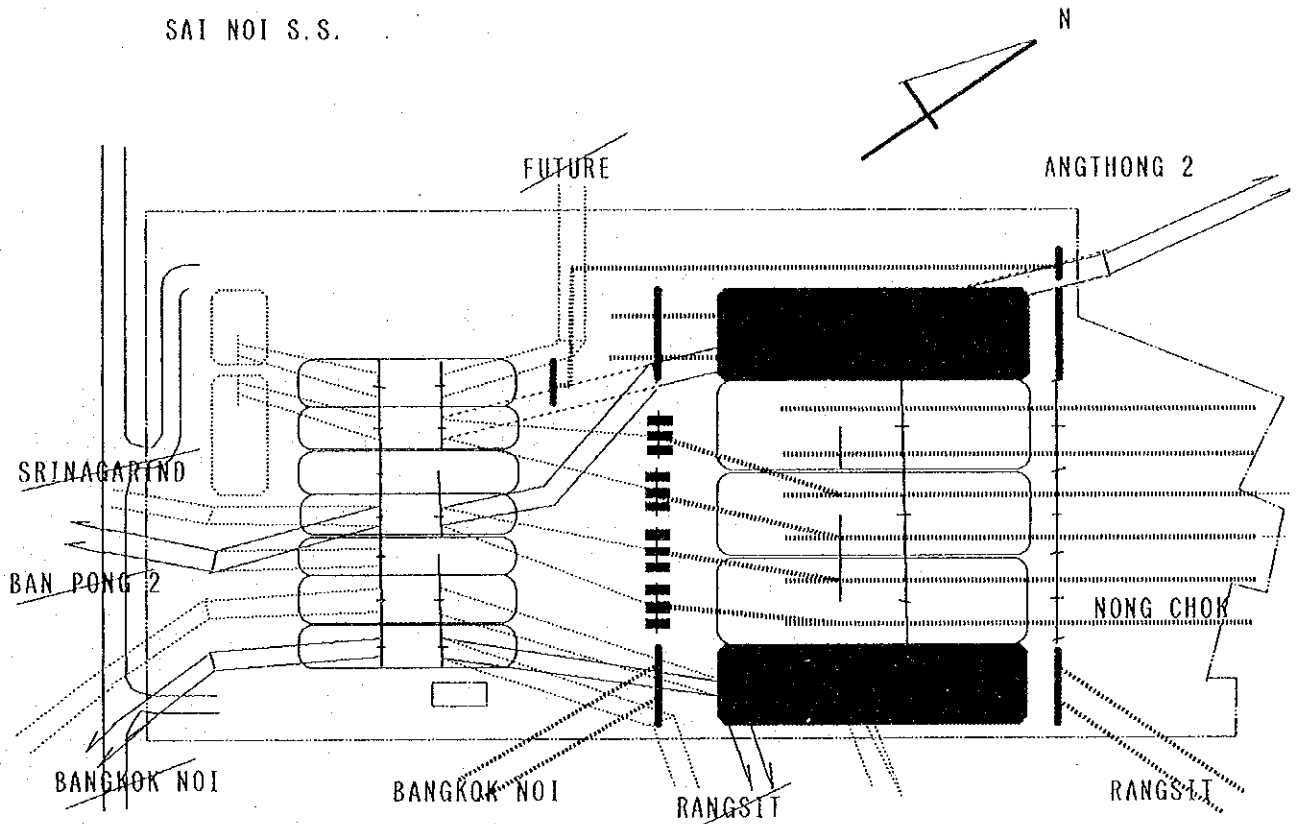
SIDE VIEW



PLAN VIEW

MAN HOLE

SAI NOI S.S.

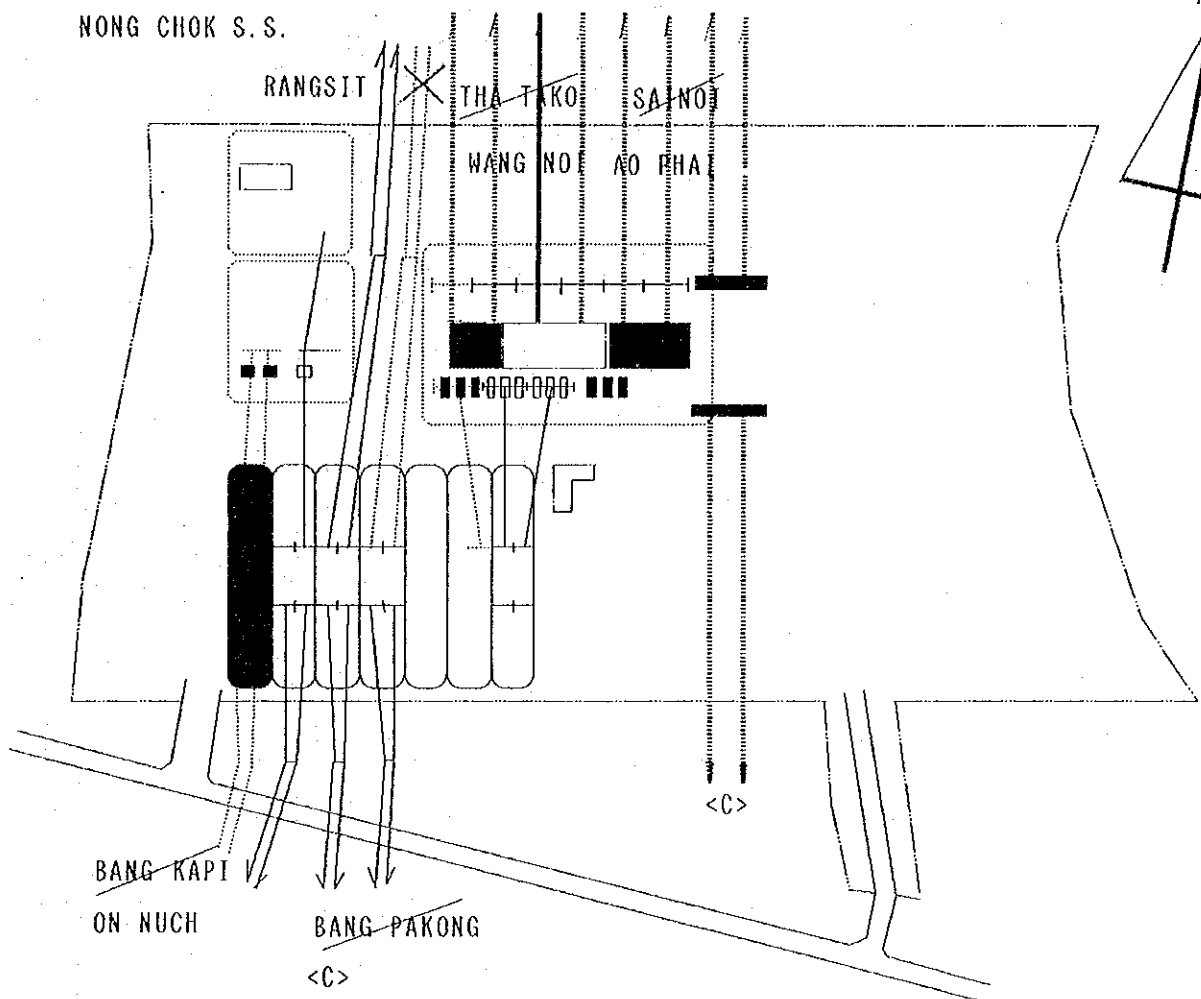


REMARKS : [REDACTED] AREA TO BE RENOVATED

-4(BP2) +4(BP2)
 -2(BN) +2(NC)
 -2(RS) +2(BN)
 --- +2(RS)

SAI NOI	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pipe				Conventional with Al-pipe			
Bus system	One and a half				One and a half			
No.of line	8	4	2/0	0	-	6	8/10	(14)
No.of bank	-	2	3/3	4	-	2	4/4	4
Switchgear area(W x L)	246 124				230 216			

NONG CHOK S.S.

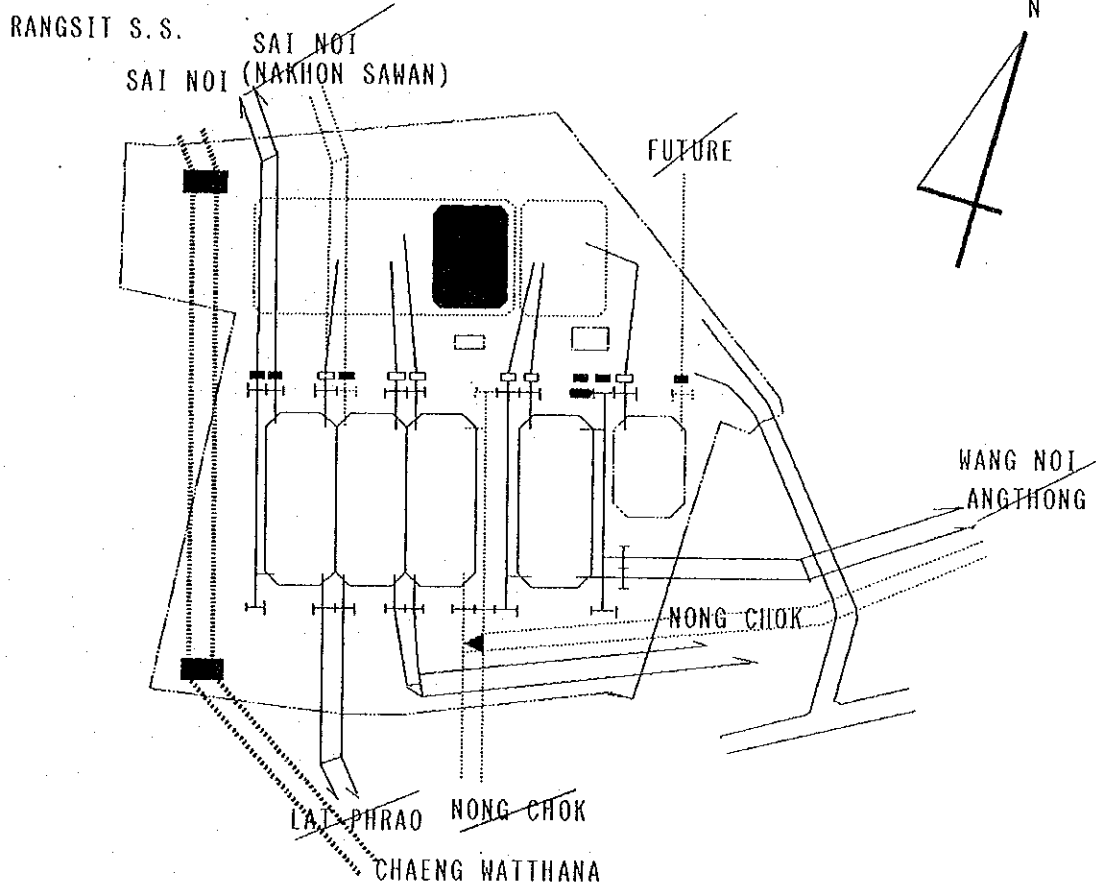


REMARKS : [REDACTED] AREA TO BE RENOVATED

 -2(ON) +1(TT)
 +4(ON) +2(SN)
 +2(AP)

 -2(BP) +2(<C>)
 -2(BP) +2(AP)
 +4(BP)

NONG CHOK	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pipe				GIS			
Bus system	One and a half				One and a half			
No. of line	8	8	10/10	10	1	4	6/6	10
No. of bank	1	2	2/3	3	2	2	3/4	4
Switchgear area(W x L)	246 158				195 35			



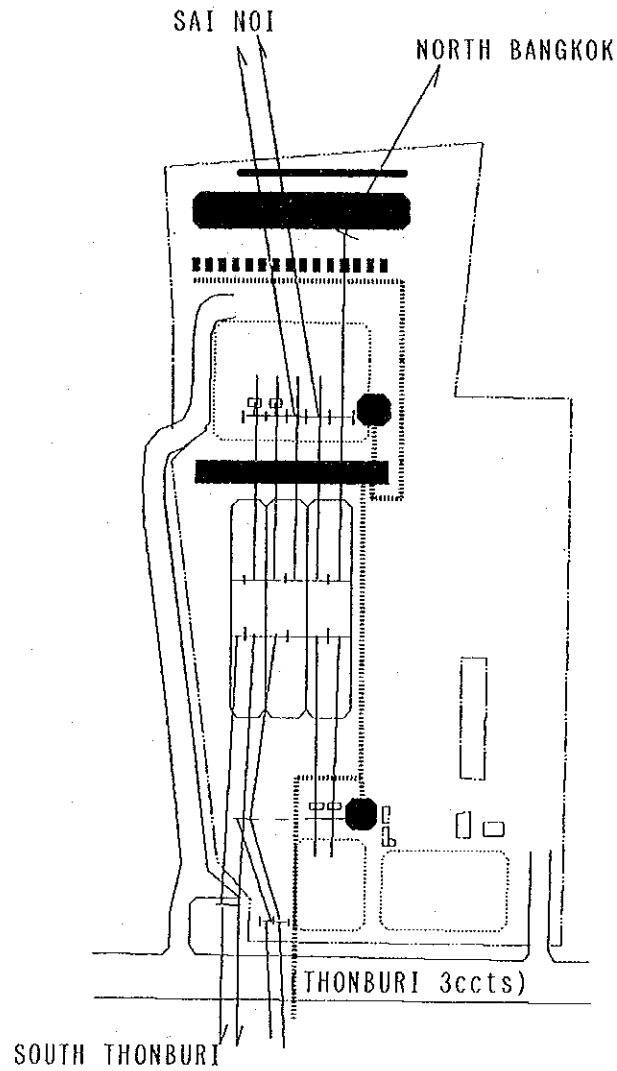
REMARKS : [REDACTED] AREA TO BE RENOVATED

+2(WN)
-2(AN)

+2(WN)
-2(SN)

RANGSIT	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pipe				-			
Bus system	One and a half (Invert)				-			
No. of line	8	8	8/ 8	8	-	-	-	-
No. of bank	6	9	10/12	12	-	-	-	-
Switchgear area(W x L)	300 105				-			

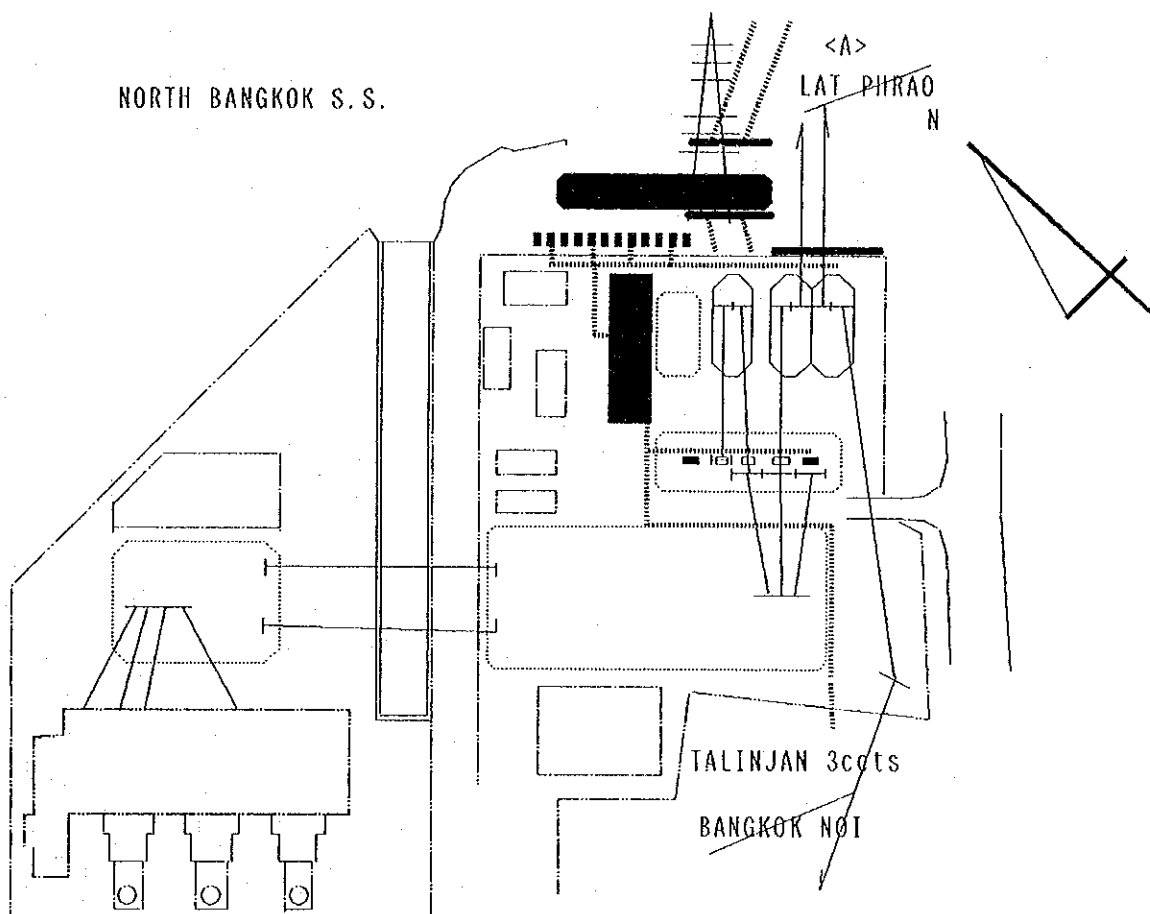
BANGKOK NOI S.S.



REMARKS : [REDACTED] AREA TO BE RENOVATED

-2(SN) +2(SN)
 -1(NB) +2(NB)
 +1(SP1)
 +1(TB)
 +1(TB)

BANGKOK NOI	230 kV				500 kV			
	Equip	1997	2001 / 2006	2011	Equip	1997	2001 / 2006	2011
Type	Conventional				-			
Bus system	One and a half				-			
No. of line	6	6	3/5	6	-	-	4/4	4
No. of bank	4	7	8/8	8	-	-	-/4	5
Switchgear area(W x L)	88.8 81.4				-			



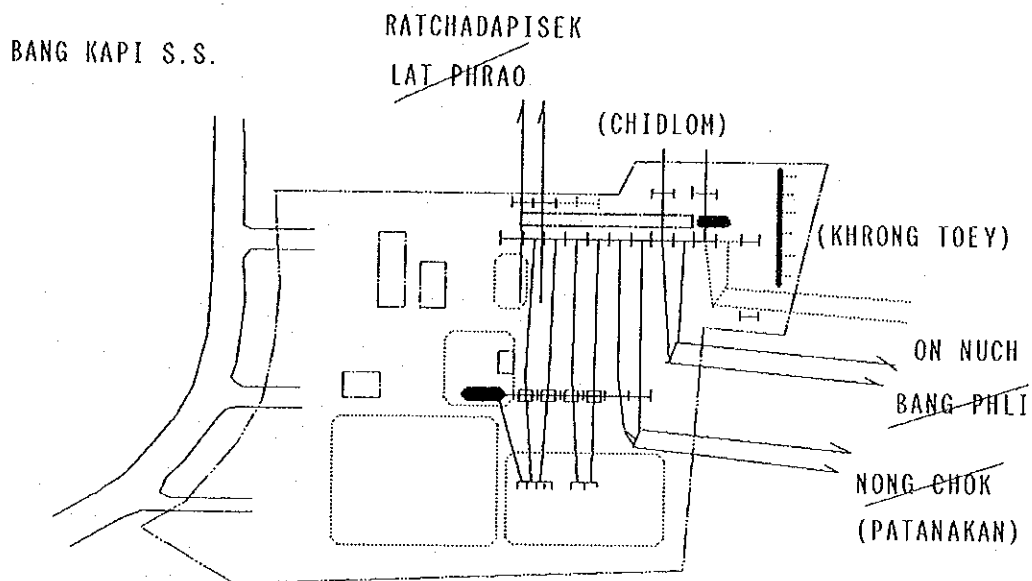
REMARKS : ████████ AREA TO BE RENOVATED

-1(BN)
-2(LP)
+2(LP)

+2(BN)
+2(RS)

+3(TL)

NORTH BANGKOK	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional				-			
Bus system	One and a half				-			
No.of line	3	3	2/2	5	-	-	4/4	4
No.of bank	3	4	4/5	5	-	-	-/4	4
Switchgear area(W x L)	103.6 54.2				-			



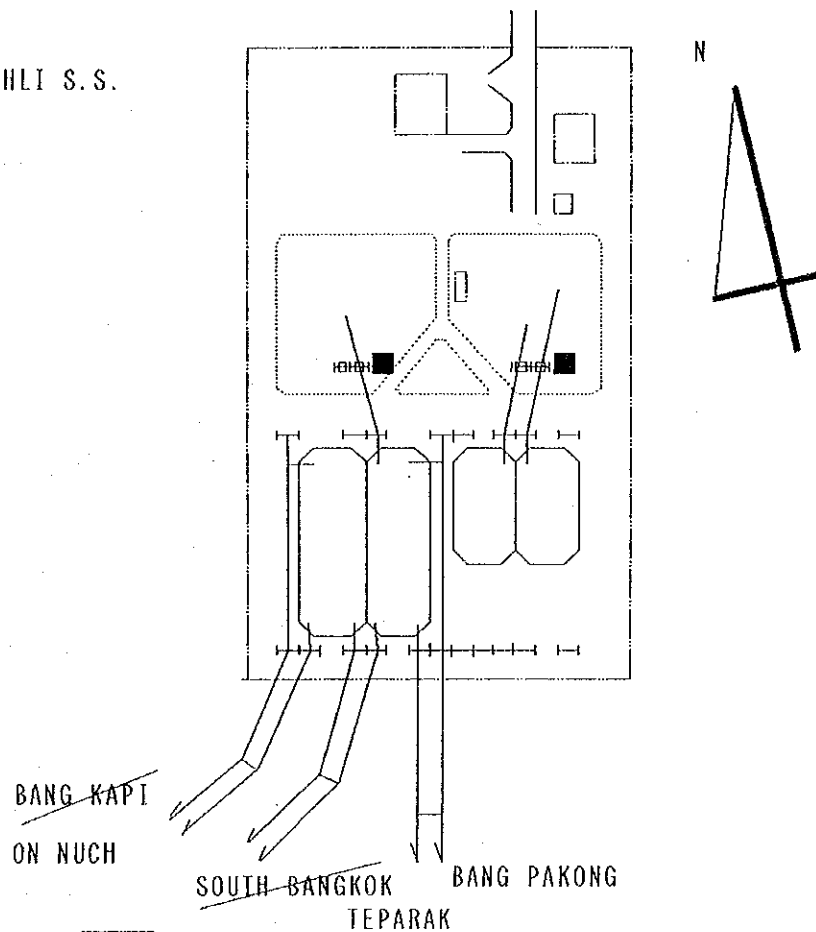
REMARKS : ████████ AREA TO BE RENOVATED

+3(KT)
 +2(KT)

 +1(KT)
 +2(PT)

<u>BANG KAPI</u>	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	GIS				-			
Bus system	One and a half				-			
No.of line	6	9	11/11	14	-	-	-	-
No.of bank	4	5	6/ 6	6	-	-	-	-
Switchgear area(W x L)	177.6 101.5				-			

BANG PHLI S.S.

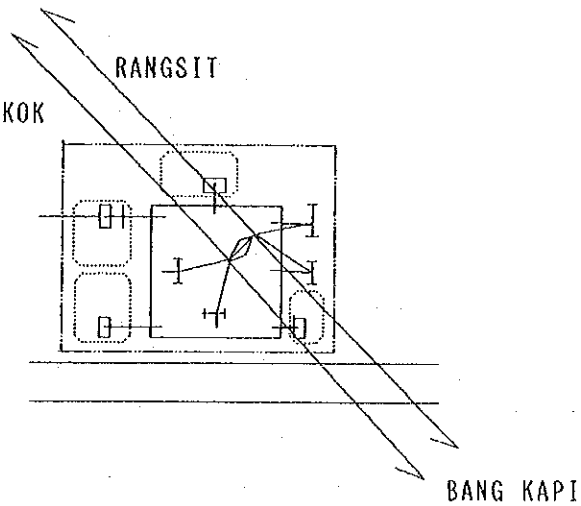


REMARKS : [REDACTED] AREA TO BE RENOVATED

<u>BANG PHLI</u>	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pip				-			
Bus system	One and a half (Invert)				-			
No.of line	6	6	6/6	6	-	-	-	-
No.of bank	4	6	6/6	6	-	-	-	-
Switchgear area(W x L)	210 103				-			

LAT PHRAO S.S.

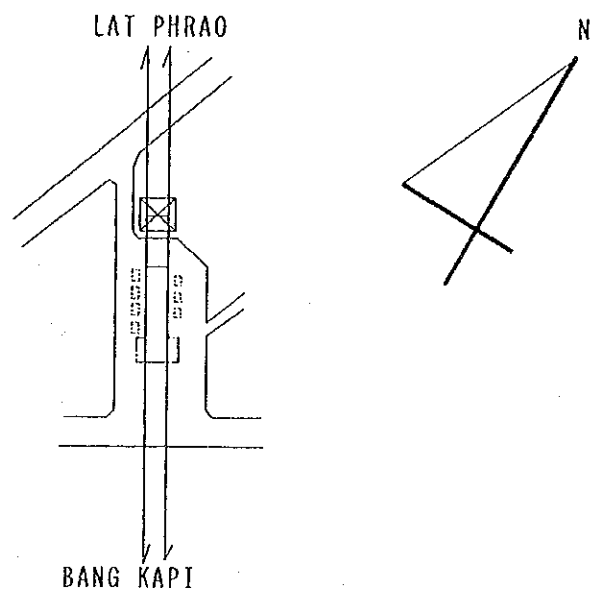
NORTH BANGKOK



+2(<A>)
-2(<A>)

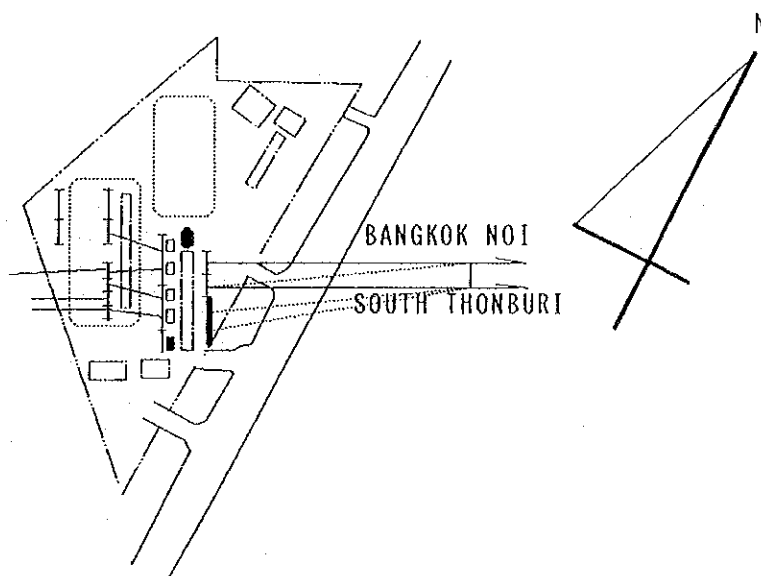
LAT PHRAO	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pip				-			
Bus system	Ring				-			
No.of line	4 (4)	4	4/4	4	-	-	-	-
No.of bank	4 (4)	4	4/4 (300MVA)	4	-	-	-	-
Switchgear area(W x L)	85.5 44.9				-			

RATCHADAPHISEK S.S.



<u>RATCHADA-PISEK</u>	230 kV				500 kV			
	Equip	1997	2001 / 2006	2011	Equip	1997	2001 / 2006	2011
Type	GIS				-			
Bus system	One and a half				-			
No.of line	-	4	4/4	4	-	-	-	-
No.of bank	-	3	5/5	6	-	-	-	-
Switchgear area(W x L)	65 10				-			

SAMPHRAN 1 S.S.

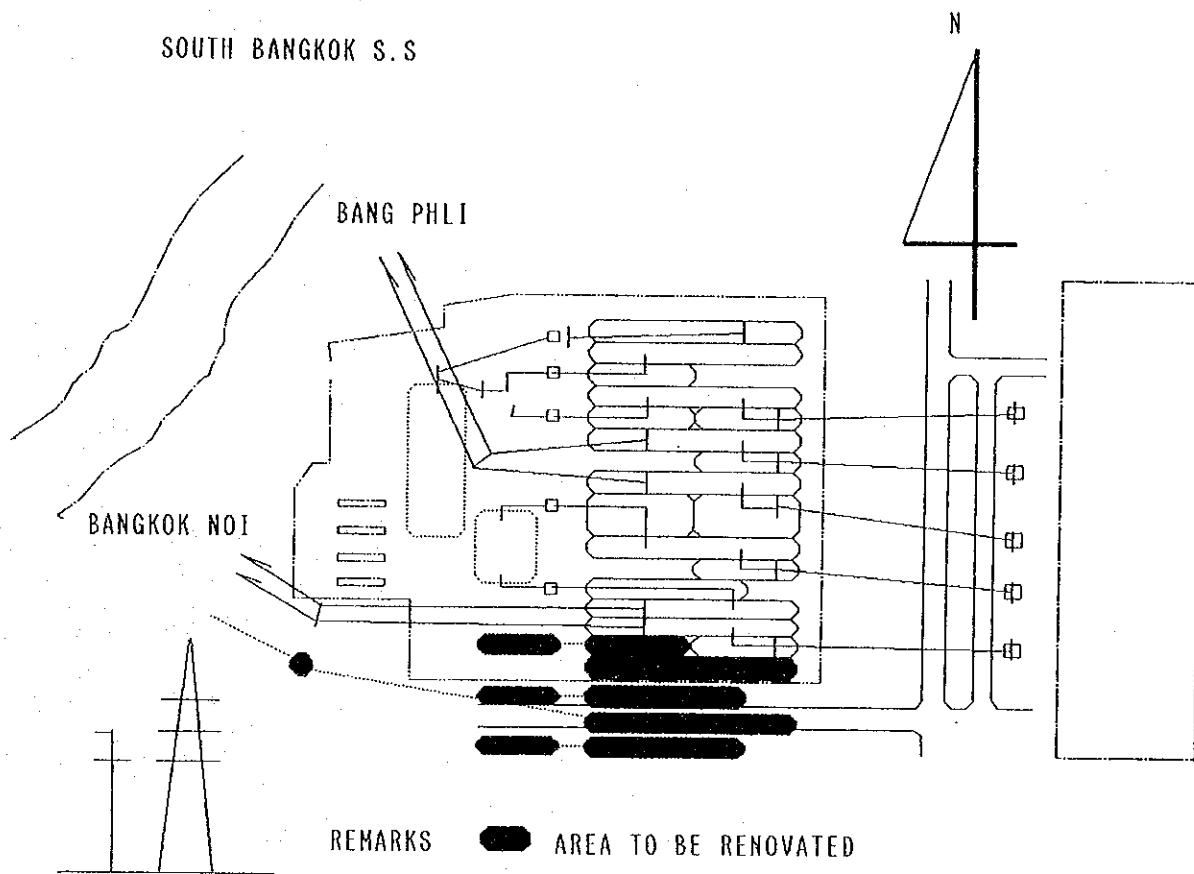


REMARKS: ██████ AREA TO BE RENOVATED

+1(BN)
+1(STB)

SAMPHRAN 1	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No.of line	2	2	2/4	6	-	-	-	-
No.of bank	4	5	5/5	5	-	-	-	-
Switchgear area(W x L)	51 43.5				-			

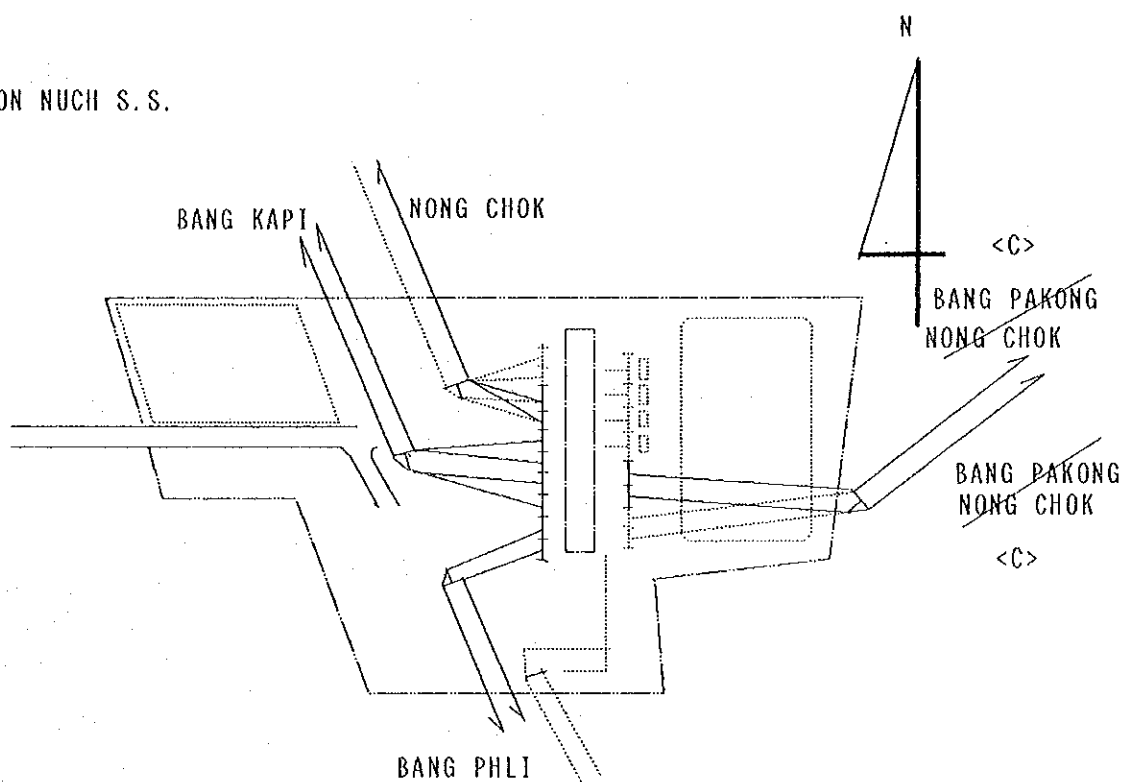
SOUTH BANGKOK S.S



+1(STB)

SOUTH BANGKOK	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	Conventional with Al-pipe				-			
Bus system	One and a half				-			
No.of line	4	5	5/5	5	-	-	-	-
No.of bank	5	7	7/8	8	-	-	-	-
Switchgear area(W x L)	280 103				-			

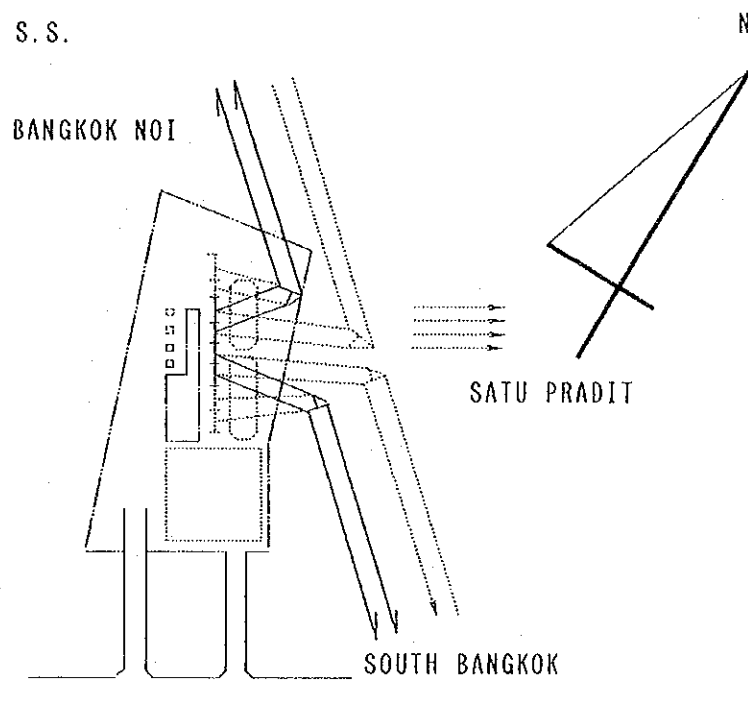
ON NUCH S.S.



 -2(NC)
 +4(NC)
 -2(BKP)
 -2
 +4(BKP)
 -2(BP2)
 +4(<C>)

ON NUCH	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	GIS				-			
Bus system	One and a half				-			
No.of line	10	10	12/12	14	-	-	-	-
No.of bank	-	3	3/4	4	-	-	-	-
Switchgear area(W x L)	105 28				-			

SOUTH THONBURI S.S.

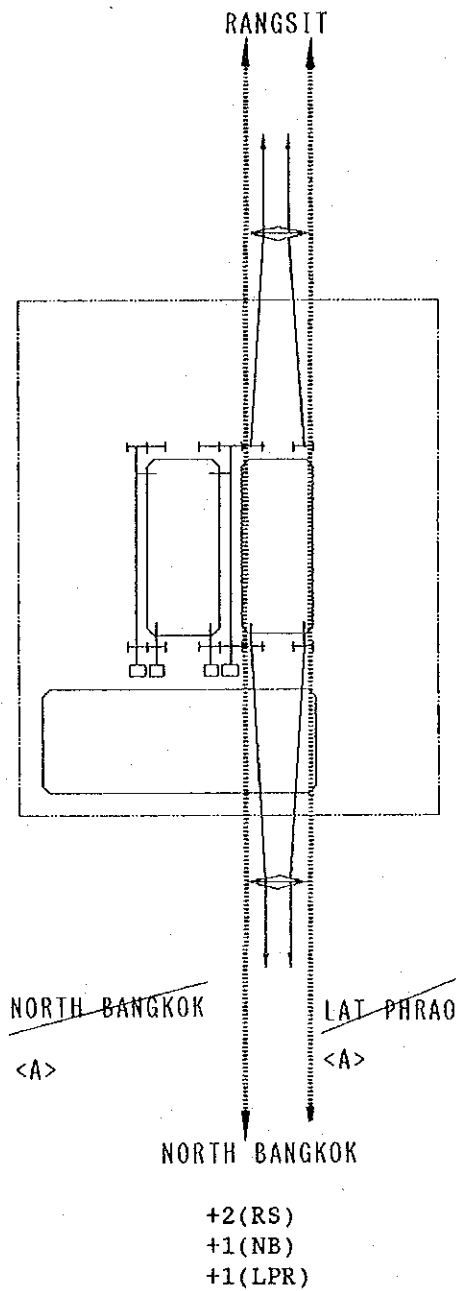


+3(STP)
 +1(SB)

 +1(SP1)
 +1(STP)

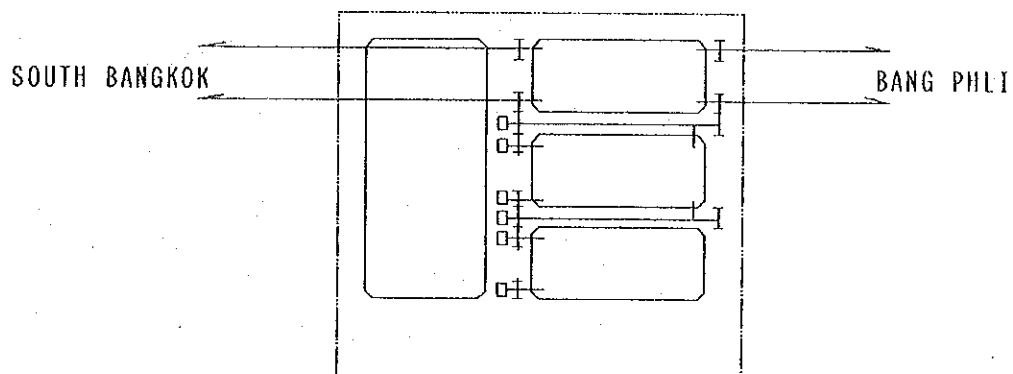
SOUTH THONBURI	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	GIS				-			
Bus system	One and a half				-			
No.of line	4	8	8/9	10	-	-	-	-
No.of bank	2	4	4/4	4	-	-	-	-
Switchgear area(W x L)	84 16				-			

CHAENG WATHANA S.S.



CHAENG WATHANA	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No.of line	-	4	4/4	4	-	-	-	-
No.of bank	-	2	3/3	4	-	-	-	-
Switchgear area(W x L)	-				-			

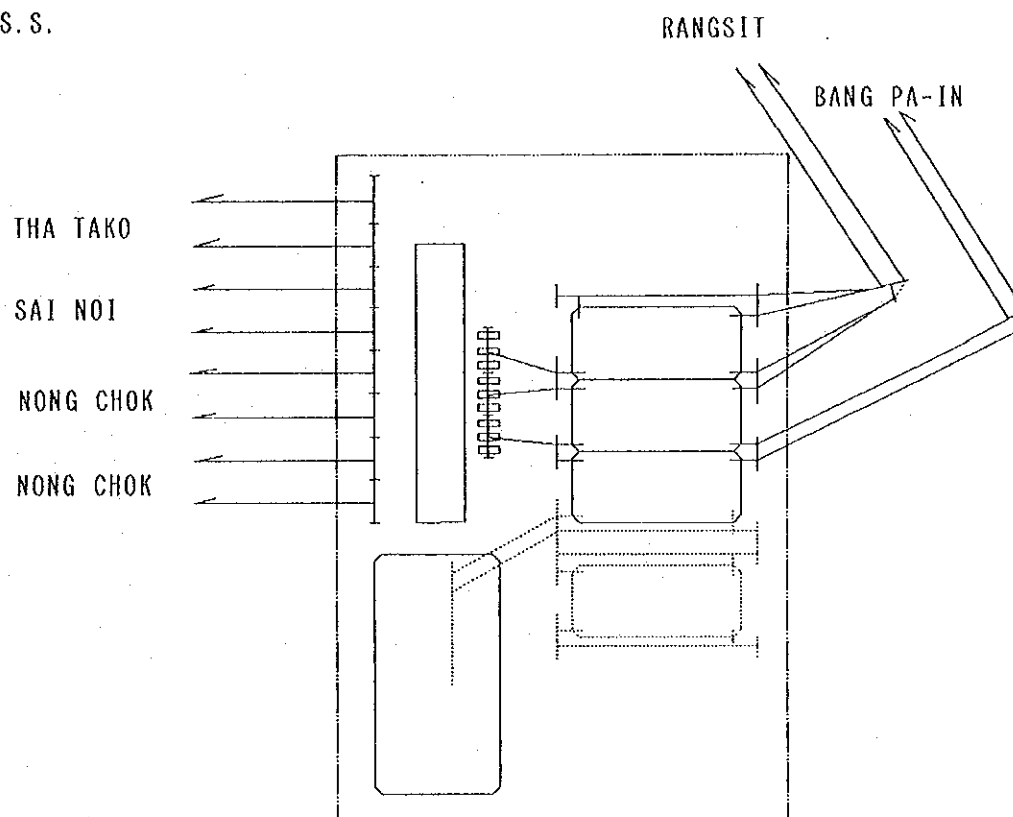
TEPARAK S.S.



+2(SB)
+2(BPL)

TEPARAK	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type	-				-			
Bus system	-				-			
No.of line	-	4	4/4	4	-	-	-	-
No.of bank	-	4	4/5	6	-	-	-	-
Switchgear area(W x L)	-				-			

WANG NOI S.S.



+2(RS)

+2(AT)

+2(RS)

+2(TT)

+2(SN)

+2(NC)

+2(EASTERN)

WANG NOI	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No.of line	-	4	4/6	6	-	-	-/8	8
No.of bank	-				-	-	-/3	3
Switchgear area(W x L)	-				-			

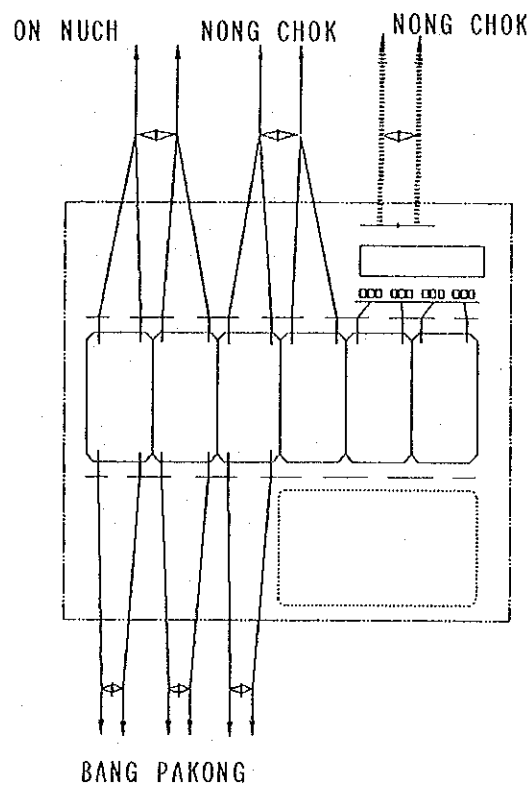
CHIDLOM S. S.

<u>CHIDLOM</u>	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No. of line	2(2)	2	2/2	2	-	-	-	-
No. of bank	2(2)	2	2/2	2	-	-	-	-
Switchgear area(W x L)					-			

SATU PRADIT S.S.

SATU PRADIT	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No.of line	()	3	3/3	4	-	-	-	-
No.of bank	()	3	3/3	4	-	-	-	-
Switchgear area(W x L)								

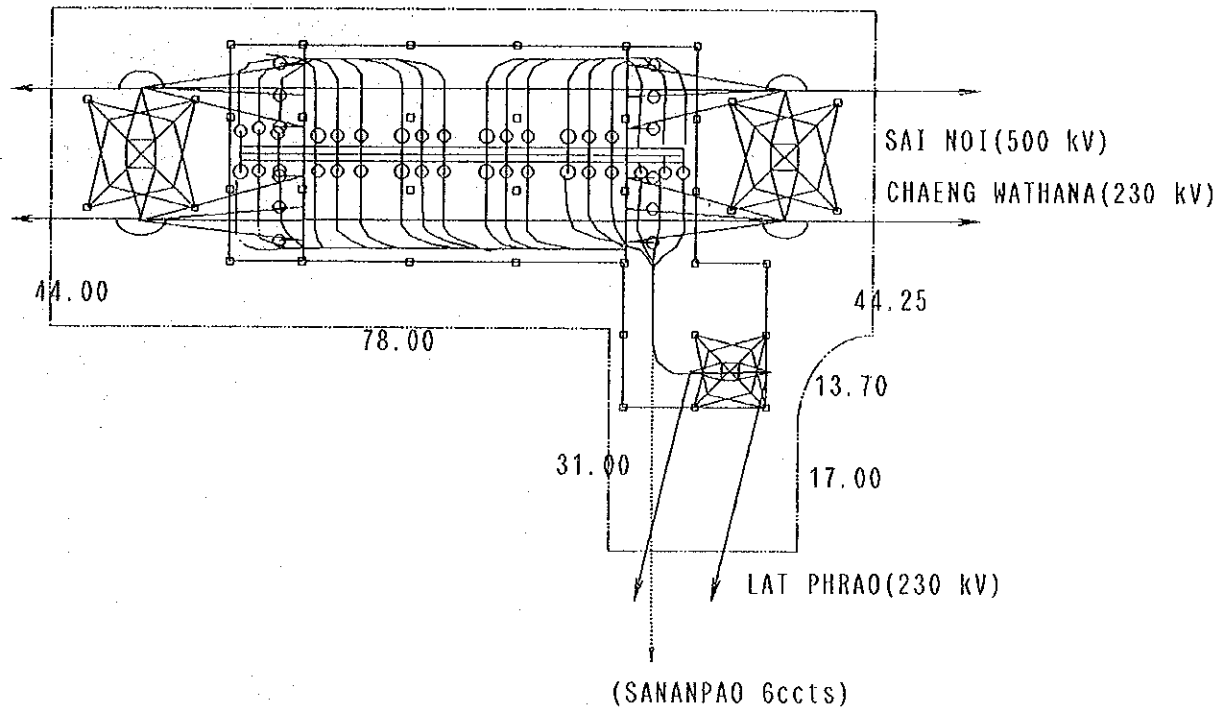
<C> SUBSTATION



+4 (NC)
 +2 (BP)
 +2 (BP)
 +2 (BP)
 +4 (ON)

<C>	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type								
Bus system								
No. of line	-	-	-/-	14	-	-	-/-	2
No. of bank	-	-	-/-	()	-	-	-/-	4
Switchgear area(W x L)	-				-			

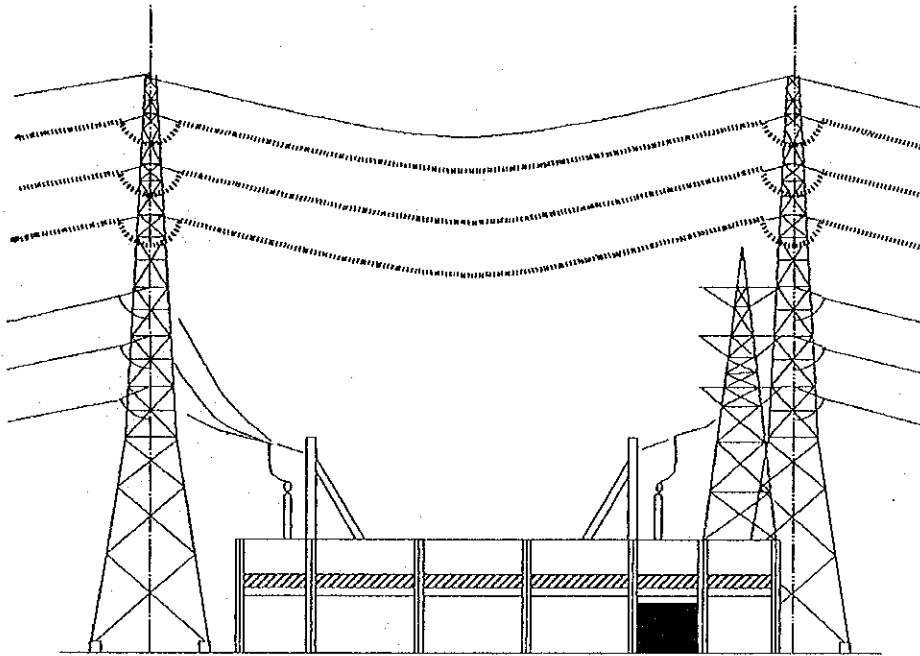
<A> SUBSTATION-PLAN



+2(NB)
+2(CW)
+2(LP)
+6(SA)

<A>	230 kV				500 kV			
	Equip	1997	2001 /2006	2011	Equip	1997	2001 /2006	2011
Type					-			
Bus system					-			
No.of line	-	-	12/12	12	-	-	-	-
No.of bank	-	-	-/-	-	-	-	-	-
Switchgear area(W x L)	-				-			

<A> SUBSTATION-FRONT VIEW



APPENDIX 3

**BREAK DOWN
OF
SUBSTATION COST**

NONG CHOK		1997		Thousand Baht	
		0	0	0	1
-Bus System	: One end a half			One end a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			4	
-Number of Line	: 0			3	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	3213	313
3. Foundation Work					
-Bus		200	200	200	13040
-Transformer		1300	1300	1300	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		39363	39363	39363	483266
-GIS					598304
-Steel Structure		500	500	500	12026
-Misc. hardware		200	200	200	65000
-Transformer		37000	37000	37000	0
-Circuit Breaker		0	0	0	140520
-Disconnect Switch		0	0	0	67560
-Instrument Tran		0	0	0	85320
-Control & SERV.		1663	1663	1663	112840
-Others					
6. Misc. Facilities		0	0	0	0
Sub-total		40863	40863	40863	499519
(FC)		35934	35671	35671	420092
(LC)		4929	5192	5192	79427
7. Misc. Expense		2043	2043	2043	24815
8. Engineering & SV		2860	2860	2860	34966
9. Contingencies		4086	4086	4086	49952
10. Import Duties		2555	2555	2555	67352
11. Value Added Tax		3039	3039	3039	39456
Sub-total		14583	14583	14583	216541
TOTAL (1000 Baht)		55446	55446	55446	716060
FC		39677	39388	39388	463727
LC		15769	16058	16058	252333
TOTAL (1000 US \$)		2218	2218	2218	28642
FC		1587	1576	1576	18549
LC		631	642	642	10093

NONG CHOK		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One end a half			One end a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			1	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus		200	200	200	250
-Transformer		1300	1300	1300	3900
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		39363	39363	39363	121104
-GIS					121104
-Steel Structure		500	500	500	600
-Misc. hardware		200	200	200	300
-Transformer		37000	37000	37000	111000
-Circuit Breaker		0	0	0	0
-Disconnect Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		1663	1663	1663	9204
-Others					9204
6. Misc. Facilities		0	0	0	0
Sub-total		40863	40863	40863	125254
(FC)		35934	35671	35671	113275
(LC)		4929	5192	5192	11979
7. Misc. Expense		2043	2043	2043	6263
8. Engineering & SV		2860	2860	2860	8768
9. Contingencies		4086	4086	4086	12525
10. Import Duties		2555	2555	2555	8520
11. Value Added Tax		3039	3039	3039	9365
Sub-total		14583	14583	14583	45441
TOTAL (1000 Baht)		55446	55446	55446	170695
FC		39677	39388	39388	125017
LC		15769	16058	16058	45678
TOTAL (1000 US \$)		2218	2218	2218	6828
FC		1587	1576	1576	5001
LC		631	642	642	1827

NONG CHOK		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One end a half			One end a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 1			0	
-Number of Line	: 2			2	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		293	380	28	0
3. Foundation Work					
-Bus		2506	2506	752	750
-Transformer		0	0	0	3900
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		37074	41039	47318	122904
-GIS				39475	0
-Steel Structure		2313	2921	438	1800
-Misc. hardware		3192	6549	400	900
-Transformer		0	0	0	111000
-Circuit Breaker		11190	11190	0	0
-Disconnect Switch		4761	4761	0	0
-Instrument Tran		8613	8613	0	0
-Control & SERV.		7005	7005	7005	9204
-Others					9204
6. Misc. Facilities		0	0	0	0
Sub-total		39875	43925	48098	127554
(FC)		33340	35186	44699	114792
(LC)		6535	8739	3399	12762
7. Misc. Expense		1979	2177	2404	6378
8. Engineering & SV		2791	3075	3367	8929
9. Contingencies		3988	4393	4810	12755
10. Import Duties		4848	5998	4319	9000
11. Value Added Tax		3110	3468	3668	9559
Sub-total		16716	19111	18568	46621
TOTAL (1000 Baht)		56591	63036	66666	174175
FC		36985	38972	49247	126736
LC		19636	24064	17419	47439
TOTAL (1000 US \$)		2264	2521	2667	6967
FC		1478	1559	1970	5069
LC		785	963	697	1898

NONG CHOK		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One end a half			One end a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			2	
-Number of Line	: 0			4	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	1607
3. Foundation Work					158
-Bus		0	0	0	6520
-Transformer		0	0	0	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	241633
-GIS					299902
-Steel Structure		0	0	0	6013
-Misc. hardware		0	0	0	32500
-Transformer		0	0	0	1200
-Circuit Breaker		0	0	0	70260
-Disconnect Switch		0	0	0	33780
-Instrument Tran		0	0	0	42560
-Control & SERV.		0	0	0	56420
-Others					56420
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	249760
(FC)		0	0	0	210046
(LC)		0	0	0	39714
7. Misc. Expense		0	0	0	24252
8. Engineering & SV		0	0	0	15093
9. Contingencies		0	0	0	17483
10. Import Duties		0	0	0	24976
11. Value Added Tax		0	0	0	33676
Sub-total		0	0	0	108272
TOTAL (1000 Baht)		0	0	0	358032
FC		0	0	0	231863
LC		0	0	0	126169
TOTAL (1000 US \$)		0	0	0	14321
FC		0	0	0	9275
LC		0	0	0	5047

SAI NOI	1997		Thousand Baht	
	0	0	0	0
-Bus System :	One and a half		One and a half	
-Voltage :	230 kV		500 kV	
-Number of Bay :	0		5	
-Number of Line:	0		6	
-Number of Bank:	2		2	
-Type :	Al-pipe	Al-pipe GIS	Al-pipe	GIS
	CONV.	INV.	CONV.	
1 1.Land Acquisition	0	0	0	0
1 2.Land Improvement	0	0	4016	394
1 3.Foundation Work				
1 -Bus	400	400	400	4890
1 -Transformer	2600	2600	2600	7800
1 -Trench	0	0	0	0
1 4.Control Building	0	0	0	0
1 5.Equipment	78726	78726	78726	989563
1 -GIS				603450
1 -Steel Structure	1000	1000	1000	15033
1 -Misc. hardware	400	400	400	81250
1 -Transformer	74000	74000	74000	222000
1 -Circuit Breaker	0	0	0	175650
1 -Disconnect.Swit	0	0	0	84450
1 -Instrument Tran	0	0	0	106650
1 -Control & SERV.	3326	3326	3326	159458
1 -Others				
1 6.Misc.Facilities	0	0	0	0
Sub-total	81726	81726	81726	1002647
(FC)	71867	71342	71342	750149
(LC)	9859	10384	10384	122458
1 7.Misc.Expense	4086	4086	4086	43430
1 8.Engineering & SV	5721	5721	5721	61082
1 9.Contingencies	8173	8173	8173	87261
1 10.Import Duties	5110	5110	5110	100751
1 11.Value Added Tax	6078	6078	6078	57855
Sub-total	29168	29168	29168	360379
TOTAL (1000 Baht)	110894	110894	110894	1232985
FC	79354	78777	78777	827976
LC	31540	32117	32117	405010
TOTAL (1000 US \$)	4436	4436	4436	49319
FC	3174	3151	3151	33119
LC	1262	1285	1285	16200

SAI NOI	2006		Thousand Baht	
	0	0	0	0
-Bus System :	One and a half		One and a half	
-Voltage :	230 kV		500 kV	
-Number of Bay :	0		0	
-Number of Line:	0		2	
-Number of Bank:	0		0	
-Type :	Al-pipe	Al-pipe GIS	Al-pipe	GIS
	CONV.	INV.	CONV.	
1 1.Land Acquisition	0	0	0	0
1 2.Land Improvement	0	0	0	0
1 3.Foundation Work				
1 -Bus	0	0	0	500
1 -Transformer	0	0	0	0
1 -Trench	0	0	0	0
1 4.Control Building	0	0	0	0
1 5.Equipment	0	0	0	1800
1 -GIS				1800
1 -Steel Structure	0	0	0	1200
1 -Misc. hardware	0	0	0	600
1 -Transformer	0	0	0	0
1 -Circuit Breaker	0	0	0	0
1 -Disconnect.Swit	0	0	0	0
1 -Instrument Tran	0	0	0	0
1 -Control & SERV.	0	0	0	0
1 -Others				
1 6.Misc.Facilities	0	0	0	0
Sub-total	0	0	0	2300
(FC)	0	0	0	1517
(LC)	0	0	0	783
1 7.Misc.Expense	0	0	0	115
1 8.Engineering & SV	0	0	0	161
1 9.Contingencies	0	0	0	230
1 10.Import Duties	0	0	0	480
1 11.Value Added Tax	0	0	0	195
Sub-total	0	0	0	1181
TOTAL (1000 Baht)	0	0	0	3481
FC	0	0	0	1719
LC	0	0	0	1762
TOTAL (1000 US \$)	0	0	0	139
FC	0	0	0	69
LC	0	0	0	70

SAI NOI	2001		Thousand Baht	
	0	0	0	0
-Bus System :	One and a half		One and a half	
-Voltage :	230 kV		500 kV	
-Number of Bay :	0		4	
-Number of Line:	0		2	
-Number of Bank:	1		2	
-Type :	Al-pipe	Al-pipe GIS	Al-pipe	GIS
	CONV.	INV.	CONV.	
1 1.Land Acquisition	0	0	0	0
1 2.Land Improvement	0	0	3213	315
1 3.Foundation Work				
1 -Bus	200	200	200	13040
1 -Transformer	1300	1300	1300	7800
1 -Trench	0	0	0	0
1 4.Control Building	0	0	0	0
1 5.Equipment	39363	39363	39363	723674
1 -GIS				482760
1 -Steel Structure	500	500	500	12026
1 -Misc. hardware	200	200	200	65080
1 -Transformer	37000	37000	37000	222000
1 -Circuit Breaker	0	0	0	140820
1 -Disconnect.Swit	0	0	0	67560
1 -Instrument Tran	0	0	0	85320
1 -Control & SERV.	1663	1663	1663	131248
1 -Others				
1 6.Misc.Facilities	0	0	0	0
Sub-total	40863	40863	40863	747727
(FC)	35934	35671	35671	645126
(LC)	4929	5192	5192	102601
1 7.Misc.Expense	2043	2043	2043	37226
1 8.Engineering & SV	2860	2860	2860	52341
1 9.Contingencies	4086	4086	4086	74773
1 10.Import Duties	2555	2555	2555	83912
1 11.Value Added Tax	3039	3039	3039	57990
Sub-total	14583	14583	14583	306242
TOTAL (1000 Baht)	55446	55446	55446	1053969
FC	39677	39388	39388	712044
LC	15769	16058	16058	341925
TOTAL (1000 US \$)	2218	2218	2218	42159
FC	1587	1576	1576	28482
LC	631	642	642	13677

SAI NOI	2011		Thousand Baht	
	0	0	0	0
-Bus System :	One and a half		One and a half	
-Voltage :	230 kV		500 kV	
-Number of Bay :	0		0	
-Number of Line:	0		0	
-Number of Bank:	1		0	
-Type :	Al-pipe	Al-pipe GIS	Al-pipe	GIS
	CONV.	INV.	CONV.	
1 1.Land Acquisition	0	0	0	0
1 2.Land Improvement	0	0	0	0
1 3.Foundation Work				
1 -Bus	200	200	200	0
1 -Transformer	1300	1300	1300	0
1 -Trench	0	0	0	0
1 4.Control Building	0	0	0	0
1 5.Equipment	39363	39363	39363	0
1 -GIS				0
1 -Steel Structure	500	500	500	0
1 -Misc. hardware	200	200	200	0
1 -Transformer	37000	37000	37000	0
1 -Circuit Breaker	0	0	0	0
1 -Disconnect.Swit	0	0	0	0
1 -Instrument Tran	0	0	0	0
1 -Control & SERV.	1663	1663	1663	0
1 -Others				0
1 6.Misc.Facilities	0	0	0	0
Sub-total	40863	40863	40863	0
(FC)	35934	35671	35671	0
(LC)	4929	5192	5192	0
1 7.Misc.Expense	2043	2043	2043	0
1 8.Engineering & SV	2860	2860	2860	0
1 9.Contingencies	4086	4086	4086	0
1 10.Import Duties	2555	2555	2555	0
1 11.Value Added Tax	3039	3039	3039	0
Sub-total	14583	14583	14583	0
TOTAL (1000 Baht)	55446	55446	55446	0
FC	39677	39388	39388	0
LC	15769	16058	16058	0
TOTAL (1000 US \$)	2218	2218	2218	0
FC	1587	1576	1576	0
LC	631	642	642	0

NORTH BANGKOK		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 1	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus	200	200	200	0	0
-Transformer	1300	1300	1300	0	0
-Trench	0	0	0	0	0
4. Control Building	0	0	0	0	0
5. Equipment	39363	39363	39363	0	0
-GIS					
-Steel Structure	500	500	500	0	0
-Misc. hardware	200	200	200	0	0
-Transformer	37000	37000	37000	0	0
-Circuit Breaker	0	0	0	0	0
-Disconnect. Swit	0	0	0	0	0
-Instrument Tran	0	0	0	0	0
-Control & SERV.	1663	1663	1663	0	0
-Others					
6. Misc. Facilities	0	0	0	0	0
Sub-total	40863	40863	40863	0	0
(FC)	35934	35671	35671	0	0
(LC)	4929	5192	5192	0	0
7. Misc. Expense	2043	2043	2043	0	0
8. Engineering & SV	2860	2860	2860	0	0
9. Contingencies	4086	4086	4086	0	0
10. Import Duties	2555	2555	2555	0	0
11. Value Added Tax	3039	3039	3039	0	0
Sub-total	14583	14583	14583	0	0
TOTAL (1000 Baht)	55446	55446	55446	0	0
FC	39677	39388	39388	0	0
LC	15769	16058	16058	0	0
TOTAL (1000 US \$)	2218	2218	2218	0	0
FC	1587	1576	1576	0	0
LC	631	642	642	0	0

NORTH BANGKOK		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 1	4			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus	200	200	200	1000	1000
-Transformer	1300	1300	1300	15600	15600
-Trench	0	0	0	0	0
4. Control Building	0	0	0	0	0
5. Equipment	39363	39363	39363	464416	464416
-GIS					
-Steel Structure	500	500	500	2400	2400
-Misc. hardware	200	200	200	1200	1200
-Transformer	37000	37000	37000	444000	444000
-Circuit Breaker	0	0	0	0	0
-Disconnect. Swit	0	0	0	0	0
-Instrument Tran	0	0	0	0	0
-Control & SERV.	1663	1663	1663	36816	36816
-Others					
6. Misc. Facilities	0	0	0	0	0
Sub-total	40863	40863	40863	501016	501016
(FC)	35934	35671	35671	433102	433102
(LC)	4929	5192	5192	47914	47914
7. Misc. Expense	2043	2043	2043	25051	25051
8. Engineering & SV	2860	2860	2860	35071	35071
9. Contingencies	4086	4086	4086	50102	50102
10. Import Duties	2555	2555	2555	34080	34080
11. Value Added Tax	3039	3039	3039	37457	37457
Sub-total	14583	14583	14583	181761	181761
TOTAL (1000 Baht)	55446	55446	55446	682777	682777
FC	39677	39388	39388	500073	500073
LC	15769	16058	16058	182704	182704
TOTAL (1000 US \$)	2218	2218	2218	27311	27311
FC	1587	1576	1576	20003	20003
LC	631	642	642	7306	7306

NORTH BANGKOK		2001		Thousand Baht	
		0	0	0	1
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	4			
-Number of Line	: 0	4			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	3213	315
3. Foundation Work					
-Bus	0	0	0	13040	3912
-Transformer	0	0	0	0	0
-Trench	0	0	0	0	0
4. Control Building	0	0	0	0	0
5. Equipment	0	0	0	483266	598604
-GIS					
-Steel Structure	0	0	0	12026	1804
-Misc. hardware	0	0	0	65000	1200
-Transformer	0	0	0	0	0
-Circuit Breaker	0	0	0	140520	-
-Disconnect. Swit	0	0	0	67560	-
-Instrument Tran	0	0	0	85320	-
-Control & SERV.	0	0	0	112840	112840
-Others					
6. Misc. Facilities	0	0	0	0	0
Sub-total	0	0	0	499319	607706
(FC)	0	0	0	420092	554529
(LC)	0	0	0	79427	53177
7. Misc. Expense	0	0	0	24815	30370
8. Engineering & SV	0	0	0	34966	42539
9. Contingencies	0	0	0	49952	60771
10. Import Duties	0	0	0	67352	57209
11. Value Added Tax	0	0	0	39456	46523
Sub-total	0	0	0	216541	237412
TOTAL (1000 Baht)	0	0	0	716060	845118
FC	0	0	0	463727	610892
LC	0	0	0	252333	234226
TOTAL (1000 US \$)	0	0	0	28642	33805
FC	0	0	0	18549	24436
LC	0	0	0	10093	9369

NORTH BANGKOK		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 2	0			
-Number of Line	: 3	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		591	759	56	0
3. Foundation Work					
-Bus	5013	5013	1504	0	0
-Transformer	0	0	0	0	0
-Trench	0	0	0	0	0
4. Control Building	0	0	0	0	0
5. Equipment	74149	82078	94437	0	0
-GIS					
-Steel Structure	4625	5841	876	0	0
-Misc. hardware	6384	13098	600	0	0
-Transformer	0	0	0	0	0
-Circuit Breaker	22380	22380	-	0	-
-Disconnect. Swit	9522	9522	-	0	-
-Instrument Tran	17226	17226	-	0	-
-Control & SERV.	14011	14011	14011	0	0
-Others					
6. Misc. Facilities	0	0	0	0	0
Sub-total	79753	87850	95997	0	0
(FC)	66680	70331	89232	0	0
(LC)	13073	17519	6765	0	0
7. Misc. Expense	3958	4395	4797	0	0
8. Engineering & SV	5583	6150	6720	0	0
9. Contingencies	7975	8785	9600	0	0
10. Import Duties	9696	11996	8579	0	0
11. Value Added Tax	6220	6937	7316	0	0
Sub-total	33432	38223	37012	0	0
TOTAL (1000 Baht)	113185	126073	133009	0	0
FC	73908	77941	98311	0	0
LC	39277	48132	34698	0	0
TOTAL (1000 US \$)	4527	5043	5320	0	0
FC	2956	3118	3932	0	0
LC	1571	1925	1388	0	0

BANGKOK NOI		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 3	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
-Bus		600	600	600	0
-Transformer		3900	3900	3900	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		118090	118090	118090	0
-GIS		0	0	0	0
-Steel Structure		1500	1500	1500	0
-Misc. hardware		600	600	600	0
-Transformer		111000	111000	111000	0
-Circuit Breaker		0	0	0	0
-Disconnect. Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		4990	4990	4990	0
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		122590	122590	122590	0
FC		107801	107801	107801	0
LC		14789	14789	14789	0
7. Misc. Expense		6130	6130	6130	0
8. Engineering & SV		8581	8581	8581	0
9. Contingencies		12259	12259	12259	0
10. Import Duties		7666	7666	7666	0
11. Value Added Tax		9119	9119	9119	0
Sub-total		43755	43755	43755	0
TOTAL (1000 Baht)		166345	166345	166345	0
FC		119031	118164	118164	0
LC		47314	48181	48181	0
TOTAL (1000 US \$)		6654	6654	6654	0
FC		4761	4727	4727	0
LC		1893	1927	1927	0

BANGKOK NOI		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 3	0			
-Number of Line	: 2	0			
-Number of Bank	: 0	4			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		886	1139	84	0
3. Foundation Work		0	0	0	0
-Bus		7519	7519	2256	1000
-Transformer		0	0	0	15600
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		111222	123117	141155	484416
-GIS		0	0	118425	0
-Steel Structure		6938	8762	1314	2400
-Misc. hardware		9576	19647	400	1200
-Transformer		0	0	0	444000
-Circuit Breaker		33570	33570	0	0
-Disconnect. Switch		14263	14263	0	0
-Instrument Tran		25839	25839	0	0
-Control & SERV.		21016	21016	21016	36816
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		119627	131775	143495	501016
FC		100020	105497	133431	453102
LC		19607	26278	10064	47914
7. Misc. Expense		5937	6532	7121	25051
8. Engineering & SV		8374	9224	10045	35071
9. Contingencies		11963	13178	14350	50102
10. Import Duties		14543	17994	12722	34080
11. Value Added Tax		9330	10404	10930	37457
Sub-total		50147	57332	55218	181761
TOTAL (1000 Baht)		169774	189107	198713	682777
FC		110863	116913	147009	500073
LC		58911	72194	51704	182704
TOTAL (1000 US \$)		6791	7564	7949	27311
FC		4435	4677	5880	20003
LC		2356	2888	2068	7308

BANGKOK NOI		2001		Thousand Baht	
		0	0	0	1
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	5			
-Number of Line	: 0	0			
-Number of Bank	: 1	4			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	4016	394
3. Foundation Work		0	0	0	0
-Bus		200	200	16300	4890
-Transformer		1300	1300	15600	15600
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		39363	39363	39363	1084899
-GIS		0	0	0	603450
-Steel Structure		500	500	500	2255
-Misc. hardware		200	200	81250	1200
-Transformer		37000	37000	37000	444000
-Circuit Breaker		0	0	175650	0
-Disconnect. Switch		0	0	84450	0
-Instrument Tran		0	0	106650	0
-Control & SERV.		1663	1663	177866	177866
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		40863	40863	40863	1120815
FC		35934	35671	35671	975183
LC		4929	5192	5192	145632
7. Misc. Expense		2043	2043	2043	55840
8. Engineering & SV		2860	2860	2860	78457
9. Contingencies		4086	4086	4086	112082
10. Import Duties		2555	2555	117311	104543
11. Value Added Tax		3039	3039	3039	86388
Sub-total		14583	14583	14583	450078
TOTAL (1000 Baht)		55446	55446	55446	1570893
FC		39677	39368	39368	1076293
LC		15769	16058	16058	494600
TOTAL (1000 US \$)		2218	2218	2218	62836
FC		1587	1576	1576	43052
LC		631	642	642	19784

BANGKOK NOI		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 1	0			
-Number of Bank	: 0	1			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
-Bus		200	200	200	250
-Transformer		0	0	0	3900
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		700	700	700	121104
-GIS		0	0	0	0
-Steel Structure		500	500	500	600
-Misc. hardware		200	200	200	300
-Transformer		0	0	0	111000
-Circuit Breaker		0	0	0	0
-Disconnect. Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		0	0	0	9204
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		900	900	900	125254
FC		591	328	328	113275
LC		309	572	572	11979
7. Misc. Expense		45	45	45	6263
8. Engineering & SV		63	63	63	8768
9. Contingencies		90	90	90	12525
10. Import Duties		185	185	185	8520
11. Value Added Tax		76	76	76	9365
Sub-total		459	459	459	45441
TOTAL (1000 Baht)		1359	1359	1359	170695
FC		670	381	381	125017
LC		689	978	978	45678
TOTAL (1000 US \$)		54	54	54	6828
FC		27	15	15	5001
LC		28	39	39	1827

RANGSIT	1997			Thousand Baht		
	0	0		0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay :	0			0		
-Number of Line:	0			0		
-Number of Bank:	3			0		
-Type :	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV.	GIS	
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	600	600	600	0	0	0
1 -Transformer	3900	3900	3900	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	118090	118090	118090	0	0	0
1 -GIS	0	0	0	0	0	0
1 -Steel Structure	1500	1500	1500	0	0	0
1 -Misc. hardware	600	600	600	0	0	0
1 -Transformer	111000	111000	111000	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	4990	4990	4990	0	0	0
1 -Others	0	0	0	0	0	0
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	122590	122590	122590	0	0	0
(FC)	107801	107801	107801	0	0	0
(LC)	14789	15777	15777	0	0	0
1 7.Misc.Expenses	6130	6130	6130	0	0	0
1 8.Engineering & SV	8581	8581	8581	0	0	0
1 9.Contingencies	12259	12259	12259	0	0	0
1 10.Import Duties	7666	7666	7666	0	0	0
1 11.Value Added Tax	9119	9119	9119	0	0	0
Sub-total	43755	43755	43755	0	0	0
TOTAL (1000 Baht)	166345	166345	166345	0	0	0
FC	119031	118154	118154	0	0	0
LC	47314	48191	48191	0	0	0
TOTAL (1000 US \$)	6654	6654	6654	0	0	0
FC	4761	4727	4727	0	0	0
LC	1893	1927	1927	0	0	0

RANGSIT	2006			Thousand Baht		
	0	0		0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay :	0			0		
-Number of Line:	0			0		
-Number of Bank:	2			0		
-Type :	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV.	GIS	
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	400	400	400	0	0	0
1 -Transformer	2600	2600	2600	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	78726	78726	78726	0	0	0
1 -GIS	0	0	0	0	0	0
1 -Steel Structure	1000	1000	1000	0	0	0
1 -Misc. hardware	400	400	400	0	0	0
1 -Transformer	74000	74000	74000	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	3326	3326	3326	0	0	0
1 -Others	0	0	0	0	0	0
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	81726	81726	81726	0	0	0
(FC)	71867	71342	71342	0	0	0
(LC)	9859	10384	10384	0	0	0
1 7.Misc.Expenses	4086	4086	4086	0	0	0
1 8.Engineering & SV	5721	5721	5721	0	0	0
1 9.Contingencies	8173	8173	8173	0	0	0
1 10.Import Duties	5110	5110	5110	0	0	0
1 11.Value Added Tax	6078	6078	6078	0	0	0
Sub-total	29168	29168	29168	0	0	0
TOTAL (1000 Baht)	110894	110894	110894	0	0	0
FC	79354	78777	78777	0	0	0
LC	31540	32117	32117	0	0	0
TOTAL (1000 US \$)	4436	4436	4436	0	0	0
FC	3174	3151	3151	0	0	0
LC	1262	1285	1285	0	0	0

RANGSIT	2001			Thousand Baht		
	0	0		0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay :	0			0		
-Number of Line:	0			0		
-Number of Bank:	1			0		
-Type :	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV.	GIS	
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	200	200	200	0	0	0
1 -Transformer	1300	1300	1300	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	39363	39363	39363	0	0	0
1 -GIS	0	0	0	0	0	0
1 -Steel Structure	500	500	500	0	0	0
1 -Misc. hardware	200	200	200	0	0	0
1 -Transformer	37000	37000	37000	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	1663	1663	1663	0	0	0
1 -Others	0	0	0	0	0	0
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	40863	40863	40863	0	0	0
(FC)	35934	35671	35671	0	0	0
(LC)	4929	5192	5192	0	0	0
1 7.Misc.Expenses	2043	2043	2043	0	0	0
1 8.Engineering & SV	2860	2860	2860	0	0	0
1 9.Contingencies	4086	4086	4086	0	0	0
1 10.Import Duties	2555	2555	2555	0	0	0
1 11.Value Added Tax	3039	3039	3039	0	0	0
Sub-total	14583	14583	14583	0	0	0
TOTAL (1000 Baht)	55446	55446	55446	0	0	0
FC	39677	39388	39388	0	0	0
LC	15769	16058	16058	0	0	0
TOTAL (1000 US \$)	2218	2218	2218	0	0	0
FC	1587	1576	1576	0	0	0
LC	631	642	642	0	0	0

RANGSIT	2011			Thousand Baht		
	0	0		0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay :	0			0		
-Number of Line:	0			0		
-Number of Bank:	0			0		
-Type :	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV.	GIS	
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	0	0	0	0	0	0
1 -GIS	0	0	0	0	0	0
1 -Steel Structure	0	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0	0
1 -Others	0	0	0	0	0	0
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0
(FC)	0	0	0	0	0	0
(LC)	0	0	0	0	0	0
1 7.Misc.Expenses	0	0	0	0	0	0
1 8.Engineering & SV	0	0	0	0	0	0
1 9.Contingencies	0	0	0	0	0	0
1 10.Import Duties	0	0	0	0	0	0
1 11.Value Added Tax	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0	0
FC	0	0	0	0	0	0
LC	0	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0	0
FC	0	0	0	0	0	0
LC	0	0	0	0	0	0

SOUTH BANGKOK		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 5	0			
-Number of Line	: 1	0			
-Number of Bank	: 2	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement	1477	1898	141	0	0
1 3.Foundation Work					
1 -Bus	12532	12532	3759	0	0
1 -Transformer	2600	2600	2600	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	262697	282521	312518	0	0
1 -GIS			197375		
1 -Steel Structure	11564	14603	2190	0	0
1 -Misc. hardware	15960	32745	600	0	0
1 -Transformer	74000	74000	74000	0	0
1 -Circuit Breaker	55950	55950		0	0
1 -Disconnect.Swit	23805	23805		0	0
1 -Instrument Tran	43065	43065		0	0
1 -Control & SERV.	38353	38353	38353	0	0
1 -Others					
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	279306	299551	319018	0	0
(FC)	237387	246515	293017	0	0
(LC)	41919	53036	26001	0	0
1 7.Misc.Expense	13891	14883	15944	0	0
1 8.Engineering & SV	19551	20969	22331	0	0
1 9.Contingencies	27931	29955	31902	0	0
1 10.Import Duties	28978	34730	25924	0	0
1 11.Value Added Tax	21476	23267	24136	0	0
Sub-total	111827	123804	120237	0	0
TOTAL (1000 Baht)	391133	423355	439255	0	0
FC	262787	272869	322969	0	0
LC	128346	150486	116286	0	0
TOTAL (1000 US \$)	15645	16934	17570	0	0
FC	10511	10915	12919	0	0
LC	5134	6019	4651	0	0

SOUTH BANGKOK		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 1	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	200	200	200	0	0
1 -Transformer	1300	1300	1300	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	39363	39363	39363	0	0
1 -GIS			0		
1 -Steel Structure	500	500	500	0	0
1 -Misc. hardware	200	200	200	0	0
1 -Transformer	37000	37000	37000	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	1663	1663	1663	0	0
1 -Others					
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	40863	40863	40863	0	0
(FC)	35934	35671	35671	0	0
(LC)	4929	5192	5192	0	0
1 7.Misc.Expense	2043	2043	2043	0	0
1 8.Engineering & SV	2860	2860	2860	0	0
1 9.Contingencies	4086	4086	4086	0	0
1 10.Import Duties	2555	2555	2555	0	0
1 11.Value Added Tax	3039	3039	3039	0	0
Sub-total	14583	14583	14583	0	0
TOTAL (1000 Baht)	55446	55446	55446	0	0
FC	39677	39388	39388	0	0
LC	15769	16058	16058	0	0
TOTAL (1000 US \$)	2218	2218	2218	0	0
FC	1587	1576	1576	0	0
LC	631	642	642	0	0

SOUTH BANGKOK		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	0	0	0	0	0
1 -GIS			0		
1 -Steel Structure	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0
1 -Others					
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	0	0	0	0	0
(FC)	0	0	0	0	0
(LC)	0	0	0	0	0
1 7.Misc.Expense	0	0	0	0	0
1 8.Engineering & SV	0	0	0	0	0
1 9.Contingencies	0	0	0	0	0
1 10.Import Duties	0	0	0	0	0
1 11.Value Added Tax	0	0	0	0	0
Sub-total	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0

SOUTH BANGKOK		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	0	0	0	0	0
1 -GIS			0		
1 -Steel Structure	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0
1 -Others					
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	0	0	0	0	0
(FC)	0	0	0	0	0
(LC)	0	0	0	0	0
1 7.Misc.Expense	0	0	0	0	0
1 8.Engineering & SV	0	0	0	0	0
1 9.Contingencies	0	0	0	0	0
1 10.Import Duties	0	0	0	0	0
1 11.Value Added Tax	0	0	0	0	0
Sub-total	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0

SAMPHRAN 1		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	200	200	200	0	0
1 -Transformer	1300	1300	1300	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	39363	39363	39363	0	0
1 -GIS				0	0
1 -Steel Structure	500	500	500	0	0
1 -Misc. hardware	200	200	200	0	0
1 -Transformer	37000	37000	37000	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	1663	1663	1663	0	0
1 -Others				0	0
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	40863	40863	40863	0	0
(FC)	35934	35671	35671	0	0
(LC)	4929	5192	5192	0	0
1 7.Misc.Expense	2043	2043	2043	0	0
1 8.Engineering & SV	2860	2860	2860	0	0
1 9.Contingencies	4086	4086	4086	0	0
1 10.Import Duties	2555	2555	2555	0	0
1 11.Value Added Tax	3039	3039	3039	0	0
Sub-total	14583	14583	14583	0	0
TOTAL (1000 Baht)	55446	55446	55446	0	0
FC	39677	39388	39388	0	0
LC	15769	16058	16058	0	0
TOTAL (1000 US \$)	2218	2218	2218	0	0
FC	1587	1576	1576	0	0
LC	631	642	642	0	0

SAMPHRAN 1		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 3			0	
-Number of Line	: 2			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		886	1139	84	0
1 3.Foundation Work					
1 -Bus	7519	7519	2256	0	0
1 -Transformer	0	0	0	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	111222	123117	141155	0	0
1 -GIS			118425	0	0
1 -Steel Structure	6938	8762	1314	0	0
1 -Misc. hardware	9576	19647	400	0	0
1 -Transformer	0	0	0	0	0
1 -Circuit Breaker	33570	33570	0	0	0
1 -Disconnect.Swit	14283	14283	0	0	0
1 -Instrument Tran	25839	25839	0	0	0
1 -Control & SERV.	21016	21016	21016	0	0
1 -Others				0	0
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	119627	131775	143495	0	0
(FC)	100020	105497	133431	0	0
(LC)	19607	26278	10064	0	0
1 7.Misc.Expense	5937	6532	7171	0	0
1 8.Engineering & SV	8374	9224	10045	0	0
1 9.Contingencies	11963	13178	14350	0	0
1 10.Import Duties	14543	17994	12722	0	0
1 11.Value Added Tax	9330	10404	10930	0	0
Sub-total	50147	57332	55218	0	0
TOTAL (1000 Baht)	169774	189107	198713	0	0
FC	110863	116913	147009	0	0
LC	58911	72194	51704	0	0
TOTAL (1000 US \$)	6791	7564	7949	0	0
FC	4435	4677	5880	0	0
LC	2356	2888	2068	0	0

SAMPHRAN 1		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	0	0	0	0	0
1 -GIS				0	0
1 -Steel Structure	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0
1 -Transformer	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0
1 -Others				0	0
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	0	0	0	0	0
(FC)	0	0	0	0	0
(LC)	0	0	0	0	0
1 7.Misc.Expense	0	0	0	0	0
1 8.Engineering & SV	0	0	0	0	0
1 9.Contingencies	0	0	0	0	0
1 10.Import Duties	0	0	0	0	0
1 11.Value Added Tax	0	0	0	0	0
Sub-total	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0
FC	0	0	0	0	0
LC	0	0	0	0	0

SAMPHRAN 1		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 2 (STEP UP-115kV)			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus	400	400	400	0	0
1 -Transformer	0	0	0	0	0
1 -Trench	0	0	0	0	0
1 4.Control Building	0	0	0	0	0
1 5.Equipment	1400	1400	1400	0	0
1 -GIS			0	0	0
1 -Steel Structure	1000	1000	1000	0	0
1 -Misc. hardware	400	400	400	0	0
1 -Transformer	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0
1 -Others				0	0
1 6.Misc.Facilities	0	0	0	0	0
Sub-total	1800	1800	1800	0	0
(FC)	1180	655	655	0	0
(LC)	620	1145	1145	0	0
1 7.Misc.Expense	90	90	90	0	0
1 8.Engineering & SV	126	126	126	0	0
1 9.Contingencies	180	180	180	0	0
1 10.Import Duties	371	371	371	0	0
1 11.Value Added Tax	152	152	152	0	0
Sub-total	919	919	919	0	0
TOTAL (1000 Baht)	2719	2719	2719	0	0
FC	1338	760	760	0	0
LC	1381	1959	1959	0	0
TOTAL (1000 US \$)	109	109	109	0	0
FC	54	30	30	0	0
LC	55	78	78	0	0

SOUTH THONBURI		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 2	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		1200	1200	1200	0
1 -Transformer		2600	2600	2600	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		81526	81526	81526	0
1 -GIS		0	0	0	0
1 -Steel Structure		3000	3000	3000	0
1 -Misc. hardware		1200	1200	1200	0
1 -Transformer		74000	74000	74000	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		3326	3326	3326	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		85326	85326	85326	0
(FC)		74229	72653	72653	0
(LC)		11097	12673	12673	0
7. Misc. Expenses		4266	4266	4266	0
8. Engineering & SV		5973	5973	5973	0
9. Contingencies		8533	8533	8533	0
10. Import Duties		5852	5852	5852	0
11. Value Added Tax		6382	6382	6382	0
Sub-total		31006	31006	31006	0
TOTAL (1000 Baht)		116332	116332	116332	0
FC		82032	80299	80299	0
LC		34300	36033	36033	0
TOTAL (1000 US \$)		4653	4653	4653	0
FC		3281	3212	3212	0
LC		1372	1441	1441	0

SOUTH THONBURI		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expenses		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

SOUTH THONBURI		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expenses		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

SOUTH THONBURI		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expenses		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

RATCHADAPISEK		1997		Thousand Baht	
		0		0	
-Bus System	: One and a half	One and a half		0	
-Voltage	: 230 kV	500 kV		0	
-Number of Bay	: 0	0		0	
-Number of Line	: 0	0		0	
-Number of Bank	: 0	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS		0	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

RATCHADAPISEK		2006		Thousand Baht	
		0		0	
-Bus System	: One and a half	One and a half		0	
-Voltage	: 230 kV	500 kV		0	
-Number of Bay	: 0	0		0	
-Number of Line	: 0	0		0	
-Number of Bank	: 0	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS		0	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

RATCHADAPISEK		2001		Thousand Baht	
		0		0	
-Bus System	: One and a half	One and a half		0	
-Voltage	: 230 kV	500 kV		0	
-Number of Bay	: 0	0		0	
-Number of Line	: 0	0		0	
-Number of Bank	: 2	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS		0	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		400	400	400	0
1 -Transformer		2600	2600	2600	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		78726	78726	78726	0
1 -GIS		0	0	0	0
1 -Steel Structure		1000	1000	1000	0
1 -Misc. hardware		400	400	400	0
1 -Transformer		74000	74000	74000	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		3326	3326	3326	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		81726	81726	81726	0
(FC)		71867	71342	71342	0
(LC)		9859	10384	10384	0
1 7.Misc.Expense		4086	4086	4086	0
1 8.Engineering & SV		5721	5721	5721	0
1 9.Contingencies		8173	8173	8173	0
1 10.Import Duties		5110	5110	5110	0
1 11.Value Added Tax		6078	6078	6078	0
Sub-total		29168	29168	29168	0
TOTAL (1000 Baht)		110894	110894	110894	0
FC		79354	78777	78777	0
LC		31540	32117	32117	0
TOTAL (1000 US \$)		4436	4436	4436	0
FC		3174	3151	3151	0
LC		1262	1285	1285	0

RATCHADAPISEK		2011		Thousand Baht	
		0		0	
-Bus System	: One and a half	One and a half		0	
-Voltage	: 230 kV	500 kV		0	
-Number of Bay	: 0	0		0	
-Number of Line	: 0	0		0	
-Number of Bank	: 1	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS		0	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		200	200	200	0
1 -Transformer		1300	1300	1300	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		39363	39363	39363	0
1 -GIS		0	0	0	0
1 -Steel Structure		500	500	500	0
1 -Misc. hardware		200	200	200	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		1663	1663	1663	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		40863	40863	40863	0
(FC)		35934	35671	35671	0
(LC)		4929	5192	5192	0
1 7.Misc.Expense		2043	2043	2043	0
1 8.Engineering & SV		2860	2860	2860	0
1 9.Contingencies		4086	4086	4086	0
1 10.Import Duties		2555	2555	2555	0
1 11.Value Added Tax		3039	3039	3039	0
Sub-total		14583	14583	14583	0
TOTAL (1000 Baht)		55446	55446	55446	0
FC		39677	39388	39388	0
LC		15769	16058	16058	0
TOTAL (1000 US \$)		2218	2218	2218	0
FC		1587	1576	1576	0
LC		631	642	642	0

BANG KAPI		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 2			0	
-Number of Line	: 3 (KHLONG TOKY)			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		591	759	56	0
1 3.Foundation Work					
1 -Bus		5013	5013	1504	0
1 -Transformer		1300	1300	1300	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		112812	120741	133300	0
1 -GIS				78950	0
1 -Steel Structure		4626	5841	876	0
1 -Misc. hardware		6384	13098	600	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		22380	22380	-	0
1 -Disconnect.Swit		9522	9522	-	0
1 -Instrument Tran		17226	17226	-	0
1 -Control & SERV.		15674	15674	15674	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		119716	127813	136160	0
(FC)		102023	105674	124742	0
(LC)		17693	22139	11418	0
1 7.Misc.Expense		5956	6353	6805	0
1 8.Engineering & SV		8380	8947	9531	0
1 9.Contingencies		11972	12781	13616	0
1 10.Import Duties		12065	14366	11007	0
1 11.Value Added Tax		9183	9900	10297	0
Sub-total		47556	52347	51256	0
TOTAL (1000 Baht)		167272	180160	187416	0
FC		112916	116948	137502	0
LC		54356	63212	49914	0
TOTAL (1000 US \$)		6691	7206	7497	0
FC		4517	4678	5500	0
LC		2174	2528	1997	0

BANG KAPI		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

BANG KAPI		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 2			0	
-Number of Line	: 1			0	
-Number of Bank	: 2			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		591	759	56	0
1 3.Foundation Work					
1 -Bus		5013	5013	1504	0
1 -Transformer		1300	1300	1300	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		112812	120741	133100	0
1 -GIS				78950	0
1 -Steel Structure		4626	5841	876	0
1 -Misc. hardware		6384	13098	600	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		22380	22380	-	0
1 -Disconnect.Swit		9522	9522	-	0
1 -Instrument Tran		17226	17226	-	0
1 -Control & SERV.		15674	15674	15674	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		119716	127813	135960	0
(FC)		102023	105674	124575	0
(LC)		17693	22139	11385	0
1 7.Misc.Expense		5956	6353	6795	0
1 8.Engineering & SV		8380	8947	9517	0
1 9.Contingencies		11972	12781	13596	0
1 10.Import Duties		12065	14366	10948	0
1 11.Value Added Tax		9183	9900	10279	0
Sub-total		47556	52347	51135	0
TOTAL (1000 Baht)		167272	180160	187095	0
FC		112916	116948	137318	0
LC		54356	63212	49777	0
TOTAL (1000 US \$)		6691	7206	7484	0
FC		4517	4678	5493	0
LC		2174	2528	1991	0

BANG KAPI		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 1 (KHLONG TOKY)			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus		200	200	200	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		700	700	700	0
1 -GIS				0	0
1 -Steel Structure		500	500	500	0
1 -Misc. hardware		200	200	200	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		900	900	900	0
(FC)		591	328	328	0
(LC)		309	572	572	0
1 7.Misc.Expense		45	45	45	0
1 8.Engineering & SV		53	63	63	0
1 9.Contingencies		90	90	90	0
1 10.Import Duties		185	185	185	0
1 11.Value Added Tax		76	76	76	0
Sub-total		459	459	459	0
TOTAL (1000 Baht)		1359	1359	1359	0
FC		670	381	381	0
LC		689	978	978	0
TOTAL (1000 US \$)		54	54	54	0
FC		27	15	15	0
LC		28	39	39	0

ON NUCH	1997			Thousand Baht		
	0	0	0	0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay : 0				0		
-Number of Line: 0				0		
-Number of Bank: 3				0		
-Type : Al-pipe Al-pipe GIS				Al-pipe GIS		
	CONV.	INV.		CONV.		
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	600	600	600	0	0	0
1 -Transformer	3900	3900	3900	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	118090	118090	118090	0	0	0
1 -GIS				0	0	0
1 -Steel Structure	1500	1500	1500	0	0	0
1 -Misc. hardware	600	600	600	0	0	0
1 -Transformer	111000	111000	111000	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	4990	4990	4990	0	0	0
1 -Others						
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	122590	122590	122590	0	0	0
(FC)	107801	107801	107801	0	0	0
(LC)	14789	14789	14789	0	0	0
1 7.Misc.Expense	6130	6130	6130	0	0	0
1 8.Engineering & SV	8581	8581	8581	0	0	0
1 9.Contingencies	12259	12259	12259	0	0	0
1 10.Import Duties	7666	7666	7666	0	0	0
1 11.Value Added Tax	9119	9119	9119	0	0	0
Sub-total	43755	43755	43755	0	0	0
TOTAL (1000 Baht)	166345	166345	166345	0	0	0
FC	119031	118164	118164	0	0	0
LC	47314	48181	48181	0	0	0
TOTAL (1000 US \$)	6654	6654	6654	0	0	0
FC	4761	4727	4727	0	0	0
LC	1893	1927	1927	0	0	0

ON NUCH	2006			Thousand Baht		
	0	0	0	0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay : 0				0		
-Number of Line: 0				0		
-Number of Bank: 1				0		
-Type : Al-pipe Al-pipe GIS				Al-pipe GIS		
	CONV.	INV.		CONV.		
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	200	200	200	0	0	0
1 -Transformer	1300	1300	1300	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	39363	39363	39363	0	0	0
1 -GIS				0	0	0
1 -Steel Structure	500	500	500	0	0	0
1 -Misc. hardware	200	200	200	0	0	0
1 -Transformer	37000	37000	37000	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	1663	1663	1663	0	0	0
1 -Others						
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	40863	40863	40863	0	0	0
(FC)	35934	35671	35671	0	0	0
(LC)	4929	5192	5192	0	0	0
1 7.Misc.Expense	2043	2043	2043	0	0	0
1 8.Engineering & SV	2860	2860	2860	0	0	0
1 9.Contingencies	4086	4086	4086	0	0	0
1 10.Import Duties	2555	2555	2555	0	0	0
1 11.Value Added Tax	3039	3039	3039	0	0	0
Sub-total	14583	14583	14583	0	0	0
TOTAL (1000 Baht)	55446	55446	55446	0	0	0
FC	39677	39388	39388	0	0	0
LC	15769	16058	16058	0	0	0
TOTAL (1000 US \$)	2218	2218	2218	0	0	0
FC	1587	1576	1576	0	0	0
LC	631	642	642	0	0	0

ON NUCH	2001			Thousand Baht		
	0	0	0	0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay : 0				0		
-Number of Line: 2				0		
-Number of Bank: 0				0		
-Type : Al-pipe Al-pipe GIS				Al-pipe GIS		
	CONV.	INV.		CONV.		
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	400	400	400	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	1400	1400	1400	0	0	0
1 -GIS				0	0	0
1 -Steel Structure	1000	1000	1000	0	0	0
1 -Misc. hardware	400	400	400	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0	0
1 -Others						
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	1800	1800	1800	0	0	0
(FC)	1180	855	855	0	0	0
(LC)	620	1145	1145	0	0	0
1 7.Misc.Expense	90	90	90	0	0	0
1 8.Engineering & SV	126	126	126	0	0	0
1 9.Contingencies	180	180	180	0	0	0
1 10.Import Duties	371	371	371	0	0	0
1 11.Value Added Tax	152	152	152	0	0	0
Sub-total	919	919	919	0	0	0
TOTAL (1000 Baht)	2719	2719	2719	0	0	0
FC	1338	760	760	0	0	0
LC	1381	1959	1959	0	0	0
TOTAL (1000 US \$)	109	109	109	0	0	0
FC	54	30	30	0	0	0
LC	55	78	78	0	0	0

ON NUCH	2011			Thousand Baht		
	0	0	0	0	0	0
-Bus System : One and a half				One and a half		
-Voltage : 230 kV				500 kV		
-Number of Bay : 0				0		
-Number of Line: 0				0		
-Number of Bank: 0				0		
-Type : Al-pipe Al-pipe GIS				Al-pipe GIS		
	CONV.	INV.		CONV.		
1 1.Land Acquisition	0	0	0	0	0	0
1 2.Land Improvement	0	0	0	0	0	0
1 3.Foundation Work						
1 -Bus	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Trench	0	0	0	0	0	0
1 4.Control Building	0	0	0	0	0	0
1 5.Equipment	0	0	0	0	0	0
1 -GIS				0	0	0
1 -Steel Structure	0	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0
1 -Disconnect.Swit	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0
1 -Control & SERV.	0	0	0	0	0	0
1 -Others						
1 6.Misc.Facilities	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0
(FC)	0	0	0	0	0	0
(LC)	0	0	0	0	0	0
1 7.Misc.Expense	0	0	0	0	0	0
1 8.Engineering & SV	0	0	0	0	0	0
1 9.Contingencies	0	0	0	0	0	0
1 10.Import Duties	0	0	0	0	0	0
1 11.Value Added Tax	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0	0
FC	0	0	0	0	0	0
LC	0	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0	0
FC	0	0	0	0	0	0
LC	0	0	0	0	0	0

LAT PHRAO		1997		Thousand Baht	
		0		0	
-Bus System	: One and a half	0		One and a half	
-Voltage	: 230 kV	0		500 kV	
-Number of Bay:	0	0		0	
-Number of Line:	0	0		0	
-Number of Bank:	0	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	0		Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

LAT PHRAO		2006		Thousand Baht	
		0		0	
-Bus System	: One and a half	0		One and a half	
-Voltage	: 230 kV	0		500 kV	
-Number of Bay:	0	0		0	
-Number of Line:	0	0		0	
-Number of Bank:	4	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	0		Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		800	800	800	0
1 -Transformer		5200	5200	5200	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		157453	157453	157453	0
1 -GIS		0	0	0	0
1 -Steel Structure		2000	2000	2000	0
1 -Misc. hardware		800	800	800	0
1 -Transformer		148000	148000	148000	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		6653	6653	6653	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		163453	163453	163453	0
(FC)		143736	142685	142685	0
(LC)		19717	20768	20768	0
1 7.Misc.Expense		8173	8173	8173	0
1 8.Engineering & SV		11442	11442	11442	0
1 9.Contingencies		16345	16345	16345	0
1 10.Import Duties		10221	10221	10221	0
1 11.Value Added Tax		12158	12158	12158	0
Sub-total		58339	58339	58339	0
TOTAL (1000 Baht)		221792	221792	221792	0
FC		158709	157553	157553	0
LC		63083	64239	64239	0
TOTAL (1000 US \$)		8872	8872	8872	0
FC		6348	6302	6302	0
LC		2573	2570	2570	0

LAT PHRAO		2001		Thousand Baht	
		0		0	
-Bus System	: One and a half	0		One and a half	
-Voltage	: 230 kV	0		500 kV	
-Number of Bay:	0	0		0	
-Number of Line:	0	0		0	
-Number of Bank:	0	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	0		Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

LAT PHRAO		2011		Thousand Baht	
		0		0	
-Bus System	: One and a half	0		One and a half	
-Voltage	: 230 kV	0		500 kV	
-Number of Bay:	0	0		0	
-Number of Line:	0	0		0	
-Number of Bank:	0	0		0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS	0		Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

BANG PHLI		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 2			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		400	400	400	0
1 -Transformer		2600	2600	2600	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		78726	78726	78726	0
1 -GIS		0	0	0	0
1 -Steel Structure		1000	1000	1000	0
1 -Misc. hardware		400	400	400	0
1 -Transformer		74000	74000	74000	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		3326	3326	3326	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		81726	81726	81726	0
(FC)		71867	71342	71342	0
(LC)		9859	10384	10384	0
7. Misc. Expense		4086	4086	4086	0
8. Engineering & SV		5721	5721	5721	0
9. Contingencies		8173	8173	8173	0
10. Import Duties		5110	5110	5110	0
11. Value Added Tax		6078	6078	6078	0
Sub-total		29168	29168	29168	0
TOTAL (1000 Baht)		110894	110894	110894	0
FC		79354	78777	78777	0
LC		31540	32117	32117	0
TOTAL (1000 US \$)		4436	4436	4436	0
FC		3174	3151	3151	0
LC		1262	1285	1285	0

BANG PHLI		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

BANG PHLI		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

BANG PHLI		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 1			0	
-Number of Line	: 2			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		295	380	28	0
3. Foundation Work		0	0	0	0
1 -Bus		2506	2506	752	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		37074	41039	47318	0
1 -GIS		0	0	39475	0
1 -Steel Structure		2313	2921	438	0
1 -Misc. hardware		3192	6549	400	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		11190	11190	0	0
1 -Disconnect.Swit		4761	4761	0	0
1 -Instrument Tran		8613	8613	0	0
1 -Control & SERV.		7005	7005	7005	0
1 -Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		39875	43925	48098	0
(FC)		33340	35166	44699	0
(LC)		6535	8759	3399	0
7. Misc. Expense		1979	2177	2404	0
8. Engineering & SV		2791	3075	3367	0
9. Contingencies		3988	4393	4810	0
10. Import Duties		4848	5998	4319	0
11. Value Added Tax		3110	3468	3668	0
Sub-total		16716	19111	18568	0
TOTAL (1000 Baht)		56591	63036	66666	0
FC		36955	38972	49247	0
LC		19636	24064	17419	0
TOTAL (1000 US \$)		2264	2521	2667	0
FC		1478	1559	1970	0
LC		785	963	697	0

TEPARAK		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 6			0	
-Number of Line	: 4			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		2443	3046	536	0
1 2.Land Improvement		1772	2278	169	0
1 3.Foundation Work					0
1 -Bus		15038	15038	4511	0
1 -Transformer		5200	5200	5200	0
1 -Trench		1306	1306	1306	0
1 4.Control Building		19200	19200	19200	0
1 5.Equipment		380199	403988	439710	0
1 -GIS				236850	0
1 -Steel Structure		13877	17523	2628	0
1 -Misc. hardware		19151	39294	1600	0
1 -Transformer		148000	148000	148000	0
1 -Circuit Breaker		67140	67140		0
1 -Disconnect.Swit		28566	28566		0
1 -Instrument Tran		52833	52833		0
1 -Control & SERV.		50632	50632	50632	0
1 -Others					0
1 6.Misc.Facilities		22720	22720	22720	0
Sub-total		447879	472776	493352	0
(PC)		344114	355067	410553	0
(LC)		103764	117709	82799	0
1 7.Misc.Expense		22183	23373	24632	0
1 8.Engineering & SV		31351	33094	34535	0
1 9.Contingencies		44788	47278	49335	0
1 10.Import Duties		39196	46097	35734	0
1 11.Value Added Tax		33800	35949	36986	0
Sub-total		171318	185791	181222	0
TOTAL (1000 Baht)		619196	658567	674574	0
FC		385293	397453	456972	0
LC		233903	261114	217602	0
TOTAL (1000 US \$)		24768	26343	26983	0
FC		15412	15898	16279	0
LC		9356	10445	8704	0

TEPARAK		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					0
1 -Bus		200	200	200	0
1 -Transformer		1300	1300	1300	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		39363	39363	39363	0
1 -GIS				0	0
1 -Steel Structure		500	500	500	0
1 -Misc. hardware		200	200	200	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		0	0		0
1 -Disconnect.Swit		0	0		0
1 -Instrument Tran		0	0		0
1 -Control & SERV.		1663	1663	1663	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		40863	40863	40863	0
(PC)		35934	35671	35671	0
(LC)		4929	5192	5192	0
1 7.Misc.Expense		2043	2043	2043	0
1 8.Engineering & SV		2860	2860	2860	0
1 9.Contingencies		4086	4086	4086	0
1 10.Import Duties		2555	2555	2555	0
1 11.Value Added Tax		3039	3039	3039	0
Sub-total		14583	14583	14583	0
TOTAL (1000 Baht)		55446	55446	55446	0
FC		39677	39388	39388	0
LC		15769	16058	16058	0
TOTAL (1000 US \$)		2218	2218	2218	0
FC		1587	1576	1576	0
LC		631	642	642	0

TEPARAK		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS				0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0		0
1 -Disconnect.Swit		0	0		0
1 -Instrument Tran		0	0		0
1 -Control & SERV.		0	0	0	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(PC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

TEPARAK		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					0
1 -Bus		200	200	200	0
1 -Transformer		1300	1300	1300	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		39363	39363	39363	0
1 -GIS				0	0
1 -Steel Structure		500	500	500	0
1 -Misc. hardware		200	200	200	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		0	0		0
1 -Disconnect.Swit		0	0		0
1 -Instrument Tran		0	0		0
1 -Control & SERV.		1663	1663	1663	0
1 -Others					0
1 6.Misc.Facilities		0	0	0	0
Sub-total		40863	40863	40863	0
(PC)		35934	35671	35671	0
(LC)		4929	5192	5192	0
1 7.Misc.Expense		2043	2043	2043	0
1 8.Engineering & SV		2860	2860	2860	0
1 9.Contingencies		4086	4086	4086	0
1 10.Import Duties		2555	2555	2555	0
1 11.Value Added Tax		3039	3039	3039	0
Sub-total		14583	14583	14583	0
TOTAL (1000 Baht)		55446	55446	55446	0
FC		39677	39388	39388	0
LC		15769	16058	16058	0
TOTAL (1000 US \$)		2218	2218	2218	0
FC		1587	1576	1576	0
LC		631	642	642	0

CHAENG WATTHANA		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 4			0	
-Number of Line	: 4			0	
-Number of Bank	: 2			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		1181	1519	113	0
3. Foundation Work					
-Bus		10025	10025	3008	0
-Transformer		2600	2600	2600	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		225623	241482	266200	0
-GIS				157900	0
-Steel Structure		9251	11682	1752	0
-Misc. hardware		12768	26196	1200	0
-Transformer		74000	74000	74000	0
-Circuit Breaker		44760	44760	0	0
-Disconnect Switch		19044	19044	0	0
-Instrument Tran		34452	34452	0	0
-Control & SERV.		31348	31348	31348	0
-Others					0
6. Misc. Facilities		0	0	0	0
Sub-total		239429	255626	271921	0
(FC)		204047	211349	249151	0
(LC)		35382	44277	22770	0
7. Misc. Expense		11912	12705	13590	0
8. Engineering & SV		19670	17894	19034	0
9. Contingencies		23943	25563	27192	0
10. Import Duties		24130	28731	21897	0
11. Value Added Tax		18366	19798	20559	0
Sub-total		95111	104692	102272	0
TOTAL (1000 Baht)		334540	360318	374193	0
FC		225832	233899	274638	0
LC		108708	126419	99555	0
TOTAL (1000 US \$)		13382	14413	14968	0
FC		9033	9356	10986	0
LC		4348	5057	3982	0

CHAENG WATTHANA		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus		0	0	0	0
-Transformer		0	0	0	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
-GIS				0	0
-Steel Structure		0	0	0	0
-Misc. hardware		0	0	0	0
-Transformer		0	0	0	0
-Circuit Breaker		0	0	0	0
-Disconnect Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		0	0	0	0
-Others					0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

CHAENG WATTHANA		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus		200	200	200	0
-Transformer		1300	1300	1300	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		39363	39363	39363	0
-GIS				0	0
-Steel Structure		500	500	500	0
-Misc. hardware		200	200	200	0
-Transformer		37000	37000	37000	0
-Circuit Breaker		0	0	0	0
-Disconnect Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		1663	1663	1663	0
-Others					0
6. Misc. Facilities		0	0	0	0
Sub-total		40863	40863	40863	0
(FC)		35934	35671	35671	0
(LC)		4929	5192	5192	0
7. Misc. Expense		2043	2043	2043	0
8. Engineering & SV		2860	2860	2860	0
9. Contingencies		4086	4086	4086	0
10. Import Duties		2555	2555	2555	0
11. Value Added Tax		3039	3039	3039	0
Sub-total		14583	14583	14583	0
TOTAL (1000 Baht)		55446	55446	55446	0
FC		39677	39388	39388	0
LC		15769	16058	16058	0
TOTAL (1000 US \$)		2218	2218	2218	0
FC		1587	1576	1576	0
LC		631	642	642	0

CHAENG WATTHANA		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work					
-Bus		200	200	200	0
-Transformer		1300	1300	1300	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		39363	39363	39363	0
-GIS				0	0
-Steel Structure		500	500	500	0
-Misc. hardware		200	200	200	0
-Transformer		37000	37000	37000	0
-Circuit Breaker		0	0	0	0
-Disconnect Switch		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		1663	1663	1663	0
-Others					0
6. Misc. Facilities		0	0	0	0
Sub-total		40863	40863	40863	0
(FC)		35934	35671	35671	0
(LC)		4929	5192	5192	0
7. Misc. Expense		2043	2043	2043	0
8. Engineering & SV		2860	2860	2860	0
9. Contingencies		4086	4086	4086	0
10. Import Duties		2555	2555	2555	0
11. Value Added Tax		3039	3039	3039	0
Sub-total		14583	14583	14583	0
TOTAL (1000 Baht)		55446	55446	55446	0
FC		39677	39388	39388	0
LC		15769	16058	16058	0
TOTAL (1000 US \$)		2218	2218	2218	0
FC		1587	1576	1576	0
LC		631	642	642	0

WANG NOI		1997		Thousand Baht	
		1	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 6			0	
-Number of Line	: 4			0	
-Number of Bank	: 1			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		2443	3046	536	0
1 2.Land Improvement		1772	2278	169	0
1 3.Foundation Work					
1 -Bus		15038	15038	4511	0
1 -Transformer		1300	1300	1300	0
1 -Trench		1306	1306	1306	0
1 4.Control Building		19200	19200	19200	0
1 5.Equipment		264210	287999	323121	0
1 -GIS				236850	0
1 -Steel Structure		13877	17523	2628	0
1 -Misc. hardware		19151	39294	1000	0
1 -Transformer		37000	37000	37000	0
1 -Circuit Breaker		67140	67140		0
1 -Disconnect.Swit		28566	28566		0
1 -Instrument Tran		52833	52833		0
1 -Control & SERV.		45643	45643	45643	0
1 -Others					0
1 6.Misc.Facilities		22720	22720	22720	0
Sub-total		327989	352887	372863	0
(FC)		238083	249036	304023	0
(LC)		89906	103851	68840	0
1 7.Misc.Expenses		16189	17378	18608	0
1 8.Engineering & SV		22959	24702	26100	0
1 9.Contingencies		32799	35289	37286	0
1 10.Import Duties		32086	38988	28450	0
1 11.Value Added Tax		24911	27058	28043	0
Sub-total		128944	143415	138487	0
TOTAL (1000 Baht)		456933	496302	511350	0
FC		268269	280429	339399	0
LC		188664	215873	171951	0
TOTAL (1000 US \$)		18277	19852	20434	0
FC		10731	11217	13576	0
LC		7547	8635	6858	0

WANG NOI		2006		Thousand Baht	
		0	0	0	1
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			6	
-Number of Line	: 2			6	
-Number of Bank	: 0			3	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	473
1 3.Foundation Work					
1 -Bus		400	400	400	19560
1 -Transformer		0	0	0	11700
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		1400	1400	1400	1085312
1 -GIS					1260018
1 -Steel Structure		1000	1000	1000	724140
1 -Misc. hardware		400	400	400	18040
1 -Transformer		0	0	0	2706
1 -Circuit Breaker		0	0	0	97500
1 -Disconnect.Swit		0	0	0	33000
1 -Instrument Tran		0	0	0	333000
1 -Control & SERV.		0	0	0	210780
1 -Others		0	0	0	101340
1 6.Misc.Facilities		0	0	0	127980
Sub-total		1800	1800	1800	196872
(FC)		1180	635	635	1580955
(LC)		620	1145	1145	1773794
1 7.Misc.Expenses		90	90	90	967689
1 8.Engineering & SV		126	126	126	153903
1 9.Contingencies		180	180	180	112340
1 10.Import Duties		371	371	371	55839
1 11.Value Added Tax		152	152	152	64123
Sub-total		919	919	919	459363
TOTAL (1000 Baht)		2719	2719	2719	490860
FC		1338	760	760	1580955
LC		1381	1959	1959	1773794
TOTAL (1000 US \$)		109	109	109	1068066
FC		54	30	30	128945
LC		55	78	78	512889

WANG NOI		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS					0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expenses		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

WANG NOI		2011		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half			One and a half	
-Voltage	: 230 kV			500 kV	
-Number of Bay	: 0			0	
-Number of Line	: 0			0	
-Number of Bank	: 0			0	
-Type	: Al-pipe CONV. Al-pipe INV. GIS			Al-pipe CONV. GIS	
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work					
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS					0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expenses		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

CHIDLOM		Thousand Baht				
		0	0	0	0	0
-Bus System	: One and a half			One and a half		
-Voltage	: 230 kV			500 kV		
-Number of Bay	:	0		0		
-Number of Line	:	0		0		
-Number of Bank	:	0		0		
-Type	:	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV.	GIS
1 1.Land Acquisition		0	0	0	0	0
1 2.Land Improvement		0	0	0	0	0
1 3.Foundation Work						
1 -Bus		0	0	0	0	0
1 -Transformer		0	0	0	0	0
1 -Trench		0	0	0	0	0
1 4.Control Building		0	0	0	0	0
1 5.Equipment		0	0	0	0	0
1 -GIS		0	0	0	0	0
1 -Steel Structure		0	0	0	0	0
1 -Misc. hardware		0	0	0	0	0
1 -Transformer		0	0	0	0	0
1 -Circuit Breaker		0	0	0	0	0
1 -Disconnect.Swit		0	0	0	0	0
1 -Instrument Tran		0	0	0	0	0
1 -Control & SERV.		0	0	0	0	0
1 -Others		0	0	0	0	0
1 6.Miscellaneous		0	0	0	0	0
Sub-total		0	0	0	0	0
(FC)		0	0	0	0	0
(LC)		0	0	0	0	0
1 7.Miscellaneous		0	0	0	0	0
1 8.Engineering & SV		0	0	0	0	0
1 9.Contingencies		0	0	0	0	0
1 10.Import Duties		0	0	0	0	0
1 11.Value Added Tax		0	0	0	0	0
Sub-total		0	0	0	0	0
TOTAL (1000 Baht)		0	0	0	0	0
FC		0	0	0	0	0
LC		0	0	0	0	0
TOTAL (1000 US \$)		0	0	0	0	0
FC		0	0	0	0	0
LC		0	0	0	0	0

SATU PRADIY		Thousand Baht					
		0	0	0	0	0	0
-Bus System	: One and a half			One and a half			
-Voltage	: 230 kV			300 kV			
-Number of Bay	: 0			0			
-Number of Line	: 0			0			
-Number of Bank	: 0			0			
-Type	: Al-pipe	Al-pipe	GIS	Al-pipe	GIS		
	CONV.	INV.		CONV.			
1 1. Land Acquisition	0	0	0	0	0	0	0
1 2. Land Improvement	0	0	0	0	0	0	0
1 3. Foundation Work							
1 -Bus	0	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0	0
1 -Trench	0	0	0	0	0	0	0
1 4. Control Building	0	0	0	0	0	0	0
1 5. Equipment	0	0	0	0	0	0	0
1 -GIS	0	0	0	0	0	0	0
1 -Steel Structure	0	0	0	0	0	0	0
1 -Misc. hardware	0	0	0	0	0	0	0
1 -Transformer	0	0	0	0	0	0	0
1 -Circuit Breaker	0	0	0	0	0	0	0
1 -Disconnect. Swit	0	0	0	0	0	0	0
1 -Instrument Tran	0	0	0	0	0	0	0
1 -Control & SHRV.	0	0	0	0	0	0	0
1 -Others	0	0	0	0	0	0	0
1 6. Misc. Facilities	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
(FC)	0	0	0	0	0	0	0
(LC)	0	0	0	0	0	0	0
1 7. Misc. Expense	0	0	0	0	0	0	0
1 8. Engineering & SV	0	0	0	0	0	0	0
1 9. Contingencies	0	0	0	0	0	0	0
1 10. Import Duties	0	0	0	0	0	0	0
1 11. Value Added Tax	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0
TOTAL (1000 Baht)	0	0	0	0	0	0	0
FC	0	0	0	0	0	0	0
LC	0	0	0	0	0	0	0
TOTAL (1000 US \$)	0	0	0	0	0	0	0
FC	0	0	0	0	0	0	0
LC	0	0	0	0	0	0	0

<A> S.S.		1997		Thousand Baht	
-Bus System	: One and a half	0	0	0	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	:	0	0	0	0
-Number of Line	:	0	0	0	0
-Number of Bank	:	0	0	0	0
-Type	:	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV. GIS
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
-Bus		0	0	0	0
-Transformer		0	0	0	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
-GIS		0	0	0	0
-Steel Structure		0	0	0	0
-Misc. hardware		0	0	0	0
-Transformer		0	0	0	0
-Circuit Breaker		0	0	0	0
-Disconnect.Swit		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		0	0	0	0
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<A> S.S.		2006		Thousand Baht	
-Bus System	: One and a half	0	0	0	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	:	0	0	0	0
-Number of Line	:	0	0	0	0
-Number of Bank	:	0	0	0	0
-Type	:	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV. GIS
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
-Bus		0	0	0	0
-Transformer		0	0	0	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
-GIS		0	0	0	0
-Steel Structure		0	0	0	0
-Misc. hardware		0	0	0	0
-Transformer		0	0	0	0
-Circuit Breaker		0	0	0	0
-Disconnect.Swit		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		0	0	0	0
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<A> S.S.		2001		Thousand Baht	
-Bus System	: One and a half	1	1	0	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	:	6	6	0	0
-Number of Line	:	12	12	0	0
-Number of Bank	:	0	0	0	0
-Type	:	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV. GIS
1. Land Acquisition		0	0	0	0
2. Land Improvement		1772	2278	169	0
3. Foundation Work		0	0	0	0
-Bus		15038	15038	4511	0
-Transformer		0	0	0	0
-Trench		1306	1306	1306	0
4. Control Building		19200	19200	19200	0
5. Equipment		225546	249338	285857	0
-GIS		0	0	236850	0
-Steel Structure		13877	17523	2628	0
-Misc. hardware		19151	39294	2400	0
-Transformer		0	0	0	0
-Circuit Breaker		67140	67140	0	0
-Disconnect.Swit		28566	28566	0	0
-Instrument Tran		52833	52833	0	0
-Control & SERV.		43979	43979	43979	0
-Others		0	0	0	0
6. Misc. Facilities		22720	22720	22720	0
Sub-total		285582	309877	338638	0
(FC)		202740	213693	269846	0
(LC)		82842	96184	68792	0
7. Misc. Expense		14191	15380	16923	0
8. Engineering & SV		19991	21691	23705	0
9. Contingencies		28558	30988	33864	0
10. Import Duties		29717	36618	26489	0
11. Value Added Tax		21948	24099	25846	0
Sub-total		114405	128772	126527	0
TOTAL (1000 Baht)		399987	438649	465165	0
FC		229017	241117	302109	0
LC		170970	197532	163056	0
TOTAL (1000 US \$)		15999	17546	18607	0
FC		9161	9645	12084	0
LC		6839	7901	6522	0

<A> S.S.		2011		Thousand Baht	
-Bus System	: One and a half	0	0	0	0
-Voltage	: 230 kV			500 kV	
-Number of Bay	:	0	0	0	0
-Number of Line	:	0	0	0	0
-Number of Bank	:	0	0	0	0
-Type	:	Al-pipe CONV.	Al-pipe INV.	GIS	Al-pipe CONV. GIS
1. Land Acquisition		0	0	0	0
2. Land Improvement		0	0	0	0
3. Foundation Work		0	0	0	0
-Bus		0	0	0	0
-Transformer		0	0	0	0
-Trench		0	0	0	0
4. Control Building		0	0	0	0
5. Equipment		0	0	0	0
-GIS		0	0	0	0
-Steel Structure		0	0	0	0
-Misc. hardware		0	0	0	0
-Transformer		0	0	0	0
-Circuit Breaker		0	0	0	0
-Disconnect.Swit		0	0	0	0
-Instrument Tran		0	0	0	0
-Control & SERV.		0	0	0	0
-Others		0	0	0	0
6. Misc. Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
7. Misc. Expense		0	0	0	0
8. Engineering & SV		0	0	0	0
9. Contingencies		0	0	0	0
10. Import Duties		0	0	0	0
11. Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<C> S.S.		1997		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<C> S.S.		2006		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<C> S.S.		2001		Thousand Baht	
		0	0	0	0
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 0	0			
-Number of Line	: 0	0			
-Number of Bank	: 0	0			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		0	0	0	0
1 2.Land Improvement		0	0	0	0
1 3.Foundation Work		0	0	0	0
1 -Bus		0	0	0	0
1 -Transformer		0	0	0	0
1 -Trench		0	0	0	0
1 4.Control Building		0	0	0	0
1 5.Equipment		0	0	0	0
1 -GIS		0	0	0	0
1 -Steel Structure		0	0	0	0
1 -Misc. hardware		0	0	0	0
1 -Transformer		0	0	0	0
1 -Circuit Breaker		0	0	0	0
1 -Disconnect.Swit		0	0	0	0
1 -Instrument Tran		0	0	0	0
1 -Control & SERV.		0	0	0	0
1 -Others		0	0	0	0
1 6.Misc.Facilities		0	0	0	0
Sub-total		0	0	0	0
(FC)		0	0	0	0
(LC)		0	0	0	0
1 7.Misc.Expense		0	0	0	0
1 8.Engineering & SV		0	0	0	0
1 9.Contingencies		0	0	0	0
1 10.Import Duties		0	0	0	0
1 11.Value Added Tax		0	0	0	0
Sub-total		0	0	0	0
TOTAL (1000 Baht)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0
TOTAL (1000 US \$)		0	0	0	0
FC		0	0	0	0
LC		0	0	0	0

<C> S.S.		2011		Thousand Baht	
		1	0	0	1
-Bus System	: One and a half	One and a half			
-Voltage	: 230 kV	500 kV			
-Number of Bay	: 7	3			
-Number of Line	: 14	2			
-Number of Bank	: 0	4			
-Type	: Al-pipe CONV. Al-pipe INV. GIS	Al-pipe CONV. GIS			
1 1.Land Acquisition		2795	3497	569	0
1 2.Land Improvement		2067	2658	197	2410
1 3.Foundation Work					236
1 -Bus		17544	17544	5283	9780
1 -Transformer		0	0	0	15600
1 -Trench		1306	1306	1306	0
1 4.Control Building		19200	19200	19200	0
1 5.Equipment		262621	290375	333177	843266
1 -GIS				276325	930669
1 -Steel Structure		16190	20444	3067	9020
1 -Misc. hardware		22343	45843	2800	1353
1 -Transformer		0	0	0	1800
1 -Circuit Breaker		78330	78330	0	444000
1 -Disconnect.Swit		33327	33327	0	105390
1 -Instrument Tran		61446	61446	0	50670
1 -Control & SERV.		50985	50985	50985	63990
1 -Others					121446
1 6.Misc.Facilities		22720	22720	22720	0
Sub-total		328253	357300	382432	871056
(FC)		236080	248859	314546	954314
(LC)		92173	108441	67886	765137
1 7.Misc.Expense		16170	17557	19083	105919
1 8.Engineering & SV		22978	25011	26770	43432
1 9.Contingencies		32825	35730	38243	47704
1 10.Import Duties		34564	42616	30807	60974
1 11.Value Added Tax		25057	27363	28873	87106
Sub-total		131594	148477	143776	95431
TOTAL (1000 Baht)		459847	505777	526208	1212661
FC		286251	280437	350926	844430
LC		193596	225340	175282	95751
TOTAL (1000 US \$)		18394	20231	21048	48514
FC		10650	11217	14037	33777
LC		7744	9014	7011	38230

BREAK DOWN
OF
TRANSMISSION LINE COST

CONSTRUCTION COST-OVERHEAD LINE						

Year	1988					
Section	NONG CHOK - ON MUC8					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	1				1	
-poor	1				0	
Length (km)	16.8					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(NCM)						
-(Number)	2	4	2	4	4	4
Route Survey	302.4	302.4	302.4	302.4	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1680	1680	1680	1680	0	0
Tower Footing	43646.4	61104.96	124143.6	173801.0	0	0
Equipment						
-Tower Body	25704	35985.6	80740.8	113037.1	0	0
-Insulator Strings	8232	16464	16464	32928	0	0
-Conductor	8920.8	17841.6	17841.6	35683.2	0	0
-	2436	2436	17724	17724	0	0
-OGW	504	504	504	504	0	0
-Accessories	2553.6	5107.2	5107.2	10214.4	0	0
-Ground Wire	462	462	462	462	0	0
-Others						
* SUB-TOTAL	94441	141888	264970	385336	0	0
Miscellaneous	4706.93	7079.28	13233.38	19301.68	0	0
Engineering & SV.	6610.87	9932.16	18547.9	27043.52	0	0
Contingency	9444.1	14188.8	26497	38533.6	0	0
Import Duty	4265	8202	8040	15752	0	0
Value Added Tax	6888.252	10485.13	19089.53	28124.99	0	0
* SUB-TOTAL	31915	49887	85408	128856	0	0
* TOTAL	126356	191775	350378	515192	0	0
Removal	20764.8	0	0	0	0	0
* DIRECT COST	4.61	6.51	11.43	16.28	0	0
* INDIRECT COST	1.28	2	3.42	5.15	0	0
* FOREIGN CURR.	0.49	0.94	0.92	1.8	0	0
* LOCAL CURR.	5.4	7.57	13.93	19.63	0	0
* TOTAL (mill.US\$)	5.89	8.51	14.85	21.43	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2009					
Section	NONG CHOK - <C>					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	19				0	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	342	342	342	342	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1900	1900	1900	1900	0	0
Tower Footing	49362	69106.8	140400.5	196560.7	0	0
Equipment						
-Tower Body	29070	40698	91314	127839.6	0	0
-Insulator Strings	9310	18620	18620	37240	0	0
-Conductor	10089	20178	20178	40356	0	0
-	2755	2755	20045	20045	0	0
-OGW	570	570	570	570	0	0
-Accessories	2888	5776	5776	11552	0	0
-Ground Wire	522.5	522.5	522.5	522.5	0	0
-Others						
* SUB-TOTAL	106809	160468	299668	436928	0	0
Miscellaneous	5323.35	8006.3	14966.3	21829.3	0	0
Engineering & SV.	7476.63	11232.76	20976.76	30584.96	0	0
Contingency	10680.9	16046.8	29966.8	43692.8	0	0
Import Duty	4823	9276	9093	17814	0	0
Value Added Tax	7790.3	11858.14	21589.33	31808	0	0
* SUB-TOTAL	36094	56420	96592	145729	0	0
* TOTAL	142903	216888	396260	582657	0	0
Removal	23484	0	0	0	0	0
* DIRECT COST	5.21	7.36	12.93	18.42	0	0
* INDIRECT COST	1.44	2.26	3.86	5.83	0	0
* FOREIGN CURR.	0.55	1.06	1.04	2.04	0	0
* LOCAL CURR.	6.1	8.56	15.75	22.21	0	0
* TOTAL (mill.US\$)	6.65	9.62	16.79	24.25	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2010					
Section	NONG CHOK - <C>					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	19				19	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	342	342	342	342	342	342
Right of Way	0	0	0	0	0	0
Preliminary Work	1900	1900	1900	1900	2945	2945
Tower Footing	49362	69106.8	140400.5	196560.7	265705.8	84588
Equipment						
-Tower Body	29070	40698	91314	127839.6	279910.2	89110
-Insulator Strings	9310	18620	18620	37240	37240	22344
-Conductor	10089	20178	20178	40356	40356	20178
-	2755	2755	20045	20045	20045	8930
-OGW	570	570	570	570	570	570
-Accessories	2888	5776	5776	11552	11552	8664
-Ground Wire	522.5	522.5	522.5	522.5	741	741
-Others						
* SUB-TOTAL	106809	160468	299668	436928	659407	238412
Miscellaneous	5323.35	8006.3	14966.3	21829.3	32953.25	11903.5
Engineering & SV.	7476.63	11232.76	20976.76	30584.96	46158.49	16688.84
Contingency	10680.9	16046.8	29966.8	43692.8	65940.7	23841.2
Import Duty	4823	9276	9093	17814	18073	11849
Value Added Tax	7790.3	11858.14	21589.33	31808	47399.66	17494.33
* SUB-TOTAL	36094	56420	96592	145729	210525	81777
* TOTAL	142903	216888	396260	582657	869932	320189
Removal	23484	0	0	0	0	0
* DIRECT COST	5.21	7.36	12.93	18.42	27.32	10.48
* INDIRECT COST	1.44	2.26	3.86	5.83	8.42	3.27
* FOREIGN CURR.	0.55	1.06	1.04	2.04	2.07	1.35
* LOCAL CURR.	6.1	8.56	15.75	22.21	33.67	12.4
* TOTAL (mill.US\$)	6.65	9.62	16.79	24.25	35.74	13.75

CONSTRUCTION COST-OVERHEAD LINE						

Year	1995					
Section	KONG CHOK - WANG NOI					
New line ?	0				1	
Existing ?	0	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	0				64	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	0	0	0	0	1152	1152
Right of Way	0	0	0	0	344000	344000
Preliminary Work	0	0	0	0	9920	9920
Tower Footing	0	0	0	0	895009.1	284928
Equipment						
-Tower Body	0	0	0	0	942855.5	300160
-Insulator Strings	0	0	0	0	125440	75264
-Conductor	0	0	0	0	135936	67968
	0	0	0	0	67520	30080
-OGW	0	0	0	0	1920	1920
-Accessories	0	0	0	0	38912	29184
-Ground Wire	0	0	0	0	2496	2496
-Others						
* SUB-TOTAL	0	0	0	0	2565161	1147072
Miscellaneous	0	0	0	0	111000.4	40096
Engineering & SV.	0	0	0	0	179561.2	80295.04
Contingency	0	0	0	0	256516.1	114707.2
Import Duty	0	0	0	0	60878	39911
Value Added Tax	0	0	0	0	159662.0	58928.17
* SUB-TOTAL	0	0	0	0	767618	333937
* TOTAL	0	0	0	0	3332779	1481009
Removal	0	0	0	0	0	0
* DIRECT COST	0	0	0	0	102.61	45.88
* INDIRECT COST	0	0	0	0	30.7	13.36
* FOREIGN CURR.	0	0	0	0	6.96	4.56
* LOCAL CURR.	0	0	0	0	126.35	54.68
* TOTAL (mill.US\$)	0	0	0	0	133.31	59.24

CONSTRUCTION COST-OVERHEAD LINE						

Year	2000					
Section	SAI NOI - BANGKOK NOI					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	1				1	
-poor						
Length (km)	29.6				29.6	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	532.8	532.8	532.8	532.8	532.8	532.8
Right of Way	0	0	0	0	0	0
Preliminary Work	2960	2960	2960	2960	4588	4588
Tower Footing	76900.8	107661.1	218729.2	306220.8	413941.7	131779.2
Equipment						
-Tower Body	45288	63403.2	142257.6	199160.6	436070.6	138824
-Insulator Strings	14504	29008	29008	58016	58016	34809.6
-Conductor	15717.6	31435.2	31435.2	62870.4	62870.4	31435.2
-	4292	4292	31228	31228	31228	13912
-DCW	888	888	888	888	888	888
-Accessories	4499.2	8998.4	8998.4	17996.8	17996.8	13497.6
-Ground Wire	814	814	814	814	1154.4	1154.4
-Others						
* SUB-TOTAL	166396	249993	466851	680688	1027287	371421
Miscellaneous	8293.16	12473.01	23315.91	34007.76	51337.71	18544.41
Engineering & SV.	11647.72	17499.51	32679.57	47648.16	71910.09	25999.47
Contingency	16639.6	24999.3	46685.1	68068.8	102728.7	37142.1
Import Duty	7514	14450	14166	27753	28156	18459
Value Added Tax	12136.40	18473.71	33633.89	49553.57	73843.71	27254.30
* SUB-TOTAL	56231	87896	150480	227031	327976	127399
* TOTAL	222627	337889	617331	907719	1355263	498820
Removal	36585.6	0	0	0	0	0
* DIRECT COST	8.12	11.46	20.13	28.69	42.55	16.32
* INDIRECT COST	2.25	3.52	6.02	9.08	13.12	5.1
* FOREIGN CURR.	0.86	1.65	1.62	3.17	3.22	2.11
* LOCAL CURR.	9.51	13.33	24.53	34.6	52.45	19.31
* TOTAL (mill.US\$)	10.37	14.98	26.15	37.77	55.67	21.42

CONSTRUCTION COST-OVERHEAD LINE						

Year	2004					
Section	SAI NOI - RANGSIT					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	1				1	
-poor						
Length (km)	24.5				24.5	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	441	441	441	441	441	441
Right of Way	0	0	0	0	0	0
Preliminary Work	2450	2450	2450	2450	3797.5	3797.5
Tower Footing	63651	89111.4	181042.7	253459.8	342620.6	109074
Equipment						
-Tower Body	37485	52479	117747	164845.8	360936.8	114905
-Insulator Strings	12005	24010	24010	48020	48020	28812
-Conductor	13009.5	26019	26019	52038	52038	26019
-	3552.5	3552.5	25847.5	25847.5	25847.5	11515
-DCW	735	735	735	735	735	735
-Accessories	3724	7448	7448	14896	14896	11172
-Ground Wire	673.75	673.75	673.75	673.75	955.5	955.5
-Others						
* SUB-TOTAL	137727	206920	386414	563407	850288	307426
Miscellaneous	6864.3	10323.95	19298.65	28148.3	42492.35	15349.25
Engineering & SV.	9640.89	14484.4	27048.98	39438.49	59520.16	21519.82
Contingency	13772.7	20692	38641.4	56340.7	85028.8	30742.6
Import Duty	6220	11961	11725	22971	23305	15279
Value Added Tax	10045.42	15290.8	27838.86	41015.59	61120.64	22558.48
* SUB-TOTAL	46543	72752	124553	187914	271467	105449
* TOTAL	184270	279672	510967	751321	1121755	412875
Removal	30282	0	0	0	0	0
* DIRECT COST	6.72	9.49	16.67	23.75	35.22	13.51
* INDIRECT COST	1.86	2.91	4.98	7.52	10.86	4.22
* FOREIGN CURR.	0.71	1.37	1.34	2.63	2.66	1.75
* LOCAL CURR.	7.87	11.03	20.31	28.64	43.42	15.98
* TOTAL (mill.US\$)	8.58	12.4	21.65	31.27	46.08	17.73

CONSTRUCTION COST-OVERHEAD LINE						

Year	1995					
Section	SAI NOI - WANG NOI					
New line ?	0	0	0	0	1	0
Existing ?	0	0	0	0	0	0
Soil -fair	0	0	0	0	0	0
-poor	1	0	0	0	1	0
Length (km)	0	0	0	0	56	0

-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4

Route Survey	0	0	0	0	1008	1008
Right of Way	0	0	0	0	301000	301000
Preliminary Work	0	0	0	0	8680	8680
Tower Footing	0	0	0	0	783132.9	249312
Equipment						
-Tower Body	0	0	0	0	824998.5	262640
-Insulator Strings	0	0	0	0	109760	65856
-Conductor	0	0	0	0	118944	59472
-OGW	0	0	0	0	59080	26320
-Accessories	0	0	0	0	1680	1680
-Ground Wire	0	0	0	0	34048	25536
-Others	0	0	0	0	2164	2164
* SUB-TOTAL	0	0	0	0	2244516	1003688

Miscellaneous	0	0	0	0	97125.4	35084
Engineering & SV.	0	0	0	0	157116.1	70258.16
Contingency	0	0	0	0	224451.6	100368.8
Import Duty	0	0	0	0	53268	34922
Value Added Tax	0	0	0	0	139704.3	51562.14
* SUB-TOTAL	0	0	0	0	671665	292195

* TOTAL	0	0	0	0	2916181	1295883
Removal	0	0	0	0	0	0

* DIRECT COST	0	0	0	0	89.78	40.15
* INDIRECT COST	0	0	0	0	26.87	11.69

* FOREIGN CURR.	0	0	0	0	6.09	3.99
* LOCAL CURR.	0	0	0	0	110.56	47.85

* TOTAL (mill.US\$)	0	0	0	0	116.65	51.84

CONSTRUCTION COST-OVERHEAD LINE						

Year	2000					
Section	NORTH HANGKOK - (TALINGCHAM POINT)					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	9.2				9.2	
					#	
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	165.6	165.6	165.6	165.6	165.6	165.6
Right of Way	0	0	0	0	0	0
Preliminary Work	920	920	920	920	1426	1426
Tower Footing	23901.6	33462.24	67983.4	93176.76	128657.5	40938.4
Equipment						
-Tower Body	14076	19706.4	44215.2	61901.28	135535.4	43148
-Insulator Strings	4508	9016	9016	18032	18032	10819.2
-Conductor	4885.2	9770.4	9770.4	19540.8	19540.8	9770.4
-	1334	1334	9706	9706	9706	4324
-OGW	276	276	276	276	276	276
-Accessories	1398.4	2796.8	2796.8	5593.6	5593.6	4195.2
-Ground Wire	253	253	253	253	358.8	358.8
-Others						
* SUB-TOTAL	51718	77700	145102	211565	319292	115442
Miscellaneous	2577.62	3876.72	7246.82	10569.97	15956.32	5763.82
Engineering & SV.	3620.26	5439	10157.14	14809.55	22350.44	8080.94
Contingency	5171.8	7770	14510.2	21156.5	31929.2	11544.2
Import Duty	2336	4491	4403	8626	8751	5737
Value Added Tax	3772.188	5741.778	10453.75	15401.77	22951.41	8470.938
* SUB-TOTAL	17478	27318	46771	70564	101938	39597
* TOTAL	69196	105018	191873	282129	421230	155039
Removal	11371.2	0	0	0	0	0
* DIRECT COST	2.52	3.56	6.25	8.91	13.22	5.07
* INDIRECT COST	0.7	1.09	1.87	2.82	4.08	1.58
* FOREIGN CURR.	0.27	0.51	0.5	0.99	1	0.66
* LOCAL CURR.	2.95	4.14	7.62	10.74	16.3	5.99
* TOTAL (mill.US\$)	3.22	4.65	8.12	11.73	17.3	6.65

CONSTRUCTION COST-OVERHEAD LINE						

Year	2000					
Section	(TALINGCHAM POINT) - BANGKOK NOI					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	9.2				9.2	
						8
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	165.6	165.6	165.6	165.6	165.6	165.6
Right of Way	0	0	0	0	0	0
Preliminary Work	920	920	920	920	1426	1426
Tower Footing	23901.6	33462.24	67983.4	93176.76	128657.5	40938.4
Equipment						
-Tower Body	14076	19706.4	44215.2	61901.28	135535.4	43148
-Insulator Strings	4508	9016	9016	18032	18032	10819.2
-Conductor	4885.2	9770.4	9770.4	19540.8	19540.8	9770.4
-	1334	1334	9706	9706	9706	4324
-OGW	276	276	276	276	276	276
-Accessories	1398.4	2796.8	2796.8	5593.6	5593.6	4195.2
-Ground Wire	253	253	253	253	358.8	358.8
-Others						
* SUB-TOTAL	51718	77700	145102	211565	319292	115442
Miscellaneous	2577.62	3876.72	7246.82	10569.97	15956.32	5763.82
Engineering & SV.	3620.26	5439	10157.14	14809.55	22350.44	8080.94
Contingency	5171.8	7770	14510.2	21156.5	31929.2	11544.2
Import Duty	2336	4491	4403	8626	8751	5737
Value Added Tax	3772.188	5741.778	10453.75	15401.77	22951.41	8470.938
* SUB-TOTAL	17478	27318	46771	70564	101938	39597
* TOTAL	69196	105018	191873	282129	421230	155039
Removal	11371.2	0	0	0	0	0
* DIRECT COST	2.52	3.56	6.25	8.91	13.22	5.07
* INDIRECT COST	0.7	1.09	1.87	2.82	4.08	1.58
* FOREIGN CURR.	0.27	0.51	0.5	0.99	1	0.66
* LOCAL CURR.	2.95	4.14	7.62	10.74	16.3	5.99
* TOTAL (mill.US\$)	3.22	4.65	8.12	11.73	17.3	6.65

CONSTRUCTION COST-OVERHEAD LINE						

Year	2002					
Section	NORTH BANGKOK - <A>					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	4.4				4.4	
					#	
-(KV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(NCH)						
-(Number)	2	4	2	4	4	4
Route Survey	79.2	79.2	79.2	79.2	79.2	79.2
Right of Way	0	0	0	0	0	0
Preliminary Work	440	440	440	440	682	682
Tower Footing	11431.2	16003.68	32513.8	45519.32	61531.87	19588.8
Equipment						
-Tower Body	6732	9424.8	21146.4	29604.96	64821.31	20636
-Insulator Strings	2156	4312	4312	8624	8624	5174.4
-Conductor	2336.4	4672.8	4672.8	9345.6	9345.6	4672.8
-	638	638	4642	4642	4642	2068
-OGW	132	132	132	132	132	132
-Accessories	668.8	1337.6	1337.6	2675.2	2675.2	2006.4
-Ground Wire	121	121	121	121	171.6	171.6
-Others						
* SUB-TOTAL	24735	37161	69397	101183	152705	55211
Miscellaneous	1232.79	1854.09	3465.89	5055.19	7631.29	2756.59
Engineering & SV.	1731.45	2601.27	4857.79	7082.81	10889.35	2864.77
Contingency	2473.5	3716.1	6939.7	10118.3	15270.5	5521.1
Import Duty	1117	2148	2106	4125	4185	2744
Value Added Tax	1804.096	2746.086	4999.666	7366.016	10976.75	4051.306
* SUB-TOTAL	8359	13066	22369	33747	48753	18938
* TOTAL	33094	50227	91766	134930	201458	74149
Removal	5438.4	0	0	0	0	0
* DIRECT COST	1.21	1.71	3	4.27	6.33	2.43
* INDIRECT COST	0.33	0.52	0.89	1.35	1.95	0.76
* FOREIGN CURR.	0.13	0.25	0.24	0.47	0.48	0.31
* LOCAL CURR.	1.41	1.98	3.65	5.15	7.8	2.88
* TOTAL (mill.US\$)	1.54	2.23	3.89	5.62	8.28	3.19

CONSTRUCTION COST-OVERHEAD LINE						

Year	2003					
Section	BANGKOK NOI - junction pt. to BANPHRAM 1					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	0				0	
-poor	1				1	
Length (km)	0.3				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	5.4	5.4	5.4	5.4	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	30	30	30	30	0	0
Tower Footing	779.4	1091.16	2216.85	3103.59	0	0
Equipment						
-Tower Body	459	642.6	1441.8	2018.52	0	0
-Insulator Strings	147	294	294	588	0	0
-Conductor	159.3	318.6	318.6	637.2	0	0
-	43.5	43.5	316.5	316.5	0	0
-OGW	9	9	9	9	0	0
-Accessories	45.6	91.2	91.2	182.4	0	0
-Ground Wire	8.25	8.25	8.25	8.25	0	0
-Others						
* SUB-TOTAL	1686	2534	4732	6899	0	0
Miscellaneous	84.03	126.43	236.33	344.68	0	0
Engineering & SV.	118.02	177.38	331.24	482.93	0	0
Contingency	168.6	253.4	473.2	689.9	0	0
Import Duty	76	146	144	281	0	0
Value Added Tax	122.962	187.222	340.942	502.222	0	0
* SUB-TOTAL	570	890	1526	2301	0	0
* TOTAL	2256	3424	6258	9200	0	0
Removal	370.8	0	0	0	0	0
* DIRECT COST	0.08	0.11	0.2	0.29	0	0
* INDIRECT COST	0.02	0.04	0.06	0.09	0	0
* FOREIGN CURR.	0.01	0.02	0.02	0.03	0	0
* LOCAL CURR.	0.09	0.13	0.24	0.35	0	0
* TOTAL (mill.US\$)	0.1	0.15	0.26	0.38	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2003					
Section	junction pt. - BANPHRAM 1					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	0				0	
-poor	1				1	
Length (km)	11.7				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	210.6	210.6	210.6	210.6	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1170	1170	1170	1170	0	0
Tower Footing	30395.6	42355.24	86457.15	121040.0	0	0
Equipment						
-Tower Body	17901	25061.4	56230.2	78722.28	0	0
-Insulator Strings	5733	11466	11466	22932	0	0
-Conductor	6212.7	12425.4	12425.4	24850.8	0	0
-	1696.5	1696.5	12343.5	12343.5	0	0
-OGW	351	351	351	351	0	0
-Accessories	1778.4	3556.8	3556.8	7113.6	0	0
-Ground Wire	321.75	321.75	321.75	321.75	0	0
-Others						
* SUB-TOTAL	65772	98815	184532	269056	0	0
Miscellaneous	3278.07	4930.22	9216.07	13442.27	0	0
Engineering & SV.	4604.04	6917.05	12917.24	18833.92	0	0
Contingency	6577.2	9881.5	18453.2	26905.6	0	0
Import Duty	2970	5712	5599	10970	0	0
Value Added Tax	4797.195	7302.148	13294.42	19587.07	0	0
* SUB-TOTAL	22227	34743	59480	89739	0	0
* TOTAL	87999	133558	244012	358795	0	0
Removal	14461.2	0	0	0	0	0
* DIRECT COST	3.21	4.53	7.96	11.34	0	0
* INDIRECT COST	0.89	1.39	2.38	3.59	0	0
* FOREIGN CURR.	0.34	0.65	0.64	1.25	0	0
* LOCAL CURR.	3.76	5.27	9.7	13.68	0	0
* TOTAL (mill.US\$)	4.1	5.92	10.34	14.93	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2004					
Section	BANGKOK NOI - SOUTH TRONBURI					
New line	7	0	0	0	0	0
Existing	7	1	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	6.1				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	145.8	145.8	145.8	145.8	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	810	810	810	810	0	0
Tower Footing	21043.8	29461.32	59854.95	83796.93	0	0
Equipment						
-Tower Body	12393	17350.2	38928.6	54500.04	0	0
-Insulator Strings	3969	7938	7938	15876	0	0
-Conductor	4301.1	8602.2	8602.2	17204.4	0	0
-	1174.5	1174.5	8545.5	8545.5	0	0
-OCW	243	243	243	243	0	0
-Accessories	1231.2	2462.4	2462.4	4924.8	0	0
-Ground Wire	222.75	222.75	222.75	222.75	0	0
-Others						
* SUB-TOTAL	45534	88410	127753	186269	0	0
Miscellaneous	2269.41	3413.21	6380.36	9306.16	0	0
Engineering & SV.	3187.38	4788.7	8942.71	13038.83	0	0
Contingency	4553.4	6841	12775.3	18626.9	0	0
Import Duty	2056	3954	3876	7594	0	0
Value Added Tax	3321.094	5055.274	9203.824	13560.20	0	0
* SUB-TOTAL	15387	24052	41178	62126	0	0
* TOTAL	60921	92462	168931	248395	0	0
Removal	10011.6	0	0	0	0	0
* DIRECT COST	2.22	3.14	5.51	7.85	0	0
* INDIRECT COST	0.62	0.96	1.65	2.49	0	0
* FOREIGN CURR.	0.24	0.45	0.44	0.87	0	0
* LOCAL CURR.	2.6	3.65	6.72	9.47	0	0
* TOTAL (mill.US\$)	2.84	4.1	7.16	10.34	0	0

CONSTRUCTION COST - UNDERGROUND CABLE				

Exchange Rate: 1 US\$ = 25 Baht				
Year	2005			
Section	BANGKOK NOI - THONBURI			
New or Expansion	1			
Number of Circuit (cct)	2			
Cable Type	1200mm2,XLPE		1200mm2,OF	
Section Length (km)	11			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	186	168	186	168
Number of Man Hole (pcs)	31	28	31	28
Line Route Survey	18	18	18	18
Preliminary Work	100	100	100	100
Cable	462	462	330	330
Joint Box	260.4	235.2	93	84
Cable Head	2.4	2.4	2.4	2.4
Oil Feeding System	0	0	80	80
Conduit Pipe	79.2	46.2	79.2	46.2
Cable Pulling	158.4	118.8	158.4	118.8
Conduit with Concrete Sheath or Duct	660	374	660	374
Treatment of Load Surface	264	264	264	264
Man Hole	37.2	33.6	37.2	33.6
Cable Head	2.9	2.9	2.9	2.9
SUB-TOTAL	2044.5	1657.1	1825.1	1453.9
Miscellaneous Expense	101.3	82	90.4	71.8
Engineering & Supervision	143.1	116	127.8	101.8
Contingency	204.5	165.7	182.5	145.4
Import Duty	281.4	261	204.6	189.9
Value Added Tax	161.6	133	140.8	113.8
SUB-TOTAL	691.9	757.7	746.1	622.7
TOTAL (mill.Baht)	2936.4	2414.8	2571.2	2076.6
DIRECT COST (mill.US\$)	81.78	66.28	73	58.16
INDIRECT COST (mill.US\$)	35.68	30.31	29.84	24.91
FOREIGN CURR. (mill.US\$)	32.16	29.83	23.38	21.7
LOCAL CURR. (mill.US\$)	85.3	66.76	79.46	61.37
TOTAL (mill.US\$)	117.46	96.59	102.84	83.07

CONSTRUCTION COST - UNDERGROUND CABLE				

Exchange Rate: 1 US\$ = 25 Baht				
Year	2011			
Section	BANGKOK NOI - THONBURI			
New or Expansion	0			
Number of Circuit (cct)	1			
Cable Type	1200mm2,XLPE		1200mm2,OP	
Section Length (km)	11			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	93	84	93	84
Number of Man Hole (pcs)	31	28	31	28
Line Route Survey	0	0	0	0
Preliminary Work	0	0	0	0
Cable	231	231	185	165
Joint Box	130.2	117.6	46.5	42
Cable Head	1.2	1.2	1.2	1.2
Oil Feeding System	0	0	80	80
Conduit Pipe	0	0	0	0
Cable Pulling	79.2	59.4	79.2	59.4
Conduit with Concrete Sheath or Duct	0	0	0	0
Treatment of Load Surface	0	0	0	0
Man Hole	0	0	0	0
Cable Head	1.5	1.5	1.5	1.5
* SUB-TOTAL	443.1	410.7	373.4	349.1
Miscellaneous Expense	22.2	20.5	18.7	17.5
Engineering & Supervision	31	28.7	26.1	24.4
Contingency	44.3	41.1	37.3	34.9
Import Duty	126.8	122.4	102.4	100.9
Value Added Tax	39.9	37.3	33.3	31.5
* SUB-TOTAL	264.2	250	217.8	209.2
* TOTAL (mill.Baht)	707.3	660.7	591.2	558.3
* DIRECT COST (mill.US\$)	17.72	16.43	14.94	13.96
* INDIRECT COST (mill.US\$)	10.57	10	8.71	8.37
* FOREIGN CURR. (mill.US\$)	14.5	13.99	11.71	11.53
* LOCAL CURR. (mill.US\$)	13.79	12.44	11.94	10.8
* TOTAL (mill.US\$)	28.29	26.43	23.65	22.33

CONSTRUCTION COST-OVERHEAD LINE						

Year	1997					
Section	RANGSIT - CHAENG WATTHANA(OUTSIDE-AIR PORT AREA)					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	5				5	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	90	90	90	90	90	90
Right of Way	0	0	0	0	0	0
Preliminary Work	500	500	500	500	775	775
Tower Footing	12990	18186	36947.5	51726.5	69922.58	22260
Equipment						
-Tower Body	7650	10710	24030	33642	73660.58	23450
-Insulator Strings	2450	4900	4900	9800	9800	5880
-Conductor	2655	5310	5310	10620	10620	5310
-	725	725	5275	5275	5275	2350
-OGW	150	150	150	150	150	150
-Accessories	760	1520	1520	3040	3040	2280
-Ground Wire	137.5	137.5	137.5	137.5	195	195
-Others						
* SUB-TOTAL	28108	42229	78860	114981	173528	62740
Miscellaneous	1400.9	2106.95	3938.5	5744.55	8671.9	3132.5
Engineering & SV.	1967.56	2956.03	5520.2	8048.67	12146.96	4391.8
Contingency	2810.8	4222.9	7886	11498.1	17352.8	6274
Import Duty	1269	2441	2393	4688	4756	3118
Value Added Tax	2050.09	3120.5	5681.41	8370.53	12473.58	4603.76
* SUB-TOTAL	9498	14847	25419	38350	55401	21520
* TOTAL	37606	57076	104279	153331	228929	84260
Removal	6180	0	0	0	0	0
* DIRECT COST	1.37	1.94	3.4	4.85	7.19	2.76
* INDIRECT COST	0.38	0.59	1.02	1.53	2.22	0.86
* FOREIGN CURR.	0.15	0.28	0.27	0.54	0.54	0.36
* LOCAL CURR.	1.6	2.25	4.15	5.84	8.87	3.26
* TOTAL (mill.US\$)	1.75	2.53	4.42	6.38	9.41	3.62

CONSTRUCTION COST-OVERHEAD LINE						

Year	1997					
Section	RANGSIT - CHAENG WATTHANA(AIR PORT AREA)					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	-fair	0			0	
	-poor	1			1	
Length (km)	4				4	
						#
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	72	72	72	72	72	72
Right of Way	0	0	0	0	0	0
Preliminary Work	400	400	400	400	620	620
Tower Footing	10392	14548.8	29558	41381.2	55938.07	17808
Equipment						
-Tower Body	6120	8568	19224	26913.6	58928.47	18760
-Insulator Strings	1960	3920	3920	7840	7840	4704
-Conductor	2124	4248	4248	8496	8496	4248
-	580	580	4220	4220	4220	1880
-OGW	120	120	120	120	120	120
-Accessories	608	1216	1216	2432	2432	1824
-Ground Wire	110	110	110	110	156	156
-Others						
* SUB-TOTAL	22486	33783	63088	91985	138823	50192
Miscellaneous	1120.7	1685.55	3150.8	4595.65	6937.55	2506
Engineering & SV.	1574.02	2364.81	4416.16	6438.95	9717.61	3513.44
Contingency	2248.6	3378.3	6308.8	9198.5	13882.3	5019.2
Import Duty	1015	1953	1914	3750	3805	2494
Value Added Tax	1640.03	2496.48	4545.1	6696.41	9978.92	3682.98
* SUB-TOTAL	7598	11878	20335	30680	44321	17216
* TOTAL	30084	45661	83423	122665	183144	67408
Removal	4944	0	0	0	0	0
* DIRECT COST	1.1	1.55	2.72	3.88	5.75	2.21
* INDIRECT COST	0.3	0.48	0.81	1.23	1.77	0.69
* FOREIGN CURR.	0.12	0.22	0.22	0.43	0.43	0.29
* LOCAL CURR.	1.28	1.81	3.31	4.68	7.09	2.61
* TOTAL (mill.US\$)	1.4	2.03	3.53	5.11	7.52	2.9

CONSTRUCTION COST - UNDERGROUND CABLE				

Exchange Rate: 1 US\$ = 25 Baht				
Year	1997			
Section	RANGSIT - CHANG WATTHANA (AIRPORT AREA)			
New or Expansion	1			
Number of Circuit (cct)	4 (Actually double con.x2cct)			
Cable Type	1200mm2,XLPE 1200mm2,OF			
Section Length (km)	4			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	132	120	132	120
Number of Man Hole (pcs)	11	10	11	10
Line Route Survey	18	18	18	18
Preliminary Work	100	100	100	100
Cable	336	336	240	240
Joint Box	184.8	168	66	60
Cable Head	4.8	4.8	4.8	4.8
Oil Feeding System	0	0	80	80
Conduit Pipe	57.6	33.6	57.6	33.6
Cable Pulling	115.2	86.4	115.2	86.4
Conduit with Concrete Sheath or Duct	240	136	240	136
Treatment of Load Surface	96	96	96	96
Man Hole	13.2	12	13.2	12
Cable Head	5.9	5.9	5.9	5.9
* SUB-TOTAL	1171.5	996.7	1036.7	872.7
Miscellaneous Expense	57.7	48.9	50.9	42.7
Engineering & Supervision	82	69.8	72.6	61.1
Contingency	117.2	99.7	103.7	87.3
Import Duty	204.1	189.8	156.9	146.4
Value Added Tax	95	81.8	82.3	70.1
* SUB-TOTAL	556	490	466.4	407.6
* TOTAL (mill.Baht)	1727.5	1486.7	1503.1	1280.3
* DIRECT COST (mill.US\$)	46.86	39.87	41.47	34.91
* INDIRECT COST (mill.US\$)	22.24	19.6	18.66	16.3
* FOREIGN CURR. (mill.US\$)	23.33	21.7	17.94	16.74
* LOCAL CURR. (mill.US\$)	45.77	37.77	42.19	34.47
* TOTAL (mill.US\$)	69.1	59.47	60.13	51.21

CONSTRUCTION COST-OVERHEAD LINE			US\$	25 Baht		

Year	1995					
Section	RANGBIT -- WANG NOI					
New line ?						0
Existing ?	0	0	0	0	0	0
Soil -fair	0					0
-poor	1					1
Length (km)	50					0
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	900	900	900	900	0	0
Right of Way	181406.2	181406.2	181406.2	181406.2	0	0
Preliminary Work	5000	5000	5000	5000	0	0
Tower Footing	129900	181860	369475	517265	0	0
Equipment						
-Tower Body	76500	107100	240300	336420	0	0
-Insulator Strings	24500	49000	49000	98000	0	0
-Conductor	26550	53100	53100	106200	0	0
-	7250	7250	52750	52750	0	0
-OGW	1500	1500	1500	1500	0	0
-Accessories	7600	15200	15200	30400	0	0
-Ground Wire	1375	1375	1375	1375	0	0
-Others						
* SUB-TOTAL	462481	603691	970006	1331216	0	0
Miscellaneous	14008.73	21069.23	39384.98	57445.48	0	0
Engineering & SV.	32373.67	42258.37	67900.42	93105.12	0	0
Contingency	46248.1	60369.1	97000.6	133121.6	0	0
Import Duty	12693	24410	23928	46880	0	0
Value Added Tax	20500.74	31205.63	56813.94	83705.28	0	0
* SUB-TOTAL	125824	179312	285028	414337	0	0
* TOTAL	588305	783003	1255034	1745553	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	18.5	24.15	38.8	53.25	0	0
* INDIRECT COST	5.03	7.17	11.4	16.57	0	0
* FOREIGN CURR.	1.45	2.79	2.73	5.36	0	0
* LOCAL CURR.	22.08	26.53	47.47	64.46	0	0
* TOTAL (mill.US\$)	23.53	31.32	50.2	69.82	0	0

CONSTRUCTION COST-OVERHEAD LINE			US\$ =		25 Baht	

Year 2004						
Section junction pt. (SANPERAN 1) - SOUTH THONBURI						
New line	?	0				0
Existing	?	1	0	0	0	0
Soil	-fair	0				0
	-poor	1				1
Length (km)		8.1				0
#						
-(kV)		230	230	230	230	500/230
-(cct)		2	2	4	4	4
-Tower		DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST
-(MCM)						
-(Number)		2	4	2	4	4
Route Survey		145.8	145.8	145.8	145.8	0
Right of Way		0	0	0	0	0
Preliminary Work		810	810	810	810	0
Tower Footing		21043.8	29461.32	59854.95	83798.93	0
Equipment						
-Tower Body		12393	17350.2	38928.6	54500.04	0
-Insulator Strings		3969	7938	7938	15876	0
-Conductor		4301.1	8602.2	8602.2	17204.4	0
-		1174.5	1174.5	8545.5	8545.5	0
-DCW		243	243	243	243	0
-Accessories		1231.2	2462.4	2462.4	4924.8	0
-Ground Wire		222.75	222.75	222.75	222.75	0
-Others						0
SUB-TOTAL		45534	68410	127753	186269	0
Miscellaneous		2269.41	3413.21	6380.36	9306.16	0
Engineering & SV.		3187.38	4788.7	8942.71	13038.83	0
Contingency		4553.4	6841	12775.3	18626.9	0
Import Duty		2056	3954	3876	7594	0
Value Added Tax		3321.094	5055.274	9203.824	13560.20	0
SUB-TOTAL		15387	24052	41178	62126	0
TOTAL		60921	92462	168931	248395	0
Removal		10011.6	0	0	0	0
DIRECT COST		2.22	3.14	5.51	7.85	0
INDIRECT COST		0.62	0.98	1.65	2.49	0
FOREIGN CURR.		0.24	0.45	0.44	0.87	0
LOCAL CURR.		2.6	3.65	6.72	9.47	0
TOTAL (mill.US\$)		2.84	4.1	7.16	10.34	0

CONSTRUCTION COST - UNDERGROUND CABLE					

Exchange Rate: 1 US\$ =			25 Baht		
1996					
Section SOUTH THONBURI -- THANONTOK					
New or Expansion 1					
Number of Circuit (cct)		3			
Cable Type		1200mm2,XLPE		1200mm2,OF	
Section Length (km)		10			
Conduit or Duct		CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)		261	225	261	225
Number of Man Hole (pcs)		29	25	29	25
Line Route Survey		18	18	18	18
Preliminary Work		100	100	100	100
Cable		530	630	450	450
Joint Box		365.4	315	130.5	112.5
Cable Head		3.6	3.6	3.6	3.6
Oil Feeding Syatem		0	0	80	80
Conduit Pipe		108	63	108	63
Cable Pulling		216	162	216	162
Conduit with Concrete Sheath or Duct		600	340	600	340
Treatment of Load Surface		240	240	240	240
Man Hole		34.8	30	34.8	30
Cable Head		4.4	4.4	4.4	4.4
SUB-TOTAL		2320.2	1906	1985.3	1603.5
Miscellaneous Expense		115.1	94.4	98.4	79.3
Engineering & Supervision		162.4	133.4	139	112.2
Contingency		232	190.6	198.5	160.4
Import Duty		387.4	354.1	270.2	248.2
Value Added Tax		188.3	156.9	156.6	128.4
SUB-TOTAL		1085.2	929.4	862.7	728.5
TOTAL (mill.Baht)		3405.4	2835.4	2848	2332
DIRECT COST (mill.US\$)		92.81	76.24	79.41	64.14
INDIRECT COST (mill.US\$)		43.41	37.18	34.51	29.14
FOREIGN CURR. (mill.US\$)		44.28	40.46	30.88	28.36
LOCAL CURR. (mill.US\$)		91.94	72.96	83.04	64.92
TOTAL (mill.US\$)		136.22	113.42	113.92	93.28

CONSTRUCTION COST - UNDERGROUND CABLE					

Exchange Rate: 1 US\$ = 25 Baht					
Year 2010					
Section SOUTH THONBURI - THANONTOK					
New or Expansion 0					
Number of Circuit (cct)		1			
Cable Type		1200mm2,XLPE		1200mm2,OF	
Section Length (km)		10			
Conduit or Duct		CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)		87	75	87	75
Number of Man Hole (pcs)		29	25	29	25
Line Route Survey		0	0	0	0
Preliminary Work		0	0	0	0
Cable		210	210	150	150
Joint Box		121.8	105	43.5	37.5
Cable Head		1.2	1.2	1.2	1.2
Oil Feeding System		0	0	80	80
Conduit Pipe		0	0	0	0
Cable Pulling		72	54	72	54
Conduit with Concrete Sheath or Duct		0	0	0	0
Treatment of Load Surface		0	0	0	0
Man Hole		0	0	0	0
Cable Head		1.5	1.5	1.5	1.5
* SUB-TOTAL		406.5	371.7	348.2	324.2
Miscellaneous Expense		20.3	18.6	17.4	16.2
Engineering & Supervision		28.5	26	24.4	22.7
Contingency		40.7	37.2	34.8	32.4
Import Duty		116.5	110.7	96.1	94
Value Added Tax		36.6	33.8	31.1	29.3
* SUB-TOTAL		242.6	226.3	203.8	194.6
* TOTAL (mill.Baht)		649.1	598	552	518.8
* DIRECT COST (mill.US\$)		16.26	14.87	13.93	12.97
* INDIRECT COST (mill.US\$)		9.7	9.05	8.15	7.78
* FOREIGN CURR. (mill.US\$)		13.32	12.65	10.99	10.75
* LOCAL CURR. (mill.US\$)		12.64	11.27	11.09	10
* TOTAL (mill.US\$)		25.96	23.92	22.08	20.75

CONSTRUCTION COST-OVERHEAD LINE						

Year 1994						
Section RATCHADAPISERK - LAT PHRAO						
New line ?	0				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	0.5				0	
\$						
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	9	9	9	9	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	50	50	50	50	0	0
Tower Footing	1299	1818.6	3694.75	5172.65	0	0
Equipment						
-Tower Body	765	1071	2403	3364.2	0	0
-Insulator Strings	245	490	490	980	0	0
-Conductor	265.5	531	531	1062	0	0
-	72.5	72.5	527.5	527.5	0	0
-OGW	15	15	15	15	0	0
-Accessories	76	152	152	304	0	0
-Ground Wire	13.75	13.75	13.75	13.75	0	0
-Others						
* SUB-TOTAL	2811	4223	7886	11498	0	0
Miscellaneous	140.1	210.7	393.85	574.45	0	0
Engineering & SV.	196.77	295.61	552.02	804.86	0	0
Contingency	281.1	422.3	788.6	1149.8	0	0
Import Duty	127	244	239	469	0	0
Value Added Tax	205.03	312.06	568.12	837.06	0	0
* SUB-TOTAL	950	1485	2542	3835	0	0
* TOTAL	3761	5708	10428	15333	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	0.11	0.17	0.32	0.46	0	0
* INDIRECT COST	0.04	0.06	0.1	0.15	0	0
* FOREIGN CURR.	0.01	0.03	0.03	0.05	0	0
* LOCAL CURR.	0.14	0.2	0.39	0.56	0	0
* TOTAL (mill.US\$)	0.15	0.23	0.42	0.61	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year 1994						
Section RATCHADAPISERK - BANG KAPI						
New line ?	0				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	0.5				0	
\$						
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	9	9	9	9	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	50	50	50	50	0	0
Tower Footing	1299	1818.6	3694.75	5172.65	0	0
Equipment						
-Tower Body	765	1071	2403	3364.2	0	0
-Insulator Strings	245	490	490	980	0	0
-Conductor	265.5	531	531	1062	0	0
-	72.5	72.5	527.5	527.5	0	0
-OGW	15	15	15	15	0	0
-Accessories	76	152	152	304	0	0
-Ground Wire	13.75	13.75	13.75	13.75	0	0
-Others						
* SUB-TOTAL	2811	4223	7886	11498	0	0
Miscellaneous	140.1	210.7	393.85	574.45	0	0
Engineering & SV.	196.77	295.61	552.02	804.86	0	0
Contingency	281.1	422.3	788.6	1149.8	0	0
Import Duty	127	244	239	469	0	0
Value Added Tax	205.03	312.06	568.12	837.06	0	0
* SUB-TOTAL	950	1485	2542	3835	0	0
* TOTAL	3761	5708	10428	15333	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	0.11	0.17	0.32	0.46	0	0
* INDIRECT COST	0.04	0.06	0.1	0.15	0	0
* FOREIGN CURR.	0.01	0.03	0.03	0.05	0	0
* LOCAL CURR.	0.14	0.2	0.39	0.56	0	0
* TOTAL (mill.US\$)	0.15	0.23	0.42	0.61	0	0

CONSTRUCTION COST - UNDERGROUND CABLE

Exchange Rate: 1 US\$ = 25 Baht				
Year	1996			
Section	HANG KAPI - KHLONG TONY			
New or Expansion	1			
Number of Circuit (cct)	3			
Cable Type	1200mm2,XLPE		1200mm2,OP	
Section Length (km)	8			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	207	180	207	180
Number of Man Hole (pcs)	23	20	23	20
Line Route Survey	18	18	18	18
Preliminary Work	100	100	100	100
Cable	504	504	360	360
Joint Box	289.8	232	103.5	90
Cable Head	3.6	3.6	3.6	3.6
Oil Feeding System	0	0	80	80
Conduit Pipe	86.4	50.4	86.4	50.4
Cable Pulling	172.8	129.6	172.8	129.6
Conduit with Concrete Sheath or Duct	480	272	480	272
Treatment of Load Surface	192	192	192	192
Man Hole	27.6	24	27.6	24
Cable Head	4.4	4.4	4.4	4.4
* SUB-TOTAL	1878.6	1550	1628.3	1324
Miscellaneous Expense	93	76.6	80.5	65.3
Engineering & Supervision	131.5	108.5	114	92.7
Contingency	187.9	155	162.8	132.4
Import Duty	309.3	283.5	221.7	204.4
Value Added Tax	151.9	127.1	128.2	105.7
* SUB-TOTAL	873.6	750.7	707.2	600.5
* TOTAL (mill.Baht)	2752.2	2300.7	2335.5	1924.5
* DIRECT COST (mill.US\$)	75.14	62	65.13	52.96
* INDIRECT COST (mill.US\$)	34.94	30.03	28.29	24.02
* FOREIGN CURR. (mill.US\$)	35.35	32.4	25.34	23.36
* LOCAL CURR. (mill.US\$)	74.73	59.63	68.08	53.62
* TOTAL (mill.US\$)	110.08	92.03	93.42	76.98

CONSTRUCTION COST - UNDERGROUND CABLE

Exchange Rate: 1 US\$ = 25 Baht				
Year	2000			
Section	HANG KAPI - KHLONG TONY			
New or Expansion	0			
Number of Circuit (cct)	2			
Cable Type	1200mm2,XLPE		1200mm2,OP	
Section Length (km)	8			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	138	120	138	120
Number of Man Hole (pcs)	23	20	23	20
Line Route Survey	0	0	0	0
Preliminary Work	0	0	0	0
Cable	336	336	240	240
Joint Box	193.2	168	69	60
Cable Head	2.4	2.4	2.4	2.4
Oil Feeding System	0	0	80	80
Conduit Pipe	0	0	0	0
Cable Pulling	115.2	86.4	115.2	86.4
Conduit with Concrete Sheath or Duct	0	0	0	0
Treatment of Load Surface	0	0	0	0
Man Hole	0	0	0	0
Cable Head	2.9	2.9	2.9	2.9
* SUB-TOTAL	649.7	595.7	509.5	471.7
Miscellaneous Expense	32.5	29.8	25.5	23.6
Engineering & Supervision	45.5	41.7	35.7	33
Contingency	65	59.6	51	47.2
Import Duty	186.1	177.2	137	133.8
Value Added Tax	58.5	54.1	45.3	42.4
* SUB-TOTAL	387.6	362.4	294.5	280
* TOTAL (mill.Baht)	1037.3	958.1	804	751.7
* DIRECT COST (mill.US\$)	25.99	23.83	20.38	18.87
* INDIRECT COST (mill.US\$)	15.5	14.5	11.78	11.2
* FOREIGN CURR. (mill.US\$)	21.26	20.26	15.66	15.3
* LOCAL CURR. (mill.US\$)	20.23	18.07	16.5	14.77
* TOTAL (mill.US\$)	41.49	38.33	32.16	30.07

CONSTRUCTION COST - UNDERGROUND CABLE					

Exchange Rate: 1 US\$ = 25 Baht					
Year	2010				
Section	BANG KAPI - KHLONG TOKY				
New or Expansion	0				
Number of Circuit	(cct)	1			
Cable Type	1200mm ² , XLPR		1200mm ² , OP		
Section Length	(km)	8			
Conduit or Duct		CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)		69	50	69	60
Number of Man Hole (pcs)		23	20	23	20
Line Route Survey		0	0	0	0
Preliminary Work		0	0	0	0
Cable		168	168	120	120
Joint Box		95.6	84	34.5	30
Cable Head		1.2	1.2	1.2	1.2
Oil Feeding System		0	0	80	80
Conduit Pipe		0	0	0	0
Cable Pulling		57.6	43.2	57.6	43.2
Conduit with Concrete Sheath or Duct		0	0	0	0
Treatment of Load Surface		0	0	0	0
Man Hole		0	0	0	0
Cable Head		1.5	1.5	1.5	1.5
SUB-TOTAL		324.9	297.9	294.8	275.9
Miscellaneous Expense		16.2	14.9	14.7	13.8
Engineering & Supervision		22.7	20.9	20.6	19.3
Contingency		32.5	29.8	29.5	27.6
Import Duty		93	88.6	82.5	80.9
Value Added Tax		29.3	27.1	26.4	25
SUB-TOTAL		193.7	181.3	173.7	166.6
TOTAL	(mill.Baht)	518.6	479.2	468.5	442.5

DIRECT COST	(mill.US\$)	13	11.92	11.79	11.04
INDIRECT COST	(mill.US\$)	7.75	7.25	6.95	6.66
FOREIGN CURR.	(mill.US\$)	10.63	10.13	9.43	9.25
LOCAL CURR.	(mill.US\$)	10.12	9.04	9.31	8.45
TOTAL	(mill.US\$)	20.75	19.17	18.74	17.7

CONSTRUCTION COST-OVERHEAD LINE						

Year	2005					
Section	BANG KAPI - ON NUCH					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	10				0	
	\$					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/8T	DC/8T	4cct/8T	4cct/8T	4cct/8T	DC/8T
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	180	180	180	180	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1000	1000	1000	1000	0	0
Tower Footing	25980	36372	73895	103453	0	0
Equipment						
-Tower Body	15300	21420	48060	67284	0	0
-Insulator String	4900	9800	9800	19600	0	0
-Conductor	5310	10620	10620	21240	0	0
-	1450	1450	10550	10550	0	0
-OGW	300	300	300	300	0	0
-Accessories	1520	3040	3040	6080	0	0
-Ground Wire	275	275	275	275	0	0
-Others						
* SUB-TOTAL	56215	84457	157720	229962	0	0
Miscellaneous	2801.75	4213.85	7877	11489.1	0	0
Engineering & SV.	3935.05	5911.99	11040.4	16097.34	0	0
Contingency	5621.5	8445.7	15772	22996.2	0	0
Import Duty	2539	4882	4786	9376	0	0
Value Added Tax	4100.18	6241.13	11362.82	16741.06	0	0
* SUB-TOTAL	18997	29695	50838	76700	0	0
* TOTAL	75212	114152	208558	306662	0	0
Removal	12360	0	0	0	0	0
* DIRECT COST	2.74	3.87	6.8	9.69	0	0
* INDIRECT COST	0.76	1.19	2.03	3.07	0	0
* FOREIGN CURR.	0.29	0.56	0.55	1.07	0	0
* LOCAL CURR.	3.21	4.5	8.28	11.69	0	0
* TOTAL (mill.US\$)	3.5	5.06	8.83	12.76	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2010					
Section	BANG KAPI - PATANAKAN					
New line ?	1				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	5				0	
	\$					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/8T	DC/8T	4cct/8T	4cct/8T	4cct/8T	DC/8T
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	90	90	90	90	0	0
Right of Way	18140.62	18140.62	18140.62	18140.62	0	0
Preliminary Work	500	500	500	500	0	0
Tower Footing	12990	18186	36947.5	51726.5	0	0
Equipment						
-Tower Body	7650	10710	24030	33642	0	0
-Insulator String	2450	4900	4900	9800	0	0
-Conductor	2655	5310	5310	10620	0	0
-	725	725	5275	5275	0	0
-OGW	150	150	150	150	0	0
-Accessories	760	1520	1520	3040	0	0
-Ground Wire	137.5	137.5	137.5	137.5	0	0
-Others						
* SUB-TOTAL	46248	60369	97001	133122	0	0
Miscellaneous	1400.868	2106.918	3938.518	5744.568	0	0
Engineering & SV.	3237.36	4225.83	6790.07	9318.54	0	0
Contingency	4624.8	6036.9	9700.1	13312.2	0	0
Import Duty	1269	2441	2393	4688	0	0
Value Added Tax	2050.046	3120.556	5681.436	8370.556	0	0
* SUB-TOTAL	12582	17931	28503	41434	0	0
* TOTAL	58830	78300	125504	174556	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	1.85	2.41	3.88	5.32	0	0
* INDIRECT COST	0.5	0.72	1.14	1.66	0	0
* FOREIGN CURR.	0.15	0.28	0.27	0.54	0	0
* LOCAL CURR.	2.2	2.85	4.75	6.44	0	0
* TOTAL (mill.US\$)	2.35	3.13	5.02	6.98	0	0

CONSTRUCTION COST-OVERHEAD LINE		US\$ =		25 Baht		

Year	2005					
Section	ON RUCH - BANG PHU					
New line ?	0			0		
Existing ?	1	0		0		
Soil -fair	0			0		
-poor	1			1		
Length (km)	10.5			0		
	\$					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	189	189	189	189	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1050	1050	1050	1050	0	0
Tower Footing	27279	38190.6	77589.75	108625.6	0	0
Equipment						
-Tower Body	16065	22491	50463	70648.2	0	0
-Insulator Strings	5145	10290	10290	20580	0	0
-Conductor	5575.5	11151	11151	22302	0	0
-	1522.5	1522.5	11077.5	11077.5	0	0
-OGW	315	315	315	315	0	0
-Accessories	1596	3192	3192	6384	0	0
-Ground Wire	288.75	288.75	288.75	288.75	0	0
-Others						
* SUB-TOTAL	59026	88660	165606	241460	0	0
Miscellaneous	2941.85	4424.55	8270.85	12063.55	0	0
Engineering & SV.	4131.82	6207.6	11592.42	16902.2	0	0
Contingency	5902.6	8868	16560.6	24146	0	0
Import Duty	2666	5126	5025	9845	0	0
Value Added Tax	4305.21	6553.19	11930.94	17578.12	0	0
* SUB-TOTAL	19947	31179	53380	80535	0	0
* TOTAL	78973	119859	218986	321995	0	0
Removal	12978	0	0	0	0	0
* DIRECT COST	2.88	4.07	7.14	10.18	0	0
* INDIRECT COST	0.8	1.25	2.14	3.22	0	0
* FOREIGN CURR.	0.3	0.59	0.57	1.13	0	0
* LOCAL CURR.	3.38	4.73	8.71	12.27	0	0
* TOTAL (Mill.US\$)	3.68	5.32	9.28	13.4	0	0

CONSTRUCTION COST - UNDERGROUND CABLE

***** Exchange Rate: 1 US\$ = 25 Baht

Year 2007

Section ON NUCH - <C>

New or Expansion 1

Number of Circuit (cct)	4			
Cable Type	1200mm2,XLPE		1200mm2,OP	
Section Length (km)	10			
Conduit or Duct	CONDUIT/ SHEATH	DUCT	CONDUIT/ SHEATH	DUCT
Number of Joint Box (pcs)	348	300	348	300
Number of Man Hole (pcs)	29	25	29	25
Line Route Survey	18	18	18	18
Preliminary Work	100	100	100	100
Cable	840	840	600	600
Joint Box	487.2	420	174	150
Cable Head	4.8	4.8	4.8	4.8
Oil Feeding System	0	0	80	80
Conduit Pipe	144	84	144	84
Cable Pulling	288	216	288	216
Conduit with Concrete Sheath or Duct	600	340	600	340
Treatment of Load Surface	240	240	240	240
Man Hole	34.8	30	34.8	30
Cable Head	5.9	5.9	5.9	5.9
* SUB-TOTAL	2762.7	2298.7	2289.5	1868.7
Miscellaneous Expense	137.2	114	113.6	92.5
Engineering & Supervision	193.4	160.9	160.3	130.8
Contingency	276.3	229.9	229	186.9
Import Duty	516.6	472.1	351	321.6
Value Added Tax	228.3	192.7	183.6	152.1
* SUB-TOTAL	1351.8	1169.6	1037.5	883.9
* TOTAL (mill.Baht)	4114.5	3468.3	3327	2752.6
* DIRECT COST (mill.US\$)	110.51	91.95	91.58	74.75
* INDIRECT COST (mill.US\$)	54.07	46.78	41.5	35.36
* FOREIGN CURR. (mill.US\$)	59.04	53.95	40.11	36.75
* LOCAL CURR. (mill.US\$)	105.54	84.78	92.97	73.36
* TOTAL (mill.US\$)	164.58	138.73	133.08	110.11

CONSTRUCTION COST-OVERHEAD LINE

US\$ = 25 Baht

Year 2007

Section ON NUCH - <C>

New line ?

Existing ?

Soil -fair

-poor

Length (km)

	0	0	0	0	0	0
	1	0	0	0	0	0
	0					
	1					
	12					
-(kv)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCN)						
-(Number)	2	4	2	4	4	4
Route Survey	216	216	216	216	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	1200	1200	1200	1200	0	0
Tower Footing	31176	43646.4	88674	124143.6	0	0
Equipment						
-Tower Body	18360	25704	57672	80740.8	0	0
-Insulator Strings	5880	11760	11760	23520	0	0
-Conductor	6372	12744	12744	25488	0	0
-	1740	1740	12660	12660	0	0
-DCW	360	360	360	360	0	0
-Accessories	1824	3648	3648	7296	0	0
-Ground Wire	330	330	330	330	0	0
-Others						
* SUB-TOTAL	67458	101348	189264	275954	0	0
Miscellaneous	3362.1	5056.6	9452.4	13786.9	0	0
Engineering & SV.	4722.06	7094.36	13248.48	19316.78	0	0
Contingency	6745.8	10134.8	18926.4	27595.4	0	0
Import Duty	3046	5858	5743	11251	0	0
Value Added Tax	4920.16	7489.3	13635.37	20089.23	0	0
* SUB-TOTAL	22796	35633	61006	92039	0	0
* TOTAL	90254	136981	250270	367993	0	0
Removal	14832	0	0	0	0	0
* DIRECT COST	3.29	4.64	8.16	11.63	0	0
* INDIRECT COST	0.91	1.43	2.44	3.68	0	0
* FOREIGN CURR.	0.35	0.67	0.66	1.29	0	0
* LOCAL CURR.	3.85	5.4	9.94	14.02	0	0
* TOTAL (mill.US\$)	4.2	6.07	10.6	15.31	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2002					
Section	LAT PHRAO - <A>					
New line ?	0				0	
Existing ?	0	0	0	0	0	0
Soil	0				0	
-fair	1				1	
-poor	0				0	
Length (km)	2.7					
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	48.6	48.6	48.6	48.6	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	270	270	270	270	0	0
Tower Footing	7014.6	9820.44	19951.65	27932.31	0	0
Equipment						
-Tower Body	4131	5783.4	12976.2	18166.59	0	0
-Insulator Strings	1323	2646	2646	5292	0	0
-Conductor	1433.7	2867.4	2867.4	5734.8	0	0
-	391.5	391.5	2848.5	2848.5	0	0
-CGW	81	81	81	81	0	0
-Accessories	410.4	820.8	820.8	1641.6	0	0
-Ground Wire	74.25	74.25	74.25	74.25	0	0
-Others						
* SUB-TOTAL	15178	22803	42584	62090	0	0
Miscellaneous	756.47	1137.72	2126.77	3102.07	0	0
Engineering & SV.	1062.46	1596.21	2980.88	4346.3	0	0
Contingency	1517.8	2280.3	4258.4	6209	0	0
Import Duty	685	1318	1292	2531	0	0
Value Added Tax	1107.008	1685.068	3067.918	4520.068	0	0
* SUB-TOTAL	5129	8017	13726	20708	0	0
* TOTAL	20307	30820	56310	82798	0	0
Removal	3337.2	0	0	0	0	0
* DIRECT COST	0.74	1.04	1.83	2.51	0	0
* INDIRECT COST	0.21	0.32	0.55	0.83	0	0
* FOREIGN CURR.	0.08	0.15	0.15	0.29	0	0
* LOCAL CURR.	0.87	1.21	2.23	3.15	0	0
* TOTAL (mill.US\$)	0.95	1.36	2.38	3.44	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2000					
Section	BANG PHLI - BANG BOR					
New line ?	1				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	1				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	18	18	18	18	0	0
Right of Way	3628.125	3628.125	3628.125	3628.125	0	0
Preliminary Work	100	100	100	100	0	0
Tower Footing	2598	3637.2	7389.5	10345.3	0	0
Equipment						
-Tower Body	1530	2142	4806	6728.4	0	0
-Insulator Strings	490	980	980	1960	0	0
-Conductor	531	1062	1062	2124	0	0
-	145	145	1055	1055	0	0
-OGW	30	30	30	30	0	0
-Accessories	152	304	304	608	0	0
-Ground Wire	27.5	27.5	27.5	27.5	0	0
-Others						
* SUB-TOTAL	9250	12074	19400	26624	0	0
Miscellaneous	280.1937	421.3937	787.6937	1148.893	0	0
Engineering & SV.	647.5	845.18	1358	1863.68	0	0
Contingency	925	1207.4	1940	2662.4	0	0
Import Duty	254	488	479	938	0	0
Value Added Tax	410.0512	624.1112	1136.301	1674.111	0	0
* SUB-TOTAL	2517	3586	5701	8287	0	0
* TOTAL	11767	15660	25101	34911	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	0.37	0.48	0.78	1.06	0	0
* INDIRECT COST	0.1	0.14	0.23	0.33	0	0
* FOREIGN CURR.	0.03	0.06	0.05	0.11	0	0
* LOCAL CURR.	0.44	0.56	0.96	1.28	0	0
* TOTAL (mill.US\$)	0.47	0.62	1.01	1.39	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2000					
Section	BANG PAKONG - BANG BOR					
New line ?	1				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	1				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	18	18	18	18	0	0
Right of Way	3628.125	3628.125	3628.125	3628.125	0	0
Preliminary Work	100	100	100	100	0	0
Tower Footing	2598	3637.2	7389.5	10345.3	0	0
Equipment						
-Tower Body	1530	2142	4806	6728.4	0	0
-Insulator Strings	490	980	980	1960	0	0
-Conductor	531	1062	1062	2124	0	0
-	145	145	1055	1055	0	0
-OGW	30	30	30	30	0	0
-Accessories	152	304	304	608	0	0
-Ground Wire	27.5	27.5	27.5	27.5	0	0
-Others						
* SUB-TOTAL	9250	12074	19400	26624	0	0
Miscellaneous	280.1937	421.3937	787.6937	1148.893	0	0
Engineering & SV.	647.5	845.18	1358	1863.68	0	0
Contingency	925	1207.4	1940	2662.4	0	0
Import Duty	254	488	479	938	0	0
Value Added Tax	410.0512	624.1112	1136.301	1674.111	0	0
* SUB-TOTAL	2517	3586	5701	8287	0	0
* TOTAL	11767	15660	25101	34911	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	0.37	0.48	0.78	1.06	0	0
* INDIRECT COST	0.1	0.14	0.23	0.33	0	0
* FOREIGN CURR.	0.03	0.06	0.05	0.11	0	0
* LOCAL CURR.	0.44	0.56	0.96	1.28	0	0
* TOTAL (mill.US\$)	0.47	0.62	1.01	1.39	0	0

CONSTRUCTION COST-OVERHEAD LINE			US\$ =		25 Baht	

Year	2002					
Section	CRAENG WATTHANA - <A>					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil	0				0	
-fair	1				1	
-poor						
Length (km)	7.1				7.1	
					#	
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	127.8	127.8	127.8	127.8	127.8	127.8
Right of Way	0	0	0	0	0	0
Preliminary Work	710	710	710	710	1100.5	1100.5
Tower Footing	18445.8	25824.12	52465.45	73451.63	99290.07	31609.2
Equipment						
-Tower Body	10863	15208.2	34122.6	47771.64	104598.0	33299
-Insulator Strings	3479	6958	6958	13916	13916	8349.6
-Conductor	3770.1	7540.2	7540.2	15080.4	15080.4	7540.2
-	1029.5	1029.5	7490.5	7490.5	7490.5	3337
-OGW	213	213	213	213	213	213
-Accessories	1079.2	2158.4	2158.4	4316.8	4316.8	3237.6
-Ground Wire	195.25	195.25	195.25	195.25	276.9	276.9
-Others						
SUB-TOTAL	39913	59964	111981	163273	246410	89091
Miscellaneous	1989.26	2991.81	5592.66	8157.26	12314.11	4448.16
Engineering & Sv.	2793.91	4197.48	7838.67	11429.11	17248.7	6236.37
Contingency	3991.3	5996.4	11198.1	16327.3	24641	8909.1
Import Duty	1802	3466	3398	6657	6754	4428
Value Added Tax	2911.104	4431.154	8067.584	11886.15	17712.53	6537.384
SUB-TOTAL	13488	21083	36095	54457	78670	30559
TOTAL	53401	81047	148076	217730	325080	119650
Removal	8775.6	0	0	0	0	0
DIRECT COST	1.95	2.75	4.83	6.88	10.21	3.91
INDIRECT COST	0.54	0.84	1.44	2.18	3.15	1.22
FOREIGN CURR.	0.21	0.4	0.39	0.76	0.77	0.51
LOCAL CURR.	2.28	3.19	5.88	8.3	12.59	4.62
TOTAL (mill.US\$)	2.49	3.59	6.27	9.06	13.36	5.13

CONSTRUCTION COST - UNDERGROUND CABLE

Exchange Rate: 1 US\$ = 25 Baht

Year	2000			
Section	<A> - SANAMPAO			
New or Expansion	1			
Number of Circuit (cct)	5			
Cable Type	1200mm2,XLPE	1200mm2,OP		
Section Length (km)	9			
Conduit or Duct	CONDUIT/ SHEATH	DUCT CONDUIT/ SHEATH	DUCT	
Number of Joint Box (pcs)	390	345	390	345
Number of Man Hole (pcs)	26	23	26	23
Line Route Survey	18	18	18	18
Preliminary Work	100	100	100	100
Cable	945	945	675	675
Joint Box	546	483	195	172.5
Cable Head	6	6	6	6
Oil Feeding System	0	0	80	80
Conduit Pipe	162	94.5	162	94.5
Cable Pulling	324	243	324	243
Conduit with Concrete Sheath or Duct	540	306	540	306
Treatment of Load Surface	216	216	216	216
Man Hole	31.2	27.6	31.2	27.6
Cable Head	7.3	7.3	7.3	7.3
* SUB-TOTAL	2895.5	2446.4	2354.5	1945.9
Miscellaneous Expense	143.9	121.4	116.8	96.4
Engineering & Supervision	202.7	171.2	164.8	136.2
Contingency	289.6	244.6	235.5	194.6
Import Duty	580.7	535	391.3	359.8
Value Added Tax	242.1	207.4	190.9	160.1
* SUB-TOTAL	1459	1279.6	1099.3	947.1
* TOTAL (mill.Baht)	4354.5	3726	3453.8	2893
* DIRECT COST (mill.US\$)	115.82	97.86	94.18	77.84
* INDIRECT COST (mill.US\$)	58.36	51.18	43.97	37.88
* FOREIGN CURR. (mill.US\$)	66.36	61.14	44.72	41.12
* LOCAL CURR. (mill.US\$)	107.82	87.9	93.43	74.6
* TOTAL (mill.US\$)	174.18	149.04	138.15	115.72

CONSTRUCTION COST - UNDERGROUND CABLE

Exchange Rate: 1 US\$ = 25 Baht

Year	2010			
Section	<A> - SANAMPAO			
New or Expansion	0			
Number of Circuit (cct)	1			
Cable Type	1200mm2,XLPE	1200mm2,OP		
Section Length (km)	9			
Conduit or Duct	CONDUIT/ SHEATH	DUCT CONDUIT/ SHEATH	DUCT	
Number of Joint Box (pcs)	78	69	78	69
Number of Man Hole (pcs)	26	23	26	23
Line Route Survey	0	0	0	0
Preliminary Work	0	0	0	0
Cable	189	189	135	135
Joint Box	109.2	96.6	39	34.5
Cable Head	1.2	1.2	1.2	1.2
Oil Feeding System	0	0	80	80
Conduit Pipe	0	0	0	0
Cable Pulling	54.8	48.6	54.8	48.6
Conduit with Concrete Sheath or Duct	0	0	0	0
Treatment of Load Surface	0	0	0	0
Man Hole	0	0	0	0
Cable Head	1.5	1.5	1.5	1.5
* SUB-TOTAL	365.7	336.9	321.5	300.8
Miscellaneous Expense	18.3	16.8	16.1	15
Engineering & Supervision	25.6	23.6	22.5	21.1
Contingency	36.6	33.7	32.2	30.1
Import Duty	104.8	100.4	89.3	87.7
Value Added Tax	32.9	30.6	28.8	27.2
* SUB-TOTAL	218.2	205.1	188.9	181.1
* TOTAL (mill.Baht)	583.9	542	510.4	481.9
* DIRECT COST (mill.US\$)	14.63	13.48	12.86	12.03
* INDIRECT COST (mill.US\$)	8.73	8.2	7.56	7.24
* FOREIGN CURR. (mill.US\$)	11.98	11.47	10.21	10.03
* LOCAL CURR. (mill.US\$)	11.38	10.21	10.21	9.24
* TOTAL (mill.US\$)	23.36	21.68	20.42	19.27

CONSTRUCTION COST-OVERHEAD LINE						

Year	2009					
Section	<C> - BANG PAKONG 2					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	2				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	36	36	36	36	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	200	200	200	200	0	0
Tower Footing	5196	7274.4	14779	20690.6	0	0
Equipment						
-Tower Body	3060	4284	9612	13456.8	0	0
-Insulator Strings	980	1960	1960	3920	0	0
-Conductor	1062	2124	2124	4248	0	0
-	290	290	2110	2110	0	0
-OCW	60	60	60	60	0	0
-Accessories	304	608	608	1216	0	0
-Ground Wire	55	55	55	55	0	0
-Others						
* SUB-TOTAL	11243	16891	31544	45992	0	0
Miscellaneous	560.35	842.75	1575.4	2297.8	0	0
Engineering & SV.	787.01	1182.37	2208.08	3219.44	0	0
Contingency	1124.3	1689.1	3154.4	4599.2	0	0
Import Duty	508	976	957	1875	0	0
Value Added Tax	820.05	1248.17	2272.55	3348.17	0	0
* SUB-TOTAL	3800	5938	10167	15340	0	0
* TOTAL	15043	22829	41711	61332	0	0
Removal	2472	0	0	0	0	0
* DIRECT COST	0.55	0.78	1.36	1.94	0	0
* INDIRECT COST	0.15	0.24	0.41	0.61	0	0
* FOREIGN CURR.	0.06	0.11	0.11	0.21	0	0
* LOCAL CURR.	0.64	0.91	1.66	2.34	0	0
* TOTAL (mill.US\$)	0.7	1.02	1.77	2.55	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2009					
Section	<C> - BANG PAKONG 2					
New line ?	0				0	
Existing ?	1	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	2				0	
	#					
-(kV)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	36	36	36	36	0	0
Right of Way	0	0	0	0	0	0
Preliminary Work	200	200	200	200	0	0
Tower Footing	5196	7274.4	14779	20690.6	0	0
Equipment						
-Tower Body	3060	4284	9612	13456.8	0	0
-Insulator Strings	980	1960	1960	3920	0	0
-Conductor	1062	2124	2124	4248	0	0
-	290	290	2110	2110	0	0
-OCW	60	60	60	60	0	0
-Accessories	304	608	608	1216	0	0
-Ground Wire	55	55	55	55	0	0
-Others						
* SUB-TOTAL	11243	16891	31544	45992	0	0
Miscellaneous	560.35	842.75	1575.4	2297.8	0	0
Engineering & SV.	787.01	1182.37	2208.08	3219.44	0	0
Contingency	1124.3	1689.1	3154.4	4599.2	0	0
Import Duty	508	976	957	1875	0	0
Value Added Tax	820.05	1248.17	2272.55	3348.17	0	0
* SUB-TOTAL	3800	5938	10167	15340	0	0
* TOTAL	15043	22829	41711	61332	0	0
Removal	2472	0	0	0	0	0
* DIRECT COST	0.55	0.78	1.36	1.94	0	0
* INDIRECT COST	0.15	0.24	0.41	0.61	0	0
* FOREIGN CURR.	0.06	0.11	0.11	0.21	0	0
* LOCAL CURR.	0.64	0.91	1.66	2.34	0	0
* TOTAL (mill.US\$)	0.7	1.02	1.77	2.55	0	0

CONSTRUCTION COST-OVERHEAD LINE						

Year	2009					
Section	<C> - KHLONG MAI					
New line ?	1				0	
Existing ?	0	0	0	0	0	0
Soil -fair	0				0	
-poor	1				1	
Length (km)	2				0	
#						
-(kv)	230	230	230	230	500/230	500
-(cct)	2	2	4	4	4	2
-Tower	DC/ST	DC/ST	4cct/ST	4cct/ST	4cct/ST	DC/ST
-(MCM)						
-(Number)	2	4	2	4	4	4
Route Survey	36	36	36	36	0	0
Right of Way	7256.25	7256.25	7256.25	7256.25	0	0
Preliminary Work	200	200	200	200	0	0
Tower Footing	5196	7274.4	14779	20690.6	0	0
Equipment						
-Tower Body	3060	4284	9612	13456.8	0	0
-Insulator Strings	980	1960	1960	3920	0	0
-Conductor	1062	2124	2124	4248	0	0
-	290	290	2110	2110	0	0
-OGW	60	60	60	60	0	0
-Accessories	304	608	608	1216	0	0
-Ground Wire	55	55	55	55	0	0
-Others						
* SUB-TOTAL	18499	24148	38800	53249	0	0
Miscellaneous	560.3375	842.7875	1575.387	2297.837	0	0
Engineering & SV.	1294.93	1690.36	2716	3727.43	0	0
Contingency	1849.9	2414.8	3880	5324.9	0	0
Import Duty	508	976	957	1875	0	0
Value Added Tax	820.0325	1248.222	2272.532	3348.222	0	0
* SUB-TOTAL	5033	7172	11401	16573	0	0
* TOTAL	23532	31320	50201	69822	0	0
Removal	0	0	0	0	0	0
* DIRECT COST	0.74	0.97	1.55	2.13	0	0
* INDIRECT COST	0.2	0.29	0.46	0.66	0	0
* FOREIGN CURR.	0.06	0.11	0.11	0.21	0	0
* LOCAL CURR.	0.88	1.15	1.9	2.58	0	0
* TOTAL (mill.US\$)	0.94	1.26	2.01	2.79	0	0

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