

EQUIPMENT	DESIGNATION	RATING	QTY.	CONTRACT NO.	REMARK
POWER & DIST. TRANSFORMER	KW1AA [EXISTING KW1A]	100kVA, 22,000-400/230V	1	CF013(1-2)	RENAMED SWITCHING N
	KW2AA [EXISTING KW2A]	100kVA, 22,000-400/230V	1	H13(1-3)	RENAMED SWITCHING N
POWER CIRCUIT BREAKER	7032	115kV, 1,200A, 20KA	1	H04(1-8)	AEG
	7042	115kV, 1,200A, 31.5KA	1	F002(8-1)	SPRECHER
	2212	22kV, 1,600A, 11KA	1	F002(9-1)	MITSUBISHI
	2222	22kV, 1,600A, 13KA	1	H04(2-2)	NUOVA MAGRINI
SWITCH & FUSE	7033,7034,7035	115kV, 600A	3	H05(2-13)	COELME
	7043,7044,7045	115kV, 600A	3	F004(9-3)	HAPAM
	7053,7055	115kV, 600A	2	F004(9-3)	HAPAM
	7054,7054G	115kV, 600A With ground blade	1	F004(9-4)	HAPAM
	2216(2216A)	22kV, 1,200A	3	WE03(3-11)	TAKAOKA
	2223,2224,2227	22kV, 1,600A (1 POLE)	9	H05(3-6)	COELME
	2225	22kV, 1,600A (3 POLE)	1	H05(3-5)	COELME
	2291F(AA) [EXISTING 2291F(A)]	22kV, 100A	3	F004(14-2)	RENAMED SWITCHING N
	With fuse link 5E		3	F004(14-4)	
	2291F(BA) [EXISTING 2291F(B)]	22kV, 100A.	3	H17(1-2)	RENAMED SWITCHING N
	With fuse link 5E		3	H17(1-5)	S & C ELECTRIC
	2224F(AA), 2244F(B), 2224F(K), 2224F(B)	22kV, 200A.	6	H03(2-2,1)	S & C ELECTRIC
	With fuse link 5E		6	H03(2-2,2)	
INSTRUMENT TRANSFORMER	CY5A	115kV.	1	F005(12-5A)	TRENCH
	QY3A	115kV, 50/-/600:5/5/5A.	3	G02(17)(A3-1)	HAFFELY
	QY4A	115kV, 50/-/600:5/5/5A	3	F005(8-1)(S)	NISSIN
	QW1A	22kV, 150/-/1,800:5/5A	3	-	NISSIN
	QW1B	22kV, 400/800x1800:5/5A.	3	-	PIFFNER
	QW2A	22kV, 150/-/1,800:5/5A	3	H06(3-4)	SADTEM
	QW2B	22kV, 400/800x1800:5/5A.	3	-	PIFFNER
	VY5A	115,000/√ 3:115/66.4/115/66.4V	1	F005(12-1)	
	VW1A	22,000/√ 3:110/√3V	3	F005(10-1)	WRGES
	VW2A	22kV, 22,000/√ 3:110/√3V	3	H06(3-9)	SADTEM
WAVE TRAP	TY5A	115kV	1		
CAPACITOR BANK		24kV, 3.6MVAR.	2	H03(2-2)	

ADDITIONAL EQUIPMENT FOR JOB NO.TS923-S33					
SWITCH & FUSE	2225	33kV,1,600A (GANG OPERATED)	1	TS9-80/(1-1)	COELME
CAPACITOR BANK		24kV,,3.6MVAR.	1	TS9-76/1(2-1)	COOPER

ADDITIONAL EQUIPMENT FOR JOB NO.RIP2-34					
POWER & DIST. TRANSFORMER	KT1A, KT2A	30/40/50MVA,115-22kV With lightning arrester.	2	RIP2-S3(1-1)	ABB
SWITCH & FUSE	2213, 2214, 2217 2215	22kV, 1,600A, 1 POLE 22kV,1,600A   Gang operated	9 1	RIP2-S4(7-6) RIP2-S4(7-5)	HAPAM HAPAM

ADDITIONAL EQUIPMENT FOR JOB NO.TS9-24-S108					
CAPACITOR BANK		22kV.,3.6MVAR.	2	TS9-76/2(2-2)	COOPER

ADDITIONAL EQUIPMENT FOR JOB NO.TS10-13-S47						
CAPACITOR BANK		22KV.,3.6MVAR.	2	-	-	

ADDITIONAL EQUIPMENT FOR JOB NO.TS11-02-S4 (BY CONTRACTOR)					
EQUIPMENT	DESIGNATION	RATING	QTY.	CONTRACT NO.	REMARK
POWER CIRCUIT BREAKER	7002,7052,7072,7082	115kV,3,150A,40KA	4	-	-
SWITCH & FUSE	7003,7005	115kV,3,150A	2	-	-
	7073,7075,7083,7085	115kV,3,150A	4	-	-
	7074&7074C(Separated ground)	115kV,3,150A	1	-	-
	7084&7084C(Separated ground)	115kV,3,150A	1	-	-
INSTRUMENT TRANSFORMER	QY5A,QY7A,QY8A	115kV,300/-/2,000: 5//5//5A,40KA	9	-	-
	VY7A, VY8A (W/C)	115,000/V 3:115/66.4//115/66.4V	2	-	-
	VY8B (W0/C)	115,000/V 3:115/66.4//115/66.4V	3	-	-

ADDITIONAL EQUIPMENT FOR JOB NO.TS11-17-S12 (BY CONTRACTOR)						
POWER CIRCUIT BREAKER	7022	115kV,3,150A,40KA	1	-	-	
SWITCH & FUSE	7023,7024,7025,7027	115kV,3,150A	4	-	-	
INSTRUMENT TRANSFORMER	QY2A	115kV,300/-/2,000:5//S//SA,40KA	3	-	-	
	QY2B	115kV,600X1,200:5//SA,40KA	3	-	-	
	YY2A (WO/C) <small>MACHINE 1 FOR RELAYING MACHINE 2 FOR WEAVING</small>	115,000 V 3:115/66.4//115/66.4V	3	-	-	

ADDITIONAL EQUIPMENT FOR JOB NO.TS11-16-S11 (BY EGAT)						
SWITCH & FUSE	2216A	22kV,1,600A (HOOK OPERATED)	3	-	-	
	2234F(A),2224F(A)	22kV,200A	6	-	-	
	WITH FUSE LINK 150E					
CAPACITOR BANK	NO.3(A),NO.4(A)	24kV,3.6MVAR	2	-	-	

ADDITIONAL EQUIPMENT FOR JOB NO.TS11-17-S74					
POWER CIRCUIT BREAKER	7092,71012	115kv,3,150A,40KA	2	TS11-WJ-01-25X2-9)	Siemen
SWITCH & FUSE	7093,7094,7095,7097	115kv,2,000A	4	2007-09-01(B1-1)	Areeve
	70103,70104,70105,70107	115kv,3,150A	4	TS11-WJ-01-20Y3-10)	Precise
INSTRUMENT TRANSFORMER	QY9A,QY10A	115kv,300/- /2,000: 5//5//5A,40KA	6	TS10-WJ-06-(6)(C2-2)	Trench
	QY9B,QY10B	115kv,300X600: 5//5A,40KA	6		
	WY9A ,VY10A (WO/C) WINDING FOR RELAY WINDING FOR RELAYING	115,000 / $\sqrt{3}$ 115/66.4 / 115/66.4V	6	TS11-WJ-01-101(K-6)	Artesche Spain

ADDITIONAL EQUIPMENT FOR JOB NO.TS12-16-S35						
POWER CIRCUIT BREAKER	7012	115kV,3,150A,40KA	1	-	-	
	70102A	115kV,600A,40KA	1	W30P(X)-3.1	From Existing (702)	
SWITCH & FUSE	7013, 7014, 7015, 7017	115kV,3,150A	4	-	-	
	70103A	115kV,600A	1	W30P(X)-3.1	From Existing (702)	
INSTRUMENT TRANSFORMER	QY1A	115kV,300/-/2,000:5//5//5//5A,40KA	3	-	-	
	QY1B	115kV,600x1,200:5//5A,40KA	3	-	-	
	VY1A(WO/C)	115,000/√3:115/66.4//115/66.4V	3	-	-	
		WINDING 1 FOR RELAYING				
		WINDING 2 FOR METERING				
	QY10C	115kV,300/-/2,000:5A,450/-/600:5A,31.5A	3	W30P(X)-3.3	From Existing (QY2)	
CAPACITOR BANK	NO.1	115KV, 24MVAR REARRANGE TO 12 MVAR	1	W30P(X)-3	NOKIA (From Existing)	

ADDITIONAL EQUIPMENT FOR JOB NO.ESCL-01-SO1					
POWER & DIST. TRANSFORMER	K13A	50 MVA,115--22kV.	1	ESCL-TX-01	Supply and Installation by E&T
	KW1AB	With lightning arrester.	1	--	Supply and Installation by Contractor
	KW2AB	XXXXVA,22,000-400/230V	1	--	
		XXXXVA,22,000-400/230V	1	--	
POWER CIRCUIT BREAKER	7012A	115kV,3,150A	1	TS12-BL-01 and MS12-BL-01-A (A=0)	Supply by E&T and Installation by Contractor
	7013,7014A,7015A	115kV,3,150A	3	TS11-M4-03-2(C=1)	Supply by E&T and Installation by Contractor
SWITCH & FUSE	2211A (GANG)	22kV,XXXXA	1	--	Supply and Installation by Contractor
	2291F(AB), 2291F(BB)	22kV,XXXXA	6	--	Supply and Installation by Contractor
	With fuse link XXE		6	--	
INSTRUMENT TRANSFORMER	QY1AA	115kV,300-/ /2,000:5/ /5/ /5A,40KA	3	TS11-M4-02-1-(C2=3)	Supply by E&T
	QY1BA	115kV,600/1,200:5/ /5A,40KA	3	TS11-M4-02-1-(C2=21)	and Installation by Contractor
	VTY1AA(W0/C)	115,000/ /3:115/66.4/ /115/66.4V	3	TS12-BL-01 and MS12-BL-01-A (A=0)	
		WORKING 1 FOR RELAYING			
		WORKING 2 FOR METERING			

ELECTRICITY GENERATING AUTHORITY OF THAILAND									
DRAWN PAKANAI		VALIDATED ..... CHIEF SUBSTATION ENGINEERING DEPARTMENT			DRAWING NAME CHAI BADAN SUBSTATION				
DESIGNED		RECOMMENDED ..... ASSISTANT DIRECTOR, TRANSMISSION SYSTEM ENGINEERING DIVISION			DESCRIPTION OF DETAIL DRAWING				
VERIFIED		CONCURRED ..... DIRECTOR, TRANSMISSION SYSTEM ENGINEERING DIVISION			SINGLE LINE DIAGRAM				
APPROVED ..... ASSISTANT CHIEF ENGINEER, TRANSMISSION ENGINEERING DIVISION				DATE .....		JOB NO. ESCL-01-S01		REPLACING DWG.NO. .....	
						DWG.NO. CBD-S-1		OZ F	