



DRAWING LIST

Bamnet Narong Substation

- Single Line Diagram.....Dwg.No.BNN-S-1-01/01  
General Arrangement Plan.....Dwg.No.BNN-S-2-01/01  
Bus Structure Plan.....Dwg.No.BNN-S-3-01/01  
Substation Grounding System.....Dwg.No.BNN-S-5-01/01  
Control Room Equipment Lay-Out.....Dwg.No.BNN-S-6-01/01  
Substation Structure Lay-Out.....Dwg.No.BNN-S-7-01/01

NOTES

1. 22KV-400/230V. system of BESS(Job No.ESCL-01-S02)  
shall be designed by contractor

LEGEND

- Existing  
Additional for Job No.ESCL-01-S02  
(Supply by EGAT and Installation by Contractor)  
Additional for Job No.ESCL-01-S02(By Contractor)  
Additional for Job No.ESCL-01-S02(By EGAT)  
Renamed for Job No.ESCL-01-S02(By Contractor)  
Future

EQUIPMENT	DESIGNATION	RATING	QTY.	CONTRACT NO.	REMARK
POWER & DIST. TRANSFORMER	KT1A	30/40/50(10/13.3/16.7)MVA. 115-23-11KV.	1	TS9-52(2-1)	MEIDENSHA
	KT2A	30/40/50(10/13.3/16.7)MVA. 115-23-11KV.	1	TS9-52(2-1)	MEIDENSHA
	KW1AA [EXISTING KW1A]	100KVA, 22,000-400/230V.	1	TS9-02(2-1)	RENAMED SWITCHING NO.
	KW2AA [EXISTING KW2A]	100KVA, 22,000-400/230V.	1	TS9-02(2-1)	RENAMED SWITCHING NO.
SWITCH & FUSE	7003,7005,7043,7044,7045	115KV, 2,000A.	5	TS9-02(A10-3)	COELME
	7053,7054,7055	115KV, 2,000A.	3	TS9-02(A10-3)	COELME
	7063,7064,7065	115KV, 2,000A.	3	TS9-02(A10-3)	COELME
	2213,2214,2217	33KV, 1,600A.	9	TS9-02(A10-9)	COELME
	2223,2224,2227	33KV, 1,600A.	9	TS9-02(A10-9)	COELME
	7054G	115KV.	1	TS9-02(A10-7)	COELME
	2291F(A),2291F(BA)	22KV,100A.	6	TS9-02(A11-1)	SOUTHERN STATES
	Fuse link 5E	22KV,100A.	6	TS9-02(A11-2)	SOUTHERN STATES
	2215,2225	33KV,1,600A.	2	TS9-02(A10-8)	COELME
	7002,7042,7062	115KV,2,000A,31.5KA.	3	TS9-02(A9-3)	AEQ
POWER CIRCUIT BREAKER	2212,2222	22KV,1,600A,13KA.	2	TS9-02(A9-4)	GEC ALSTOM
	QY4A,QY6A	115KV,100/-/1,200:5/5/5/5A,31.5KA.	6	TS9-02(A5-4)	HAFFELY TRENCH
	QY5A (W/C)	115,000/ 8:115/66.4/115/66.4V.	1	TS9-02(A6-3)	HAFFELY TRENCH
	QY1A,QY2A	22,000/ 8:110/ 3V.	6	TS9-02(A6-10)	ABB
INSTRUMENT TRANSFORMER	QW1A,QW2A	22KV,150/-/1,800:5/5A.	6	TS9-02(A5-9)	NISSIN
	QW1B,QW2B	22KV,800x1,600:5A.	6	TS9-02(A5-10)	NISSIN

ADDITIONAL EQUIPMENT FOR JOB TS10-13-S36

SWITCH & FUSE	2216,2226	22KV,1,200A,H00K OPERATED	6	-	Item 91,92,93,94 95,96 From TSMO
	2214F(A),2214F(B)	22KV,200A	6	TS10-SC-01(2-3.1)	
	2224F(A),2224F(B)	22KV,200A	6	TS10-SC-01(2-3.1)	
	FUSE LINK 150E	22KV,200A	12	TS10-SC-01(2-3.2)	
VACUUM SWITCH	2212A,2222A,2212B,2222B	22KV,200A	4	TS10-SC-01(2-3.3a)	
CAPACITOR BANK	NO.1,NO.2,NO.3,NO.4	22KV,3.6 MVAR	4	TS10-SC-01(2-3)	ABB

ADDITIONAL EQUIPMENT FOR JOB TS10-14-S23

POWER CIRCUIT BREAKER	7012	115KV,2,000A,40KA.	1	TS10-MJ-01(A)(7-1)	ABB
SWITCH	7013,7014,7015,7017	115KV,2000A	4	TS10-MJ-01(Pre)(8-5)	COELME
INSTRUMENT TRANSFORMER	QY1A	115,000/ 8:115/66.4/110.66/66.4V.	3	TS10-MJ-02(4-9)	TRENCH
	QY1B	115KV,100/-/1,200:5/5/5/5A,31.5KA.	3	40173(1-6)	PIFFNER
	QY1B	115KV,300x600:5/5A.	3	TS9-MJ-01(A)(3-2)	ABB

ADDITIONAL EQUIPMENT FOR JOB TS11-16-S9

VACUUM SWITCH	2232A,2232B	22KV,200A	2	TS11-SC-01(2-1.3a)	JOSLYN
SHUNT CAPACITOR BANK	NO.5,NO.6	24KV,3.6MVar	2	TS11-SC-01(2-1)	PRECISE
SWITCH & FUSE	2234F(A),2234F(B)	22KV,200A	6	TS11-SC-01(2-1.1)	S&C
	FUSE LINK 150E	-	6	TS11-SC-01(2-1.2)	-

ADDITIONAL EQUIPMENT FOR JOB NO.TS11-16-S39

POWER CIRCUIT BREAKER	7092A	115KV,3,150A,40KA.	1	TS11-SC-02-A(2-1.1)	ABB
SWITCH	7093A	115KV,2,000A.	1	TS11-SC-02-A(2-1.2)	HAPAM
INSTRUMENT TRANSFORMER	QY9B	115KV,40KA,CORE 1:300/-/2,000:5A CORE 2:100/-/1,200:5A CORE 3:50/-/600:5A	3	TS11-SC-02-A(2-1.3)	TRENCH
SHUNT CAPACITOR	NO.1	115KV,13.2MVar	1	TS11-SC-02-A(2-1)	ABB

ADDITIONAL EQUIPMENT FOR JOB NO.TS12-16-S54

POWER CIRCUIT BREAKER	7032,7052	115KV,3,150A,40KA.	2	TS11-MJ2-04-S(2-2)	SIEMENS
SWITCH	7033,7035	115KV,2,000A.	2	TS11-MJ2-04-P(3-5)	COELME
	7034&7034G	115KV,2,000A.	1	TS11-MJ2-04-P(3-9)	COELME
	(With separated ground)				
INSTRUMENT TRANSFORMER	QY3A,QY5A	115KV,100/-/1,200:5/5/5/5A,40KA.	6	TS11-MJ2-04-A(2-7)	ABB
	QY3B (W/C)	115,000/ 8:115/66.4/115/66.4V.	3	TS11-MJ2-04-A(2-5)	ALSTOM
	QY3A (W/C)	115,000/ 8:115/66.4/115/66.4V.	1	TS11-MJ2-04-A(4-1)	ALSTOM

ADDITIONAL EQUIPMENT FOR JOB NO.SPCC-02-S27

POWER CIRCUIT BREAKER	7022	115KV,3,150A,40KA.	1	-	-
SWITCH	7023,7024,7025,7027	115KV,2,000A.	4	-	-
INSTRUMENT TRANSFORMER	QY2A	115KV,100/-/1,200:5/5/5/5A,31.5KA.	3	-	-
	QY2B	115KV 300x600:5/5A(Class 0.2S,50VA)	3	-	SEE NOTE 2
	QY2A (W/C)	115,000/ 8:115/66.4/115/66.4V.	3	-	-
	Winding 1 : Relaying				
	Winding 2 : Metering				

ADDITIONAL EQUIPMENT FOR JOB NO.ESCL-01-S02

POWER & DIST. TRANSFORMER	KT3A	30/40/50(10/13.3/16.7)MVA. 115-23-11KV. With lightning arrester	1	ESCL-TX-01	Supply and Installation by EGAT
	KW1AB,KW2AB	XXXXXVA,22,000-400/230V	2	-	Supply and Installation by Contractor
POWER CIRCUIT BREAKER	7082	115KV,3,150A,40KA.	1	TS12-MJ2-01 and MARI-MJ2-01-A(2-1)	Supply by EGAT and Installation by Contractor
SWITCH & FUSE	7083,7084,7085	115KV,3,150A.	3	TS11-MJ-03-2(P)(3-1)	Supply by EGAT and Installation by Contractor
	2211A	115KV,XXXXA (GANG OPERATED)	1	-	Supply and Installation by Contractor
	2291F(AB),2291F(BB)	22KV,XXXXA.	6	-	Supply and Installation by Contractor
	With Fuse link XXE		6	-	Supply and Installation by Contractor
INSTRUMENT TRANSFORMER	QY8A	115KV,100/-/1,200:5/5/5/5A	3	SPCC-MJ3-01-A(2-4)	Supply by EGAT and Installation by Contractor
	QY8B	115KV 300x600:5/5A.	3	SPCC-MJ3-01 and SPCC-MJ3-01B and UTAP-MJ3-01-A(2-5)	Supply by EGAT and Installation by Contractor
	QY8A (W/C)	115,000/√3:115/66.4/115/66.4V.	3	TS12-MJ2-01 and MARI-MJ2-01-A(4-1)	Supply by EGAT and Installation by Contractor
	Winding 1 : Relaying				
	Winding 2 : Metering				

FOR BIDDING ONLY

REV.NO.	JOB NO.	JOB DESCRIPTION	DRAWN	DESIGNED	VERIFIED	VALIDATED	RECOMMENDED	CONCURRED	APPROVED	DATE
Δ	ESCL-01-S02	REVISED 50 MVA TRANSFORMER, KT3A								
-	ESCL-01-S02	ADDITIONAL 115 KV. LINE TO BESS								

ELECTRICITY GENERATING AUTHORITY OF THAILAND

DRAWN	M.SARUT	VALIDATED	CHEF, SUBSTATION ENGINEERING DEPARTMENT	DRAWING NAME	BAMNET NARONG SUBSTATION
DESIGNED		RECOMMENDED	ASSISTANT DIRECTOR, TRANSMISSION SYSTEM ENGINEERING DIVISION	DESCRIPTION OF DETAIL DRAWING	SINGLE LINE DIAGRAM
VERIFIED		CONCURRED	DIRECTOR, TRANSMISSION SYSTEM ENGINEERING DIVISION	JOB NO.	REPLACING DWG.NO.
APPROVED				ESCL-01-S02	DWG.NO.
					BNN-S-1
					01 REV