

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 1
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Electrical Transient Analyzer Program

Short-Circuit Analysis

IEC 60909 Standard

3-Phase Fault Currents

Short-Circuit Current Based on User-Defined c Factor

	<u>Swing</u>	<u>V-Control</u>	<u>Load</u>	<u>Total</u>			
Number of Buses:	2	1	225	228			
	<u>XFMR2</u>	<u>XFMR3</u>	<u>Reactor</u>	<u>Line/Cable</u>	<u>Impedance</u>	<u>Tie PD</u>	<u>Total</u>
Number of Branches:	33	0	1	150	0	42	226
	<u>Synchronous Generator</u>	<u>Power Grid</u>	<u>Synchronous Motor</u>	<u>Induction Machines</u>	<u>Lumped Load</u>	<u>Total</u>	
Number of Machines:	4	1	1	488	9	503	

System Frequency: 50 Hz
Unit System: Metric
Project Filename: BUP_G_23APR09
Output Filename: D:\Etap 600\Saranpong\BUP-H\SC3-B2.S11

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 2
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Adjustments

<u>Tolerance</u>	<u>Apply Adjustments</u>	<u>Individual /Global</u>	<u>Percent</u>
Transformer Impedance:	Yes	Individual	
Reactor Impedance:	Yes	Individual	
Overload Heater Resistance:	No		
Transmission Line Length:	No		
Cable Length:	No		

<u>Temperature Correction</u>	<u>Apply Adjustments</u>	<u>Individual /Global</u>	<u>Degree C</u>
Transmission Line Resistance:	Yes	Global	75
Cable Resistance:	Yes	Global	75

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 3
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus Input Data

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
4200-MD-001	Load	0.400	0.410	2	100.00	0.00
AC DB.	Load	0.400	0.410	2	100.00	0.00
BOP MCC	Load	0.400	0.410	2	100.00	0.00
BUP-A	Load	6.600	6.600	2	100.00	0.00
BUP-B	Load	6.600	6.651	1	100.00	0.00
Bus1	Load	0.400	0.424	2	100.00	0.00
Bus2	Load	0.400	0.410	2	100.00	0.00
Bus3	Load	0.400	0.410	2	100.00	0.00
Bus5	Load	6.600	6.651	1	100.00	0.00
Bus7	Load	3.200	3.309	2	100.00	0.00
Bus9	Load	0.400	0.410	2	100.00	0.00
Bus10	Load	0.400	0.413	1	100.00	0.00
Bus11	Load	3.200	3.309	2	100.00	0.00
Bus13	Load	0.400	0.413	1	100.00	0.00
Bus14	Load	69.000	69.000	1	100.00	0.00
Bus15	Load	0.400	0.410	2	100.00	0.00
Bus16	Load	6.600	6.651	1	100.00	0.00
Bus18	Load	0.400	0.410	2	100.00	0.00
Bus19	Load	3.200	3.309	2	100.00	0.00
Bus20	Load	3.200	3.309	2	100.00	0.00
Bus21	Load	0.400	0.410	2	100.00	0.00
Bus23	Load	0.400	0.410	2	100.00	0.00
Bus25	Load	6.600	6.651	1	100.00	0.00
Bus26	Load	6.600	6.651	1	100.00	0.00
Bus27	Load	3.200	3.309	2	100.00	0.00
Bus28	Load	0.400	0.413	1	100.00	0.00
Bus29	Load	3.200	3.309	2	100.00	0.00
Bus30	Load	0.400	0.413	1	100.00	0.00
Bus31	Load	3.200	3.309	2	100.00	0.00
Bus32	Load	0.400	0.410	2	100.00	0.00
Bus33	Load	3.200	3.309	2	100.00	-0.01
Bus34	Load	0.400	0.410	2	100.00	0.00
Bus36	Load	3.200	3.309	2	100.00	0.00
Bus37	Load	3.200	3.309	2	100.00	0.00
Bus38	Load	0.400	0.410	2	100.00	0.00

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
Bus40	Load	0.400	0.410	2	100.00	0.00
Bus41	Load	0.400	0.413	1	100.00	0.00
Bus42	Load	0.400	0.413	1	100.00	0.00
Bus43	Load	0.400	0.413	1	100.00	0.00
Bus44	Load	0.400	0.413	1	100.00	0.00
Bus45	Load	3.200	3.309	2	100.00	0.00
Bus46	Load	3.200	3.293	1	100.00	0.00
Bus48	Load	3.200	3.293	1	100.00	0.00
Bus49	Load	3.200	3.309	2	100.00	0.00
Bus50	Load	0.400	0.424	2	100.00	0.00
Bus51	Load	3.200	3.293	1	100.00	0.00
Bus52	Load	0.400	0.413	1	100.00	0.00
Bus53	Load	0.400	0.424	2	100.00	0.00
Bus54	Load	3.200	3.309	2	100.00	0.00
Bus55	Load	0.400	0.413	1	100.00	0.00
Bus56	Load	0.400	0.413	1	100.00	0.00
Bus57	Load	6.600	6.651	1	100.00	0.00
Bus59	Load	0.600	0.620	1	100.00	0.00
Bus60	Load	3.200	3.293	1	100.00	0.00
Bus61	Load	0.400	0.422	1	100.00	0.00
Bus64	Load	0.400	0.413	1	100.00	0.00
Bus65	Load	3.200	3.309	2	100.00	0.00
Bus68	Load	6.600	6.651	1	100.00	0.00
Bus69	Load	6.600	6.651	1	100.00	0.00
Bus70	Load	6.600	6.651	1	100.00	0.00
Bus71	Load	6.600	6.651	1	100.00	0.00
Bus72	Load	6.600	6.651	1	100.00	0.00
Bus74	Load	3.200	3.309	2	100.00	0.00
Bus75	Load	3.200	3.309	2	100.00	0.00
Bus77	Load	3.200	3.309	2	100.00	0.00
Bus80	Load	6.600	6.651	1	100.00	0.00
Bus82	Load	6.600	6.651	1	100.00	0.00
Bus83	Load	6.600	6.651	1	100.00	0.00
Bus84	Load	6.600	6.651	1	100.00	0.00
Bus86	Load	6.600	6.651	1	100.00	0.00
Bus87	Load	3.200	3.309	2	100.00	0.00
Bus92	Load	0.400	0.422	1	100.00	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 5
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
Bus93	Load	0.400	0.422	1	100.00	0.00
Bus276	Load	6.600	6.651	1	100.00	0.00
Bus277	Load	0.400	0.413	1	100.00	0.00
Bus322	Load	6.600	6.651	1	100.00	0.00
Bus613	Load	3.200	3.293	1	100.00	0.00
Bus614	Load	0.400	0.422	1	100.00	0.00
Bus621	Load	3.200	3.293	1	100.00	0.00
Bus624	Load	3.200	3.293	1	100.00	0.00
Bus625	Load	3.200	3.293	1	100.00	0.00
Bus627	Load	3.200	3.293	1	100.00	0.00
Bus632	Load	3.200	3.293	1	100.00	0.00
Bus687	Load	3.200	3.293	1	100.00	0.00
Bus694	Load	3.200	3.293	1	100.00	0.00
Bus696	Load	3.200	3.293	1	100.00	0.00
Bus698	Load	69.000	69.000	1	100.00	0.00
Bus822	Load	3.200	3.309	2	100.00	0.00
Bus825	Load	3.200	3.309	2	100.00	0.00
Bus848	Load	3.200	3.309	2	100.00	0.00
Bus875	Load	3.200	3.309	2	100.00	0.00
Bus877	Load	3.200	3.309	2	100.00	0.00
Bus887	Load	3.200	3.309	2	100.00	0.00
Bus947	Load	6.600	6.600	2	100.00	0.00
Bus951	Load	6.600	6.600	2	100.00	0.00
Bus994	Load	6.600	6.600	2	100.00	0.00
Bus995	Load	0.400	0.410	2	100.00	0.00
Bus999	Load	0.400	0.413	1	100.00	0.00
Bus1000	Load	6.600	6.651	1	100.00	0.00
Bus1005	Load	3.200	3.293	1	100.00	0.00
Bus1009	Load	3.200	3.293	1	100.00	0.00
Bus1023	Load	0.400	0.422	1	100.00	0.00
Bus1024	Load	3.200	3.293	1	100.00	0.00
Bus1025	Load	3.200	3.293	1	100.00	0.00
Bus1027	Load	3.200	3.293	1	100.00	0.00
Bus1028	Load	3.200	3.293	1	100.00	0.00
Bus1030	Load	3.200	3.293	1	100.00	0.00
Bus1066	Load	3.200	3.309	2	100.00	0.00
Bus1067	Load	3.200	3.309	2	100.00	0.00

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
Bus1081	Load	3.200	3.309	2	100.00	0.00
Bus1084	Load	3.200	3.309	2	100.00	0.00
Bus1116	Load	0.400	0.424	2	100.00	0.00
Bus1121	Load	0.400	0.424	2	100.00	0.00
Bus1181	Load	6.600	6.651	1	100.00	0.00
Bus1182	Load	6.600	6.651	1	100.00	0.00
Bus1183	Load	6.600	6.651	1	100.00	0.00
Bus1184	Load	6.600	6.651	1	100.00	0.00
Bus1185	Load	6.600	6.651	1	100.00	0.00
Bus1187	Load	6.600	6.651	1	100.00	0.00
Bus1192	Load	6.600	6.651	1	100.00	0.00
Bus1197	Load	6.600	6.651	1	100.00	0.00
Bus1198	Load	6.600	6.651	1	100.00	0.00
Bus1199	Load	0.400	0.413	1	100.00	0.00
Bus1203	Load	0.400	0.413	1	100.00	0.00
Bus1204	Load	6.600	6.651	1	100.00	0.00
Bus1208	Load	6.600	6.651	1	100.00	0.00
Bus1210	Load	6.600	6.651	1	100.00	0.00
Bus1214	Load	6.600	6.651	1	100.00	0.00
Bus1219	Load	6.600	6.651	1	100.00	0.00
Bus1223	Load	6.600	6.651	1	100.00	0.00
Bus1236	Load	0.400	0.413	1	100.00	0.00
Bus1237	Load	0.400	0.413	1	100.00	0.00
Bus1244	Load	0.400	0.413	1	100.00	0.00
Bus1261	Load	0.400	0.413	1	100.00	0.00
Bus1262	Load	0.400	0.413	1	100.00	0.00
Bus1265	Load	0.400	0.413	1	100.00	0.00
Bus1293	Load	3.200	3.293	1	100.00	0.00
Bus1294	Load	0.400	0.422	1	100.00	0.00
Bus1298	Load	3.200	3.293	1	100.00	0.00
Bus1300	Load	3.200	3.293	1	100.00	0.00
Bus1305	Load	3.200	3.293	1	100.00	0.00
Bus1312	Load	0.400	0.422	1	100.00	0.00
Bus1314	Load	0.400	0.422	1	100.00	0.00
Bus1318	Load	3.200	3.293	1	100.00	0.00
Bus1322	Load	3.200	3.293	1	100.00	0.00
Bus1328	Load	3.200	3.293	1	100.00	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 7
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
Bus1329	Load	0.400	0.422	1	100.00	0.00
Bus1335	Load	3.200	3.293	1	100.00	0.00
Bus1337	Load	3.200	3.293	1	100.00	0.00
Bus1342	Load	3.200	3.293	1	100.00	0.00
FD FAN VFD Bus	Load	0.400	0.410	2	100.00	0.00
GTG1 MCC.1	Load	0.400	0.410	2	101.47	-5.97
GTG1 MCC.1-INT	Load	0.400	0.410	2	100.57	-3.04
GTG1 MCC.1-RF	Load	0.400	0.410	2	100.57	-3.04
GTG2 MCC.2	Load	0.400	0.410	2	101.47	-5.97
GTG2 MCC.2-INT	Load	0.400	0.410	2	100.57	-3.04
GTG2 MCC.2-RF	Load	0.400	0.410	2	100.81	-6.01
GTG-1 DB	Load	0.400	0.410	2	100.00	0.00
GTG-2 DB	Load	0.400	0.410	2	100.00	0.00
LP-5-01	Load	0.400	0.424	1	100.00	0.00
LP-5-02	Load	0.400	0.424	1	100.00	0.00
LP-5-03	Load	0.400	0.424	1	100.00	0.00
MCL 3-011B	Load	0.400	0.424	2	100.00	0.00
MCL 5-01 A	Load	0.400	0.413	1	100.00	0.00
MCL 5-01 B	Load	0.400	0.413	1	100.00	0.00
MCL-4-01A	Load	0.400	0.424	2	100.00	0.00
MCL-4-01B	Load	0.400	0.424	2	100.00	0.00
MCL-5-03 A	Load	0.400	0.413	1	100.00	0.00
MCL-5-03B	Load	0.400	0.413	1	100.00	0.00
MCL-5-21 A	Load	0.400	0.413	1	100.00	0.00
MCL-5-21 B	Load	0.400	0.413	1	100.00	0.00
MCL-5-22A	Load	0.400	0.413	1	100.00	0.00
MCL-5-22 B	Load	0.400	0.413	1	100.00	0.00
MCL.3-011A	Load	0.400	0.424	2	100.00	0.00
MCL.3-012A	Load	0.400	0.424	2	100.00	0.00
MCL.3-012B	Load	0.400	0.424	2	100.00	0.00
MCL.3-013	Load	0.400	0.424	2	100.00	0.00
MCL.3-021A	Load	0.400	0.424	2	100.00	0.00
MCL.3-021B	Load	0.400	0.424	2	100.00	0.00
MCL.3-022A	Load	0.400	0.424	2	100.00	0.00
MCL.3-022B	Load	0.400	0.424	2	100.00	0.00
MCL.3-023	Load	0.400	0.424	2	100.00	0.00
MOP 2-01	Load	0.400	0.422	1	100.00	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 8
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
MOP-3-01	Load	0.400	0.424	2	100.00	0.00
MOV-001	Load	0.400	0.410	2	100.00	0.00
SGL-2-01A	Load	0.400	0.422	1	100.00	0.00
SGL-2-01B	Load	0.400	0.422	1	100.00	0.00
SGL-2-02 BUS A	Load	0.400	0.422	1	100.00	0.00
SGL-2-02 BUS B	Load	0.400	0.422	1	100.00	0.00
SGL-2-03 BUS A	Load	0.400	0.422	1	100.00	0.00
SGL-2-03 BUS B	Load	0.400	0.422	1	100.00	0.00
SGL-3-01 A	Load	0.400	0.424	2	100.00	0.00
SGL-3-01 B	Load	0.400	0.424	2	100.00	0.00
SGL-3-02 A	Load	0.400	0.424	2	100.00	0.00
SGL-3-02 B	Load	0.400	0.424	2	100.00	0.00
SGL-4-01 BUS A	Load	0.400	0.424	2	100.00	0.00
SGL-4-01 BUS B	Load	0.400	0.424	2	100.00	0.00
SGL-5-01 BUS A	Load	0.400	0.413	1	100.00	0.00
SGL-5-01 BUS B	Load	0.400	0.413	1	100.00	0.00
SGL-5-02 BUS A	Load	0.400	0.413	1	100.00	0.00
SGL-5-02 BUS B	Load	0.400	0.413	1	100.00	0.00
SGL-5-03 BUS A	Load	0.400	0.413	1	100.00	0.00
SGL-5-03 BUS B	Load	0.400	0.413	1	100.00	0.00
SGM-2-01B	Load	3.200	3.293	1	100.00	0.00
SGM-2-01 BUS A	Load	3.200	3.293	1	100.00	0.00
SGM-2-01 BUS B	Load	3.200	3.293	1	100.00	0.00
SGM-2-02A	Load	3.200	3.293	1	100.00	0.00
SGM-2-03 BUS A	Load	3.200	3.293	1	100.00	0.00
SGM-2-03 BUS B	Load	3.200	3.293	1	100.00	0.00
SGM-3-01 BUS A	Load	3.200	3.309	2	100.00	0.00
SGM-3-01 BUS B	Load	3.200	3.309	2	100.00	0.00
SGM-3-02A	Load	3.200	3.309	2	100.00	0.00
SGM-3-02B	Load	3.200	3.309	2	100.00	0.00
SGM-4-01 BUS A	Load	3.200	3.309	2	100.00	0.00
SGM-4-01 BUS B	Load	3.200	3.309	2	100.00	0.00
SGM-5-01 BUS A	Load	6.600	6.651	1	100.00	0.00
SGM-5-01 BUS B	Load	6.600	6.651	1	100.00	0.00
SGM-5-02-BUS A	Load	6.600	6.651	1	100.00	0.00
SGM-5-02-BUS B	Load	6.600	6.651	1	100.00	0.00
SGM-5-03 BUS A	Load	6.600	6.651	1	100.00	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 9
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus					Initial Voltage	
ID	Type	Nom. kV	Base kV	Sub-sys	%Mag.	Ang.
SGM-5-03 BUS B	Load	6.600	6.651	1	100.00	0.00
T2-Sec	Load	0.220	0.228	2	100.00	0.00
Terminal_GTG-1	SWNG	6.600	6.600	2	100.00	0.00
Terminal_GTG-2	Gen.	6.600	6.651	1	100.00	1.84
Terminal_MEA	SWNG	69.000	69.000	1	100.00	0.00
Terminal_STG-3	Load	3.200	3.293	1	101.07	-4.18
Terminal_STG-4	Load	6.600	6.651	1	100.47	-1.58
VFD-2	Load	0.600	0.620	1	100.00	0.00

228 Buses Total

All voltages reported by ETAP are in % of bus Nominal kV.
Base kV values of buses are calculated and used internally by ETAP.

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 10
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Line/Cable Input Data

Ohms or Siemens/1000 m per Conductor (Cable) or per Phase (Line)									
Line/Cable ID	Library	Size	Length		#/Phase	T (°C)	R	X	Y
			Adj. (m)	% Tol.					
Cable1	1.0MCUN1	800	17.0	0	4	75	0.03147	0.09100	0.0002061
Cable5	69MCUN1	800	50.0	0	1	75	0.02861	0.16800	0.0000936
Cable6	69MCUN1	800	30.0	0	1	75	0.02861	0.16800	0.0000936
Cable7	1.0MCUN1	150	50.0	0	1	75	0.15165	0.09600	0.0001524
Cable8	3.3MCUN1	500	350.0	0	4	75	0.04864	0.08800	0.0001898
Cable9	0.6MCUN3	16	30.0	0	1	75	1.35300	0.10370	0.0000000
Cable10	1.0MCUN1	120	20.0	0	1	75	0.18694	0.09800	0.0002576
Cable11	0.6MCUN3	16	30.0	0	1	75	1.35300	0.10370	0.0000000
Cable13	1.0MCUN3	50	120.0	0	1	75	0.47116	0.07900	0.0001188
Cable15	1.0MCUN3	50	120.0	0	1	75	0.47116	0.07900	0.0001188
Cable17	1.0MCUN1	70	50.0	0	1	75	0.32619	0.10700	0.0002174
Cable19	1.0MCUN3	185	75.0	0	1	75	0.12208	0.07300	0.0001442
Cable22	1.0MCUN3	50	30.0	0	1	75	0.47116	0.07900	0.0001188
Cable24	1.0MCUN3	185	75.0	0	1	75	0.12208	0.07300	0.0001442
Cable30	7.2MCUS3	25	445.0	0	1	75	0.88415	0.12960	0.0000960
Cable32	7.2MCUS1	185	50.0	0	2	75	0.12113	0.16500	0.0001700
Cable37	1.0MCUN3	50	30.0	0	1	75	0.47116	0.07900	0.0001188
Cable39	1.0MCUN1	800	20.0	0	1	75	0.03147	0.09100	0.0002061
Cable40	1.0MCUN3	50	30.0	0	1	75	0.47116	0.07900	0.0001188
Cable42	3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable44	3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable45	1.0MCUN1	800	20.0	0	1	75	0.03147	0.09100	0.0002061
Cable51	3.3MCUN1	185	50.0	0	1	75	0.12208	0.09700	0.0001382
Cable54	1.0MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable55	3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable58	3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable69	1.0MCUN1	150	50.0	0	1	75	0.15165	0.09600	0.0001524
Cable83	7.2MCUS1	400	40.0	0	2	75	0.05913	0.18840	0.0002400
Cable86	7.2MCUS1	400	100.0	0	1	75	0.05913	0.18840	0.0002400
Cable91	7.2MCUS1	400	30.0	0	3	75	0.05913	0.18840	0.0002400
Cable93	7.2MCUS1	400	30.0	0	3	75	0.05913	0.18840	0.0002400
Cable96	7.2MCUS1	400	1100.0	0	4	75	0.05913	0.18840	0.0002400
Cable99	7.2MCUS1	630	100.0	0	4	75	0.03720	0.15400	0.0002400
Cable100	7.2MCUS1	400	40.0	0	2	75	0.05913	0.18840	0.0002400
Cable101	7.2MCUS1	400	40.0	0	2	75	0.05913	0.18840	0.0002400
Cable103	7.2MCUS3	25	260.0	0	1	75	0.88415	0.12960	0.0000960
Cable105	7.2MCUS3	35	307.0	0	1	75	0.63712	0.12360	0.0001080

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 11
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Ohms or Siemens/1000 m per Conductor (Cable) or per Phase (Line)

Line/Cable										
	ID	Library	Size	Length		#/Phase	T (°C)	R	X	Y
Adj. (m)				% Tol.						
Cable107		7.2MCUS3	25	382.0	0	1	75	0.88415	0.12960	0.0000960
Cable109		7.2MCUS3	25	379.0	0	1	75	0.88415	0.12960	0.0000960
Cable113		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable115		7.2MCUS3	95	307.0	0	1	75	0.23558	0.10680	0.0001560
Cable118		7.2MCUS3	35	85.0	0	1	75	0.63712	0.12360	0.0001080
Cable119		0.6MCUN3	50	30.0	0	1	75	0.43430	0.09330	0.0000000
Cable120		7.2MCUS3	25	281.0	0	1	75	0.88415	0.12960	0.0000960
Cable122		7.2MCUS3	25	269.0	0	1	75	0.88415	0.12960	0.0000960
Cable123		7.2MCUS1	120	328.0	0	2	75	0.18694	0.20400	0.0001680
Cable131		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable132		3.3MCUN3	400	50.0	0	1	75	0.06104	0.07100	0.0001788
Cable162		7.2MCUS3	25	50.0	0	1	75	0.88415	0.10800	0.0000800
Cable163		0.6MCUN3	50	30.0	0	1	75	0.43430	0.09330	0.0000000
Cable181		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable205		1.0MCUN1	185	50.0	0	1	75	0.12208	0.09500	0.0001565
Cable317		1.0MCUN3	185	100.0	0	1	75	0.12208	0.07300	0.0001442
Cable356		7.2MCUS1	185	50.0	0	1	75	0.12113	0.19800	0.0002040
Cable383		7.2MCUS1	185	50.0	0	1	75	0.12113	0.19800	0.0002040
Cable392		3.3MCUN3	240	50.0	0	2	75	0.09442	0.07300	0.0001464
Cable396		3.3MCUN3	240	50.0	0	2	75	0.09442	0.07300	0.0001464
Cable398		5.0MCUS3	150	400.0	0	2	75	0.14540	0.10100	0.0000000
Cable401		3.3MCUN3	95	400.0	0	1	75	0.23558	0.08000	0.0001037
Cable411		3.3MCUN3	95	400.0	0	1	75	0.23558	0.08000	0.0001037
Cable414		1.0MCUN1	800	40.0	0	2	75	0.03147	0.09100	0.0002061
Cable418		1.0MCUN1	800	40.0	0	2	75	0.03147	0.09100	0.0002061
Cable426		1.0MCUN1	800	17.0	0	4	75	0.03147	0.09100	0.0002061
Cable427		1.0MCUN1	500	30.0	0	4	75	0.04864	0.08800	0.0001898
Cable499		1.0MCUN1	500	30.0	0	4	75	0.04864	0.08800	0.0001898
Cable581		1.0MCUN3	25	30.0	0	1	75	0.88415	0.08200	0.0000889
Cable584		1.0MCUN3	25	30.0	0	1	75	0.88415	0.08200	0.0000889
Cable1226		3.3MCUN1	185	50.0	0	1	75	0.12208	0.09700	0.0001382
Cable1295		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable1296		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable1298		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable1303		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable1504		3.3NCUN1	500	50.0	0	2	75	0.04864	0.08800	0.0001898
Cable1505		3.3MCUN1	400	50.0	0	3	75	0.06104	0.08900	0.0001819
Cable1904		3.3MCUN1	630	40.0	0	1	75	0.04006	0.08600	0.0002023
Cable1911		3.3MCUN3	50	300.0	0	1	75	0.47116	0.08900	0.0000789
Cable2001		3.3MCUN1	630	40.0	0	1	75	0.04006	0.08600	0.0002023

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 12
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Ohms or Siemens/1000 m per Conductor (Cable) or per Phase (Line)

Line/Cable	ID	Library	Size	Length		#/Phase	T (°C)	R	X	Y
				Adj. (m)	% Tol.					
Cable2002		3.3MCUN1	400	50.0	0	1	75	0.06104	0.08900	0.0001819
Cable2099		3.3MCUN3	120	50.0	0	1	75	0.18694	0.07800	0.0001109
Cable2103		3.3MCUN1	240	400.0	0	3	75	0.09252	0.09300	0.0001552
Cable2306		7.2MCUS1	95	40.0	0	1	75	0.23463	0.17400	0.0001300
Cable2307		7.2MCUS3	95	120.0	0	1	75	0.23558	0.08900	0.0001300
Cable2308		7.2MCUS1	400	20.0	0	3	75	0.05913	0.18840	0.0002400
Cable2309		7.2MCUS1	95	40.0	0	1	75	0.23463	0.17400	0.0001300
Cable2310		7.2MCUS1	400	40.0	0	3	75	0.05913	0.18840	0.0002400
Cable2311		7.2MCUS3	95	120.0	0	1	75	0.23558	0.08900	0.0001300
Cable2312		7.2MCUS1	630	25.0	0	2	75	0.03720	0.15400	0.0002400
Cable2451		1.0MCUN1	630	40.0	0	6	75	0.04006	0.08600	0.0002023
Cable2520		3.3MCUN3	25	400.0	0	1	75	0.88415	0.09600	0.0000591
Cable2528		3.3MCUN3	70	400.0	0	1	75	0.32619	0.08300	0.0000902
Cable2606		3.3MCUN1	185	50.0	0	1	75	0.12208	0.09700	0.0001382
Cable2608		3.3MCUN3	25	400.0	0	1	75	0.88415	0.09600	0.0000591
Cable2612		3.3MCUN3	70	400.0	0	1	75	0.32619	0.08300	0.0000902
Cable2613		3.3MCUN1	185	400.0	0	1	75	0.12208	0.09700	0.0001382
Cable2615		3.3MCUN3	25	400.0	0	1	75	0.88415	0.09600	0.0000591
Cable2770		3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable2772		3.3MCUN3	25	300.0	0	1	75	0.88415	0.09600	0.0000591
Cable2799		3.3MCUN3	35	50.0	0	1	75	0.63808	0.09200	0.0000669
Cable2805		3.3MCUN3	50	300.0	0	1	75	0.47116	0.08900	0.0000789
Cable4075		7.2MCUS3	35	392.0	0	1	75	0.63712	0.12360	0.0001080
Cable4077		7.2MCUS3	95	80.0	0	1	75	0.23558	0.10680	0.0001560
Cable4079		7.2MCUS3	50	440.0	0	1	75	0.47116	0.11760	0.0001200
Cable4081		7.2MCUS3	25	510.0	0	1	75	0.88415	0.12960	0.0000960
Cable4083		7.2MCUS3	25	310.0	0	1	75	0.88415	0.12960	0.0000960
Cable4087		7.2MCUS3	25	411.0	0	1	75	0.88415	0.12960	0.0000960
Cable4090		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable4098		7.2MCUS3	95	80.0	0	1	75	0.23558	0.10680	0.0001560
Cable4105		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable4106		1.0MCUN1	800	21.0	0	4	75	0.03147	0.09100	0.0002061
Cable4166		1.0MCUN1	800	23.0	0	4	75	0.03147	0.09100	0.0002061
Cable4169		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable4170		7.2MCUS3	185	50.0	0	1	75	0.12208	0.09840	0.0002040
Cable4177		7.2MCUS3	35	392.0	0	1	75	0.63712	0.12360	0.0001080
Cable4188		7.2MCUS3	25	298.0	0	1	75	0.88415	0.12960	0.0000960
Cable4196		7.2MCUS3	25	541.0	0	1	75	0.88415	0.12960	0.0000960
Cable4199		7.2MCUS3	25	655.0	0	1	75	0.88415	0.12960	0.0000960
Cable4202		1.0MCUN1	800	28.0	0	4	75	0.03147	0.09100	0.0002061

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 13
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Ohms or Siemens/1000 m per Conductor (Cable) or per Phase (Line)									
Line/Cable		Size	Length		#/Phase	T (°C)	R	X	Y
ID	Library		Adj. (m)	% Tol.					
Cable4204	1.0MCUN1	800	31.0	0	4	75	0.03147	0.09100	0.0002061
Cable4431	1.0MCUN1	500	30.0	0	2	75	0.04864	0.08800	0.0001898
Cable4707	1.0MCUN1	500	30.0	0	2	75	0.04864	0.08800	0.0001898
Cable4736	1.0MCUN1	500	30.0	0	2	75	0.04864	0.08800	0.0001898
Cable4765	1.0MCUN3	185	91.0	0	4	75	0.12208	0.07300	0.0001442
Cable5421	1.0MCUN1	500	30.0	0	3	75	0.04864	0.08800	0.0001898
Cable5496	1.0MCUN3	240	27.0	0	1	75	0.09252	0.07200	0.0001565
Cable5498	1.0MCUN3	150	30.0	0	1	75	0.15165	0.07300	0.0001442
Cable5500	1.0MCUN3	25	30.0	0	1	75	0.88415	0.08200	0.0000889
Cable5502	1.0MCUN3	150	30.0	0	1	75	0.15165	0.07300	0.0001442
Cable5625	1.0MCUN3	240	25.0	0	1	75	0.09252	0.07200	0.0001565
Cable5626	1.0MCUN1	500	30.0	0	3	75	0.04864	0.08800	0.0001898
Cable5627	1.0MCUN3	25	30.0	0	1	75	0.88415	0.08200	0.0000889
Cable5628	1.0MCUN3	150	30.0	0	1	75	0.15165	0.07300	0.0001442
Cable5646	1.0MCUN1	500	30.0	0	2	75	0.04864	0.08800	0.0001898
Cable5647	1.0MCUN3	150	25.0	0	1	75	0.15165	0.07300	0.0001442
Cable5649	1.0MCUN3	150	25.0	0	1	75	0.15165	0.07300	0.0001442
Cable5766	3.3MCUN1	185	50.0	0	1	75	0.12208	0.09700	0.0001382
Cable5781	3.3MCUN1	185	50.0	0	1	75	0.12208	0.09700	0.0001382
Cable5785	3.3MCUN3	150	100.0	0	1	75	0.15070	0.07600	0.0001219
Cable5896	3.3MCUN1	150	50.0	0	1	75	0.15165	0.10000	0.0001260
Cable6035	1.0MCUN1	800	30.0	0	4	75	0.03147	0.09100	0.0002061
Cable6037	1.0MCUN1	800	30.0	0	4	75	0.03147	0.09100	0.0002061
Cable6044	3.3MCUN3	35	100.0	0	1	75	0.63808	0.09200	0.0000669
Cable6052	3.3MCUN3	35	100.0	0	1	75	0.63808	0.09200	0.0000669
Cable6057	3.3MCUN3	35	400.0	0	1	75	0.63808	0.09200	0.0000669
Cable6060	1.0MCUN1	800	30.0	0	4	75	0.03147	0.09100	0.0002061
Cable6063	1.0MCUN1	800	30.0	0	4	75	0.03147	0.09100	0.0002061
Cable6064	3.3MCUN1	150	50.0	0	1	75	0.15165	0.10000	0.0001260
Cable6066	3.3MCUN3	35	400.0	0	1	75	0.63808	0.09200	0.0000669
Cable6073	3.3MCUN3	35	100.0	0	1	75	0.63808	0.09200	0.0000669
Cable6077	3.3MCUN3	35	100.0	0	1	75	0.63808	0.09200	0.0000669
Cable6087	3.3MCUN3	35	100.0	0	1	75	0.63808	0.09200	0.0000669

Line / Cable resistances are listed at the specified temperatures.

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 14
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

2-Winding Transformer Input Data

Transformer ID	Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
	MVA	Prim. kV	Sec. kV	% Z	X/R	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
4200-TR-001	2.500	6.600	0.400	6.39	5.70	0	0	0	-2.500	0	6.3900	Std Pos. Seq.	0.0
4200-TR-002	2.500	6.600	0.400	6.36	5.63	0	0	0	-2.500	0	6.3600	Std Pos. Seq.	0.0
LAB TR	0.500	3.200	0.400	4.80	4.70	0	0	0	-2.500	0	4.8000	Std Pos. Seq.	0.0
LGTR-2-01	0.800	3.200	0.400	5.00	5.79	0	0	0	-2.500	0	5.0000	Std Pos. Seq.	0.0
T1	25.000	69.000	6.900	12.50	49.59	0	0	0	3.750	0	12.5000	Std Pos. Seq.	0.0
T2	0.100	0.400	0.220	4.00	2.47	0	0	0	2.500	0	4.0000	Std Pos. Seq.	0.0
T3	10.000	6.600	3.350	8.00	12.27	0	0	0	2.500	0	8.0000	Std Pos. Seq.	0.0
T41	12.000	6.600	3.350	7.98	10.92	0	0	0	1.250	0	7.9800	Std Pos. Seq.	0.0
TM-GT1	0.015	0.400	0.400	2.30	0.88	0	0	0	0	0	2.3000	Std Pos. Seq.	0.0
TM-GTG2	0.015	0.400	0.400	2.30	0.88	0	0	0	0	0	2.3000	Std Pos. Seq.	0.0
TRL-01 B	2.500	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-2-01A	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-2-01B	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-2-02A	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-2-02B	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-2-03A	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-2-03B	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-3-01A	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-3-01B	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-3-02A	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-3-02B	2.000	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-3-03	0.630	3.200	0.400	5.50	5.79	0	0	0	-2.500	0	5.5000	Std Pos. Seq.	0.0
TRL-4-01A	1.250	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-4-01B	1.250	3.200	0.400	6.00	7.10	0	0	0	-2.500	0	6.0000	Std Pos. Seq.	0.0
TRL-5-01 A	2.500	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-5-02A	2.000	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-5-02B	2.000	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-5-03A	2.500	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-5-03B	2.500	6.600	0.400	9.00	10.67	0	0	0	-2.500	0	9.0000	Std Pos. Seq.	0.0
TRL-5-04B	0.750	6.600	0.600	5.75	3.96	0	0	0	-2.500	0	5.7500	Std Pos. Seq.	0.0
TRLP5-01	0.150	0.400	0.400	4.00	2.47	0	0	0	-2.500	0	4.0000	Std Pos. Seq.	0.0
TRLP5-02	0.150	0.400	0.400	4.00	2.47	0	0	0	-2.500	0	4.0000	Std Pos. Seq.	0.0
TRLP-5-03	0.150	0.400	0.400	4.00	2.47	0	0	0	-2.500	0	4.0000	Std Pos. Seq.	0.0

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 15
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Reactor Input Data

Reactor	Connected Buses		Impedance		
ID	From Bus	To Bus	X (ohm)	X/R	% Tol.
X1	Bus25	SGM-5-01 BUS B	0.19997	55.00	0.0

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 16
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Branch Connections

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA _b			
ID	Type	From Bus	To Bus	R	X	Z	Y
4200-TR-001	2W XFMR	Bus994	Bus995	40.36	230.04	233.55	
4200-TR-002	2W XFMR	Bus1000	Bus999	40.04	225.45	228.97	
LAB TR	2W XFMR	SGM-3-02A	Bus1	172.35	810.06	828.19	
LGTR-2-01	2W XFMR	Bus46	Bus61	92.49	535.54	543.47	
T1	2W XFMR	Bus14	Bus16	1.05	52.31	52.32	
T2	2W XFMR	MCL 3-011B	T2-Sec	1368.42	3379.99	3646.49	
T3	2W XFMR	Bus72	Bus694	6.71	82.28	82.55	
T41	2W XFMR	Bus951	Bus19	6.20	67.72	68.00	
TM-GT1	2W XFMR	GTG1 MCC.1-RF	GTG-1 DB	10816.62	9518.63	14408.45	
TM-GTG2	2W XFMR	GTG2 MCC.2-RF	GTG-2 DB	10816.62	9518.63	14408.45	
TRL-01 B	2W XFMR	Bus322	Bus28	29.77	317.65	319.04	
TRL-2-01A	2W XFMR	Bus613	Bus614	36.17	256.80	259.33	
TRL-2-01B	2W XFMR	Bus1024	Bus1023	36.17	256.80	259.33	
TRL-2-02A	2W XFMR	Bus1298	Bus1314	36.17	256.80	259.33	
TRL-2-02B	2W XFMR	Bus1293	Bus1294	36.17	256.80	259.33	
TRL-2-03A	2W XFMR	Bus1305	Bus1312	36.17	256.80	259.33	
TRL-2-03B	2W XFMR	Bus1328	Bus1329	36.17	256.80	259.33	
TRL-3-01A	2W XFMR	Bus31	Bus1116	35.84	254.43	256.94	
TRL-3-01B	2W XFMR	Bus33	Bus1121	35.84	254.43	256.94	
TRL-3-02A	2W XFMR	Bus36	SGL-3-02 A	35.84	254.43	256.94	
TRL-3-02B	2W XFMR	Bus37	SGL-3-02 B	35.84	254.43	256.94	
TRL-3-03	2W XFMR	Bus1081	MOP-3-01	127.64	739.03	749.98	
TRL-4-01A	2W XFMR	Bus49	Bus50	57.34	407.09	411.10	
TRL-4-01B	2W XFMR	Bus54	Bus53	57.34	407.09	411.10	
TRL-5-01 A	2W XFMR	Bus276	Bus277	29.77	317.65	319.04	
TRL-5-02A	2W XFMR	Bus1198	Bus1199	37.21	397.06	398.80	
TRL-5-02B	2W XFMR	Bus1204	Bus1203	37.21	397.06	398.80	
TRL-5-03A	2W XFMR	Bus1208	Bus1236	29.77	317.65	319.04	
TRL-5-03B	2W XFMR	Bus1210	Bus1237	29.77	317.65	319.04	
TRL-5-04B	2W XFMR	Bus57	Bus59	169.62	671.71	692.80	
TRLP5-01	2W XFMR	Bus44	LP-5-01	869.07	2146.60	2315.85	
TRLP5-02	2W XFMR	Bus30	LP-5-02	869.07	2146.60	2315.85	
TRLP-5-03	2W XFMR	Bus56	LP-5-03	869.07	2146.60	2315.85	
Cable1	Cable	Bus28	SGL-5-01 BUS B	7.83	22.63	23.95	
Cable5	Cable	Terminal_MEA	Bus698	0.00	0.02	0.02	
Cable6	Cable	Bus698	Bus14	0.00	0.01	0.01	
Cable7	Cable	4200-MD-001	GTG1 MCC.1	450.51	285.19	533.19	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 17
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVAb			
ID	Type	From Bus	To Bus	R	X	Z	Y
Cable8	Cable	Bus19	Bus887	3.89	7.03	8.04	
Cable9	Cable	4200-MD-001	Bus2	2411.62	184.84	2418.69	
Cable10	Cable	4200-MD-001	AC DB.	222.14	116.45	250.81	
Cable11	Cable	4200-MD-001	Bus3	2411.62	184.84	2418.69	
Cable13	Cable	4200-MD-001	Bus9	3359.26	563.25	3406.15	
Cable15	Cable	4200-MD-001	Bus15	3359.26	563.25	3406.15	
Cable17	Cable	4200-MD-001	Bus18	969.02	317.87	1019.82	
Cable19	Cable	4200-MD-001	Bus21	544.01	325.29	633.85	
Cable22	Cable	BOP MCC	MOV-001	839.81	140.81	851.54	
Cable24	Cable	4200-MD-001	Bus23	544.01	325.29	633.85	
Cable30	Cable	SGM-5-03 BUS A	Bus26	88.95	13.04	89.90	
Cable32	Cable	Bus59	VFD-2	78.75	107.27	133.08	
Cable37	Cable	4200-MD-001	Bus38	839.81	140.81	851.54	
Cable39	Cable	SGL-4-01 BUS A	MCL-4-01A	34.98	101.15	107.03	
Cable40	Cable	4200-MD-001	Bus40	839.81	140.81	851.54	
Cable42	Cable	SGM-3-02A	Bus7	242.30	26.31	243.72	
Cable44	Cable	SGM-3-02A	Bus11	242.30	26.31	243.72	
Cable45	Cable	SGL-4-01 BUS B	MCL-4-01B	34.98	101.15	107.03	
Cable51	Cable	Bus60	Bus46	5.63	4.47	7.19	
Cable54	Cable	Bus61	MOP 2-01	171.20	249.62	302.69	
Cable55	Cable	SGM-3-02B	Bus27	242.30	26.31	243.72	
Cable58	Cable	SGM-3-02B	Bus29	242.30	26.31	243.72	
Cable69	Cable	4200-MD-001	GTG2 MCC.2	450.51	285.19	533.19	
Cable83	Cable	SGM-5-01 BUS A	Bus72	0.27	0.85	0.89	
Cable86	Cable	SGM-5-01 BUS B	Terminal_STG-4	1.34	4.26	4.46	
Cable91	Cable	SGM-5-01 BUS A	SGM-5-02-BUS A	0.13	0.43	0.45	
Cable93	Cable	SGM-5-01 BUS B	SGM-5-02-BUS B	0.13	0.43	0.45	
Cable96	Cable	BUP-B	Bus25	3.68	11.71	12.28	
Cable99	Cable	SGM-5-01 BUS A	Bus16	0.21	0.87	0.90	
Cable100	Cable	SGM-5-01 BUS B	SGM-5-03 BUS B	0.27	0.85	0.89	
Cable101	Cable	SGM-5-01 BUS A	SGM-5-03 BUS A	0.27	0.85	0.89	
Cable103	Cable	SGM-5-02-BUS A	Bus68	51.97	7.62	52.53	
Cable105	Cable	SGM-5-02-BUS A	Bus69	44.22	8.58	45.05	
Cable107	Cable	SGM-5-02-BUS A	Bus70	76.36	11.19	77.18	
Cable109	Cable	SGM-5-02-BUS A	Bus71	75.76	11.11	76.57	
Cable113	Cable	SGM-5-02-BUS A	Bus276	1.38	1.11	1.77	
Cable115	Cable	SGM-5-02-BUS A	Bus80	16.35	7.41	17.95	
Cable118	Cable	SGM-5-02-BUS A	Bus82	12.24	2.38	12.47	
Cable119	Cable	4200-MD-001	Bus32	774.11	166.30	791.77	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 18
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA			
ID	Type	From Bus	To Bus	R	X	Z	Y
Cable120	Cable	SGM-5-02-BUS A	Bus83	56.17	8.23	56.77	
Cable122	Cable	SGM-5-02-BUS A	Bus84	53.77	7.88	54.35	
Cable123	Cable	SGM-5-02-BUS A	Bus86	6.93	7.56	10.26	
Cable131	Cable	SGM-5-02-BUS B	Bus322	1.38	1.11	1.77	
Cable132	Cable	Bus45	Bus33	2.79	3.24	4.28	
Cable162	Cable	SGM-5-02-BUS B	Bus57	9.99	1.22	10.07	
Cable163	Cable	4200-MD-001	Bus34	774.11	166.30	791.77	
Cable181	Cable	Bus45	Bus37	2.79	4.07	4.93	
Cable205	Cable	4200-MD-001	BOP MCC	362.67	282.22	459.54	
Cable317	Cable	4200-MD-001	FD FAN VFD Bus	725.35	433.72	845.13	
Cable356	Cable	SGM-4-01 BUS A	Bus49	5.53	9.04	10.60	
Cable383	Cable	SGM-4-01 BUS B	Bus54	5.53	9.04	10.60	
Cable392	Cable	Bus65	SGM-4-01 BUS A	2.16	1.67	2.73	
Cable396	Cable	Bus74	SGM-4-01 BUS B	2.16	1.67	2.73	
Cable398	Cable	SGM-4-01 BUS A	Bus75	26.56	18.45	32.34	
Cable401	Cable	SGM-4-01 BUS A	Bus77	86.08	29.23	90.91	
Cable411	Cable	SGM-4-01 BUS B	Bus87	86.08	29.23	90.91	
Cable414	Cable	Bus50	SGL-4-01 BUS A	34.98	101.15	107.03	
Cable418	Cable	Bus53	SGL-4-01 BUS B	34.98	101.15	107.03	
Cable426	Cable	Bus277	SGL-5-01 BUS A	7.83	22.63	23.95	
Cable427	Cable	SGL-5-01 BUS A	MCL 5-01 A	21.35	38.62	44.13	
Cable499	Cable	SGL-5-01 BUS B	MCL 5-01 B	21.35	38.62	44.13	
Cable581	Cable	MOP 2-01	Bus93	1487.85	137.99	1494.24	
Cable584	Cable	SGL-2-01B	Bus92	1487.85	137.99	1494.24	
Cable1226	Cable	SGM-2-02A	Bus613	5.63	4.47	7.19	
Cable1295	Cable	Bus624	SGM-2-02A	2.81	4.10	4.98	
Cable1296	Cable	Bus625	SGM-2-01B	2.81	4.10	4.98	
Cable1298	Cable	Bus627	SGM-2-03 BUS A	2.81	4.10	4.98	
Cable1303	Cable	Bus632	SGM-2-03 BUS B	2.81	4.10	4.98	
Cable1504	Cable	Bus694	Bus687	1.12	2.03	2.32	
Cable1505	Cable	Terminal_STG-3	Bus696	0.94	1.37	1.66	
Cable1904	Cable	Bus822	Bus45	1.46	3.14	3.47	
Cable1911	Cable	SGM-3-02A	Bus825	129.12	24.39	131.40	
Cable2001	Cable	Bus848	Bus875	1.46	3.14	3.47	
Cable2002	Cable	Bus875	Bus36	2.79	4.07	4.93	
Cable2099	Cable	Bus875	Bus31	8.54	3.56	9.25	
Cable2103	Cable	Bus877	Bus20	11.27	11.33	15.98	
Cable2306	Cable	BUP-A	Bus994	2.15	1.60	2.68	
Cable2307	Cable	BUP-A	Bus947	6.49	2.45	6.94	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 19
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVAb			
ID	Type	From Bus	To Bus	R	X	Z	Y
Cable2308	Cable	BUP-A	Terminal_GTG-1	0.09	0.29	0.30	
Cable2309	Cable	BUP-B	Bus1000	2.12	1.57	2.64	
Cable2310	Cable	BUP-B	Terminal_GTG-2	0.18	0.57	0.60	
Cable2311	Cable	BUP-B	Bus5	6.39	2.41	6.83	
Cable2312	Cable	BUP-A	Bus951	0.11	0.44	0.45	
Cable2451	Cable	Bus995	4200-MD-001	15.87	34.06	37.58	
Cable2520	Cable	SGM-2-02A	Bus1005	326.07	35.40	327.99	
Cable2528	Cable	SGM-2-02A	Bus1009	120.30	30.61	124.13	
Cable2606	Cable	SGM-2-01B	Bus1024	5.63	4.47	7.19	
Cable2608	Cable	SGM-2-01B	Bus1025	326.07	35.40	327.99	
Cable2612	Cable	SGM-2-01B	Bus1027	120.30	30.61	124.13	
Cable2613	Cable	SGM-2-01B	Bus1028	45.02	35.77	57.51	
Cable2615	Cable	SGM-2-01B	Bus1030	326.07	35.40	327.99	
Cable2770	Cable	SGM-3-02A	Bus1066	242.30	26.31	243.72	
Cable2772	Cable	SGM-3-02A	Bus1067	242.30	26.31	243.72	
Cable2799	Cable	SGM-3-02B	Bus1081	29.14	4.20	29.44	
Cable2805	Cable	SGM-3-02B	Bus1084	129.12	24.39	131.40	
Cable4075	Cable	SGM-5-03 BUS A	Bus1181	56.47	10.95	57.52	
Cable4077	Cable	SGM-5-03 BUS A	Bus1182	4.26	1.93	4.68	
Cable4079	Cable	SGM-5-03 BUS A	Bus1183	46.87	11.70	48.31	
Cable4081	Cable	SGM-5-03 BUS A	Bus1184	101.95	14.94	103.04	
Cable4083	Cable	SGM-5-03 BUS A	Bus1185	61.97	9.08	62.63	
Cable4087	Cable	SGM-5-03 BUS A	Bus1187	82.16	12.04	83.04	
Cable4090	Cable	SGM-5-03 BUS B	Bus1204	1.38	1.11	1.77	
Cable4098	Cable	SGM-5-03 BUS B	Bus1192	4.26	1.93	4.68	
Cable4105	Cable	SGM-5-03 BUS A	Bus1198	1.38	1.11	1.77	
Cable4106	Cable	Bus1199	SGL-5-02 BUS A	9.67	27.95	29.58	
Cable4166	Cable	Bus1203	SGL-5-02 BUS B	10.59	30.62	32.40	
Cable4169	Cable	SGM-5-03 BUS B	Bus1210	1.38	1.11	1.77	
Cable4170	Cable	SGM-5-03 BUS A	Bus1208	1.38	1.11	1.77	
Cable4177	Cable	SGM-5-03 BUS B	Bus1214	56.47	10.95	57.52	
Cable4188	Cable	SGM-5-03 BUS B	Bus1219	59.57	8.73	60.21	
Cable4196	Cable	SGM-5-03 BUS A	Bus1223	108.14	15.85	109.30	
Cable4199	Cable	SGM-5-03 BUS B	Bus1197	130.93	19.19	132.33	
Cable4202	Cable	Bus1236	SGL-5-03 BUS A	12.89	37.27	39.44	
Cable4204	Cable	Bus1237	SGL-5-03 BUS B	14.27	41.27	43.67	
Cable4431	Cable	SGL-5-02 BUS A	MCL-5-22A	42.69	77.24	88.25	
Cable4707	Cable	SGL-5-02 BUS B	MCL-5-21 B	42.69	77.24	88.25	
Cable4736	Cable	SGL-5-02 BUS B	MCL-5-22 B	42.69	77.24	88.25	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 20
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVAb			
ID	Type	From Bus	To Bus	R	X	Z	Y
Cable4765	Cable	SGL-5-02 BUS B	Bus1244	162.51	97.18	189.35	
Cable5421	Cable	SGL-5-03 BUS A	MCL-5-03 A	28.46	51.49	58.83	
Cable5496	Cable	SGL-5-03 BUS A	Bus1261	146.16	113.75	185.21	
Cable5498	Cable	SGL-5-03 BUS A	Bus1262	266.21	128.14	295.44	
Cable5500	Cable	SGL-5-03 BUS A	Bus64	1552.04	143.94	1558.70	
Cable5502	Cable	SGL-5-03 BUS A	Bus55	266.21	128.14	295.44	
Cable5625	Cable	SGL-5-03 BUS B	Bus1265	135.34	105.32	171.49	
Cable5626	Cable	SGL-5-03 BUS B	MCL-5-03B	28.46	51.49	58.83	
Cable5627	Cable	SGL-5-03 BUS B	Bus41	1552.04	143.94	1558.70	
Cable5628	Cable	SGL-5-03 BUS B	Bus52	266.21	128.14	295.44	
Cable5646	Cable	SGL-5-02 BUS A	MCL-5-21 A	42.69	77.24	88.25	
Cable5647	Cable	SGL-5-02 BUS A	Bus10	221.84	106.79	246.20	
Cable5649	Cable	SGL-5-02 BUS B	Bus13	221.84	106.79	246.20	
Cable5766	Cable	SGM-2-03 BUS B	Bus1293	5.63	4.47	7.19	
Cable5781	Cable	SGM-2-03 BUS A	Bus1298	5.63	4.47	7.19	
Cable5785	Cable	SGM-2-03 BUS A	Bus1300	13.89	7.01	15.56	
Cable5896	Cable	SGM-2-03 BUS A	Bus1305	6.99	4.61	8.37	
Cable6035	Cable	Bus1312	SGL-2-03 BUS A	13.24	38.28	40.51	
Cable6037	Cable	Bus1314	SGL-2-02 BUS A	13.24	38.28	40.51	
Cable6044	Cable	SGM-2-03 BUS A	Bus1318	58.83	8.48	59.44	
Cable6052	Cable	SGM-2-03 BUS A	Bus1322	58.83	8.48	59.44	
Cable6057	Cable	SGM-2-03 BUS A	Bus48	235.32	33.93	237.75	
Cable6060	Cable	Bus1294	SGL-2-02 BUS B	13.24	38.28	40.51	
Cable6063	Cable	Bus1329	SGL-2-03 BUS B	13.24	38.28	40.51	
Cable6064	Cable	SGM-2-03 BUS B	Bus1328	6.99	4.61	8.37	
Cable6066	Cable	SGM-2-03 BUS B	Bus51	235.32	33.93	237.75	
Cable6073	Cable	SGM-2-03 BUS B	Bus1335	58.83	8.48	59.44	
Cable6077	Cable	SGM-2-03 BUS B	Bus1337	58.83	8.48	59.44	
Cable6087	Cable	SGM-2-03 BUS B	Bus1342	58.83	8.48	59.44	
X1	Reactor	Bus25	SGM-5-01 BUS B	0.82	45.21	45.22	
S2-G-A	Tie Breaker	SGM-2-01 BUS A	Bus696				
S2-SL1-A1	Tie Breaker	Bus614	SGL-2-01A				
S2-SL1-B1	Tie Breaker	Bus1023	SGL-2-01B				
S2-SM1-A1	Tie Breaker	SGM-2-01 BUS A	Bus624				
S2-SM1-A2	Tie Breaker	SGM-2-01 BUS A	Bus625				
S2-SM1-A3	Tie Breaker	SGM-2-01 BUS A	Bus627				
S2-SM1-A4	Tie Breaker	SGM-2-01 BUS A	Bus632				
S2-SM1-C	Tie Breaker	SGM-2-01 BUS A	SGM-2-01 BUS B				
S2-SM1-S#3 A	Tie Breaker	SGM-2-01 BUS A	Bus621				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 21
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVAb			
ID	Type	From Bus	To Bus	R	X	Z	Y
S2-SM1-S#5 A	Tie Breaker	SGM-2-01 BUS A	Bus687				
S3-SL1-A1	Tie Breaker	Bus1116	SGL-3-01 A				
S3-SL1-A2	Tie Breaker	SGL-3-01 A	MCL3-013				
S3-SL1-A3	Tie Breaker	SGL-3-01 A	MCL3-011A				
S3-SL1-A4	Tie Breaker	SGL-3-01 A	MCL3-012A				
S3-SL1-B1	Tie Breaker	Bus1121	SGL-3-01 B				
S3-SL1-B2	Tie Breaker	SGL-3-01 B	MCL 3-011B				
S3-SL1-B3	Tie Breaker	SGL-3-01 B	MCL3-012B				
S3-SL1-B4	Tie Breaker	SGL-3-01 B	MCL3-023				
S3-SL2-A2	Tie Breaker	SGL-3-02 A	MCL3-021A				
S3-SL2-A3	Tie Breaker	SGL-3-02 A	MCL3-022A				
S3-SL2-B2	Tie Breaker	SGL-3-02 B	MCL3-021B				
S3-SL2-B3	Tie Breaker	SGL-3-02 B	MCL3-022B				
S3-SM1-A1	Tie Breaker	SGM-3-01 BUS A	Bus848				
S3-SM1-A2	Tie Breaker	SGM-3-01 BUS A	Bus822				
S3-SM1-BUPA	Tie Breaker	SGM-3-01 BUS A	Bus887				
S3-SM1-C	Tie Breaker	SGM-3-01 BUS A	SGM-3-01 BUS B				
S3-SM1-S#2A	Tie Breaker	SGM-3-01 BUS A	Bus877				
S3-SM1-S#4A1	Tie Breaker	SGM-3-01 BUS A	Bus65				
S3-SM1-S#4B2	Tie Breaker	SGM-3-01 BUS B	Bus74				
S3-SM2-A1	Tie Breaker	Bus875	SGM-3-02A				
S3-SM2-B1	Tie Breaker	Bus45	SGM-3-02B				
S5-SL1-A3	Tie Breaker	SGL-5-01 BUS A	Bus43				
S5-SL1-B3	Tie Breaker	SGL-5-01 BUS B	Bus42				
S5-SM1-C	Tie Breaker	SGM-5-01 BUS A	SGM-5-01 BUS B				
F1-GT1-MCC	Tie Fuse	GTG1 MCC.1	GTG1 MCC.1-RF				
F1-GT2-MCC	Tie Fuse	GTG2 MCC.2	GTG2 MCC.2-RF				
F2-GT1-MCC	Tie Fuse	GTG1 MCC.1	GTG1 MCC.1-INT				
F2-GT2-MCC	Tie Fuse	GTG2 MCC.2	GTG2 MCC.2-INT				
2SW1	Tie Switch	Bus30	Bus13				
2SW2	Tie Switch	Bus60	Bus51				
2SW3	Tie Switch	Bus44	Bus42				
2SW4	Tie Switch	Bus56	Bus52				

Page: 22

Date: 07-09-2009

SN: POYRYENRGY

Revision: Base

Config.: Case B2

Power Grid Input Data

Power Grid	Connected Bus	Rating		% Impedance 100 MVA Base		
ID	ID	MVASC	kV	R	X"	R/X
MEA2	Terminal_MEA	4780.460	69.000	0.41025	2.05123	0.20

Total Connected Power Grids (= 1): 4780.460 MVA

Synchronous Generator Input Data

Synchronous Generator		Connected Bus	Rating				% Impedance in Machine Base					Excitation
							R	Adj.	Tol.	R/X	Xd, sat	
ID	Type	ID	MVA	kV	RPM	% PF	R	Adj.	Tol.	R/X	Xd, sat	Type
GTG-1	Turbo	Terminal_GTG-1	17.000	6.600	1500	80.00	0.627	18.90	0.0	0.03	214.00	
GTG-2	Turbo	Terminal_GTG-2	17.000	6.600	1500	80.00	0.627	18.90	0.0	0.03	214.00	
STG-3	Turbo	Terminal_STG-3	8.750	3.200	1500	80.00	0.600	12.00	0.0	0.05	110.00	
STG-4	Turbo	Terminal_STG-4	7.000	6.600	1500	80.00	0.650	13.00	0.0	0.05	110.00	

Total Connected Synchronous Generators (= 4) : 49.750 MVA

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 23
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Synchronous Motor Input Data

Synchronous Motor			Connected Bus	Rating				
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF
4K-4002A	Motor	1	Bus86	3500.00	3987.1	6.600	348.80	93.01

Total Connected Synchronous Motors (= 1): 3987.1 kVA

Synchronous Motor			% Impedance in Motor Base				Exciter Type
			R	Xd"		R/X"	
ID	Type	Qty		Adj.	Tol.		
4K-4002A	Motor	1	0.440	15.38	0.0	0.03	Turbine 130%

Induction Machine Input Data

Induction Machine			Connected Bus	Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
GAS COMP-B	Motor	1	Bus5	450.00	530.51	6.600	46.41	87.99	4.55	17.61	0.26	0.45
3KM-101C	Motor	1	Bus7	390.00	443.94	3.200	80.10	92.28	3.63	21.63	0.17	0.07
3PM-103A	Motor	1	Bus11	160.00	182.13	3.200	32.86	92.28	2.80	16.69	0.17	0.08
4K-4103	Motor	1	Bus26	330.00	378.94	6.600	33.15	91.92	3.25	15.04	0.22	0.17
3KM-202/203	Motor	1	Bus27	330.00	375.64	3.200	67.77	92.28	3.57	21.25	0.17	0.06
3PM-103B	Motor	1	Bus29	160.00	182.13	3.200	32.86	92.28	2.80	16.69	0.17	0.08
4P-4004A	Motor	1	Bus68	300.00	343.87	6.600	30.08	91.99	3.25	15.04	0.22	0.15
4P-107	Motor	1	Bus69	600.00	682.98	6.600	59.75	92.28	2.55	15.17	0.17	0.30
4P-114A	Motor	1	Bus70	250.00	287.08	6.600	25.11	91.92	3.25	15.04	0.22	0.13
4P-115A	Motor	1	Bus71	250.00	287.08	6.600	25.11	91.92	3.25	15.04	0.22	0.13
3KM-3702A	Motor	1	Bus75	1500.00	1707.45	3.200	308.06	92.28	3.75	22.36	0.17	1.50
3PM-3701A	Motor	1	Bus77	630.00	717.13	3.200	129.39	92.28	2.55	15.17	0.17	0.63
4P-4001A	Motor	1	Bus80	1300.00	1468.50	6.600	128.46	92.60	3.08	15.07	0.20	0.65
4F-101K2A	Motor	1	Bus83	200.00	230.15	6.600	20.13	91.83	3.45	14.99	0.23	0.20
4F-101K1	Motor	1	Bus84	250.00	287.08	6.600	25.11	91.92	3.25	15.04	0.22	0.13
3KM-3701B	Motor	1	Bus87	610.00	694.36	3.200	125.28	92.28	4.61	27.47	0.17	0.61
GAS COMP-A	Motor	1	Bus947	450.00	530.51	6.600	46.41	87.99	4.55	17.61	0.26	0.45
2PM-1211E	Motor	1	Bus1005	230.00	261.81	3.200	47.24	92.28	2.55	15.17	0.17	0.23
2PM-1211A	Motor	1	Bus1009	430.00	489.47	3.200	88.31	92.28	2.55	15.17	0.17	0.43
2PM-1102A	Motor	1	Bus1025	185.00	210.58	3.200	37.99	92.28	2.91	17.36	0.17	0.19
2PM-1211B	Motor	1	Bus1027	430.00	489.47	3.200	88.31	92.28	2.55	15.17	0.17	0.43

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 24
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
2PM-101A	Motor	1	Bus1030		235.00	267.50	3.200	48.26	92.28	2.82	16.77	0.17	0.24
3PM-102B	Motor	1	Bus1066		390.00	443.94	3.200	80.10	92.28	2.55	15.17	0.17	0.39
3PM-111A	Motor	1	Bus1067		180.00	204.89	3.200	36.97	92.28	2.55	15.17	0.17	0.18
4K-4101A	Motor	1	Bus1181		860.00	1007.65	6.600	88.15	88.63	2.55	15.17	0.17	0.43
4P-3905A	Motor	1	Bus1183		820.00	933.40	6.600	81.65	92.28	2.55	15.17	0.17	0.41
4P-3901A	Motor	1	Bus1184		220.00	252.63	6.600	22.10	91.92	3.25	15.04	0.22	0.11
4P-1202C	Motor	1	Bus1185		330.00	378.94	6.600	33.15	91.92	3.25	15.04	0.22	0.17
4P-4103A	Motor	1	Bus1187		370.00	425.78	6.600	37.25	91.83	3.45	14.99	0.23	0.37
4K-2701B	Motor	1	Bus1197		200.00	229.66	6.600	20.09	91.92	3.25	15.04	0.22	0.10
4K-4101B	Motor	1	Bus1214		860.00	985.75	6.600	86.23	91.99	2.55	15.17	0.17	0.43
4P-1202A	Motor	1	Bus1219		330.00	378.94	6.600	33.15	91.92	3.25	15.04	0.22	0.17
4P-4901A	Motor	1	Bus1223		250.00	287.08	6.600	25.11	91.92	3.25	15.04	0.22	0.13
2KM-3701/02A	Motor	1	Bus1300		1600.00	1821.28	3.200	328.60	92.28	4.39	26.16	0.17	1.60
2KM-302A	Motor	1	Bus1318		490.00	557.77	3.200	100.63	92.28	3.18	18.93	0.17	0.49
2PM-201A	Motor	1	Bus1322		195.00	221.97	3.200	40.05	92.28	3.02	18.00	0.17	0.20
2KM-302B	Motor	1	Bus1335		490.00	557.77	3.200	100.63	92.28	3.18	18.93	0.17	0.49
2PM-102B	Motor	1	Bus1337		205.00	233.35	3.200	42.10	92.28	3.02	18.00	0.17	0.21
2PM-3701B	Motor	1	Bus1342		340.00	387.02	3.200	69.83	92.28	2.98	17.74	0.17	0.34
BDP-A	Motor	1	BOP MCC		1.10	1.52	0.400	2.19	89.87	6.08	14.13	0.43	0.00
SWP-A	Motor	1	BOP MCC		1.10	1.52	0.400	2.19	89.87	6.08	14.13	0.43	0.00
SWP-R	Motor	1	BOP MCC		1.10	1.52	0.400	2.19	89.87	6.08	14.13	0.43	0.00
AUX.FD FAN	Motor	1	BOP MCC		0.75	1.20	0.400	1.73	81.06	11.97	9.66	1.24	0.00
FW-A	Motor	1	Bus21		160.00	185.98	0.400	268.44	90.10	6.45	12.90	0.50	0.16
FW-B	Motor	1	Bus23		160.00	185.98	0.400	268.44	90.10	6.45	12.90	0.50	0.16
Lube oil CF2	Motor	1	GTG1 MCC.1-INT		4.00	5.50	0.400	7.95	89.13	6.58	13.91	0.47	0.00
Lube oil CF1	Motor	1	GTG1 MCC.1-INT		4.00	5.50	0.400	7.95	89.13	6.58	13.91	0.47	0.00
Lube oil CF3	Motor	1	GTG1 MCC.1-INT		4.00	5.50	0.400	7.95	89.13	6.58	13.91	0.47	0.00
Lube oil CF4	Motor	1	GTG1 MCC.1-INT		4.00	5.50	0.400	7.95	89.13	6.58	13.91	0.47	0.00
Vent.1 unit1	Motor	1	GTG1 MCC.1-INT		15.00	19.75	0.400	28.50	89.13	6.58	13.91	0.47	0.01
Vent.1 unit2	Motor	1	GTG1 MCC.1-INT		15.00	19.75	0.400	28.50	89.13	6.58	13.91	0.47	0.01
Vent.2 unit 1	Motor	1	GTG1 MCC.1-INT		15.00	19.75	0.400	28.50	89.13	6.58	13.91	0.47	0.01
Vent.2 unit2	Motor	1	GTG1 MCC.1-INT		15.00	19.75	0.400	28.50	89.13	6.58	13.91	0.47	0.01
Oil mist-1	Motor	1	GTG1 MCC.1-INT		3.00	4.96	0.400	7.16	84.37	10.57	12.88	0.82	0.00
Wash Pump	Motor	1	GTG1 MCC.1-RF		6.50	9.93	0.400	14.33	86.21	9.23	13.87	0.67	0.00
Lube oil Pump	Motor	1	GTG1 MCC.1-RF		4.60	6.33	0.400	9.14	89.13	6.58	13.91	0.47	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 25
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
Lube oil CF.1	Motor	1	GTG2 MCC.2-INT	4.00	5.50	0.400	7.95	89.13		6.58	13.91	0.47	0.00
Lube oil CF.2	Motor	1	GTG2 MCC.2-INT	4.00	5.50	0.400	7.95	89.13		6.58	13.91	0.47	0.00
Lube oil CF.3	Motor	1	GTG2 MCC.2-INT	4.00	5.50	0.400	7.95	89.13		6.58	13.91	0.47	0.00
Lube oil CF.4	Motor	1	GTG2 MCC.2-INT	4.00	5.50	0.400	7.95	89.13		6.58	13.91	0.47	0.00
Vent1 unit1	Motor	1	GTG2 MCC.2-INT	15.00	19.75	0.400	28.50	89.13		6.58	13.91	0.47	0.01
Vent1 unit2	Motor	1	GTG2 MCC.2-INT	15.00	19.75	0.400	28.50	89.13		6.58	13.91	0.47	0.01
Vent2 unit2	Motor	1	GTG2 MCC.2-INT	15.00	19.75	0.400	28.50	89.13		6.58	13.91	0.47	0.01
Vent2 unt2	Motor	1	GTG2 MCC.2-INT	15.00	19.75	0.400	28.50	89.13		6.58	13.91	0.47	0.01
Oil mist-2	Motor	1	GTG2 MCC.2-INT	3.00	4.96	0.400	7.16	84.37		10.57	12.88	0.82	0.00
Lube oil Pump.	Motor	1	GTG2 MCC.2-RF	4.60	6.33	0.400	9.14	89.13		6.58	13.91	0.47	0.00
wase pump	Motor	1	GTG2 MCC.2-RF	6.50	9.93	0.400	14.33	86.21		9.23	13.87	0.67	0.00
3PM-108A	Motor	1	MCL 3-011B	75.00	103.21	0.400	148.97	89.13		6.58	13.91	0.47	0.08
3PM-112A	Motor	1	MCL 3-011B	37.00	51.14	0.400	73.82	89.87		6.08	14.13	0.43	0.04
3PM-119	Motor	1	MCL 3-011B	1.50	2.06	0.400	2.97	85.82		8.79	12.63	0.70	0.00
3PM-116A	Motor	1	MCL 3-011B	75.00	103.21	0.400	148.97	89.13		6.58	13.91	0.47	0.08
3PM-121	Motor	1	MCL 3-011B	0.40	0.55	0.400	0.79	85.82		8.79	12.63	0.70	0.00
3PN-115A	Motor	1	MCL 3-011B	90.00	123.85	0.400	178.76	89.13		6.58	13.91	0.47	0.09
3PM-1101B	Motor	1	MCL 3-011B	37.00	51.14	0.400	73.82	89.87		6.08	14.13	0.43	0.04
4A-102 A	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-103 A	Motor	1	MCL 5-01 A	11.00	15.10	0.400	21.80	87.47		7.68	13.33	0.58	0.01
4A-104 A	Motor	1	MCL 5-01 A	11.00	15.10	0.400	21.80	87.47		7.68	13.33	0.58	0.01
4A-105 B	Motor	1	MCL 5-01 A	30.00	41.47	0.400	59.85	89.87		6.08	14.13	0.43	0.02
4A-109 A	Motor	1	MCL 5-01 A	7.50	10.32	0.400	14.90	86.56		8.30	12.96	0.64	0.00
4A-4001B	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001D	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-105 A	Motor	1	MCL 5-01 A	30.00	41.47	0.400	59.85	89.87		6.08	14.13	0.43	0.02
4A-105 C	Motor	1	MCL 5-01 A	30.00	41.47	0.400	59.85	89.87		6.08	14.13	0.43	0.02
4A-106 A	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-108 A	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-110 A	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001A	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001C	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001E	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001F	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
4A-4001G	Motor	1	MCL 5-01 A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 26
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
4A-4001H	Motor	1	MCL 5-01 A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-4003A	Motor	1	MCL 5-01 A		11.00	15.10	0.400	21.80	87.47	7.68	13.33	0.58	0.01
4A-4004A	Motor	1	MCL 5-01 A		55.00	74.89	0.400	108.10	91.31	5.11	14.51	0.35	0.03
4A-4004B	Motor	1	MCL 5-01 A		55.00	74.89	0.400	108.10	91.31	5.11	14.51	0.35	0.03
4A-4004C	Motor	1	MCL 5-01 A		55.00	74.89	0.400	108.10	91.31	5.11	14.51	0.35	0.03
4K-4001 P1B	Motor	1	MCL 5-01 A		30.00	41.26	0.400	59.55	91.31	5.11	14.51	0.35	0.02
4K-4002A-P2A	Motor	1	MCL 5-01 A		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.00
4A-101 A	Motor	1	MCL 5-01 A		30.00	41.47	0.400	59.85	89.87	6.08	14.13	0.43	0.02
4K-4002 P3	Motor	1	MCL 5-01 A		7.50	10.32	0.400	14.90	89.13	6.58	13.91	0.47	0.00
4P-102 A	Motor	1	MCL 5-01 A		55.00	74.89	0.400	108.10	87.47	7.68	13.33	0.58	0.03
4P-104 A	Motor	1	MCL 5-01 A		0.40	0.55	0.400	0.80	89.87	6.08	14.13	0.43	0.00
4P-105 A	Motor	1	MCL 5-01 A		75.00	103.67	0.400	149.60	89.87	6.08	14.13	0.43	0.04
4P-106A	Motor	1	MCL 5-01 A		2.20	3.03	0.400	4.37	89.13	6.58	13.91	0.47	0.00
4P-109 A	Motor	1	MCL 5-01 A		110.00	151.41	0.400	218.50	86.56	8.30	12.96	0.64	0.06
4P-111A	Motor	1	MCL 5-01 A		55.00	74.90	0.400	108.10	89.13	6.58	13.91	0.47	0.03
4P-116A	Motor	1	MCL 5-01 A		11.00	15.14	0.400	21.80	89.13	6.58	13.91	0.47	0.01
4P-118A	Motor	1	MCL 5-01 A		45.00	61.27	0.400	88.44	89.13	6.58	13.91	0.47	0.02
4P-120A	Motor	1	MCL 5-01 A		45.00	61.27	0.400	88.44	89.13	6.58	13.91	0.47	0.02
4P-121A	Motor	1	MCL 5-01 A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.04
4P-122	Motor	1	MCL 5-01 A		0.11	0.15	0.400	0.22	87.47	7.68	13.33	0.58	0.00
4P-4006A	Motor	1	MCL 5-01 A		11.00	14.98	0.400	21.62	91.31	5.11	14.51	0.35	0.01
4P-4008	Motor	1	MCL 5-01 A		2.20	3.03	0.400	4.37	91.31	5.11	14.51	0.35	0.00
4P-4009A	Motor	1	MCL 5-01 A		5.50	6.95	0.400	10.03	85.42	6.90	13.75	0.50	0.00
4P-4012A	Motor	1	MCL 5-01 A		37.00	50.89	0.400	73.45	91.31	5.11	14.51	0.35	0.02
4P-4013A	Motor	1	MCL 5-01 A		2.20	3.03	0.400	4.37	91.31	5.11	14.51	0.35	0.00
4J-4001A	Motor	1	MCL 5-01 A		0.75	1.02	0.400	1.47	85.82	8.79	12.63	0.70	0.00
4J-4001B	Motor	1	MCL 5-01 A		0.75	1.03	0.400	1.49	91.31	5.11	14.51	0.35	0.00
4A-102B	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-103B	Motor	1	MCL 5-01 B		11.00	15.10	0.400	21.80	87.47	7.68	13.33	0.58	0.01
4A-104B	Motor	1	MCL 5-01 B		11.00	15.10	0.400	21.80	87.47	7.68	13.33	0.58	0.01
4A-105F	Motor	1	MCL 5-01 B		30.00	41.47	0.400	59.85	89.87	6.08	14.13	0.43	0.02
4A-4001J	Motor	1	MCL 5-01 B		22.00	30.28	0.400	43.71	86.56	8.30	12.96	0.64	0.01
4A-4001M	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-1001O	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-105E	Motor	1	MCL 5-01 B		30.00	41.47	0.400	59.85	89.87	6.08	14.13	0.43	0.02

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 27
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
4A-108B	Motor	1	MCL 5-01 B		22.00	30.28	0.400	43.70	89.87	6.08	14.13	0.43	0.01
4A-109B	Motor	1	MCL 5-01 B		7.50	10.32	0.400	14.90	89.13	6.58	13.91	0.47	0.00
4A-400II	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-400IK	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-400IL	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-400IN	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-100IP	Motor	1	MCL 5-01 B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-4003B	Motor	1	MCL 5-01 B		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4004E	Motor	1	MCL 5-01 B		55.00	74.89	0.400	108.10	89.13	6.58	13.91	0.47	0.03
4A-4004F	Motor	1	MCL 5-01 B		55.00	75.31	0.400	108.70	89.13	6.58	13.91	0.47	0.03
4P-103B	Motor	1	MCL 5-01 B		37.00	50.92	0.400	73.50	91.31	5.11	14.51	0.35	0.02
4P-104B	Motor	1	MCL 5-01 B		0.40	0.51	0.400	0.73	85.42	6.90	13.75	0.50	0.00
4P-106B	Motor	1	MCL 5-01 B		2.20	2.78	0.400	4.01	85.42	6.90	13.75	0.50	0.00
4P-108B	Motor	1	MCL 5-01 B		45.00	61.97	0.400	89.44	91.31	5.11	14.51	0.35	0.02
4P-109B	Motor	1	MCL 5-01 B		110.00	149.78	0.400	216.19	91.31	5.11	14.51	0.35	0.06
4A-101B	Motor	1	MCL 5-01 B		30.00	41.47	0.400	59.85	89.87	6.08	14.13	0.43	0.02
4P-110B	Motor	1	MCL 5-01 B		30.00	37.92	0.400	54.73	85.42	6.90	13.75	0.50	0.02
4P-111B	Motor	1	MCL 5-01 B		55.00	75.74	0.400	109.32	91.31	5.11	14.51	0.35	0.03
4P-112B	Motor	1	MCL 5-01 B		30.00	41.47	0.400	59.85	91.31	5.11	14.51	0.35	0.02
4P-117B	Motor	1	MCL 5-01 B		3.70	5.09	0.400	7.35	89.13	6.58	13.91	0.47	0.00
4P-119B	Motor	1	MCL 5-01 B		55.00	74.89	0.400	108.10	87.47	7.68	13.33	0.58	0.03
4J-4001C	Motor	1	MCL 5-01 B		0.75	1.02	0.400	1.47	89.13	6.58	13.91	0.47	0.00
4J-4001D	Motor	1	MCL 5-01 B		0.75	1.02	0.400	1.47	89.13	6.58	13.91	0.47	0.00
4A-105D	Motor	1	MCL 5-01 B		30.00	41.47	0.400	59.85	89.13	6.58	13.91	0.47	0.02
4A-110B	Motor	1	MCL 5-01 B		22.00	30.28	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-108 B	Motor	1	MCL 5-01 B		22.00	30.28	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4A-4004D	Motor	1	MCL 5-01 B		55.00	74.89	0.400	108.09	89.13	6.58	13.91	0.47	0.03
3PM-3706A	Motor	1	MCL-4-01A		15.00	20.73	0.400	29.93	89.87	6.08	14.13	0.43	0.01
3PM-3709	Motor	1	MCL-4-01A		0.25	0.34	0.400	0.50	85.82	8.79	12.63	0.70	0.00
3PM-3713A	Motor	1	MCL-4-01A		4.00	5.49	0.400	7.93	85.82	8.79	12.63	0.70	0.00
3AM-3701A	Motor	1	MCL-4-01A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701B	Motor	1	MCL-4-01A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701C	Motor	1	MCL-4-01A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701D	Motor	1	MCL-4-01A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3702	Motor	1	MCL-4-01A		7.50	10.30	0.400	14.86	85.82	8.79	12.63	0.70	0.01

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 28
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
3AM-3704A	Motor	1	MCL-4-01A		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3AM-3704B	Motor	1	MCL-4-01A		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-3702A	Motor	1	MCL-4-01A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.08
3PM-3704A	Motor	1	MCL-4-01A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.08
3JM-3711A	Motor	1	MCL-4-01A		4.00	5.49	0.400	7.93	85.82	8.79	12.63	0.70	0.00
3JM-3706	Motor	1	MCL-4-01A		0.56	0.77	0.400	1.11	85.82	8.79	12.63	0.70	0.00
3KM-3703	Motor	1	MCL-4-01A		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3AM-2402A	Motor	1	MCL-4-01A		15.00	20.73	0.400	29.93	89.87	6.08	14.13	0.43	0.01
3PM-2402A	Motor	1	MCL-4-01A		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
3PM-2403A	Motor	1	MCL-4-01A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.08
3AM-3704C	Motor	1	MCL-4-01B		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-3703B	Motor	1	MCL-4-01B		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3AM-3701E	Motor	1	MCL-4-01B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701F	Motor	1	MCL-4-01B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701G	Motor	1	MCL-4-01B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3701H	Motor	1	MCL-4-01B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-3703B	Motor	1	MCL-4-01B		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3AM-3704D	Motor	1	MCL-4-01B		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-3705B	Motor	1	MCL-4-01B		132.00	181.65	0.400	262.19	89.13	6.58	13.91	0.47	0.13
3PM-3707B	Motor	1	MCL-4-01B		0.55	0.76	0.400	1.09	85.82	8.79	12.63	0.70	0.00
3PM-3708B	Motor	1	MCL-4-01B		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-3714B	Motor	1	MCL-4-01B		4.00	5.49	0.400	7.93	85.82	8.79	12.63	0.70	0.00
3PM-3715B	Motor	1	MCL-4-01B		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3AM-2401B	Motor	1	MCL-4-01B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3PM-2401B	Motor	1	MCL-4-01B		55.00	75.69	0.400	109.24	89.13	6.58	13.91	0.47	0.06
3PM-2406B	Motor	1	MCL-4-01B		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3PM-2404	Motor	1	MCL-4-01B		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
4A-301C	Motor	1	MCL-5-03 A		30.00	41.33	0.400	59.65	87.47	7.68	13.33	0.58	0.02
4A-301E	Motor	1	MCL-5-03 A		30.00	41.33	0.400	59.65	87.47	7.68	13.33	0.58	0.02
4A-301G	Motor	1	MCL-5-03 A		30.00	41.33	0.400	59.65	89.13	6.58	13.91	0.47	0.02
4P-701A	Motor	1	MCL-5-03 A		15.00	20.65	0.400	29.80	86.56	8.30	12.96	0.64	0.01
4P-704A	Motor	1	MCL-5-03 A		5.50	7.55	0.400	10.90	89.13	6.58	13.91	0.47	0.00
4P-706A	Motor	1	MCL-5-03 A		5.50	7.57	0.400	10.92	89.13	6.58	13.91	0.47	0.00
4P-303A	Motor	1	MCL-5-03 A		15.00	20.64	0.400	29.79	89.13	6.58	13.91	0.47	0.01
4P-705A	Motor	1	MCL-5-03 A		5.50	7.57	0.400	10.92	89.13	6.58	13.91	0.47	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 29
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
4A-301A	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	89.87		6.08	14.13	0.43	0.02
4A-302	Motor	1	MCL-5-03 A	7.50	10.37	0.400	14.96	89.87		6.08	14.13	0.43	0.00
4P-301A	Motor	1	MCL-5-03 A	15.00	20.73	0.400	29.93	89.87		6.08	14.13	0.43	0.01
4P-304A	Motor	1	MCL-5-03 A	37.00	50.92	0.400	73.50	87.47		7.68	13.33	0.58	0.02
4P-702	Motor	1	MCL-5-03 A	7.50	10.37	0.400	14.96	89.87		6.08	14.13	0.43	0.00
4P-703A	Motor	1	MCL-5-03 A	11.00	15.14	0.400	21.85	89.13		6.58	13.91	0.47	0.01
4P-302A	Motor	1	MCL-5-03 A	75.00	103.30	0.400	149.10	89.87		6.08	14.13	0.43	0.04
4P-3902A	Motor	1	MCL-5-03 A	11.00	15.10	0.400	21.80	89.13		6.58	13.91	0.47	0.01
4P-3906A	Motor	1	MCL-5-03 A	55.00	75.69	0.400	109.24	89.13		6.58	13.91	0.47	0.03
4A-3901A	Motor	1	MCL-5-03 A	22.00	30.28	0.400	43.70	87.47		7.68	13.33	0.58	0.01
4A-3902A	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-3902B	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-3902C	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-3902D	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-3903A	Motor	1	MCL-5-03 A	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4P-3912A	Motor	1	MCL-5-03 A	5.50	7.60	0.400	10.97	89.87		6.08	14.13	0.43	0.00
4P-4902B	Motor	1	MCL-5-03 A	75.00	103.30	0.400	149.10	87.47		7.68	13.33	0.58	0.04
4P-1101A	Motor	1	MCL-5-03 A	15.00	20.42	0.400	29.48	87.47		7.68	13.33	0.58	0.01
4A-1101A	Motor	1	MCL-5-03 A	55.00	74.88	0.400	108.08	87.47		7.68	13.33	0.58	0.03
4A-1101B	Motor	1	MCL-5-03 A	55.00	74.88	0.400	108.08	87.47		7.68	13.33	0.58	0.03
4A-1101C	Motor	1	MCL-5-03 A	55.00	74.88	0.400	108.08	87.47		7.68	13.33	0.58	0.03
4P-1102A	Motor	1	MCL-5-03 A	37.00	50.92	0.400	73.50	87.47		7.68	13.33	0.58	0.02
4A-301D	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-301F	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-301H	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	89.13		6.58	13.91	0.47	0.02
4A-301B	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	89.87		6.08	14.13	0.43	0.02
4A-303	Motor	1	MCL-5-03B	7.50	10.37	0.400	14.96	89.87		6.08	14.13	0.43	0.00
4P-3903B	Motor	1	MCL-5-03B	7.50	10.30	0.400	14.86	89.13		6.58	13.91	0.47	0.00
4P-3904B	Motor	1	MCL-5-03B	110.00	149.79	0.400	216.20	89.13		6.58	13.91	0.47	0.06
4P-3907A	Motor	1	MCL-5-03B	132.00	179.72	0.400	259.40	89.13		6.58	13.91	0.47	0.07
4P-3908A	Motor	1	MCL-5-03B	75.00	103.30	0.400	149.10	89.13		6.58	13.91	0.47	0.04
4A-3901B	Motor	1	MCL-5-03B	22.00	30.30	0.400	43.74	89.13		6.58	13.91	0.47	0.01
4A-3902G	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	89.13		6.58	13.91	0.47	0.02
4A-3903H	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02
4A-3903B	Motor	1	MCL-5-03B	30.00	41.33	0.400	59.65	87.47		7.68	13.33	0.58	0.02

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 30
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
4A-1101D	Motor	1	MCL-5-03B		55.00	75.59	0.400	109.10	87.47	7.68	13.33	0.58	0.03
4A-1101E	Motor	1	MCL-5-03B		55.00	75.59	0.400	109.10	87.47	7.68	13.33	0.58	0.03
4A-1101F	Motor	1	MCL-5-03B		55.00	75.59	0.400	109.10	87.47	7.68	13.33	0.58	0.03
4A-3902E	Motor	1	MCL-5-03B		30.00	41.33	0.400	59.65	87.47	7.68	13.33	0.58	0.02
4A-3902F	Motor	1	MCL-5-03B		30.00	41.33	0.400	59.65	87.47	7.68	13.33	0.58	0.02
4P-4104A	Motor	1	MCL-5-21 A		55.00	74.89	0.400	108.10	89.13	6.58	13.91	0.47	0.03
4P-4102A	Motor	1	MCL-5-21 A		90.00	124.01	0.400	179.00	87.47	7.68	13.33	0.58	0.05
4A-4101A	Motor	1	MCL-5-21 A		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4P-4107A	Motor	1	MCL-5-21 A		0.55	0.76	0.400	1.09	87.47	7.68	13.33	0.58	0.00
4P-4108A	Motor	1	MCL-5-21 A		0.55	0.76	0.400	1.09	89.13	6.58	13.91	0.47	0.00
4P-4109A	Motor	1	MCL-5-21 A		2.20	3.03	0.400	4.37	89.13	6.58	13.91	0.47	0.00
4K-4105A	Motor	1	MCL-5-21 A		15.00	20.65	0.400	29.80	89.87	6.08	14.13	0.43	0.01
4K-4104A	Motor	1	MCL-5-21 A		2.20	3.03	0.400	4.37	89.13	6.58	13.91	0.47	0.00
4K-4102A	Motor	1	MCL-5-21 A		75.00	103.30	0.400	149.10	89.13	6.58	13.91	0.47	0.04
4A-4101B	Motor	1	MCL-5-21 A		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4104C	Motor	1	MCL-5-21 A		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4102A	Motor	1	MCL-5-21 A		2.20	3.03	0.400	4.37	89.13	6.58	13.91	0.47	0.00
4P-4105A	Motor	1	MCL-5-21 A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.04
4P-4106A	Motor	1	MCL-5-21 A		3.70	5.09	0.400	7.35	89.13	6.58	13.91	0.47	0.00
4P-4114A	Motor	1	MCL-5-21 A		5.50	7.57	0.400	10.93	89.87	6.08	14.13	0.43	0.00
4A-4101D	Motor	1	MCL-5-21 B		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4101E	Motor	1	MCL-5-21 B		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4101F	Motor	1	MCL-5-21 B		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4A-4102B	Motor	1	MCL-5-21 B		2.20	3.03	0.400	4.37	89.13	6.58	13.91	0.47	0.00
4P-4107B	Motor	1	MCL-5-21 B		0.55	0.76	0.400	1.09	89.13	6.58	13.91	0.47	0.00
4A-2402A	Motor	1	MCL-5-22A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4P-2401A	Motor	1	MCL-5-22A		110.00	125.76	0.400	181.52	87.47	7.68	13.33	0.58	0.06
4P-2402A	Motor	1	MCL-5-22A		3.70	5.09	0.400	7.35	87.47	7.68	13.33	0.58	0.00
4J-1201A	Motor	1	MCL-5-22A		90.00	117.43	0.400	169.50	86.56	8.30	12.96	0.64	0.05
4P-1801A	Motor	1	MCL-5-22A		55.00	74.89	0.400	108.10	89.13	6.58	13.91	0.47	0.03
4P-1803A	Motor	1	MCL-5-22A		7.50	10.32	0.400	14.90	89.13	6.58	13.91	0.47	0.00
4P-1802A	Motor	1	MCL-5-22A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.04
4A-2401A	Motor	1	MCL-5-22A		15.00	20.73	0.400	29.93	89.87	6.08	14.13	0.43	0.01
4P-2405	Motor	1	MCL-5-22A		2.20	3.04	0.400	4.39	89.87	6.59	15.31	0.43	0.00
4P-2406	Motor	1	MCL-5-22A		2.20	3.04	0.400	4.39	89.87	6.08	14.13	0.43	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 31
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
4P-2409A	Motor	1	MCL-5-22A		3.70	5.09	0.400	7.35	87.47	7.68	13.33	0.58	0.00
4A-1802A	Motor	1	MCL-5-22A		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.02
4P-2407	Motor	1	MCL-5-22A		5.50	7.60	0.400	10.97	89.87	6.08	14.13	0.43	0.00
4P-1804A	Motor	1	MCL-5-22A		55.00	74.89	0.400	108.10	89.13	6.58	13.91	0.47	0.03
4P-1805A	Motor	1	MCL-5-22A		7.50	10.32	0.400	14.90	89.13	6.58	13.91	0.47	0.00
4P-1806A	Motor	1	MCL-5-22A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
4P-1807A	Motor	1	MCL-5-22A		15.00	20.64	0.400	29.79	89.13	6.58	13.91	0.47	0.01
4A-2701A	Motor	1	MCL-5-22A		2.20	3.03	0.400	4.37	87.47	7.68	13.33	0.58	0.00
4K-2701A-P1	Motor	1	MCL-5-22A		5.50	7.60	0.400	10.97	89.87	6.08	14.13	0.43	0.00
4P-2702	Motor	1	MCL-5-22A		5.50	7.60	0.400	10.97	89.87	6.08	14.13	0.43	0.00
4P-1808A	Motor	1	MCL-5-22A		3.70	5.09	0.400	7.35	87.47	7.68	13.33	0.58	0.00
4P-2703	Motor	1	MCL-5-22A		5.50	7.60	0.400	10.97	89.87	6.08	14.13	0.43	0.00
4P-2704	Motor	1	MCL-5-22A		11.00	15.14	0.400	21.85	89.13	6.58	13.91	0.47	0.01
4P-2706A	Motor	1	MCL-5-22A		7.50	10.37	0.400	14.96	89.87	6.08	14.13	0.43	0.00
4K-2703A	Motor	1	MCL-5-22A		132.00	179.72	0.400	259.40	87.47	7.68	13.33	0.58	0.07
4A-2401B	Motor	1	MCL-5-22 B		15.00	20.66	0.400	29.82	87.47	7.68	13.33	0.58	0.01
4A-2402B	Motor	1	MCL-5-22 B		22.00	30.28	0.400	43.70	87.47	7.68	13.33	0.58	0.01
4A-2701B	Motor	1	MCL-5-22 B		22.00	30.28	0.400	43.70	87.47	7.68	13.33	0.58	0.01
4K-2702B	Motor	1	MCL-5-22 B		90.00	123.88	0.400	178.80	87.47	7.68	13.33	0.58	0.05
4A-1802B	Motor	1	MCL-5-22 B		30.00	41.32	0.400	59.64	87.47	7.68	13.33	0.58	0.02
4P-2705B	Motor	1	MCL-5-22 B		5.50	7.07	0.400	10.20	87.47	7.68	13.33	0.58	0.00
4P-2101B	Motor	1	MCL-5-22 B		3.70	5.09	0.400	7.35	87.47	7.68	13.33	0.58	0.00
4P-1808B	Motor	1	MCL-5-22 B		3.70	5.09	0.400	7.35	87.47	7.68	13.33	0.58	0.00
4P-2408B	Motor	1	MCL-5-22 B		22.00	30.28	0.400	43.70	87.47	7.68	13.33	0.58	0.01
3PM-105A	Motor	1	MCL.3-011A		55.00	75.69	0.400	109.24	89.13	6.58	13.91	0.47	0.06
3PM-109	Motor	1	MCL.3-011A		75.00	103.21	0.400	148.97	89.13	6.58	13.91	0.47	0.08
3PM-114A	Motor	1	MCL.3-011A		2.20	3.02	0.400	4.36	85.82	8.79	12.63	0.70	0.00
3PM-117A	Motor	1	MCL.3-011A		0.20	0.27	0.400	0.40	85.82	8.79	12.63	0.70	0.00
3PM-118	Motor	1	MCL.3-011A		0.40	0.55	0.400	0.79	85.82	8.79	12.63	0.70	0.00
3PM-120A	Motor	1	MCL.3-011A		0.20	0.27	0.400	0.40	85.82	8.79	12.63	0.70	0.00
3PM-122A	Motor	1	MCL.3-011A		1.50	2.06	0.400	2.97	85.82	8.79	12.63	0.70	0.00
3PM-113A	Motor	1	MCL.3-011A		110.00	151.37	0.400	218.49	89.13	6.58	13.91	0.47	0.11
3K-101C-PM01B	Motor	1	MCL.3-011A		1.50	2.06	0.400	2.97	85.82	8.79	12.63	0.70	0.00
3PM-107A	Motor	1	MCL.3-012A		37.00	51.14	0.400	73.82	89.87	6.08	14.13	0.43	0.04
3PM-104A	Motor	1	MCL.3-012A		132.00	181.65	0.400	262.19	89.13	6.58	13.91	0.47	0.13

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 32
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
3AM-103A	Motor	1	MCL.3-012A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-104A	Motor	1	MCL.3-012A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-106A	Motor	1	MCL.3-012A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-106C	Motor	1	MCL.3-012A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-106A	Motor	1	MCL.3-012A	60.00	82.57	0.400	119.18	89.13		6.58	13.91	0.47	0.06
3AM-102B	Motor	1	MCL.3-012B	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3AM-103B	Motor	1	MCL.3-012B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-104B	Motor	1	MCL.3-012B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-105B	Motor	1	MCL.3-012B	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3AM-105D	Motor	1	MCL.3-012B	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3AM-106B	Motor	1	MCL.3-012B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-106D	Motor	1	MCL.3-012B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-107B	Motor	1	MCL.3-012B	37.00	51.14	0.400	73.82	89.87		6.08	14.13	0.43	0.04
3AM-105F	Motor	1	MCL.3-012B	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3AM-301A	Motor	1	MCL.3-013	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-301B	Motor	1	MCL.3-013	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-110A	Motor	1	MCL.3-013	85.00	116.97	0.400	168.83	89.13		6.58	13.91	0.47	0.09
SX-A/C-A	Motor	1	MCL.3-013	160.00	221.16	0.400	319.22	89.87		6.08	14.13	0.43	0.08
KM-1307	Motor	1	MCL.3-013	110.00	141.51	0.400	204.25	91.58		4.41	16.07	0.27	0.06
3K-201-PM01B	Motor	1	MCL.3-021A	0.40	0.55	0.400	0.79	85.82		8.79	12.63	0.70	0.00
3PM-201A	Motor	1	MCL.3-021A	2.20	3.02	0.400	4.36	85.82		8.79	12.63	0.70	0.00
3KM-351	Motor	1	MCL.3-021A	45.00	61.93	0.400	89.38	89.13		6.58	13.91	0.47	0.05
3PM-302A	Motor	1	MCL.3-021A	3.70	5.08	0.400	7.33	85.82		8.79	12.63	0.70	0.00
3PM-303A	Motor	1	MCL.3-021A	7.50	10.30	0.400	14.86	85.82		8.79	12.63	0.70	0.01
3PM-304A	Motor	1	MCL.3-021A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-305A/306A	Motor	1	MCL.3-021A	0.40	0.55	0.400	0.79	85.82		8.79	12.63	0.70	0.00
3K-101A-P	Motor	1	MCL.3-021A	0.75	1.03	0.400	1.49	85.82		8.79	12.63	0.70	0.00
3PM-307A/308A	Motor	1	MCL.3-021A	0.40	0.55	0.400	0.79	85.82		8.79	12.63	0.70	0.00
3PM-309	Motor	1	MCL.3-021A	0.75	1.03	0.400	1.49	85.82		8.79	12.63	0.70	0.00
3PM-310	Motor	1	MCL.3-021A	3.70	5.08	0.400	7.33	85.82		8.79	12.63	0.70	0.00
3PM-401A	Motor	1	MCL.3-021A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-402A	Motor	1	MCL.3-021A	15.00	20.73	0.400	29.93	89.87		6.08	14.13	0.43	0.01
3PM-404A	Motor	1	MCL.3-021A	30.00	41.28	0.400	59.59	89.13		6.58	13.91	0.47	0.01
3PM-405A/306A	Motor	1	MCL.3-021A	0.20	0.27	0.400	0.40	85.82		8.79	12.63	0.70	0.00
3KM-501A	Motor	1	MCL.3-021A	3.70	5.08	0.400	7.33	85.82		8.79	12.63	0.70	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 33
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
3PM-502	Motor	1	MCL.3-021A		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3PM-1601A	Motor	1	MCL.3-021A		2.20	3.02	0.400	4.36	85.82	8.79	12.63	0.70	0.00
3PM-1651A	Motor	1	MCL.3-021A		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
3PM-1801A	Motor	1	MCL.3-021A		11.00	15.20	0.400	21.95	89.87	6.08	14.13	0.43	0.01
3PM-1803A	Motor	1	MCL.3-021A		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
3PM-1304A	Motor	1	MCL.3-021A		7.50	10.30	0.400	14.86	85.82	8.79	12.63	0.70	0.01
3PM-1805A	Motor	1	MCL.3-021A		11.00	15.20	0.400	21.95	89.87	6.08	14.13	0.43	0.01
3PM-1806A	Motor	1	MCL.3-021A		0.20	0.27	0.400	0.40	85.82	8.79	12.63	0.70	0.00
3JM-1902	Motor	1	MCL.3-021A		0.75	1.03	0.400	1.49	85.82	8.79	12.63	0.70	0.00
3PM-1903	Motor	1	MCL.3-021A		2.20	3.02	0.400	4.36	85.82	8.79	12.63	0.70	0.00
3PM-1904	Motor	1	MCL.3-021A		0.75	1.03	0.400	1.49	85.82	8.79	12.63	0.70	0.00
3PM-601	Motor	1	MCL.3-021A		11.00	15.20	0.400	21.95	89.87	6.08	14.13	0.43	0.01
3AM-611/612A	Motor	1	MCL.3-021A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3PM-611A	Motor	1	MCL.3-021A		15.00	20.73	0.400	29.93	89.87	6.08	14.13	0.43	0.01
3PM-641	Motor	1	MCL.3-021A		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-501A	Motor	1	MCL.3-021B		11.00	15.20	0.400	21.95	89.87	6.08	14.13	0.43	0.01
3PM-202	Motor	1	MCL.3-021B		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
3PM-203	Motor	1	MCL.3-021B		0.40	0.55	0.400	0.79	85.82	8.79	12.63	0.70	0.00
3KM-352	Motor	1	MCL.3-021B		55.00	74.89	0.400	108.10	91.31	5.11	14.51	0.35	0.03
3K-101B-PM01B	Motor	1	MCL.3-021B		0.75	1.03	0.400	1.49	85.82	8.79	12.63	0.70	0.00
3PM-403A	Motor	1	MCL.3-021B		30.00	41.28	0.400	59.59	89.13	6.58	13.91	0.47	0.01
3PM-1802A	Motor	1	MCL.3-021B		7.50	10.30	0.400	14.86	85.82	8.79	12.63	0.70	0.01
3PM-1901A	Motor	1	MCL.3-021B		3.70	5.08	0.400	7.33	85.82	8.79	12.63	0.70	0.00
3PM-1902	Motor	1	MCL.3-021B		2.20	3.02	0.400	4.36	85.82	8.79	12.63	0.70	0.00
3PM-1905A	Motor	1	MCL.3-021B		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3AM-611/612B	Motor	1	MCL.3-021B		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3PM-642	Motor	1	MCL.3-021B		5.50	7.55	0.400	10.90	85.82	8.79	12.63	0.70	0.01
3PM-301A	Motor	1	MCL.3-021B		80.00	110.09	0.400	158.90	89.13	6.58	13.91	0.47	0.08
3KM-152	Motor	1	MCL.3-021B		110.00	151.37	0.400	218.49	89.13	6.58	13.91	0.47	0.11
3KM-151	Motor	1	MCL.3-021B		110.00	151.37	0.400	218.49	89.13	6.58	13.91	0.47	0.11
3AM-101A	Motor	1	MCL.3-022A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-101C	Motor	1	MCL.3-022A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-101E	Motor	1	MCL.3-022A		22.00	30.27	0.400	43.70	89.13	6.58	13.91	0.47	0.01
3AM-102A	Motor	1	MCL.3-022A		18.50	25.46	0.400	36.75	89.13	6.58	13.91	0.47	0.01
3AM-105A	Motor	1	MCL.3-022A		18.50	25.46	0.400	36.75	89.13	6.58	13.91	0.47	0.01

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 34
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
3AM-105C	Motor	1	MCL.3-022A	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3AM-105E	Motor	1	MCL.3-022A	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
3KM-201	Motor	1	MCL.3-022A	115.00	158.25	0.400	228.42	89.13		6.58	13.91	0.47	0.12
3KM-101A	Motor	1	MCL.3-022A	110.00	151.37	0.400	218.49	89.13		6.58	13.91	0.47	0.11
3AM-101B	Motor	1	MCL.3-022B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-101D	Motor	1	MCL.3-022B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3AM-101F	Motor	1	MCL.3-022B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
3PM-123	Motor	1	MCL.3-022B	1.50	2.06	0.400	2.97	85.82		8.79	12.63	0.70	0.00
3PM-643	Motor	1	MCL.3-022B	2.20	3.02	0.400	4.36	85.82		8.79	12.63	0.70	0.00
3PM-751	Motor	1	MCL.3-022B	1.50	2.06	0.400	2.97	85.82		8.79	12.63	0.70	0.00
3KM-101B	Motor	1	MCL.3-022B	110.00	151.37	0.400	218.49	89.13		6.58	13.91	0.47	0.11
3PM-104B	Motor	1	MCL.3-022B	132.00	181.65	0.400	262.19	89.13		6.58	13.91	0.47	0.13
4P-1103E	Motor	1	MCL.3-023	30.00	41.67	0.400	60.14	84.88		6.59	15.31	0.43	0.01
K-1309	Motor	1	MCL.3-023	132.00	169.24	0.400	244.28	91.14		4.20	16.13	0.26	0.04
2AM-1101-2	Motor	1	SGL-2-01A	75.00	98.10	0.400	141.60	89.87		6.08	14.13	0.43	0.04
2PM-1101A	Motor	1	SGL-2-01A	45.00	55.54	0.400	80.17	87.47		7.68	13.33	0.58	0.05
2KM-1211A	Motor	1	SGL-2-01A	75.00	103.67	0.400	149.63	89.87		6.08	14.13	0.43	0.04
2PM-1105A	Motor	1	SGL-2-01A	55.00	67.67	0.400	97.67	89.87		6.08	14.13	0.43	0.06
2AM-1101-1	Motor	1	SGL-2-01A	75.00	98.10	0.400	141.60	89.87		6.08	14.13	0.43	0.04
2KM-1211B	Motor	1	SGL-2-01A	75.00	103.67	0.400	149.63	89.87		6.08	14.13	0.43	0.04
2AM-1101-3	Motor	1	SGL-2-01B	75.00	98.10	0.400	141.60	89.87		6.08	14.13	0.43	0.04
2AM-1101-4	Motor	1	SGL-2-01B	75.00	98.10	0.400	141.60	89.87		6.08	14.13	0.43	0.04
2PM-1104B	Motor	1	SGL-2-01B	11.00	15.10	0.400	21.80	87.47		7.68	13.33	0.58	0.01
TG-03-FM1	Motor	1	SGL-2-01B	2.20	3.26	0.400	4.70	89.87		6.08	14.13	0.43	0.00
TG-03-PM1A	Motor	1	SGL-2-01B	15.00	18.81	0.400	27.15	89.87		6.08	14.13	0.43	0.01
TG-03-TM1	Motor	1	SGL-2-01B	2.20	3.26	0.400	4.70	89.13		6.58	13.91	0.47	0.00
2AM-102-1	Motor	1	SGL-2-02 BUS A	15.00	20.64	0.400	29.79	89.13		6.58	13.91	0.47	0.01
2AM-103-1	Motor	1	SGL-2-02 BUS A	15.00	20.64	0.400	29.79	87.47		7.68	13.33	0.58	0.01
2AM-104-1	Motor	1	SGL-2-02 BUS A	11.00	15.14	0.400	21.85	87.47		7.68	13.33	0.58	0.01
2PM-108A	Motor	1	SGL-2-02 BUS A	55.00	76.00	0.400	109.70	86.56		8.30	12.96	0.64	0.03
2PM-113A	Motor	1	SGL-2-02 BUS A	55.00	75.69	0.400	109.24	89.13		6.58	13.91	0.47	0.06
2PM-106	Motor	1	SGL-2-02 BUS A	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
2AM-101-1	Motor	1	SGL-2-02 BUS A	22.00	30.41	0.400	43.89	89.87		6.08	14.13	0.43	0.01
2PM-110A	Motor	1	SGL-2-02 BUS A	30.00	41.28	0.400	59.59	89.13		6.58	13.91	0.47	0.02
2PM-105A	Motor	1	SGL-2-02 BUS A	30.00	41.47	0.400	59.85	89.87		6.08	14.13	0.43	0.03

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 35
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
2PM-114A	Motor	1	SGL-2-02 BUS A	1.50	2.04	0.400	2.95	89.13		6.58	13.91	0.47	0.00
2PM-119A	Motor	1	SGL-2-02 BUS A	0.75	1.60	0.400	2.31	89.13		6.58	13.91	0.47	0.00
2PM-121A	Motor	1	SGL-2-02 BUS A	45.00	61.93	0.400	89.39	87.47		7.68	13.33	0.58	0.02
2AM-201-1	Motor	1	SGL-2-02 BUS A	18.60	25.60	0.400	36.95	87.47		7.68	13.33	0.58	0.01
2AM-202-2	Motor	1	SGL-2-02 BUS A	29.80	40.46	0.400	58.40	86.56		8.30	12.96	0.64	0.01
2AM-203-1	Motor	1	SGL-2-02 BUS A	11.20	15.42	0.400	22.25	86.56		8.30	12.96	0.64	0.01
2AM-301-1	Motor	1	SGL-2-02 BUS A	30.00	41.28	0.400	59.59	89.13		6.58	13.91	0.47	0.03
2AM-302-1	Motor	1	SGL-2-02 BUS A	11.00	15.14	0.400	21.85	87.47		7.68	13.33	0.58	0.01
2PM-302A	Motor	1	SGL-2-02 BUS A	75.00	103.65	0.400	149.60	87.47		7.68	13.33	0.58	0.08
2KM-302-PM1B	Motor	1	SGL-2-02 BUS A	2.20	3.26	0.400	4.70	89.13		6.58	13.91	0.47	0.00
2KM-303A	Motor	1	SGL-2-02 BUS A	110.00	151.37	0.400	218.49	89.13		6.58	13.91	0.47	0.11
2PM-206A	Motor	1	SGL-2-02 BUS A	75.00	103.67	0.400	149.63	89.87		6.08	14.13	0.43	0.08
2PM-303A	Motor	1	SGL-2-02 BUS A	22.00	30.41	0.400	43.89	89.87		6.08	14.13	0.43	0.02
2PM-307A	Motor	1	SGL-2-02 BUS A	11.00	15.14	0.400	21.85	87.47		7.68	13.33	0.58	0.01
2PM-310	Motor	1	SGL-2-02 BUS A	0.40	0.69	0.400	1.00	89.87		6.08	14.13	0.43	0.00
2PM-311A	Motor	1	SGL-2-02 BUS A	0.40	0.85	0.400	1.23	89.13		6.58	13.91	0.47	0.00
2PM-701	Motor	1	SGL-2-02 BUS A	11.00	15.14	0.400	21.85	89.13		6.58	13.91	0.47	0.01
2PM-703	Motor	1	SGL-2-02 BUS A	7.50	10.32	0.400	14.90	89.13		6.58	13.91	0.47	0.01
2AM-1801A	Motor	1	SGL-2-02 BUS A	22.00	30.41	0.400	43.89	89.87		6.08	14.13	0.43	0.02
2PM-1803A	Motor	1	SGL-2-02 BUS A	5.50	7.57	0.400	10.92	89.13		6.58	13.91	0.47	0.01
2PM-1804A	Motor	1	SGL-2-02 BUS A	22.00	30.41	0.400	43.89	89.87		6.08	14.13	0.43	0.02
2PM-1806	Motor	1	SGL-2-02 BUS A	0.25	0.37	0.400	0.53	87.47		7.68	13.33	0.58	0.00
2PM-111B	Motor	1	SGL-2-02 BUS B	15.00	20.64	0.400	29.79	89.13		6.58	13.91	0.47	0.01
2PM-112B	Motor	1	SGL-2-02 BUS B	90.00	111.34	0.400	160.70	87.47		7.68	13.33	0.58	0.09
2PM-117B	Motor	1	SGL-2-02 BUS B	45.00	61.93	0.400	89.38	89.13		6.58	13.91	0.47	0.05
2AM-201-2	Motor	1	SGL-2-02 BUS B	18.50	25.46	0.400	36.75	89.13		6.58	13.91	0.47	0.01
2PM-116B	Motor	1	SGL-2-02 BUS B	3.70	5.11	0.400	7.38	89.87		6.08	14.13	0.43	0.00
2PM-205B	Motor	1	SGL-2-02 BUS B	45.00	61.93	0.400	89.39	87.47		7.68	13.33	0.58	0.05
2PM-207	Motor	1	SGL-2-02 BUS B	22.00	27.55	0.400	39.77	87.47		7.68	13.33	0.58	0.02
2AM-301-2	Motor	1	SGL-2-02 BUS B	29.80	41.01	0.400	59.20	87.47		7.68	13.33	0.58	0.01
2AM--302-2	Motor	1	SGL-2-02 BUS B	11.20	16.46	0.400	23.76	89.87		6.08	14.13	0.43	0.01
2PM-115	Motor	1	SGL-2-02 BUS B	1.50	2.22	0.400	3.21	89.87		6.08	14.13	0.43	0.00
2PM-122B	Motor	1	SGL-2-02 BUS B	5.50	8.09	0.400	11.67	89.87		6.08	14.13	0.43	0.00
2AM-202-3	Motor	1	SGL-2-02 BUS B	30.00	41.28	0.400	59.59	89.13		6.58	13.91	0.47	0.02
2PM-203B	Motor	1	SGL-2-02 BUS B	7.50	10.32	0.400	14.90	89.13		6.58	13.91	0.47	0.01

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 36
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID	HP/kW	kVA	kV	Amp	PF		R	X"	R/X"	MW/PP
2PM-202-4	Motor	1	SGL-2-02 BUS B	30.00	41.28	0.400	59.59	89.13		6.58	13.91	0.47	0.02
2AM-203-2	Motor	1	SGL-2-02 BUS B	11.00	15.41	0.400	22.24	89.13		6.58	13.91	0.47	0.01
2PM-305B	Motor	1	SGL-2-02 BUS B	45.00	61.93	0.400	89.38	89.13		6.58	13.91	0.47	0.02
2PM-306B	Motor	1	SGL-2-02 BUS B	11.00	15.41	0.400	22.24	89.13		6.58	13.91	0.47	0.01
2PM-308	Motor	1	SGL-2-02 BUS B	0.75	1.30	0.400	1.88	89.13		6.58	13.91	0.47	0.00
2KM-301-PM1B	Motor	1	SGL-2-02 BUS B	22.00	30.27	0.400	43.70	89.13		6.58	13.91	0.47	0.01
2KM-303B	Motor	1	SGL-2-02 BUS B	110.00	143.83	0.400	207.60	87.47		7.68	13.33	0.58	0.06
2PM-602B	Motor	1	SGL-2-02 BUS B	11.00	15.17	0.400	21.89	89.13		6.58	13.91	0.47	0.01
2PM-1601B	Motor	1	SGL-2-02 BUS B	2.20	3.26	0.400	4.70	89.13		6.58	13.91	0.47	0.00
2AM-101-2	Motor	1	SGL-2-02 BUS B	22.00	27.81	0.400	40.13	85.42		6.90	13.75	0.50	0.01
2AM-102-2	Motor	1	SGL-2-02 BUS B	15.00	20.73	0.400	29.92	86.56		8.30	12.96	0.64	0.01
2AM-104-2	Motor	1	SGL-2-02 BUS B	11.00	15.41	0.400	22.24	89.13		6.58	13.91	0.47	0.01
2PM-103B	Motor	1	SGL-2-02 BUS B	18.50	25.12	0.400	36.26	86.56		8.30	12.96	0.64	0.02
2PM-104B	Motor	1	SGL-2-02 BUS B	55.00	75.59	0.400	109.10	86.56		8.30	12.96	0.64	0.06
2PM-107B	Motor	1	SGL-2-02 BUS B	30.00	41.29	0.400	59.59	89.87		6.08	14.13	0.43	0.03
2PM-109B	Motor	1	SGL-2-02 BUS B	22.00	27.55	0.400	39.77	86.56		8.30	12.96	0.64	0.02
2PM-1801B	Motor	1	SGL-2-02 BUS B	18.50	25.57	0.400	36.91	89.87		6.08	14.13	0.43	0.02
2PM-2404	Motor	1	SGL-2-03 BUS A	11.00	15.14	0.400	21.85	89.13		6.58	13.91	0.47	0.01
2PM-2401A	Motor	1	SGL-2-03 BUS A	3.70	5.13	0.400	7.40	89.87		6.08	14.13	0.43	0.00
2PM-704A	Motor	1	SGL-2-03 BUS A	3.70	5.13	0.400	7.40	89.13		6.58	13.91	0.47	0.00
2PM-3703A	Motor	1	SGL-2-03 BUS A	5.50	8.09	0.400	11.67	89.87		6.08	14.13	0.43	0.00
2AM-2401A	Motor	1	SGL-2-03 BUS A	15.00	20.64	0.400	29.79	89.13		6.58	13.91	0.47	0.01
2PM-2408	Motor	1	SGL-2-03 BUS A	0.18	0.48	0.400	0.70	89.13		6.58	13.91	0.47	0.00
2JM-2410	Motor	1	SGL-2-03 BUS A	0.25	0.83	0.400	1.20	89.13		6.58	13.91	0.47	0.00
2PM-2402A	Motor	1	SGL-2-03 BUS A	30.00	41.29	0.400	59.59	87.47		7.68	13.33	0.58	0.03
2PM-2501A	Motor	1	SGL-2-03 BUS A	11.00	15.24	0.400	22.00	89.13		6.58	13.91	0.47	0.01
2PM-2503A	Motor	1	SGL-2-03 BUS A	11.00	15.24	0.400	22.00	89.13		6.58	13.91	0.47	0.01
2AM-3701A	Motor	1	SGL-2-03 BUS A	18.50	25.46	0.400	36.75	87.47		7.68	13.33	0.58	0.01
2KM-3701/02A-MP2	Motor	1	SGL-2-03 BUS A	7.50	10.32	0.400	14.90	89.13		6.58	13.91	0.47	0.00
2PM-3705	Motor	1	SGL-2-03 BUS A	2.20	3.53	0.400	5.10	89.13		6.58	13.91	0.47	0.00
2PM-3703B	Motor	1	SGL-2-03 BUS B	5.50	8.09	0.400	11.67	89.87		6.08	14.13	0.43	0.00
2AM-2401B	Motor	1	SGL-2-03 BUS B	15.00	20.64	0.400	29.79	89.13		6.58	13.91	0.47	0.01
2AM-2402B	Motor	1	SGL-2-03 BUS B	18.50	25.46	0.400	36.75	87.47		7.68	13.33	0.58	0.01
2PM-2409	Motor	1	SGL-2-03 BUS B	0.55	1.48	0.400	2.14	89.13		6.58	13.91	0.47	0.00
2PM-2401B	Motor	1	SGL-2-03 BUS B	3.70	5.13	0.400	7.40	89.13		6.58	13.91	0.47	0.00

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 37
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Induction Machine Input Data

Induction Machine			Connected Bus		Rating					% Impedance (Motor Base)			mFact.
ID	Type	Qty	ID		HP/kW	kVA	kV	Amp	PF	R	X"	R/X"	MW/PP
2PM-2501B	Motor	1	SGL-2-03 BUS B		11.00	15.24	0.400	22.00	89.13	6.58	13.91	0.47	0.01
2PM-2503B	Motor	1	SGL-2-03 BUS B		11.00	15.24	0.400	22.00	89.13	6.58	13.91	0.47	0.01
2AM-3701B	Motor	1	SGL-2-03 BUS B		18.50	25.46	0.400	36.75	87.47	7.68	13.33	0.58	0.01
2AM-3701D	Motor	1	SGL-2-03 BUS B		18.50	25.46	0.400	36.75	87.47	7.68	13.33	0.58	0.01
2KM-3701/02B-MP2	Motor	1	SGL-2-03 BUS B		7.50	10.32	0.400	14.90	89.13	6.58	13.91	0.47	0.00
2PM-3702B	Motor	1	SGL-2-03 BUS B		37.00	50.92	0.400	73.50	87.47	7.68	13.33	0.58	0.04
2PM-3706B	Motor	1	SGL-2-03 BUS B		11.00	15.24	0.400	22.00	89.13	6.58	13.91	0.47	0.01
2PM-2410	Motor	1	SGL-2-03 BUS B		3.70	5.13	0.400	7.40	89.13	6.58	13.91	0.47	0.00
2PM-3707	Motor	1	SGL-2-03 BUS B		0.18	0.48	0.400	0.70	89.13	6.58	13.91	0.47	0.00
2PM-3708	Motor	1	SGL-2-03 BUS B		5.50	8.24	0.400	11.90	89.87	6.08	14.13	0.43	0.00
2JM-3710	Motor	1	SGL-2-03 BUS B		0.25	0.83	0.400	1.20	89.13	6.58	13.91	0.47	0.00
2PM-704B	Motor	1	SGL-2-03 BUS B		3.70	5.13	0.400	7.40	89.13	6.58	13.91	0.47	0.00

Total Connected Induction Machines (= 488): 36558.3 kVA

Lumped Load Input Data

Lumped Load								Motor Loads					
Lumped Load ID	Connected Bus ID	Rating				% Load		Loading		% Impedance Machine Base			m Fact. MW/PP
		kVA	kV	Amp	% PF	MTR	STAT	kW	kvar	R	X"	R/X"	
2FM-301/302/303	SGL-2-02 BUS A	2.1	0.400	3.01	96.05	100	0	2.0	0.6	6.46	15.37	0.42	0.00
2FM-304	SGL-2-02 BUS A	0.8	0.400	1.10	65.33	100	0	0.5	0.6	6.46	15.37	0.42	0.00
2FM-305	SGL-2-02 BUS A	2.3	0.400	3.28	96.70	100	0	2.2	0.6	6.46	15.37	0.42	0.00
3JM-3701A-D	MCL-4-01A	2.5	0.400	3.57	90.49	100	0	2.2	1.1	6.46	15.37	0.42	0.00
Gas comp A	Bus9	10.0	0.400	14.43	100.00	80	20	8.0	0.0	6.46	15.37	0.42	0.01
Gas comp B	Bus15	10.0	0.400	14.43	100.00	80	20	8.0	0.0	6.46	15.37	0.42	0.01
HVAC	Bus18	90.0	0.400	129.97	83.72	20	80	15.1	9.8	6.46	15.37	0.42	0.02
Lab load	Bus1	100.0	0.400	144.34	85.00	80	20	68.0	42.1	6.46	15.37	0.42	0.07
SS-ACP-P1	Bus1262	360.0	0.400	519.62	100.00	80	20	288.0	0.0	6.46	15.37	0.42	0.29

Total Connected Lumped Loads (= 9): 577.6 kVA

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 38
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

SHORT-CIRCUIT REPORT

3-Phase fault at bus: 4200-MD-001

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.423 kA Method C
Steady State = 37.821 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
4200-MD-001	Total	0.00	10.927	-46.353	4.2	47.624
GTG1 MCC.1	4200-MD-001	4.25	0.534	-1.015	1.9	1.147
Bus2	4200-MD-001	0.00	0.000	0.000	999.9	0.000
AC DB.	4200-MD-001	0.00	0.000	0.000	999.9	0.000
Bus3	4200-MD-001	0.00	0.000	0.000	999.9	0.000
Bus9	4200-MD-001	1.70	0.029	-0.066	2.3	0.072
Bus15	4200-MD-001	1.70	0.029	-0.066	2.3	0.072
Bus18	4200-MD-001	1.15	0.064	-0.149	2.3	0.163
Bus21	4200-MD-001	8.01	0.884	-1.592	1.8	1.821
Bus23	4200-MD-001	8.01	0.884	-1.592	1.8	1.821
Bus38	4200-MD-001	0.00	0.000	0.000	999.9	0.000
Bus40	4200-MD-001	0.00	0.000	0.000	999.9	0.000
GTG2 MCC.2	4200-MD-001	4.25	0.534	-1.015	1.9	1.147
Bus32	4200-MD-001	0.00	0.000	0.000	999.9	0.000
Bus34	4200-MD-001	0.00	0.000	0.000	999.9	0.000
BOP MCC	4200-MD-001	0.18	0.027	-0.049	1.8	0.056
FD FAN VFD Bus	4200-MD-001	0.00	0.000	0.000	999.9	0.000
Bus995	4200-MD-001	10.84	7.943	-40.808	5.1	41.574

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 39
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **AC DB.**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 46.367 kA Method C
Steady State = 25.345 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
AC DB.	Total	0.00	16.547	-23.322	1.4	28.596
4200-MD-001	AC DB.	49.78	16.547	-23.322	1.4	28.596

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 40
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **BOP MCC**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 32.040 kA Method C
Steady State = 18.394 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
BOP MCC	Total	0.00	12.006	-16.047	1.3	20.041
MOV-001	BOP MCC	0.00	0.000	0.000	999.9	0.000
4200-MD-001	BOP MCC	63.75	11.979	-15.998	1.3	19.986
BDP-A	BOP MCC	100.00	0.006	-0.014	2.3	0.015
SWP-A	BOP MCC	100.00	0.006	-0.014	2.3	0.015
SWP-R	BOP MCC	100.00	0.006	-0.014	2.3	0.015
AUX.FD FAN	BOP MCC	100.00	0.009	-0.007	0.8	0.012

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 41
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **BUP-A**

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 32.811 kA Method C
Steady State = 3.173 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
BUP-A	Total	0.00	1.513	-13.119	8.7	13.206
Bus994	BUP-A	0.11	0.169	-0.337	2.0	0.377
Bus947	BUP-A	0.20	0.071	-0.271	3.8	0.280
Terminal_GTG-1	BUP-A	0.27	0.296	-8.728	29.5	8.733
Bus951	BUP-A	0.18	0.978	-3.783	3.9	3.907

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 42
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **BUP-B**

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 53.332 kA Method C
Steady State = 19.222 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
BUP-B	Total	0.00	1.376	-20.553	14.9	20.599
Bus25	BUP-B	15.05	1.004	-11.577	11.5	11.620
Bus1000	BUP-B	0.00	0.000	0.000	999.9	0.000
Terminal_GTG-2	BUP-B	0.55	0.301	-8.704	28.9	8.710
Bus5	BUP-B	0.20	0.071	-0.271	3.8	0.280

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 43
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG1 MCC.1**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG1 MCC.1	Total	0.00	12.710	-14.824	1.2	19.527
4200-MD-001	GTG1 MCC.1	68.00	12.179	-13.758	1.1	18.375
Lube oil CF2	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF1	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF3	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF4	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Vent.1 unit1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.1 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit 1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-1	GTG1 MCC.1-INT	100.00	0.029	-0.035	1.2	0.045
GTG-1 DB	GTG1 MCC.1-RF	0.00	0.000	0.000	999.9	0.000
Wash Pump	GTG1 MCC.1-RF	100.00	0.050	-0.075	1.5	0.090
Lube oil Pump	GTG1 MCC.1-RF	100.00	0.027	-0.056	2.1	0.062
GTG1 MCC.1-RF	GTG1 MCC.1	0.00	0.077	-0.132	1.7	0.152
GTG1 MCC.1-INT	GTG1 MCC.1	0.00	0.454	-0.934	2.1	1.039

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 44
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG1 MCC.1-INT

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG1 MCC.1-INT	Total	0.00	12.710	-14.824	1.2	19.527
Lube oil CF2	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF1	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF3	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF4	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Vent.1 unit1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.1 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit 1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-1	GTG1 MCC.1-INT	100.00	0.029	-0.035	1.2	0.045
4200-MD-001	GTG1 MCC.1	68.00	12.179	-13.758	1.1	18.375
GTG-1 DB	GTG1 MCC.1-RF	0.00	0.000	0.000	999.9	0.000
Wash Pump	GTG1 MCC.1-RF	100.00	0.050	-0.075	1.5	0.090
Lube oil Pump	GTG1 MCC.1-RF	100.00	0.027	-0.056	2.1	0.062
GTG1 MCC.1-RF	GTG1 MCC.1	0.00	0.077	-0.132	1.7	0.152
GTG1 MCC.1	GTG1 MCC.1-INT	0.00	12.256	-13.890	1.1	18.524

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 45
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG1 MCC.1-RF**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG1 MCC.1-RF	Total	0.00	12.710	-14.824	1.2	19.527
GTG-1 DB	GTG1 MCC.1-RF	0.00	0.000	0.000	999.9	0.000
Wash Pump	GTG1 MCC.1-RF	100.00	0.050	-0.075	1.5	0.090
Lube oil Pump	GTG1 MCC.1-RF	100.00	0.027	-0.056	2.1	0.062
4200-MD-001	GTG1 MCC.1	68.00	12.179	-13.758	1.1	18.375
Lube oil CF2	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF1	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF3	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF4	GTG1 MCC.1-INT	100.00	0.023	-0.049	2.1	0.054
Vent.1 unit1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.1 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit 1	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Vent.2 unit2	GTG1 MCC.1-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-1	GTG1 MCC.1-INT	100.00	0.029	-0.035	1.2	0.045
GTG1 MCC.1	GTG1 MCC.1-RF	0.00	12.633	-14.693	1.2	19.377
GTG1 MCC.1-INT	GTG1 MCC.1	0.00	0.454	-0.934	2.1	1.039

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 46
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG2 MCC.2**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG2 MCC.2	Total	0.00	12.710	-14.824	1.2	19.527
4200-MD-001	GTG2 MCC.2	68.00	12.179	-13.758	1.1	18.375
Lube oil CF.1	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.2	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.3	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.4	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Vent1 unit1	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent1 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unt2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-2	GTG2 MCC.2-INT	100.00	0.029	-0.035	1.2	0.045
GTG-2 DB	GTG2 MCC.2-RF	0.00	0.000	0.000	999.9	0.000
Lube oil Pump.	GTG2 MCC.2-RF	100.00	0.027	-0.056	2.1	0.062
wase pump	GTG2 MCC.2-RF	100.00	0.050	-0.075	1.5	0.090
GTG2 MCC.2-RF	GTG2 MCC.2	0.00	0.077	-0.132	1.7	0.152
GTG2 MCC.2-INT	GTG2 MCC.2	0.00	0.454	-0.934	2.1	1.039

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 47
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG2 MCC.2-INT**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG2 MCC.2-INT	Total	0.00	12.710	-14.824	1.2	19.527
Lube oil CF.1	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.2	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.3	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.4	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Vent1 unit1	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent1 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unt2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-2	GTG2 MCC.2-INT	100.00	0.029	-0.035	1.2	0.045
4200-MD-001	GTG2 MCC.2	68.00	12.179	-13.758	1.1	18.375
GTG-2 DB	GTG2 MCC.2-RF	0.00	0.000	0.000	999.9	0.000
Lube oil Pump.	GTG2 MCC.2-RF	100.00	0.027	-0.056	2.1	0.062
wase pump	GTG2 MCC.2-RF	100.00	0.050	-0.075	1.5	0.090
GTG2 MCC.2-RF	GTG2 MCC.2	0.00	0.077	-0.132	1.7	0.152
GTG2 MCC.2	GTG2 MCC.2-INT	0.00	12.256	-13.890	1.1	18.524

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 48
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG2 MCC.2-RF**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 30.455 kA Method C
Steady State = 17.223 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG2 MCC.2-RF	Total	0.00	12.710	-14.824	1.2	19.527
GTG-2 DB	GTG2 MCC.2-RF	0.00	0.000	0.000	999.9	0.000
Lube oil Pump.	GTG2 MCC.2-RF	100.00	0.027	-0.056	2.1	0.062
wase pump	GTG2 MCC.2-RF	100.00	0.050	-0.075	1.5	0.090
4200-MD-001	GTG2 MCC.2	68.00	12.179	-13.758	1.1	18.375
Lube oil CF.1	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.2	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.3	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Lube oil CF.4	GTG2 MCC.2-INT	100.00	0.023	-0.049	2.1	0.054
Vent1 unit1	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent1 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unit2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Vent2 unt2	GTG2 MCC.2-INT	100.00	0.083	-0.176	2.1	0.195
Oil mist-2	GTG2 MCC.2-INT	100.00	0.029	-0.035	1.2	0.045
GTG2 MCC.2	GTG2 MCC.2-RF	0.00	12.633	-14.693	1.2	19.377
GTG2 MCC.2-INT	GTG2 MCC.2	0.00	0.454	-0.934	2.1	1.039

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 49
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG-1 DB**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 1.419 kA Method C
Steady State = 0.946 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
GTG-1 DB	Total	0.00	0.710	-0.634	0.9	0.952
GTG1 MCC.1-RF	GTG-1 DB	95.17	0.710	-0.634	0.9	0.952

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 50
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: MCL 5-01 A

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 109.080 kA Method C
Steady State = 34.394 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
MCL 5-01 A	Total	0.00	11.965	-48.734	4.1	50.181
SGL-5-01 BUS A	MCL 5-01 A	10.85	5.358	-34.475	6.4	34.889
4A-102 A	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-103 A	MCL 5-01 A	100.00	0.074	-0.129	1.7	0.149
4A-104 A	MCL 5-01 A	100.00	0.074	-0.129	1.7	0.149
4A-105 B	MCL 5-01 A	100.00	0.161	-0.375	2.3	0.409
4A-109 A	MCL 5-01 A	100.00	0.055	-0.086	1.6	0.102
4A-4001B	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001D	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-105 A	MCL 5-01 A	100.00	0.161	-0.375	2.3	0.409
4A-105 C	MCL 5-01 A	100.00	0.161	-0.375	2.3	0.409
4A-106 A	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-108 A	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-110 A	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001A	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001C	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001E	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001F	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001G	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4001H	MCL 5-01 A	100.00	0.127	-0.270	2.1	0.298
4A-4003A	MCL 5-01 A	100.00	0.074	-0.129	1.7	0.149
4A-4004A	MCL 5-01 A	100.00	0.245	-0.696	2.8	0.738
4A-4004B	MCL 5-01 A	100.00	0.245	-0.696	2.8	0.738
4A-4004C	MCL 5-01 A	100.00	0.245	-0.696	2.8	0.738
4K-4001 P1B	MCL 5-01 A	100.00	0.135	-0.383	2.8	0.406
4K-4002A-P2A	MCL 5-01 A	100.00	0.043	-0.061	1.4	0.074
4A-101 A	MCL 5-01 A	100.00	0.161	-0.375	2.3	0.409
4K-4002 P3	MCL 5-01 A	100.00	0.043	-0.092	2.1	0.102
4P-102 A	MCL 5-01 A	100.00	0.368	-0.639	1.7	0.738
4P-104 A	MCL 5-01 A	100.00	0.002	-0.005	2.3	0.005

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 51
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 109.080 kA Method C
Steady State = 34.394 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
4P-105 A	MCL 5-01 A	100.00	0.404	-0.938	2.3	1.021
4P-106A	MCL 5-01 A	100.00	0.013	-0.027	2.1	0.030
4P-109 A	MCL 5-01 A	100.00	0.804	-1.256	1.6	1.492
4P-111A	MCL 5-01 A	100.00	0.315	-0.667	2.1	0.738
4P-116A	MCL 5-01 A	100.00	0.064	-0.135	2.1	0.149
4P-118A	MCL 5-01 A	100.00	0.258	-0.546	2.1	0.604
4P-120A	MCL 5-01 A	100.00	0.258	-0.546	2.1	0.604
4P-121A	MCL 5-01 A	100.00	0.435	-0.919	2.1	1.017
4P-122	MCL 5-01 A	100.00	0.001	-0.001	1.7	0.001
4P-4006A	MCL 5-01 A	100.00	0.049	-0.139	2.8	0.148
4P-4008	MCL 5-01 A	100.00	0.010	-0.028	2.8	0.030
4P-4009A	MCL 5-01 A	100.00	0.031	-0.061	2.0	0.068
4P-4012A	MCL 5-01 A	100.00	0.167	-0.473	2.8	0.501
4P-4013A	MCL 5-01 A	100.00	0.010	-0.028	2.8	0.030
4J-4001A	MCL 5-01 A	100.00	0.006	-0.008	1.4	0.010
4J-4001B	MCL 5-01 A	100.00	0.003	-0.010	2.8	0.010

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 52
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 104.244 kA Method C
Steady State = 34.389 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
MCL 5-01 B	Total	0.00	10.600	-46.271	4.4	47.470
SGL-5-01 BUS B	MCL 5-01 B	10.85	5.359	-34.471	6.4	34.885
4A-102B	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-103B	MCL 5-01 B	100.00	0.074	-0.129	1.7	0.149
4A-104B	MCL 5-01 B	100.00	0.074	-0.129	1.7	0.149
4A-105F	MCL 5-01 B	100.00	0.161	-0.375	2.3	0.409
4A-4001J	MCL 5-01 B	100.00	0.161	-0.251	1.6	0.298
4A-4001M	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-1001O	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-105E	MCL 5-01 B	100.00	0.161	-0.375	2.3	0.409
4A-108B	MCL 5-01 B	100.00	0.118	-0.274	2.3	0.298
4A-109B	MCL 5-01 B	100.00	0.043	-0.092	2.1	0.102
4A-4001I	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-4001K	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-4001L	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-4001N	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-1001P	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-4003B	MCL 5-01 B	100.00	0.064	-0.135	2.1	0.149
4A-4004E	MCL 5-01 B	100.00	0.315	-0.667	2.1	0.738
4A-4004F	MCL 5-01 B	100.00	0.317	-0.671	2.1	0.742
4P-103B	MCL 5-01 B	100.00	0.167	-0.473	2.8	0.502
4P-104B	MCL 5-01 B	100.00	0.002	-0.004	2.0	0.005
4P-106B	MCL 5-01 B	100.00	0.012	-0.024	2.0	0.027
4P-108B	MCL 5-01 B	100.00	0.203	-0.576	2.8	0.610
4P-109B	MCL 5-01 B	100.00	0.490	-1.392	2.8	1.475
4A-101B	MCL 5-01 B	100.00	0.161	-0.375	2.3	0.409
4P-110B	MCL 5-01 B	100.00	0.168	-0.334	2.0	0.374
4P-111B	MCL 5-01 B	100.00	0.248	-0.704	2.8	0.746
4P-112B	MCL 5-01 B	100.00	0.136	-0.385	2.8	0.408
4P-117B	MCL 5-01 B	100.00	0.021	-0.045	2.1	0.050

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 53
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 104.244 kA Method C
Steady State = 34.389 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
4P-119B	MCL 5-01 B	100.00	0.368	-0.639	1.7	0.738
4J-4001C	MCL 5-01 B	100.00	0.004	-0.009	2.1	0.010
4J-4001D	MCL 5-01 B	100.00	0.004	-0.009	2.1	0.010
4A-105D	MCL 5-01 B	100.00	0.175	-0.369	2.1	0.408
4A-110B	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-108 B	MCL 5-01 B	100.00	0.127	-0.270	2.1	0.298
4A-4004D	MCL 5-01 B	100.00	0.315	-0.667	2.1	0.738

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 54
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOP 2-01**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 22.582 kA Method C
Steady State = 13.248 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
MOP 2-01	Total	0.00	6.800	-11.578	1.7	13.428
Bus61	MOP 2-01	29.88	6.800	-11.578	1.7	13.428
Bus93	MOP 2-01	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 55
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOP-3-01**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 34.659 kA Method C
Steady State = 14.224 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
MOP-3-01	Total	0.00	3.273	-15.514	4.7	15.855
Bus1081	MOP-3-01	86.03	3.273	-15.514	4.7	15.855

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 56
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOV-001**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 14.322 kA Method C
Steady State = 9.632 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
MOV-001	Total	0.00	8.604	-4.852	0.6	9.878
BOP MCC	MOV-001	58.38	8.604	-4.852	0.6	9.878

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 57
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-01A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 108.496 kA Method C
Steady State = 41.042 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-01A	Total	0.00	8.932	-47.187	5.3	48.025
2AM-1101-2	SGL-2-01A	100.00	0.382	-0.888	2.3	0.966
2PM-1101A	SGL-2-01A	100.00	0.273	-0.474	1.7	0.547
2KM-1211A	SGL-2-01A	100.00	0.404	-0.938	2.3	1.021
2PM-1105A	SGL-2-01A	100.00	0.263	-0.612	2.3	0.667
2AM-1101-1	SGL-2-01A	100.00	0.382	-0.888	2.3	0.966
2KM-1211B	SGL-2-01A	100.00	0.404	-0.938	2.3	1.021
Bus613	Bus614	79.92	6.824	-42.449	6.2	42.995
Bus614	SGL-2-01A	0.00	6.824	-42.449	6.2	42.995

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 58
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-01B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.436 kA Method C
Steady State = 41.042 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-01B	Total	0.00	7.785	-44.639	5.7	45.313
Bus92	SGL-2-01B	0.00	0.000	0.000	999.9	0.000
2AM-1101-3	SGL-2-01B	100.00	0.382	-0.888	2.3	0.966
2AM-1101-4	SGL-2-01B	100.00	0.382	-0.888	2.3	0.966
2PM-1104B	SGL-2-01B	100.00	0.074	-0.129	1.7	0.149
TG-03-FM1	SGL-2-01B	100.00	0.013	-0.029	2.3	0.032
TG-03-PM1A	SGL-2-01B	100.00	0.073	-0.170	2.3	0.185
TG-03-TM1	SGL-2-01B	100.00	0.014	-0.029	2.1	0.032
Bus1024	Bus1023	80.03	6.848	-42.506	6.2	43.054
Bus1023	SGL-2-01B	0.00	6.848	-42.506	6.2	43.054

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 59
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-02 BUS A

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 104.441 kA Method C
Steady State = 36.632 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-02 BUS A	Total	0.00	11.472	-46.875	4.1	48.259
Bus1314	SGL-2-02 BUS A	11.36	6.755	-37.545	5.6	38.148
2AM-102-1	SGL-2-02 BUS A	100.00	0.087	-0.184	2.1	0.203
2AM-103-1	SGL-2-02 BUS A	100.00	0.102	-0.176	1.7	0.203
2AM-104-1	SGL-2-02 BUS A	100.00	0.074	-0.129	1.7	0.149
2PM-108A	SGL-2-02 BUS A	100.00	0.404	-0.631	1.6	0.749
2PM-113A	SGL-2-02 BUS A	100.00	0.319	-0.674	2.1	0.746
2PM-106	SGL-2-02 BUS A	100.00	0.127	-0.270	2.1	0.298
2AM-101-1	SGL-2-02 BUS A	100.00	0.118	-0.275	2.3	0.300
2PM-110A	SGL-2-02 BUS A	100.00	0.174	-0.368	2.1	0.407
2PM-105A	SGL-2-02 BUS A	100.00	0.161	-0.375	2.3	0.409
2PM-114A	SGL-2-02 BUS A	100.00	0.009	-0.018	2.1	0.020
2PM-119A	SGL-2-02 BUS A	100.00	0.007	-0.014	2.1	0.016
2PM-121A	SGL-2-02 BUS A	100.00	0.305	-0.529	1.7	0.610
2AM-201-1	SGL-2-02 BUS A	100.00	0.126	-0.218	1.7	0.252
2AM-202-2	SGL-2-02 BUS A	100.00	0.215	-0.336	1.6	0.399
2AM-203-1	SGL-2-02 BUS A	100.00	0.082	-0.128	1.6	0.152
2AM-301-1	SGL-2-02 BUS A	100.00	0.174	-0.368	2.1	0.407
2AM-302-1	SGL-2-02 BUS A	100.00	0.074	-0.129	1.7	0.149
2PM-302A	SGL-2-02 BUS A	100.00	0.510	-0.885	1.7	1.021
2KM-302-PM1B	SGL-2-02 BUS A	100.00	0.014	-0.029	2.1	0.032
2KM-303A	SGL-2-02 BUS A	100.00	0.637	-1.348	2.1	1.491
2PM-206A	SGL-2-02 BUS A	100.00	0.404	-0.938	2.3	1.021
2PM-303A	SGL-2-02 BUS A	100.00	0.118	-0.275	2.3	0.300
2PM-307A	SGL-2-02 BUS A	100.00	0.074	-0.129	1.7	0.149
2PM-310	SGL-2-02 BUS A	100.00	0.003	-0.006	2.3	0.007
2PM-311A	SGL-2-02 BUS A	100.00	0.004	-0.008	2.1	0.008
2PM-701	SGL-2-02 BUS A	100.00	0.064	-0.135	2.1	0.149
2PM-703	SGL-2-02 BUS A	100.00	0.043	-0.092	2.1	0.102
2AM-1801A	SGL-2-02 BUS A	100.00	0.118	-0.275	2.3	0.300

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 60
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 104.441 kA Method C
Steady State = 36.632 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
2PM-1803A	SGL-2-02 BUS A	100.00	0.032	-0.067	2.1	0.075
2PM-1804A	SGL-2-02 BUS A	100.00	0.118	-0.275	2.3	0.300
2PM-1806	SGL-2-02 BUS A	100.00	0.002	-0.003	1.7	0.004
2FM-301/302/303	SGL-2-02 BUS A	100.00	0.007	-0.017	2.4	0.019
2FM-304	SGL-2-02 BUS A	100.00	0.003	-0.006	2.4	0.007
2FM-305	SGL-2-02 BUS A	100.00	0.008	-0.019	2.4	0.021

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 61
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.409 kA Method C
Steady State = 36.632 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-02 BUS B	Total	0.00	11.469	-46.391	4.0	47.788
Bus1294	SGL-2-02 BUS B	11.36	6.760	-37.528	5.6	38.132
2PM-111B	SGL-2-02 BUS B	100.00	0.087	-0.184	2.1	0.203
2PM-112B	SGL-2-02 BUS B	100.00	0.548	-0.950	1.7	1.097
2PM-117B	SGL-2-02 BUS B	100.00	0.261	-0.551	2.1	0.610
2AM-201-2	SGL-2-02 BUS B	100.00	0.107	-0.227	2.1	0.251
2PM-116B	SGL-2-02 BUS B	100.00	0.020	-0.046	2.3	0.050
2PM-205B	SGL-2-02 BUS B	100.00	0.305	-0.529	1.7	0.610
2PM-207	SGL-2-02 BUS B	100.00	0.136	-0.235	1.7	0.271
2AM-301-2	SGL-2-02 BUS B	100.00	0.202	-0.350	1.7	0.404
2AM--302-2	SGL-2-02 BUS B	100.00	0.064	-0.149	2.3	0.162
2PM-115	SGL-2-02 BUS B	100.00	0.009	-0.020	2.3	0.022
2PM-122B	SGL-2-02 BUS B	100.00	0.031	-0.073	2.3	0.080
2AM-202-3	SGL-2-02 BUS B	100.00	0.174	-0.368	2.1	0.407
2PM-203B	SGL-2-02 BUS B	100.00	0.043	-0.092	2.1	0.102
2PM-202-4	SGL-2-02 BUS B	100.00	0.174	-0.368	2.1	0.407
2AM-203-2	SGL-2-02 BUS B	100.00	0.065	-0.137	2.1	0.152
2PM-305B	SGL-2-02 BUS B	100.00	0.261	-0.551	2.1	0.610
2PM-306B	SGL-2-02 BUS B	100.00	0.065	-0.137	2.1	0.152
2PM-308	SGL-2-02 BUS B	100.00	0.005	-0.012	2.1	0.013
2KM-301-PM1B	SGL-2-02 BUS B	100.00	0.127	-0.270	2.1	0.298
2KM-303B	SGL-2-02 BUS B	100.00	0.708	-1.228	1.7	1.417
2PM-602B	SGL-2-02 BUS B	100.00	0.064	-0.135	2.1	0.149
2PM-1601B	SGL-2-02 BUS B	100.00	0.014	-0.029	2.1	0.032
2AM-101-2	SGL-2-02 BUS B	100.00	0.123	-0.245	2.0	0.274
2AM-102-2	SGL-2-02 BUS B	100.00	0.110	-0.172	1.6	0.204
2AM-104-2	SGL-2-02 BUS B	100.00	0.065	-0.137	2.1	0.152
2PM-103B	SGL-2-02 BUS B	100.00	0.133	-0.208	1.6	0.247
2PM-104B	SGL-2-02 BUS B	100.00	0.401	-0.627	1.6	0.745
2PM-107B	SGL-2-02 BUS B	100.00	0.161	-0.374	2.3	0.407

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 62
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.409 kA Method C
Steady State = 36.632 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
2PM-109B	SGL-2-02 BUS B	100.00	0.146	-0.229	1.6	0.271
2PM-1801B	SGL-2-02 BUS B	100.00	0.100	-0.231	2.3	0.252

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 63
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-03 BUS A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 88.713 kA Method C
Steady State = 36.596 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-03 BUS A	Total	0.00	7.693	-39.070	5.1	39.821
Bus1312	SGL-2-03 BUS A	11.39	6.948	-37.610	5.4	38.247
2PM-2404	SGL-2-03 BUS A	100.00	0.064	-0.135	2.1	0.149
2PM-2401A	SGL-2-03 BUS A	100.00	0.020	-0.046	2.3	0.051
2PM-704A	SGL-2-03 BUS A	100.00	0.022	-0.046	2.1	0.051
2PM-3703A	SGL-2-03 BUS A	100.00	0.031	-0.073	2.3	0.080
2AM-2401A	SGL-2-03 BUS A	100.00	0.087	-0.184	2.1	0.203
2PM-2408	SGL-2-03 BUS A	100.00	0.002	-0.004	2.1	0.005
2JM-2410	SGL-2-03 BUS A	100.00	0.004	-0.007	2.1	0.008
2PM-2402A	SGL-2-03 BUS A	100.00	0.203	-0.352	1.7	0.407
2PM-2501A	SGL-2-03 BUS A	100.00	0.064	-0.136	2.1	0.150
2PM-2503A	SGL-2-03 BUS A	100.00	0.064	-0.136	2.1	0.150
2AM-3701A	SGL-2-03 BUS A	100.00	0.125	-0.217	1.7	0.251
2KM-3701/02A-MP2	SGL-2-03 BUS A	100.00	0.043	-0.092	2.1	0.102
2PM-3705	SGL-2-03 BUS A	100.00	0.015	-0.031	2.1	0.035

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 64
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-03 BUS B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 89.832 kA Method C
Steady State = 36.596 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-2-03 BUS B	Total	0.00	8.037	-39.654	4.9	40.461
Bus1329	SGL-2-03 BUS B	11.38	6.948	-37.575	5.4	38.212
2PM-3703B	SGL-2-03 BUS B	100.00	0.031	-0.073	2.3	0.080
2AM-2401B	SGL-2-03 BUS B	100.00	0.087	-0.184	2.1	0.203
2AM-2402B	SGL-2-03 BUS B	100.00	0.125	-0.217	1.7	0.251
2PM-2409	SGL-2-03 BUS B	100.00	0.006	-0.013	2.1	0.015
2PM-2401B	SGL-2-03 BUS B	100.00	0.022	-0.046	2.1	0.051
2PM-2501B	SGL-2-03 BUS B	100.00	0.064	-0.136	2.1	0.150
2PM-2503B	SGL-2-03 BUS B	100.00	0.064	-0.136	2.1	0.150
2AM-3701B	SGL-2-03 BUS B	100.00	0.125	-0.217	1.7	0.251
2AM-3701D	SGL-2-03 BUS B	100.00	0.125	-0.217	1.7	0.251
2KM-3701/02B-MP2	SGL-2-03 BUS B	100.00	0.043	-0.092	2.1	0.102
2PM-3702B	SGL-2-03 BUS B	100.00	0.251	-0.435	1.7	0.502
2PM-3706B	SGL-2-03 BUS B	100.00	0.064	-0.136	2.1	0.150
2PM-2410	SGL-2-03 BUS B	100.00	0.022	-0.046	2.1	0.051
2PM-3707	SGL-2-03 BUS B	100.00	0.002	-0.004	2.1	0.005
2PM-3708	SGL-2-03 BUS B	100.00	0.032	-0.075	2.3	0.081
2JM-3710	SGL-2-03 BUS B	100.00	0.004	-0.007	2.1	0.008
2PM-704B	SGL-2-03 BUS B	100.00	0.022	-0.046	2.1	0.051

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 65
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-01 A

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 108.767 kA Method C
Steady State = 29.919 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-3-01 A	Total	0.00	11.834	-48.749	4.1	50.165
3PM-107A	MCL.3-012A	100.00	0.199	-0.463	2.3	0.504
3PM-104A	MCL.3-012A	100.00	0.765	-1.618	2.1	1.789
3AM-103A	MCL.3-012A	100.00	0.127	-0.270	2.1	0.298
3AM-104A	MCL.3-012A	100.00	0.127	-0.270	2.1	0.298
3AM-106A	MCL.3-012A	100.00	0.127	-0.270	2.1	0.298
3AM-106C	MCL.3-012A	100.00	0.127	-0.270	2.1	0.298
3PM-106A	MCL.3-012A	100.00	0.348	-0.735	2.1	0.813
3PM-105A	MCL.3-011A	100.00	0.319	-0.674	2.1	0.746
3PM-109	MCL.3-011A	100.00	0.435	-0.919	2.1	1.017
3PM-114A	MCL.3-011A	100.00	0.017	-0.024	1.4	0.030
3PM-117A	MCL.3-011A	100.00	0.002	-0.002	1.4	0.003
3PM-118	MCL.3-011A	100.00	0.003	-0.004	1.4	0.005
3PM-120A	MCL.3-011A	100.00	0.002	-0.002	1.4	0.003
3PM-122A	MCL.3-011A	100.00	0.012	-0.017	1.4	0.020
3PM-113A	MCL.3-011A	100.00	0.637	-1.348	2.1	1.491
3K-101C-PM01B	MCL.3-011A	100.00	0.012	-0.017	1.4	0.020
3AM-301A	MCL.3-013	100.00	0.127	-0.270	2.1	0.298
3AM-301B	MCL.3-013	100.00	0.127	-0.270	2.1	0.298
3PM-110A	MCL.3-013	100.00	0.493	-1.042	2.1	1.152
SX-A/C-A	MCL.3-013	100.00	0.861	-2.001	2.3	2.179
KM-1307	MCL.3-013	100.00	0.341	-1.241	3.6	1.287
Bus31	Bus1116	69.92	6.626	-37.024	5.6	37.612
Bus1116	SGL-3-01 A	0.00	6.626	-37.024	5.6	37.612
MCL.3-011A	SGL-3-01 A	0.00	1.437	-3.008	2.1	3.334
MCL.3-012A	SGL-3-01 A	0.00	1.822	-3.894	2.1	4.299
MCL.3-013	SGL-3-01 A	0.00	1.950	-4.823	2.5	5.202

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 66
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-01 B

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.888 kA Method C
Steady State = 29.989 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-3-01 B	Total	0.00	9.605	-45.570	4.7	46.571
4P-1103E	MCL.3-023	100.00	0.150	-0.348	2.3	0.379
K-1309	MCL.3-023	100.00	0.388	-1.489	3.8	1.539
3AM-102B	MCL.3-012B	100.00	0.107	-0.227	2.1	0.251
3AM-103B	MCL.3-012B	100.00	0.127	-0.270	2.1	0.298
3AM-104B	MCL.3-012B	100.00	0.127	-0.270	2.1	0.298
3AM-105B	MCL.3-012B	100.00	0.107	-0.227	2.1	0.251
3AM-105D	MCL.3-012B	100.00	0.107	-0.227	2.1	0.251
3AM-106B	MCL.3-012B	100.00	0.127	-0.270	2.1	0.298
3AM-106D	MCL.3-012B	100.00	0.127	-0.270	2.1	0.298
3PM-107B	MCL.3-012B	100.00	0.199	-0.463	2.3	0.504
3AM-105F	MCL.3-012B	100.00	0.107	-0.227	2.1	0.251
T2-Sec	MCL 3-011B	0.00	0.000	0.000	999.9	0.000
3PM-108A	MCL 3-011B	100.00	0.435	-0.919	2.1	1.017
3PM-112A	MCL 3-011B	100.00	0.199	-0.463	2.3	0.504
3PM-119	MCL 3-011B	100.00	0.012	-0.017	1.4	0.020
3PM-116A	MCL 3-011B	100.00	0.435	-0.919	2.1	1.017
3PM-121	MCL 3-011B	100.00	0.003	-0.004	1.4	0.005
3PN-115A	MCL 3-011B	100.00	0.522	-1.103	2.1	1.220
3PM-1101B	MCL 3-011B	100.00	0.199	-0.463	2.3	0.504
Bus33	Bus1121	70.44	6.126	-37.396	6.1	37.895
Bus1121	SGL-3-01 B	0.00	6.126	-37.396	6.1	37.895
MCL 3-011B	SGL-3-01 B	0.00	1.804	-3.888	2.2	4.286
MCL.3-012B	SGL-3-01 B	0.00	1.138	-2.448	2.2	2.700
MCL.3-023	SGL-3-01 B	0.00	0.537	-1.837	3.4	1.914

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 67
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.101 kA Method C
Steady State = 29.934 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-3-02 A	Total	0.00	9.910	-45.284	4.6	46.356
Bus36	SGL-3-02 A	70.38	6.077	-37.370	6.1	37.861
3AM-101A	MCL.3-022A	100.00	0.127	-0.270	2.1	0.298
3AM-101C	MCL.3-022A	100.00	0.127	-0.270	2.1	0.298
3AM-101E	MCL.3-022A	100.00	0.127	-0.270	2.1	0.298
3AM-102A	MCL.3-022A	100.00	0.107	-0.227	2.1	0.251
3AM-105A	MCL.3-022A	100.00	0.107	-0.227	2.1	0.251
3AM-105C	MCL.3-022A	100.00	0.107	-0.227	2.1	0.251
3AM-105E	MCL.3-022A	100.00	0.107	-0.227	2.1	0.251
3KM-201	MCL.3-022A	100.00	0.666	-1.409	2.1	1.559
3KM-101A	MCL.3-022A	100.00	0.637	-1.348	2.1	1.491
3K-201-PM01B	MCL.3-021A	100.00	0.003	-0.004	1.4	0.005
3PM-201A	MCL.3-021A	100.00	0.017	-0.024	1.4	0.030
3KM-351	MCL.3-021A	100.00	0.261	-0.551	2.1	0.610
3PM-302A	MCL.3-021A	100.00	0.029	-0.041	1.4	0.050
3PM-303A	MCL.3-021A	100.00	0.058	-0.083	1.4	0.101
3PM-304A	MCL.3-021A	100.00	0.127	-0.270	2.1	0.298
3PM-305A/306A	MCL.3-021A	100.00	0.003	-0.004	1.4	0.005
3K-101A-P	MCL.3-021A	100.00	0.006	-0.008	1.4	0.010
3PM-307A/308A	MCL.3-021A	100.00	0.003	-0.004	1.4	0.005
3PM-309	MCL.3-021A	100.00	0.006	-0.008	1.4	0.010
3PM-310	MCL.3-021A	100.00	0.029	-0.041	1.4	0.050
3PM-401A	MCL.3-021A	100.00	0.127	-0.270	2.1	0.298
3PM-402A	MCL.3-021A	100.00	0.081	-0.188	2.3	0.204
3PM-404A	MCL.3-021A	100.00	0.174	-0.368	2.1	0.407
3PM-405A/306A	MCL.3-021A	100.00	0.002	-0.002	1.4	0.003
3KM-501A	MCL.3-021A	100.00	0.029	-0.041	1.4	0.050
3PM-502	MCL.3-021A	100.00	0.043	-0.061	1.4	0.074
3PM-1601A	MCL.3-021A	100.00	0.017	-0.024	1.4	0.030
3PM-1651A	MCL.3-021A	100.00	0.029	-0.041	1.4	0.050

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 68
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-3-02 A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 103.101 kA Method C
Steady State = 29.934 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
3PM-1801A	MCL.3-021A	100.00	0.059	-0.138	2.3	0.150
3PM-1803A	MCL.3-021A	100.00	0.029	-0.041	1.4	0.050
3PM-1304A	MCL.3-021A	100.00	0.058	-0.083	1.4	0.101
3PM-1805A	MCL.3-021A	100.00	0.059	-0.138	2.3	0.150
3PM-1806A	MCL.3-021A	100.00	0.002	-0.002	1.4	0.003
3JM-1902	MCL.3-021A	100.00	0.006	-0.008	1.4	0.010
3PM-1903	MCL.3-021A	100.00	0.017	-0.024	1.4	0.030
3PM-1904	MCL.3-021A	100.00	0.006	-0.008	1.4	0.010
3PM-601	MCL.3-021A	100.00	0.059	-0.138	2.3	0.150
3AM-611/612A	MCL.3-021A	100.00	0.127	-0.270	2.1	0.298
3PM-611A	MCL.3-021A	100.00	0.081	-0.188	2.3	0.204
3PM-641	MCL.3-021A	100.00	0.174	-0.368	2.1	0.407
MCL.3-021A	SGL-3-02 A	0.00	1.718	-3.441	2.0	3.846
MCL.3-022A	SGL-3-02 A	0.00	2.115	-4.473	2.1	4.948

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 69
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 105.601 kA Method C
Steady State = 29.934 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-3-02 B	Total	0.00	10.456	-46.553	4.5	47.713
Bus37	SGL-3-02 B	70.15	6.060	-37.249	6.1	37.739
3AM-101B	MCL.3-022B	100.00	0.127	-0.270	2.1	0.298
3AM-101D	MCL.3-022B	100.00	0.127	-0.270	2.1	0.298
3AM-101F	MCL.3-022B	100.00	0.127	-0.270	2.1	0.298
3PM-123	MCL.3-022B	100.00	0.012	-0.017	1.4	0.020
3PM-643	MCL.3-022B	100.00	0.017	-0.024	1.4	0.030
3PM-751	MCL.3-022B	100.00	0.012	-0.017	1.4	0.020
3KM-101B	MCL.3-022B	100.00	0.637	-1.348	2.1	1.491
3PM-104B	MCL.3-022B	100.00	0.765	-1.618	2.1	1.789
3PM-501A	MCL.3-021B	100.00	0.059	-0.138	2.3	0.150
3PM-202	MCL.3-021B	100.00	0.029	-0.041	1.4	0.050
3PM-203	MCL.3-021B	100.00	0.003	-0.004	1.4	0.005
3KM-352	MCL.3-021B	100.00	0.245	-0.696	2.8	0.738
3K-101B-PM01B	MCL.3-021B	100.00	0.006	-0.008	1.4	0.010
3PM-403A	MCL.3-021B	100.00	0.174	-0.368	2.1	0.407
3PM-1802A	MCL.3-021B	100.00	0.058	-0.083	1.4	0.101
3PM-1901A	MCL.3-021B	100.00	0.029	-0.041	1.4	0.050
3PM-1902	MCL.3-021B	100.00	0.017	-0.024	1.4	0.030
3PM-1905A	MCL.3-021B	100.00	0.043	-0.061	1.4	0.074
3AM-611/612B	MCL.3-021B	100.00	0.127	-0.270	2.1	0.298
3PM-642	MCL.3-021B	100.00	0.043	-0.061	1.4	0.074
3PM-301A	MCL.3-021B	100.00	0.464	-0.980	2.1	1.085
3KM-152	MCL.3-021B	100.00	0.637	-1.348	2.1	1.491
3KM-151	MCL.3-021B	100.00	0.637	-1.348	2.1	1.491
MCL.3-021B	SGL-3-02 B	0.00	2.570	-5.472	2.1	6.046
MCL.3-022B	SGL-3-02 B	0.00	1.825	-3.832	2.1	4.245

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 70
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-01 BUS A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 121.238 kA Method C
Steady State = 38.196 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-01 BUS A	Total	0.00	10.709	-52.142	4.9	53.231
Bus277	SGL-5-01 BUS A	6.55	4.364	-38.568	8.8	38.814
MCL 5-01 A	SGL-5-01 BUS A	4.66	6.345	-13.575	2.1	14.985
SGL-5-01 BUS A	Bus43	0.00	0.000	0.000	9999.0	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 71
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-01 BUS B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 116.834 kA Method C
Steady State = 38.190 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-01 BUS B	Total	0.00	9.444	-49.892	5.3	50.778
Bus28	SGL-5-01 BUS B	6.55	4.367	-38.562	8.8	38.809
MCL 5-01 B	SGL-5-01 BUS B	3.86	5.077	-11.329	2.2	12.415
LP-5-01	Bus44	0.00	0.000	0.000	999.9	0.000
Bus44	Bus42	0.00	0.000	0.000	9999.0	0.000
SGL-5-01 BUS B	Bus42	0.00	0.000	0.000	9999.0	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 72
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-02 BUS A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 99.655 kA Method C
Steady State = 31.033 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-02 BUS A	Total	0.00	9.622	-43.062	4.5	44.124
Bus1199	SGL-5-02 BUS A	6.56	3.522	-31.251	8.9	31.449
MCL-5-22A	SGL-5-02 BUS A	5.33	3.995	-7.578	1.9	8.567
MCL-5-21 A	SGL-5-02 BUS A	2.94	2.105	-4.233	2.0	4.727
Bus10	SGL-5-02 BUS A	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 73
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-02 BUS B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 81.574 kA Method C
Steady State = 30.847 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-02 BUS B	Total	0.00	5.175	-33.968	6.6	34.360
Bus1203	SGL-5-02 BUS B	7.14	3.548	-31.067	8.8	31.269
MCL-5-21 B	SGL-5-02 BUS B	0.30	0.207	-0.437	2.1	0.483
MCL-5-22 B	SGL-5-02 BUS B	1.77	1.420	-2.465	1.7	2.844
Bus1244	SGL-5-02 BUS B	0.00	0.000	0.000	999.9	0.000
Bus13	SGL-5-02 BUS B	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 74
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-03 BUS A**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 113.080 kA Method C
Steady State = 36.654 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-03 BUS A	Total	0.00	10.788	-48.962	4.5	50.137
Bus1236	SGL-5-03 BUS A	10.35	4.524	-36.958	8.2	37.234
MCL-5-03 A	SGL-5-03 BUS A	4.57	5.210	-9.722	1.9	11.030
Bus1261	SGL-5-03 BUS A	0.00	0.000	0.000	999.9	0.000
Bus1262	SGL-5-03 BUS A	5.24	1.054	-2.283	2.2	2.514
Bus64	SGL-5-03 BUS A	0.00	0.000	0.000	999.9	0.000
Bus55	SGL-5-03 BUS A	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 75
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-03 BUS B**

Nominal kV = 0.400
Voltage c Factor = 1.05 (User-Defined)
Peak Value = 106.094 kA Method C
Steady State = 36.268 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGL-5-03 BUS B	Total	0.00	9.245	-45.615	4.9	46.542
Bus1237	SGL-5-03 BUS B	11.34	4.561	-36.550	8.0	36.833
Bus1265	SGL-5-03 BUS B	0.00	0.000	0.000	999.9	0.000
MCL-5-03B	SGL-5-03 BUS B	4.23	4.683	-9.065	1.9	10.203
Bus41	SGL-5-03 BUS B	0.00	0.000	0.000	999.9	0.000
Bus52	SGL-5-03 BUS B	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 76
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-01B**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 85.375 kA Method C
Steady State = 28.009 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-01B	Total	0.00	6.128	-36.283	5.9	36.797
Bus625	SGM-2-01B	9.38	5.767	-34.863	6.0	35.337
Bus1024	SGM-2-01B	0.12	0.121	-0.283	2.3	0.307
Bus1025	SGM-2-01B	4.11	0.048	-0.230	4.8	0.235
Bus1027	SGM-2-01B	4.11	0.126	-0.608	4.8	0.620
Bus1028	SGM-2-01B	0.00	0.000	0.000	999.9	0.000
Bus1030	SGM-2-01B	5.38	0.066	-0.300	4.5	0.307

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 77
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-01 BUS A**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 97.735 kA Method C
Steady State = 29.950 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-01 BUS A	Total	0.00	5.001	-39.718	7.9	40.031
Bus694	Bus687	2.11	1.612	-16.972	10.5	17.049
SGM-2-03 BUS B	Bus632	0.71	0.839	-2.520	3.0	2.656
SGM-2-03 BUS A	Bus627	0.93	0.954	-3.371	3.5	3.504
SGM-2-01B	Bus625	0.39	0.361	-1.414	3.9	1.460
SGM-2-02A	Bus624	0.42	0.449	-1.525	3.4	1.590
Terminal_STG-3	Bus696	1.23	0.786	-13.915	17.7	13.937
SGM-2-01 BUS A	Bus621	0.00	0.000	0.000	9999.0	0.000
Bus624	SGM-2-01 BUS A	0.00	0.449	-1.525	3.4	1.590
Bus625	SGM-2-01 BUS A	0.00	0.361	-1.414	3.9	1.460
Bus627	SGM-2-01 BUS A	0.00	0.954	-3.371	3.5	3.504
Bus632	SGM-2-01 BUS A	0.00	0.839	-2.520	3.0	2.656
Bus687	SGM-2-01 BUS A	0.00	1.612	-16.972	10.5	17.049
Bus696	SGM-2-01 BUS A	0.00	0.786	-13.915	17.7	13.937
SGM-2-01 BUS B	SGM-2-01 BUS A	0.00	0.000	0.000	9999.0	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 78
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-01 BUS B

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 97.735 kA Method C
Steady State = 29.950 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-01 BUS B	Total	0.00	5.001	-39.718	7.9	40.031
Bus694	Bus687	2.11	1.612	-16.972	10.5	17.049
SGM-2-03 BUS B	Bus632	0.71	0.839	-2.520	3.0	2.656
SGM-2-03 BUS A	Bus627	0.93	0.954	-3.371	3.5	3.504
SGM-2-01B	Bus625	0.39	0.361	-1.414	3.9	1.460
SGM-2-02A	Bus624	0.42	0.449	-1.525	3.4	1.590
Terminal_STG-3	Bus696	1.23	0.786	-13.915	17.7	13.937
SGM-2-01 BUS A	Bus621	0.00	0.000	0.000	9999.0	0.000
Bus624	SGM-2-01 BUS A	0.00	0.449	-1.525	3.4	1.590
Bus625	SGM-2-01 BUS A	0.00	0.361	-1.414	3.9	1.460
Bus627	SGM-2-01 BUS A	0.00	0.954	-3.371	3.5	3.504
Bus632	SGM-2-01 BUS A	0.00	0.839	-2.520	3.0	2.656
Bus687	SGM-2-01 BUS A	0.00	1.612	-16.972	10.5	17.049
Bus696	SGM-2-01 BUS A	0.00	0.786	-13.915	17.7	13.937
SGM-2-01 BUS A	SGM-2-01 BUS B	0.00	5.001	-39.718	7.9	40.031

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 79
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-02A**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 85.420 kA Method C
Steady State = 28.009 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-02A	Total	0.00	6.135	-36.309	5.9	36.823
Bus613	SGM-2-02A	0.25	0.250	-0.601	2.4	0.651
Bus624	SGM-2-02A	9.36	5.686	-34.777	6.1	35.239
Bus1005	SGM-2-02A	5.81	0.073	-0.324	4.4	0.332
Bus1009	SGM-2-02A	4.11	0.126	-0.608	4.8	0.620

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 80
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-03 BUS A**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 86.487 kA Method C
Steady State = 28.009 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-03 BUS A	Total	0.00	6.081	-36.667	6.0	37.167
Bus627	SGM-2-03 BUS A	8.94	5.129	-33.262	6.5	33.655
Bus1298	SGM-2-03 BUS A	0.45	0.473	-1.075	2.3	1.174
Bus1300	SGM-2-03 BUS A	1.12	0.236	-1.333	5.6	1.354
Bus1305	SGM-2-03 BUS A	0.10	0.097	-0.195	2.0	0.218
Bus1318	SGM-2-03 BUS A	1.82	0.105	-0.564	5.4	0.573
Bus1322	SGM-2-03 BUS A	0.76	0.042	-0.237	5.7	0.241
Bus48	SGM-2-03 BUS A	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 81
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-03 BUS B**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 85.968 kA Method C
Steady State = 28.009 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-2-03 BUS B	Total	0.00	6.127	-36.510	6.0	37.020
Bus632	SGM-2-03 BUS B	9.13	5.287	-33.971	6.4	34.380
Bus1293	SGM-2-03 BUS B	0.44	0.476	-1.032	2.2	1.137
Bus1328	SGM-2-03 BUS B	0.14	0.139	-0.275	2.0	0.308
Bus51	SGM-2-03 BUS B	0.00	0.000	0.000	999.9	0.000
Bus1335	SGM-2-03 BUS B	1.82	0.105	-0.564	5.4	0.573
Bus1337	SGM-2-03 BUS B	0.80	0.044	-0.249	5.7	0.253
Bus1342	SGM-2-03 BUS B	1.35	0.076	-0.418	5.5	0.425

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 82
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-3-01 BUS A

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 47.907 kA Method C
Steady State = 5.938 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-3-01 BUS A	Total	0.00	4.194	-20.694	4.9	21.115
SGM-4-01 BUS A	Bus65	0.44	0.713	-2.927	4.1	3.013
Bus20	Bus877	0.00	0.000	0.000	999.9	0.000
SGM-4-01 BUS B	Bus74	0.17	0.343	-1.075	3.1	1.128
Bus19	Bus887	4.50	0.936	-10.350	11.1	10.392
Bus45	Bus822	0.52	0.938	-2.605	2.8	2.769
Bus875	Bus848	0.74	1.264	-3.737	3.0	3.945
Bus65	SGM-3-01 BUS A	0.00	0.713	-2.927	4.1	3.013
Bus74	SGM-3-01 BUS B	0.00	0.343	-1.075	3.1	1.128
Bus822	SGM-3-01 BUS A	0.00	0.938	-2.605	2.8	2.769
Bus848	SGM-3-01 BUS A	0.00	1.264	-3.737	3.0	3.945
SGM-3-01 BUS A	Bus877	0.00	0.000	0.000	9999.0	0.000
Bus887	SGM-3-01 BUS A	0.00	0.936	-10.350	11.1	10.392
SGM-3-01 BUS B	SGM-3-01 BUS A	0.00	0.343	-1.075	3.1	1.128

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 83
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-3-01 BUS B

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 47.907 kA Method C
Steady State = 5.938 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-3-01 BUS B	Total	0.00	4.194	-20.694	4.9	21.115
SGM-4-01 BUS B	Bus74	0.17	0.343	-1.075	3.1	1.128
SGM-4-01 BUS A	Bus65	0.44	0.713	-2.927	4.1	3.013
Bus20	Bus877	0.00	0.000	0.000	999.9	0.000
Bus19	Bus887	4.50	0.936	-10.350	11.1	10.392
Bus45	Bus822	0.52	0.938	-2.605	2.8	2.769
Bus875	Bus848	0.74	1.264	-3.737	3.0	3.945
Bus65	SGM-3-01 BUS A	0.00	0.713	-2.927	4.1	3.013
Bus74	SGM-3-01 BUS B	0.00	0.343	-1.075	3.1	1.128
Bus822	SGM-3-01 BUS A	0.00	0.938	-2.605	2.8	2.769
Bus848	SGM-3-01 BUS A	0.00	1.264	-3.737	3.0	3.945
SGM-3-01 BUS A	Bus877	0.00	0.000	0.000	9999.0	0.000
Bus887	SGM-3-01 BUS A	0.00	0.936	-10.350	11.1	10.392
SGM-3-01 BUS A	SGM-3-01 BUS B	0.00	3.851	-19.619	5.1	19.994

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 84
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-5-01 BUS B**

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 108.121 kA Method C
Steady State = 0.000 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-01 BUS B	Total	0.00	4.351	-44.359	10.2	44.572
Terminal_STG-4	SGM-5-01 BUS B	2.34	0.277	-4.949	17.9	4.957
SGM-5-02-BUS B	SGM-5-01 BUS B	0.03	0.221	-0.604	2.7	0.643
SGM-5-03 BUS B	SGM-5-01 BUS B	0.16	0.514	-1.644	3.2	1.723
Bus25	SGM-5-01 BUS B	27.82	0.318	-5.821	18.3	5.829
Bus72	SGM-5-01 BUS A	0.53	0.683	-5.635	8.2	5.676
SGM-5-02-BUS A	SGM-5-01 BUS A	0.25	0.834	-5.205	6.2	5.271
Bus16	SGM-5-01 BUS A	1.61	0.530	-17.070	32.2	17.078
SGM-5-03 BUS A	SGM-5-01 BUS A	0.34	0.975	-3.433	3.5	3.568
SGM-5-01 BUS A	SGM-5-01 BUS B	0.00	3.022	-31.342	10.4	31.487

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 85
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-02-BUS A

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 110.125 kA Method C
Steady State = 33.940 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-02-BUS A	Total	0.00	4.438	-43.663	9.8	43.888
SGM-5-01 BUS A	SGM-5-02-BUS A	1.82	3.604	-38.445	10.7	38.613
Bus68	SGM-5-02-BUS A	1.19	0.048	-0.209	4.4	0.214
Bus69	SGM-5-02-BUS A	2.02	0.078	-0.417	5.3	0.424
Bus70	SGM-5-02-BUS A	1.45	0.040	-0.174	4.3	0.179
Bus71	SGM-5-02-BUS A	1.44	0.040	-0.174	4.3	0.179
Bus276	SGM-5-02-BUS A	0.14	0.256	-0.697	2.7	0.742
Bus80	SGM-5-02-BUS A	1.72	0.194	-0.888	4.6	0.909
Bus82	SGM-5-02-BUS A	0.00	0.000	0.000	999.9	0.000
Bus83	SGM-5-02-BUS A	0.86	0.033	-0.140	4.2	0.143
Bus84	SGM-5-02-BUS A	1.03	0.039	-0.175	4.4	0.179
Bus86	SGM-5-02-BUS A	2.54	0.106	-2.345	22.1	2.348

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 86
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-5-02-BUS B**

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 109.555 kA Method C
Steady State = 33.868 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-02-BUS B	Total	0.00	4.451	-43.473	9.8	43.700
SGM-5-01 BUS B	SGM-5-02-BUS B	2.03	4.230	-42.869	10.1	43.078
Bus322	SGM-5-02-BUS B	0.12	0.221	-0.604	2.7	0.643
Bus57	SGM-5-02-BUS B	0.00	0.000	0.000	999.9	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 87
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-03 BUS A

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 107.486 kA Method C
Steady State = 33.353 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-03 BUS A	Total	0.00	4.555	-42.853	9.4	43.095
Bus26	SGM-5-03 BUS A	2.23	0.054	-0.229	4.2	0.235
SGM-5-01 BUS A	SGM-5-03 BUS A	3.73	3.577	-39.409	11.0	39.571
Bus1181	SGM-5-03 BUS A	3.77	0.124	-0.609	4.9	0.622
Bus1182	SGM-5-03 BUS A	0.00	0.000	0.000	999.9	0.000
Bus1183	SGM-5-03 BUS A	2.94	0.111	-0.566	5.1	0.577
Bus1184	SGM-5-03 BUS A	1.71	0.036	-0.153	4.3	0.157
Bus1185	SGM-5-03 BUS A	1.56	0.053	-0.230	4.3	0.236
Bus1187	SGM-5-03 BUS A	2.31	0.065	-0.256	4.0	0.264
Bus1198	SGM-5-03 BUS A	0.12	0.234	-0.598	2.6	0.642
Bus1208	SGM-5-03 BUS A	0.13	0.260	-0.631	2.4	0.682
Bus1223	SGM-5-03 BUS A	2.06	0.041	-0.173	4.2	0.178

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 88
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-5-03 BUS B**

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 107.101 kA Method C
Steady State = 33.353 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-03 BUS B	Total	0.00	4.546	-42.706	9.4	42.948
SGM-5-01 BUS B	SGM-5-03 BUS B	3.89	4.031	-41.059	10.2	41.257
Bus1204	SGM-5-03 BUS B	0.04	0.093	-0.181	1.9	0.203
Bus1192	SGM-5-03 BUS B	0.00	0.000	0.000	999.9	0.000
Bus1210	SGM-5-03 BUS B	0.10	0.215	-0.502	2.3	0.546
Bus1214	SGM-5-03 BUS B	3.69	0.121	-0.596	4.9	0.608
Bus1219	SGM-5-03 BUS B	1.50	0.053	-0.230	4.3	0.236
Bus1197	SGM-5-03 BUS B	1.99	0.033	-0.139	4.2	0.143

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 89
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: Terminal_MEA

Nominal kV = 69.000
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 90.812 kA Method C
Steady State = 40.843 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
Terminal_MEA	Total	0.00	7.917	-40.273	5.1	41.044
Bus698	Terminal_MEA	0.02	0.073	-1.050	14.4	1.052
MEA2	Terminal_MEA	100.00	7.845	-39.223	5.0	40.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 90
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-3-02A**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 46.387 kA Method C
Steady State = 5.923 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-3-02A	Total	0.00	4.246	-20.188	4.8	20.630
Bus7	SGM-3-02A	5.19	0.085	-0.386	4.6	0.396
Bus11	SGM-3-02A	2.78	0.041	-0.208	5.1	0.212
Bus825	SGM-3-02A	0.00	0.000	0.000	999.9	0.000
Bus1066	SGM-3-02A	7.35	0.132	-0.544	4.1	0.560
Bus1067	SGM-3-02A	3.44	0.052	-0.257	4.9	0.262
Bus1	SGM-3-02A	4.39	0.036	-0.089	2.4	0.096
Bus848	Bus875	3.12	2.976	-16.423	5.5	16.690
Bus36	Bus875	0.28	0.412	-0.956	2.3	1.041
Bus31	Bus875	0.71	0.513	-1.326	2.6	1.422
Bus875	SGM-3-02A	0.00	3.901	-18.704	4.8	19.107

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 91
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-3-02B**

Nominal kV = 3.200
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 46.159 kA Method C
Steady State = 5.923 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-3-02B	Total	0.00	4.241	-20.099	4.7	20.541
Bus27	SGM-3-02B	4.48	0.071	-0.334	4.7	0.341
Bus29	SGM-3-02B	2.78	0.041	-0.208	5.1	0.212
Bus1081	SGM-3-02B	0.00	0.000	0.000	999.9	0.000
Bus1084	SGM-3-02B	0.00	0.000	0.000	999.9	0.000
Bus33	Bus45	0.24	0.375	-0.979	2.6	1.049
Bus37	Bus45	0.32	0.455	-1.098	2.4	1.189
Bus822	Bus45	3.32	3.299	-17.480	5.3	17.788
Bus45	SGM-3-02B	0.00	4.129	-19.557	4.7	19.988

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 92
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-01 BUS A

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 112.369 kA Method C
Steady State = 24.490 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-01 BUS A	Total	0.00	4.351	-44.359	10.2	44.572
Bus72	SGM-5-01 BUS A	0.53	0.683	-5.635	8.2	5.676
SGM-5-02-BUS A	SGM-5-01 BUS A	0.25	0.834	-5.205	6.2	5.271
Bus16	SGM-5-01 BUS A	1.61	0.530	-17.070	32.2	17.078
SGM-5-03 BUS A	SGM-5-01 BUS A	0.34	0.975	-3.433	3.5	3.568
Terminal_STG-4	SGM-5-01 BUS B	2.34	0.277	-4.949	17.9	4.957
SGM-5-02-BUS B	SGM-5-01 BUS B	0.03	0.221	-0.604	2.7	0.643
SGM-5-03 BUS B	SGM-5-01 BUS B	0.16	0.514	-1.644	3.2	1.723
Bus25	SGM-5-01 BUS B	27.82	0.318	-5.821	18.3	5.829
SGM-5-01 BUS B	SGM-5-01 BUS A	0.00	1.329	-13.018	9.8	13.085

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 93
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-01 BUS B

Nominal kV = 6.600
Voltage c Factor = 1.10 (User-Defined)
Peak Value = 112.369 kA Method C
Steady State = 24.490 kA rms

Contribution		Voltage & Initial Symmetrical Current (rms)				
From Bus ID	To Bus ID	% V From Bus	kA Real	kA Imaginary	X/R Ratio	kA Magnitude
SGM-5-01 BUS B	Total	0.00	4.351	-44.359	10.2	44.572
Terminal_STG-4	SGM-5-01 BUS B	2.34	0.277	-4.949	17.9	4.957
SGM-5-02-BUS B	SGM-5-01 BUS B	0.03	0.221	-0.604	2.7	0.643
SGM-5-03 BUS B	SGM-5-01 BUS B	0.16	0.514	-1.644	3.2	1.723
Bus25	SGM-5-01 BUS B	27.82	0.318	-5.821	18.3	5.829
Bus72	SGM-5-01 BUS A	0.53	0.683	-5.635	8.2	5.676
SGM-5-02-BUS A	SGM-5-01 BUS A	0.25	0.834	-5.205	6.2	5.271
Bus16	SGM-5-01 BUS A	1.61	0.530	-17.070	32.2	17.078
SGM-5-03 BUS A	SGM-5-01 BUS A	0.34	0.975	-3.433	3.5	3.568
SGM-5-01 BUS A	SGM-5-01 BUS B	0.00	3.022	-31.342	10.4	31.487

Page: 94
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Breaking and DC Fault Current (kA)
(First Level Contributions)
Based on Maximum Through Fault Current

Nominal kV = 0.400 I" k = 19.53

<u>Td (S)</u>	<u>lb sym</u>	<u>lb asym</u>	<u>ldc</u>	<u>Td (S)</u>	<u>lb sym</u>	<u>lb asym</u>	<u>ldc</u>	<u>Td (S)</u>	<u>lb sym</u>	<u>lb asym</u>	<u>ldc</u>
From ID: Lube oil CF4											
0.30	18.197	18.197	0.000								
From ID: Lube oil Pump											
From ID: Oil mist-1											
From ID: TM-GT1											
From ID: Vent.1 unit1											
From ID: Vent.1 unit2											
From ID: Vent.2 unit 1											
From ID: Vent.2 unit2											
From ID: Wash Pump											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 95
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG1 MCC.1-INT

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable7											
0.01	18.252	18.367	2.050	0.02	18.227	18.228	0.180	0.03	18.203	18.203	0.015
0.04	18.180	18.180	0.001	0.05	18.157	18.157	0.000	0.06	18.146	18.146	0.000
0.07	18.135	18.135	0.000	0.08	18.123	18.123	0.000	0.09	18.121	18.121	0.000
From ID: Lube oil CF1											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
From ID: Lube oil CF2											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
From ID: Lube oil CF3											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
From ID: Lube oil CF4											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
From ID: Lube oil Pump											
0.01	18.851	18.976	2.171	0.02	18.751	18.752	0.191	0.03	18.655	18.655	0.016
0.04	18.565	18.565	0.001	0.05	18.480	18.480	0.000	0.06	18.438	18.438	0.000
0.07	18.396	18.396	0.000	0.08	18.356	18.356	0.000				
From ID: Oil mist-1											
0.01	18.884	19.009	2.173	0.02	18.786	18.787	0.191	0.03	18.692	18.692	0.016
0.04	18.604	18.604	0.001	0.05	18.521	18.521	0.000	0.06	18.479	18.479	0.000
0.07	18.438	18.438	0.000	0.08	18.399	18.399	0.000	0.09	18.369	18.369	0.000
From ID: TM-GT1											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
From ID: Vent.1 unit1											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 96
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG1 MCC.1-INT

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Vent.1 unit2											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
From ID: Vent.2 unit 1											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
From ID: Vent.2 unit2											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
From ID: Wash Pump											
0.01	18.822	18.946	2.168	0.02	18.722	18.723	0.190	0.03	18.626	18.626	0.016
0.04	18.536	18.536	0.001	0.05	18.451	18.451	0.000	0.06	18.408	18.408	0.000
0.07	18.367	18.367	0.000	0.08	18.327	18.327	0.000	0.09	18.297	18.297	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 97
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: 4200-MD-001

Nominal kV = 0.400 I"k = 45.87

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable10											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable11											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable19											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable163											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable205											
0.01	46.342	58.376	35.498	0.02	46.012	50.292	20.303	0.03	45.697	47.039	11.154
0.04	45.400	45.812	6.128	0.05	45.122	45.278	3.755	0.06	44.987	45.036	2.109
0.07	44.856	44.871	1.184	0.08	44.729	44.734	0.665	0.09	44.607	44.609	0.373
0.10	44.490	44.491	0.237	0.15	44.288	44.288	0.014	0.20	44.100	44.100	0.001
0.25	43.925	43.925	0.000	0.30	43.931	43.931	0.000				
From ID: Cable2451											
0.01	41.574	51.873	31.023	0.02	41.574	45.202	17.744	0.03	41.574	42.701	9.748
0.04	41.574	41.917	5.355	0.05	41.574	41.703	3.282	0.06	41.574	41.614	1.843
0.07	41.574	41.587	1.035	0.08	41.574	41.578	0.581	0.09	41.574	41.575	0.326
0.10	41.574	41.574	0.207	0.15	41.574	41.574	0.012	0.20	41.574	41.574	0.001
0.25	41.574	41.574	0.000	0.30	41.574	41.574	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 98
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: 4200-MD-001

Nominal kV = 0.400 I"k = 45.87

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable317											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable37											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable40											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				
From ID: Cable69											
0.01	45.657	57.353	34.710	0.02	45.384	49.536	19.853	0.03	45.122	46.421	10.906
0.04	44.874	45.273	5.992	0.05	44.642	44.793	3.672	0.06	44.529	44.577	2.062
0.07	44.420	44.435	1.158	0.08	44.314	44.319	0.650	0.09	44.213	44.214	0.365
0.10	44.114	44.115	0.232	0.15	43.940	43.940	0.014	0.20	43.777	43.777	0.001
0.25	43.626	43.626	0.000	0.30	43.628	43.628	0.000				
From ID: Cable7											
0.01	45.657	57.353	34.710	0.02	45.384	49.536	19.853	0.03	45.122	46.421	10.906
0.04	44.874	45.273	5.992	0.05	44.642	44.793	3.672	0.06	44.529	44.577	2.062
0.07	44.420	44.435	1.158	0.08	44.314	44.319	0.650	0.09	44.213	44.214	0.365
0.10	44.114	44.115	0.232	0.15	43.940	43.940	0.014	0.20	43.777	43.777	0.001
0.25	43.626	43.626	0.000	0.30	43.628	43.628	0.000				
From ID: Cable9											
0.01	46.369	58.421	35.538	0.02	46.036	50.324	20.326	0.03	45.719	47.063	11.167
0.04	45.420	45.832	6.134	0.05	45.140	45.296	3.760	0.06	45.004	45.053	2.111
0.07	44.872	44.887	1.185	0.08	44.744	44.749	0.666	0.09	44.622	44.623	0.374
0.10	44.504	44.504	0.237	0.15	44.301	44.301	0.014	0.20	44.112	44.112	0.001
0.25	43.937	43.937	0.000	0.30	43.943	43.943	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 99
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: 4200-MD-001

Nominal kV = 0.400 I"k = 45.87

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: FW-A											
0.01	44.819	56.397	34.232	0.02	44.589	48.698	19.579	0.03	44.369	45.654	10.756
0.04	44.163	44.556	5.909	0.05	43.970	44.118	3.621	0.06	43.874	43.921	2.033
0.07	43.782	43.797	1.142	0.08	43.693	43.698	0.641	0.09	43.608	43.609	0.360
0.10	43.526	43.526	0.229	0.15	43.390	43.390	0.014	0.20	43.264	43.264	0.001
0.25	43.147	43.147	0.000	0.30	43.155	43.155	0.000				
From ID: FW-B											
0.01	44.819	56.397	34.232	0.02	44.589	48.698	19.579	0.03	44.369	45.654	10.756
0.04	44.163	44.556	5.909	0.05	43.970	44.118	3.621	0.06	43.874	43.921	2.033
0.07	43.782	43.797	1.142	0.08	43.693	43.698	0.641	0.09	43.608	43.609	0.360
0.10	43.526	43.526	0.229	0.15	43.390	43.390	0.014	0.20	43.264	43.264	0.001
0.25	43.147	43.147	0.000	0.30	43.155	43.155	0.000				
From ID: Gas comp A											
0.01	46.324	58.354	35.485	0.02	45.996	50.275	20.296	0.03	45.683	47.024	11.150
0.04	45.388	45.800	6.125	0.05	45.112	45.268	3.754	0.06	44.978	45.027	2.108
0.07	44.848	44.863	1.184	0.08	44.722	44.727	0.665	0.09	44.601	44.603	0.373
0.10	44.485	44.486	0.237	0.15	44.285	44.285	0.014	0.20	44.098	44.098	0.001
0.25	43.925	43.925	0.000	0.30	43.931	43.931	0.000				
From ID: Gas comp B											
0.01	46.324	58.354	35.485	0.02	45.996	50.275	20.296	0.03	45.683	47.024	11.150
0.04	45.388	45.800	6.125	0.05	45.112	45.268	3.754	0.06	44.978	45.027	2.108
0.07	44.848	44.863	1.184	0.08	44.722	44.727	0.665	0.09	44.601	44.603	0.373
0.10	44.485	44.486	0.237	0.15	44.285	44.285	0.014	0.20	44.098	44.098	0.001
0.25	43.925	43.925	0.000	0.30	43.931	43.931	0.000				
From ID: HVAC											
0.01	46.209	58.222	35.419	0.02	45.877	50.150	20.258	0.03	45.560	46.900	11.129
0.04	45.261	45.672	6.114	0.05	44.982	45.138	3.747	0.06	44.845	44.895	2.104
0.07	44.714	44.729	1.181	0.08	44.586	44.591	0.663	0.09	44.464	44.465	0.372
0.10	44.346	44.347	0.237	0.15	44.143	44.143	0.014	0.20	43.954	43.954	0.001
0.25	43.780	43.780	0.000	0.30	43.785	43.785	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 100
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **AC DB.**

Nominal kV = 0.400 I"k = 28.60

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable10											
0.01	28.352	28.782	4.957	0.02	28.290	28.298	0.683	0.03	28.229	28.229	0.089
0.04	28.170	28.170	0.012	0.05	28.114	28.114	0.002	0.06	28.086	28.086	0.000
0.07	28.058	28.058	0.000	0.08	28.031	28.031	0.000	0.09	28.005	28.005	0.000
0.10	27.979	27.979	0.000	0.15	27.934	27.934	0.000	0.20	27.891	27.891	0.000
0.25	27.850	27.850	0.000	0.30	27.851	27.851	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 101
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **BOP MCC**

Nominal kV = 0.400 I"k = 20.04

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: AUX.FD FAN											
0.01	19.893	20.115	2.979	0.02	19.863	19.866	0.343	0.03	19.833	19.833	0.038
0.04	19.803	19.803	0.004	0.05	19.774	19.774	0.001	0.06	19.760	19.760	0.000
0.07	19.745	19.745	0.000	0.08	19.730	19.730	0.000	0.09	19.716	19.716	0.000
0.10	19.702	19.702	0.000	0.15	19.677	19.677	0.000	0.20	19.653	19.653	0.000
0.25	19.630	19.630	0.000	0.30	19.631	19.631	0.000				
From ID: BDP-A											
0.01	19.898	20.120	2.979	0.02	19.868	19.871	0.343	0.03	19.839	19.839	0.038
0.04	19.810	19.810	0.004	0.05	19.782	19.782	0.001	0.06	19.768	19.768	0.000
0.07	19.753	19.753	0.000	0.08	19.739	19.739	0.000	0.09	19.725	19.725	0.000
0.10	19.711	19.711	0.000	0.15	19.687	19.687	0.000	0.20	19.663	19.663	0.000
0.25	19.640	19.640	0.000	0.30	19.641	19.641	0.000				
From ID: Cable205											
0.01	19.881	20.102	2.973	0.02	19.854	19.857	0.342	0.03	19.827	19.827	0.038
0.04	19.800	19.800	0.004	0.05	19.773	19.773	0.001	0.06	19.760	19.760	0.000
0.07	19.746	19.746	0.000	0.08	19.733	19.733	0.000	0.09	19.720	19.720	0.000
0.10	19.707	19.707	0.000	0.15	19.683	19.683	0.000	0.20	19.660	19.660	0.000
0.25	19.638	19.638	0.000	0.30	19.638	19.638	0.000				
From ID: Cable22											
0.01	19.902	20.124	2.981	0.02	19.871	19.874	0.343	0.03	19.841	19.841	0.038
0.04	19.811	19.811	0.004	0.05	19.782	19.782	0.001	0.06	19.768	19.768	0.000
0.07	19.753	19.753	0.000	0.08	19.738	19.738	0.000	0.09	19.724	19.724	0.000
0.10	19.710	19.710	0.000	0.15	19.685	19.685	0.000	0.20	19.661	19.661	0.000
0.25	19.638	19.638	0.000	0.30	19.639	19.639	0.000				
From ID: SWP-A											
0.01	19.898	20.120	2.979	0.02	19.868	19.871	0.343	0.03	19.839	19.839	0.038
0.04	19.810	19.810	0.004	0.05	19.782	19.782	0.001	0.06	19.768	19.768	0.000
0.07	19.753	19.753	0.000	0.08	19.739	19.739	0.000	0.09	19.725	19.725	0.000
0.10	19.711	19.711	0.000	0.15	19.687	19.687	0.000	0.20	19.663	19.663	0.000
0.25	19.640	19.640	0.000	0.30	19.641	19.641	0.000				
From ID: SWP-R											
0.01	19.898	20.120	2.979	0.02	19.868	19.871	0.343	0.03	19.839	19.839	0.038
0.04	19.810	19.810	0.004	0.05	19.782	19.782	0.001	0.06	19.768	19.768	0.000
0.07	19.753	19.753	0.000	0.08	19.739	19.739	0.000	0.09	19.725	19.725	0.000
0.10	19.711	19.711	0.000	0.15	19.687	19.687	0.000	0.20	19.663	19.663	0.000
0.25	19.640	19.640	0.000	0.30	19.641	19.641	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 102
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: BOP MCC

Nominal kV = 0.400 I"k = 20.04

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 103
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **BUP-A**

Nominal kV = 6.600 I"k = 13.21

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable2306											
0.01	11.749	18.337	14.078	0.02	11.338	16.815	12.418	0.03	10.886	14.962	10.264
0.04	10.395	13.418	8.484	0.05	9.893	13.068	8.537	0.06	9.684	12.151	7.340
0.07	9.473	11.383	6.310	0.08	9.262	10.734	5.425	0.09	9.051	10.182	4.664
0.10	8.839	10.165	5.020	0.15	8.469	8.871	2.638	0.20	8.100	8.218	1.387
0.25	7.733	7.767	0.729	0.30	7.520	7.529	0.383				
From ID: Cable2312											
0.01	8.617	13.386	10.244	0.02	8.333	12.292	9.036	0.03	8.025	10.963	7.469
0.04	7.700	9.869	6.173	0.05	7.360	9.631	6.212	0.06	7.229	8.988	5.341
0.07	7.097	8.453	4.592	0.08	6.963	8.004	3.948	0.09	6.828	7.625	3.394
0.10	6.690	7.622	3.653	0.15	6.468	6.747	1.920	0.20	6.240	6.321	1.009
0.25	6.009	6.032	0.530	0.30	5.798	5.805	0.279				
From ID: GAS COMP-A											
0.01	11.779	18.420	14.161	0.02	11.371	16.892	12.492	0.03	10.928	15.034	10.325
0.04	10.444	13.488	8.534	0.05	9.951	13.144	8.588	0.06	9.745	12.226	7.383
0.07	9.538	11.457	6.348	0.08	9.330	10.809	5.457	0.09	9.122	10.258	4.692
0.10	8.914	10.245	5.050	0.15	8.553	8.956	2.654	0.20	8.192	8.310	1.395
0.25	7.834	7.868	0.733	0.30	7.622	7.632	0.385				
From ID: GTG-1											
0.01	8.079	12.521	9.565	0.02	7.832	11.512	8.438	0.03	7.564	10.288	6.974
0.04	7.276	9.283	5.765	0.05	6.972	9.070	5.801	0.06	6.859	8.481	4.987
0.07	6.744	7.991	4.288	0.08	6.626	7.582	3.686	0.09	6.506	7.237	3.169
0.10	6.384	7.238	3.411	0.15	6.191	6.445	1.793	0.20	5.990	6.064	0.942
0.25	5.784	5.805	0.495	0.30	5.573	5.580	0.260				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 104
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: BUP-B

Nominal kV = 6.600 I"k = 20.60

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable2309											
0.01	19.886	31.243	24.098	0.02	19.599	28.394	20.545	0.03	19.272	25.867	17.254
0.04	18.925	23.835	14.490	0.05	18.560	22.613	12.918	0.06	18.419	21.443	10.979
0.07	18.276	20.520	9.331	0.08	18.130	19.789	7.931	0.09	17.989	19.210	6.740
0.10	17.839	18.957	6.415	0.15	17.588	17.844	3.010	0.20	17.327	17.384	1.413
0.25	17.058	17.071	0.663	0.30	16.844	16.847	0.311				
From ID: Cable96											
0.01	11.570	17.852	13.594	0.02	11.548	16.361	11.590	0.03	11.509	15.073	9.733
0.04	11.468	14.083	8.174	0.05	11.425	13.551	7.288	0.06	11.406	12.979	6.194
0.07	11.387	12.545	5.264	0.08	11.367	12.216	4.474	0.09	11.354	11.974	3.802
0.10	11.334	11.898	3.619	0.15	11.292	11.419	1.698	0.20	11.248	11.276	0.797
0.25	11.199	11.205	0.374	0.30	11.194	11.195	0.175				
From ID: GAS COMP-B											
0.01	19.629	30.832	23.776	0.02	19.364	28.033	20.270	0.03	19.061	25.556	17.023
0.04	18.737	23.568	14.296	0.05	18.394	22.378	12.745	0.06	18.264	21.234	10.832
0.07	18.131	20.334	9.206	0.08	17.995	19.623	7.825	0.09	17.863	19.061	6.650
0.10	17.723	18.819	6.329	0.15	17.491	17.741	2.970	0.20	17.248	17.305	1.394
0.25	16.997	17.009	0.654	0.30	16.783	16.786	0.307				
From ID: GTG-2											
0.01	11.828	18.265	13.918	0.02	11.784	16.723	11.866	0.03	11.721	15.384	9.965
0.04	11.657	14.350	8.369	0.05	11.591	13.785	7.461	0.06	11.562	13.186	6.341
0.07	11.532	12.729	5.389	0.08	11.502	12.381	4.580	0.09	11.479	12.121	3.893
0.10	11.449	12.034	3.705	0.15	11.389	11.521	1.739	0.20	11.325	11.355	0.816
0.25	11.260	11.266	0.383	0.30	11.253	11.255	0.180				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 105
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG1 MCC.1

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable7											
0.01	18.326	18.440	2.050	0.02	18.311	18.312	0.180	0.03	18.296	18.296	0.015
0.04	18.281	18.281	0.001	0.05	18.267	18.267	0.000	0.06	18.259	18.259	0.000
0.07	18.252	18.252	0.000	0.08	18.244	18.244	0.000	0.09	18.245	18.245	0.000
0.10	18.238	18.238	0.000	0.15	18.225	18.225	0.000	0.20	18.212	18.212	0.000
0.25	18.200	18.200	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF1											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF2											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF3											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF4											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000								
From ID: Lube oil Pump											
0.01	18.882	19.006	2.171	0.02	18.786	18.787	0.191	0.03	18.694	18.694	0.016
0.04	18.607	18.607	0.001	0.05	18.526	18.526	0.000	0.06	18.485	18.485	0.000
0.07	18.445	18.445	0.000	0.08	18.407	18.407	0.000	0.09	18.377	18.377	0.000
0.10	18.342	18.342	0.000	0.15	18.288	18.288	0.000	0.20	18.237	18.237	0.000
0.25	18.189	18.189	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 106
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG1 MCC.1

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Oil mist-1											
0.01	18.885	19.010	2.173	0.02	18.788	18.789	0.191	0.03	18.695	18.695	0.016
0.04	18.608	18.608	0.001	0.05	18.525	18.525	0.000	0.06	18.484	18.484	0.000
0.07	18.444	18.444	0.000	0.08	18.405	18.405	0.000	0.09	18.375	18.375	0.000
0.10	18.340	18.340	0.000	0.15	18.285	18.285	0.000	0.20	18.233	18.233	0.000
0.25	18.186	18.186	0.000								
From ID: TM-GT1											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000								
From ID: Vent.1 unit1											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000								
From ID: Vent.1 unit2											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000								
From ID: Vent.2 unit 1											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000								
From ID: Vent.2 unit2											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 107
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **GTG1 MCC.1**

Nominal kV = 0.400 I"k = 19.53

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Wash Pump											
0.01	18.864	18.989	2.168	0.02	18.770	18.771	0.190	0.03	18.679	18.679	0.016
0.04	18.594	18.594	0.001	0.05	18.514	18.514	0.000	0.06	18.473	18.473	0.000
0.07	18.434	18.434	0.000	0.08	18.396	18.396	0.000	0.09	18.368	18.368	0.000
0.10	18.333	18.333	0.000	0.15	18.279	18.279	0.000	0.20	18.229	18.229	0.000
0.25	18.182	18.182	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 108
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG1 MCC.1-INT

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable7											
0.10	18.111	18.111	0.000	0.15	18.093	18.093	0.000	0.20	18.076	18.076	0.000
0.25	18.060	18.060	0.000	0.30	18.061	18.061	0.000				
From ID: Lube oil CF1											
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF2											
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF3											
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF4											
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil Pump											
0.09	18.326	18.326	0.000	0.10	18.289	18.289	0.000	0.15	18.232	18.232	0.000
0.20	18.180	18.180	0.000	0.25	18.130	18.130	0.000	0.30	18.137	18.137	0.000
From ID: Oil mist-1											
0.10	18.333	18.333	0.000	0.15	18.277	18.277	0.000	0.20	18.225	18.225	0.000
0.25	18.177	18.177	0.000	0.30	18.183	18.183	0.000				
From ID: TM-GT1											
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000	0.30	18.196	18.196	0.000				
From ID: Vent.1 unit1											
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent.1 unit2											
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent.2 unit 1											
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent.2 unit2											
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Wash Pump											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 109
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG1 MCC.1-INT

Nominal kV = 0.400 I"k = 19.53

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.10	18.260	18.260	0.000	0.15	18.203	18.203	0.000	0.20	18.151	18.151	0.000
0.25	18.102	18.102	0.000	0.30	18.108	18.108	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 110
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG1 MCC.1-RF

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable7											
0.01	17.861	17.978	2.050	0.02	17.775	17.776	0.180	0.03	17.693	17.693	0.015
0.04	17.616	17.616	0.001	0.05	17.543	17.543	0.000	0.06	17.506	17.506	0.000
0.07	17.471	17.471	0.000	0.08	17.436	17.436	0.000	0.09	17.410	17.410	0.000
0.10	17.379	17.379	0.000	0.15	17.330	17.330	0.000	0.20	17.284	17.284	0.000
0.25	17.241	17.241	0.000	0.30	17.246	17.246	0.000				
From ID: Lube oil CF1											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF2											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF3											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF4											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil Pump											
0.01	18.886	19.010	2.171	0.02	18.790	18.791	0.191	0.03	18.698	18.698	0.016
0.04	18.612	18.612	0.001	0.05	18.530	18.530	0.000	0.06	18.490	18.490	0.000
0.07	18.450	18.450	0.000	0.08	18.412	18.412	0.000	0.09	18.383	18.383	0.000
0.10	18.347	18.347	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 111
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG1 MCC.1-RF

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Oil mist-1											
0.01	18.867	18.992	2.173	0.02	18.767	18.768	0.191	0.03	18.671	18.671	0.016
0.04	18.581	18.581	0.001	0.05	18.497	18.497	0.000	0.06	18.454	18.454	0.000
0.07	18.413	18.413	0.000	0.08	18.373	18.373	0.000	0.09	18.342	18.342	0.000
0.10	18.305	18.305	0.000	0.15	18.249	18.249	0.000	0.20	18.196	18.196	0.000
0.25	18.147	18.147	0.000	0.30	18.154	18.154	0.000				
From ID: TM-GT1											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000	0.30	18.196	18.196	0.000				
From ID: Vent.1 unit1											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent.1 unit2											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent.2 unit 1											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent.2 unit2											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 112
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG1 MCC.1-RF

Nominal kV = 0.400 I"k = 19.53

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Wash Pump											
0.01	18.861	18.985	2.168	0.02	18.766	18.767	0.190	0.03	18.675	18.675	0.016
0.04	18.589	18.589	0.001	0.05	18.509	18.509	0.000	0.06	18.469	18.469	0.000
0.07	18.429	18.429	0.000	0.08	18.392	18.392	0.000	0.09	18.363	18.363	0.000
0.10	18.328	18.328	0.000	0.15	18.274	18.274	0.000	0.20	18.224	18.224	0.000
0.25	18.177	18.177	0.000	0.30	18.183	18.183	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 113
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG2 MCC.2

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable69											
0.01	18.326	18.440	2.050	0.02	18.311	18.312	0.180	0.03	18.296	18.296	0.015
0.04	18.281	18.281	0.001	0.05	18.267	18.267	0.000	0.06	18.259	18.259	0.000
0.07	18.252	18.252	0.000	0.08	18.244	18.244	0.000	0.09	18.245	18.245	0.000
0.10	18.238	18.238	0.000	0.15	18.225	18.225	0.000	0.20	18.212	18.212	0.000
0.25	18.200	18.200	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF.1											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF.2											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF.3											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil CF.4											
0.01	18.884	19.009	2.172	0.02	18.788	18.789	0.191	0.03	18.696	18.696	0.016
0.04	18.609	18.609	0.001	0.05	18.527	18.527	0.000	0.06	18.486	18.486	0.000
0.07	18.447	18.447	0.000	0.08	18.408	18.408	0.000	0.09	18.379	18.379	0.000
0.10	18.343	18.343	0.000	0.15	18.289	18.289	0.000	0.20	18.238	18.238	0.000
0.25	18.191	18.191	0.000	0.30	18.197	18.197	0.000				
From ID: Lube oil Pump.											
0.01	18.882	19.006	2.171	0.02	18.786	18.787	0.191	0.03	18.694	18.694	0.016
0.04	18.607	18.607	0.001	0.05	18.526	18.526	0.000	0.06	18.485	18.485	0.000
0.07	18.445	18.445	0.000	0.08	18.407	18.407	0.000	0.09	18.377	18.377	0.000
0.10	18.342	18.342	0.000	0.15	18.288	18.288	0.000	0.20	18.237	18.237	0.000
0.25	18.189	18.189	0.000	0.30	18.195	18.195	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 114
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG2 MCC.2

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Oil mist-2											
0.01	18.885	19.010	2.173	0.02	18.788	18.789	0.191	0.03	18.695	18.695	0.016
0.04	18.608	18.608	0.001	0.05	18.525	18.525	0.000	0.06	18.484	18.484	0.000
0.07	18.444	18.444	0.000	0.08	18.405	18.405	0.000	0.09	18.375	18.375	0.000
0.10	18.340	18.340	0.000	0.15	18.285	18.285	0.000	0.20	18.233	18.233	0.000
0.25	18.186	18.186	0.000	0.30	18.192	18.192	0.000				
From ID: TM-GTG2											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000	0.30	18.196	18.196	0.000				
From ID: Vent1 unit1											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000	0.30	18.198	18.198	0.000				
From ID: Vent1 unit2											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000	0.30	18.198	18.198	0.000				
From ID: Vent2 unit2											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000	0.30	18.198	18.198	0.000				
From ID: Vent2 unt2											
0.01	18.815	18.939	2.157	0.02	18.729	18.730	0.189	0.03	18.647	18.647	0.016
0.04	18.569	18.569	0.001	0.05	18.496	18.496	0.000	0.06	18.459	18.459	0.000
0.07	18.423	18.423	0.000	0.08	18.389	18.389	0.000	0.09	18.363	18.363	0.000
0.10	18.331	18.331	0.000	0.15	18.282	18.282	0.000	0.20	18.236	18.236	0.000
0.25	18.193	18.193	0.000	0.30	18.198	18.198	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 115
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **GTG2 MCC.2**

Nominal kV = 0.400 I"k = 19.53

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: wase pump											
0.01	18.864	18.989	2.168	0.02	18.770	18.771	0.190	0.03	18.679	18.679	0.016
0.04	18.594	18.594	0.001	0.05	18.514	18.514	0.000	0.06	18.473	18.473	0.000
0.07	18.434	18.434	0.000	0.08	18.396	18.396	0.000	0.09	18.368	18.368	0.000
0.10	18.333	18.333	0.000	0.15	18.279	18.279	0.000	0.20	18.229	18.229	0.000
0.25	18.182	18.182	0.000	0.30	18.188	18.188	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 116
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG2 MCC.2-INT

Nominal kV = 0.400 I"k = 18.52

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable69											
0.01	18.252	18.367	2.050	0.02	18.227	18.228	0.180	0.03	18.203	18.203	0.015
0.04	18.180	18.180	0.001	0.05	18.157	18.157	0.000	0.06	18.146	18.146	0.000
0.07	18.135	18.135	0.000	0.08	18.123	18.123	0.000	0.09	18.121	18.121	0.000
0.10	18.111	18.111	0.000	0.15	18.093	18.093	0.000	0.20	18.076	18.076	0.000
0.25	18.060	18.060	0.000	0.30	18.061	18.061	0.000				
From ID: Lube oil CF.1											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF.2											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF.3											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil CF.4											
0.01	18.890	19.014	2.172	0.02	18.793	18.794	0.191	0.03	18.701	18.701	0.016
0.04	18.614	18.614	0.001	0.05	18.532	18.532	0.000	0.06	18.491	18.491	0.000
0.07	18.451	18.451	0.000	0.08	18.413	18.413	0.000	0.09	18.383	18.383	0.000
0.10	18.348	18.348	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				
From ID: Lube oil Pump.											
0.01	18.851	18.976	2.171	0.02	18.751	18.752	0.191	0.03	18.655	18.655	0.016
0.04	18.565	18.565	0.001	0.05	18.480	18.480	0.000	0.06	18.438	18.438	0.000
0.07	18.396	18.396	0.000	0.08	18.356	18.356	0.000	0.09	18.326	18.326	0.000
0.10	18.289	18.289	0.000	0.15	18.232	18.232	0.000	0.20	18.180	18.180	0.000
0.25	18.130	18.130	0.000	0.30	18.137	18.137	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 117
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG2 MCC.2-INT

Nominal kV = 0.400 I"k = 18.52

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Oil mist-2											
0.01	18.884	19.009	2.173	0.02	18.786	18.787	0.191	0.03	18.692	18.692	0.016
0.04	18.604	18.604	0.001	0.05	18.521	18.521	0.000	0.06	18.479	18.479	0.000
0.07	18.438	18.438	0.000	0.08	18.399	18.399	0.000	0.09	18.369	18.369	0.000
0.10	18.333	18.333	0.000	0.15	18.277	18.277	0.000	0.20	18.225	18.225	0.000
0.25	18.177	18.177	0.000	0.30	18.183	18.183	0.000				
From ID: TM-GTG2											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000	0.30	18.196	18.196	0.000				
From ID: Vent1 unit1											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent1 unit2											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent2 unit2											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				
From ID: Vent2 unt2											
0.01	18.810	18.934	2.157	0.02	18.725	18.725	0.189	0.03	18.643	18.643	0.016
0.04	18.565	18.565	0.001	0.05	18.492	18.492	0.000	0.06	18.456	18.456	0.000
0.07	18.420	18.420	0.000	0.08	18.386	18.386	0.000	0.09	18.360	18.360	0.000
0.10	18.329	18.329	0.000	0.15	18.280	18.280	0.000	0.20	18.234	18.234	0.000
0.25	18.192	18.192	0.000	0.30	18.197	18.197	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 118
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **GTG2 MCC.2-INT**

Nominal kV = 0.400 I"k = 18.52

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: wase pump											
0.01	18.822	18.946	2.168	0.02	18.722	18.723	0.190	0.03	18.626	18.626	0.016
0.04	18.536	18.536	0.001	0.05	18.451	18.451	0.000	0.06	18.408	18.408	0.000
0.07	18.367	18.367	0.000	0.08	18.327	18.327	0.000	0.09	18.297	18.297	0.000
0.10	18.260	18.260	0.000	0.15	18.203	18.203	0.000	0.20	18.151	18.151	0.000
0.25	18.102	18.102	0.000	0.30	18.108	18.108	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 119
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: GTG2 MCC.2-RF

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable69											
0.01	17.861	17.978	2.050	0.02	17.775	17.776	0.180	0.03	17.693	17.693	0.015
0.04	17.616	17.616	0.001	0.05	17.543	17.543	0.000	0.06	17.506	17.506	0.000
0.07	17.471	17.471	0.000	0.08	17.436	17.436	0.000	0.09	17.410	17.410	0.000
0.10	17.379	17.379	0.000	0.15	17.330	17.330	0.000	0.20	17.284	17.284	0.000
0.25	17.241	17.241	0.000	0.30	17.246	17.246	0.000				
From ID: Lube oil CF.1											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF.2											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF.3											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil CF.4											
0.01	18.860	18.985	2.172	0.02	18.760	18.761	0.191	0.03	18.664	18.664	0.016
0.04	18.574	18.574	0.001	0.05	18.490	18.490	0.000	0.06	18.447	18.447	0.000
0.07	18.406	18.406	0.000	0.08	18.366	18.366	0.000	0.09	18.335	18.335	0.000
0.10	18.299	18.299	0.000	0.15	18.242	18.242	0.000	0.20	18.190	18.190	0.000
0.25	18.141	18.141	0.000	0.30	18.147	18.147	0.000				
From ID: Lube oil Pump.											
0.01	18.886	19.010	2.171	0.02	18.790	18.791	0.191	0.03	18.698	18.698	0.016
0.04	18.612	18.612	0.001	0.05	18.530	18.530	0.000	0.06	18.490	18.490	0.000
0.07	18.450	18.450	0.000	0.08	18.412	18.412	0.000	0.09	18.383	18.383	0.000
0.10	18.347	18.347	0.000	0.15	18.293	18.293	0.000	0.20	18.242	18.242	0.000
0.25	18.194	18.194	0.000	0.30	18.200	18.200	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 120
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: GTG2 MCC.2-RF

Nominal kV = 0.400 I"k = 19.53

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Oil mist-2											
0.01	18.867	18.992	2.173	0.02	18.767	18.768	0.191	0.03	18.671	18.671	0.016
0.04	18.581	18.581	0.001	0.05	18.497	18.497	0.000	0.06	18.454	18.454	0.000
0.07	18.413	18.413	0.000	0.08	18.373	18.373	0.000	0.09	18.342	18.342	0.000
0.10	18.305	18.305	0.000	0.15	18.249	18.249	0.000	0.20	18.196	18.196	0.000
0.25	18.147	18.147	0.000	0.30	18.154	18.154	0.000				
From ID: TM-GTG2											
0.01	18.911	19.036	2.178	0.02	18.811	18.812	0.191	0.03	18.715	18.715	0.016
0.04	18.624	18.624	0.001	0.05	18.540	18.540	0.000	0.06	18.497	18.497	0.000
0.07	18.456	18.456	0.000	0.08	18.416	18.416	0.000	0.09	18.385	18.385	0.000
0.10	18.348	18.348	0.000	0.15	18.292	18.292	0.000	0.20	18.239	18.239	0.000
0.25	18.190	18.190	0.000	0.30	18.196	18.196	0.000				
From ID: Vent1 unit1											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent1 unit2											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent2 unit2											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				
From ID: Vent2 unt2											
0.01	18.728	18.852	2.157	0.02	18.629	18.630	0.189	0.03	18.534	18.534	0.016
0.04	18.444	18.444	0.001	0.05	18.361	18.361	0.000	0.06	18.318	18.318	0.000
0.07	18.277	18.277	0.000	0.08	18.238	18.238	0.000	0.09	18.207	18.207	0.000
0.10	18.171	18.171	0.000	0.15	18.115	18.115	0.000	0.20	18.062	18.062	0.000
0.25	18.014	18.014	0.000	0.30	18.020	18.020	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 121
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **GTG2 MCC.2-RF**

Nominal kV = 0.400 I"k = 19.53

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: wase pump											
0.01	18.861	18.985	2.168	0.02	18.766	18.767	0.190	0.03	18.675	18.675	0.016
0.04	18.589	18.589	0.001	0.05	18.509	18.509	0.000	0.06	18.469	18.469	0.000
0.07	18.429	18.429	0.000	0.08	18.392	18.392	0.000	0.09	18.363	18.363	0.000
0.10	18.328	18.328	0.000	0.15	18.274	18.274	0.000	0.20	18.224	18.224	0.000
0.25	18.177	18.177	0.000	0.30	18.183	18.183	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 122
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **GTG-1 DB**

Nominal kV = 0.400 I"k = 0.95

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: TM-GT1											
0.01	0.952	0.952	0.040	0.02	0.952	0.952	0.001	0.03	0.952	0.952	0.000
0.04	0.952	0.952	0.000	0.05	0.952	0.952	0.000	0.06	0.952	0.952	0.000
0.07	0.952	0.952	0.000	0.08	0.952	0.952	0.000	0.09	0.952	0.952	0.000
0.10	0.952	0.952	0.000	0.15	0.952	0.952	0.000	0.20	0.952	0.952	0.000
0.25	0.952	0.952	0.000	0.30	0.952	0.952	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 123
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-101 A											
0.01	45.383	59.147	37.931	0.02	44.460	49.954	22.775	0.03	43.592	45.476	12.954
0.04	42.783	43.413	7.368	0.05	42.038	42.299	4.692	0.06	41.674	41.764	2.729
0.07	41.325	41.356	1.588	0.08	40.991	41.001	0.924	0.09	40.671	40.674	0.537
0.10	40.366	40.367	0.348	0.15	39.868	39.868	0.025	0.20	39.410	39.410	0.002
0.25	38.991	38.991	0.000	0.30	39.020	39.020	0.000				
From ID: 4A-102 A											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-103 A											
0.01	45.555	59.407	38.129	0.02	44.613	50.145	22.894	0.03	43.727	45.625	13.022
0.04	42.902	43.537	7.407	0.05	42.142	42.405	4.716	0.06	41.771	41.861	2.744
0.07	41.414	41.445	1.596	0.08	41.073	41.084	0.929	0.09	40.747	40.750	0.540
0.10	40.436	40.437	0.350	0.15	39.928	39.928	0.025	0.20	39.461	39.461	0.002
0.25	39.033	39.033	0.000	0.30	39.063	39.063	0.000				
From ID: 4A-104 A											
0.01	45.555	59.407	38.129	0.02	44.613	50.145	22.894	0.03	43.727	45.625	13.022
0.04	42.902	43.537	7.407	0.05	42.142	42.405	4.716	0.06	41.771	41.861	2.744
0.07	41.414	41.445	1.596	0.08	41.073	41.084	0.929	0.09	40.747	40.750	0.540
0.10	40.436	40.437	0.350	0.15	39.928	39.928	0.025	0.20	39.461	39.461	0.002
0.25	39.033	39.033	0.000	0.30	39.063	39.063	0.000				
From ID: 4A-105 A											
0.01	45.383	59.147	37.931	0.02	44.460	49.954	22.775	0.03	43.592	45.476	12.954
0.04	42.783	43.413	7.368	0.05	42.038	42.299	4.692	0.06	41.674	41.764	2.729
0.07	41.325	41.356	1.588	0.08	40.991	41.001	0.924	0.09	40.671	40.674	0.537
0.10	40.366	40.367	0.348	0.15	39.868	39.868	0.025	0.20	39.410	39.410	0.002
0.25	38.991	38.991	0.000	0.30	39.020	39.020	0.000				
From ID: 4A-105 B											
0.01	45.383	59.147	37.931	0.02	44.460	49.954	22.775	0.03	43.592	45.476	12.954
0.04	42.783	43.413	7.368	0.05	42.038	42.299	4.692	0.06	41.674	41.764	2.729
0.07	41.325	41.356	1.588	0.08	40.991	41.001	0.924	0.09	40.671	40.674	0.537
0.10	40.366	40.367	0.348	0.15	39.868	39.868	0.025	0.20	39.410	39.410	0.002
0.25	38.991	38.991	0.000	0.30	39.020	39.020	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 124
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-105 C											
0.01	45.383	59.147	37.931	0.02	44.460	49.954	22.775	0.03	43.592	45.476	12.954
0.04	42.783	43.413	7.368	0.05	42.038	42.299	4.692	0.06	41.674	41.764	2.729
0.07	41.325	41.356	1.588	0.08	40.991	41.001	0.924	0.09	40.671	40.674	0.537
0.10	40.366	40.367	0.348	0.15	39.868	39.868	0.025	0.20	39.410	39.410	0.002
0.25	38.991	38.991	0.000	0.30	39.020	39.020	0.000				
From ID: 4A-106 A											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-108 A											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-109 A											
0.01	45.585	59.452	38.165	0.02	44.640	50.178	22.915	0.03	43.751	45.652	13.034
0.04	42.924	43.559	7.413	0.05	42.162	42.425	4.720	0.06	41.789	41.879	2.746
0.07	41.432	41.463	1.598	0.08	41.090	41.100	0.929	0.09	40.762	40.766	0.541
0.10	40.450	40.452	0.351	0.15	39.942	39.942	0.025	0.20	39.473	39.473	0.002
0.25	39.045	39.045	0.000	0.30	39.075	39.075	0.000				
From ID: 4A-110 A											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001A											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 125
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-4001B											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001C											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001D											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001E											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001F											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4001G											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 126
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-4001H											
0.01	45.458	59.259	38.016	0.02	44.526	50.036	22.825	0.03	43.650	45.540	12.983
0.04	42.834	43.466	7.384	0.05	42.082	42.344	4.702	0.06	41.715	41.805	2.735
0.07	41.363	41.393	1.591	0.08	41.025	41.035	0.926	0.09	40.702	40.706	0.539
0.10	40.394	40.396	0.349	0.15	39.892	39.892	0.025	0.20	39.430	39.430	0.002
0.25	39.006	39.006	0.000	0.30	39.036	39.036	0.000				
From ID: 4A-4003A											
0.01	45.555	59.407	38.129	0.02	44.613	50.145	22.894	0.03	43.727	45.625	13.022
0.04	42.902	43.537	7.407	0.05	42.142	42.405	4.716	0.06	41.771	41.861	2.744
0.07	41.414	41.445	1.596	0.08	41.073	41.084	0.929	0.09	40.747	40.750	0.540
0.10	40.436	40.437	0.350	0.15	39.928	39.928	0.025	0.20	39.461	39.461	0.002
0.25	39.033	39.033	0.000	0.30	39.063	39.063	0.000				
From ID: 4A-4004A											
0.01	45.146	58.803	37.679	0.02	44.251	49.699	22.623	0.03	43.410	45.277	12.868
0.04	42.626	43.250	7.319	0.05	41.904	42.163	4.660	0.06	41.552	41.640	2.711
0.07	41.213	41.243	1.577	0.08	40.889	40.899	0.918	0.09	40.579	40.582	0.534
0.10	40.283	40.285	0.346	0.15	39.802	39.802	0.024	0.20	39.360	39.360	0.002
0.25	38.954	38.954	0.000	0.30	38.983	38.983	0.000				
From ID: 4A-4004B											
0.01	45.146	58.803	37.679	0.02	44.251	49.699	22.623	0.03	43.410	45.277	12.868
0.04	42.626	43.250	7.319	0.05	41.904	42.163	4.660	0.06	41.552	41.640	2.711
0.07	41.213	41.243	1.577	0.08	40.889	40.899	0.918	0.09	40.579	40.582	0.534
0.10	40.283	40.285	0.346	0.15	39.802	39.802	0.024	0.20	39.360	39.360	0.002
0.25	38.954	38.954	0.000	0.30	38.983	38.983	0.000				
From ID: 4A-4004C											
0.01	45.146	58.803	37.679	0.02	44.251	49.699	22.623	0.03	43.410	45.277	12.868
0.04	42.626	43.250	7.319	0.05	41.904	42.163	4.660	0.06	41.552	41.640	2.711
0.07	41.213	41.243	1.577	0.08	40.889	40.899	0.918	0.09	40.579	40.582	0.534
0.10	40.283	40.285	0.346	0.15	39.802	39.802	0.024	0.20	39.360	39.360	0.002
0.25	38.954	38.954	0.000	0.30	38.983	38.983	0.000				
From ID: 4J-4001A											
0.01	45.645	59.541	38.231	0.02	44.697	50.246	22.955	0.03	43.805	45.709	13.056
0.04	42.974	43.611	7.426	0.05	42.209	42.473	4.729	0.06	41.836	41.926	2.751
0.07	41.477	41.508	1.600	0.08	41.134	41.145	0.931	0.09	40.806	40.809	0.542
0.10	40.493	40.494	0.351	0.15	39.983	39.983	0.025	0.20	39.514	39.514	0.002
0.25	39.084	39.084	0.000	0.30	39.114	39.114	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 127
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 A

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4J-4001B											
0.01	45.648	59.542	38.230	0.02	44.699	50.249	22.954	0.03	43.808	45.712	13.056
0.04	42.978	43.614	7.426	0.05	42.213	42.477	4.729	0.06	41.840	41.930	2.751
0.07	41.481	41.512	1.600	0.08	41.138	41.149	0.931	0.09	40.810	40.814	0.542
0.10	40.497	40.499	0.351	0.15	39.987	39.987	0.025	0.20	39.518	39.518	0.002
0.25	39.089	39.089	0.000	0.30	39.119	39.119	0.000				
From ID: 4K-4001 P1B											
0.01	45.394	59.155	37.930	0.02	44.474	49.966	22.774	0.03	43.609	45.492	12.954
0.04	42.803	43.433	7.368	0.05	42.061	42.322	4.691	0.06	41.698	41.788	2.729
0.07	41.351	41.381	1.588	0.08	41.017	41.028	0.924	0.09	40.699	40.702	0.537
0.10	40.395	40.396	0.348	0.15	39.899	39.899	0.025	0.20	39.443	39.443	0.002
0.25	39.026	39.026	0.000	0.30	39.055	39.055	0.000				
From ID: 4K-4002 P3											
0.01	45.593	59.457	38.162	0.02	44.650	50.186	22.913	0.03	43.762	45.662	13.033
0.04	42.936	43.572	7.413	0.05	42.175	42.439	4.720	0.06	41.804	41.894	2.746
0.07	41.447	41.478	1.598	0.08	41.106	41.116	0.929	0.09	40.779	40.783	0.541
0.10	40.468	40.469	0.351	0.15	39.960	39.960	0.025	0.20	39.492	39.492	0.002
0.25	39.064	39.064	0.000	0.30	39.094	39.094	0.000				
From ID: 4K-4002A-P2A											
0.01	45.602	59.478	38.185	0.02	44.656	50.198	22.927	0.03	43.766	45.667	13.041
0.04	42.937	43.573	7.417	0.05	42.173	42.437	4.723	0.06	41.801	41.891	2.748
0.07	41.443	41.474	1.599	0.08	41.100	41.111	0.930	0.09	40.772	40.776	0.541
0.10	40.460	40.461	0.351	0.15	39.951	39.951	0.025	0.20	39.482	39.482	0.002
0.25	39.053	39.053	0.000	0.30	39.083	39.083	0.000				
From ID: 4P-102 A											
0.01	45.108	58.787	37.699	0.02	44.197	49.656	22.635	0.03	43.339	45.211	12.875
0.04	42.539	43.165	7.323	0.05	41.802	42.062	4.663	0.06	41.442	41.531	2.713
0.07	41.096	41.127	1.578	0.08	40.765	40.775	0.918	0.09	40.448	40.451	0.534
0.10	40.145	40.147	0.346	0.15	39.653	39.653	0.024	0.20	39.199	39.199	0.002
0.25	38.783	38.783	0.000	0.30	38.812	38.812	0.000				
From ID: 4P-104 A											
0.01	45.649	59.546	38.234	0.02	44.701	50.251	22.957	0.03	43.808	45.713	13.057
0.04	42.978	43.615	7.427	0.05	42.213	42.477	4.729	0.06	41.840	41.930	2.751
0.07	41.481	41.512	1.601	0.08	41.138	41.149	0.931	0.09	40.810	40.813	0.542
0.10	40.497	40.498	0.351	0.15	39.987	39.987	0.025	0.20	39.518	39.518	0.002
0.25	39.088	39.088	0.000	0.30	39.118	39.118	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 128
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4P-105 A											
0.01	44.908	58.488	37.471	0.02	44.027	49.443	22.498	0.03	43.199	45.054	12.797
0.04	42.427	43.047	7.279	0.05	41.716	41.973	4.635	0.06	41.368	41.456	2.696
0.07	41.035	41.065	1.569	0.08	40.715	40.725	0.913	0.09	40.409	40.412	0.531
0.10	40.117	40.119	0.344	0.15	39.644	39.644	0.024	0.20	39.207	39.207	0.002
0.25	38.808	38.808	0.000	0.30	38.837	38.837	0.000				
From ID: 4P-106A											
0.01	45.636	59.524	38.216	0.02	44.689	50.236	22.946	0.03	43.798	45.701	13.051
0.04	42.969	43.605	7.423	0.05	42.205	42.469	4.727	0.06	41.832	41.922	2.750
0.07	41.474	41.505	1.600	0.08	41.131	41.141	0.931	0.09	40.803	40.807	0.541
0.10	40.490	40.492	0.351	0.15	39.981	39.981	0.025	0.20	39.512	39.512	0.002
0.25	39.083	39.083	0.000	0.30	39.113	39.113	0.000				
From ID: 4P-109 A											
0.01	44.486	57.967	37.164	0.02	43.606	48.983	22.314	0.03	42.776	44.619	12.692
0.04	42.003	42.619	7.219	0.05	41.289	41.544	4.597	0.06	40.940	41.027	2.674
0.07	40.604	40.634	1.556	0.08	40.282	40.292	0.905	0.09	39.974	39.977	0.527
0.10	39.680	39.681	0.341	0.15	39.202	39.202	0.024	0.20	38.762	38.762	0.002
0.25	38.358	38.358	0.000	0.30	38.388	38.388	0.000				
From ID: 4P-111A											
0.01	45.125	58.793	37.687	0.02	44.221	49.674	22.628	0.03	43.371	45.240	12.871
0.04	42.579	43.204	7.321	0.05	41.849	42.108	4.661	0.06	41.492	41.581	2.712
0.07	41.150	41.180	1.578	0.08	40.822	40.832	0.918	0.09	40.508	40.511	0.534
0.10	40.208	40.210	0.346	0.15	39.721	39.721	0.024	0.20	39.272	39.272	0.002
0.25	38.861	38.861	0.000	0.30	38.890	38.890	0.000				
From ID: 4P-116A											
0.01	45.562	59.410	38.127	0.02	44.621	50.151	22.892	0.03	43.737	45.634	13.021
0.04	42.913	43.547	7.406	0.05	42.154	42.417	4.716	0.06	41.784	41.874	2.743
0.07	41.428	41.459	1.596	0.08	41.087	41.098	0.929	0.09	40.761	40.765	0.540
0.10	40.451	40.452	0.350	0.15	39.944	39.944	0.025	0.20	39.478	39.478	0.002
0.25	39.051	39.051	0.000	0.30	39.081	39.081	0.000				
From ID: 4P-118A											
0.01	45.229	58.937	37.788	0.02	44.317	49.787	22.688	0.03	43.458	45.334	12.905
0.04	42.659	43.286	7.340	0.05	41.922	42.182	4.674	0.06	41.562	41.651	2.719
0.07	41.217	41.247	1.582	0.08	40.886	40.896	0.920	0.09	40.569	40.572	0.535
0.10	40.267	40.268	0.347	0.15	39.775	39.775	0.024	0.20	39.322	39.322	0.002
0.25	38.907	38.907	0.000	0.30	38.936	38.936	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 129
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 A

Nominal kV = 0.400 I"k = 49.59

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4P-120A											
0.01	45.229	58.937	37.788	0.02	44.317	49.787	22.688	0.03	43.458	45.334	12.905
0.04	42.659	43.286	7.340	0.05	41.922	42.182	4.674	0.06	41.562	41.651	2.719
0.07	41.217	41.247	1.582	0.08	40.886	40.896	0.920	0.09	40.569	40.572	0.535
0.10	40.267	40.268	0.347	0.15	39.775	39.775	0.024	0.20	39.322	39.322	0.002
0.25	38.907	38.907	0.000	0.30	38.936	38.936	0.000				
From ID: 4P-121A											
0.01	44.903	58.489	37.479	0.02	44.017	49.436	22.503	0.03	43.184	45.041	12.800
0.04	42.408	43.028	7.280	0.05	41.693	41.950	4.636	0.06	41.343	41.431	2.697
0.07	41.007	41.037	1.569	0.08	40.685	40.695	0.913	0.09	40.377	40.381	0.531
0.10	40.083	40.085	0.344	0.15	39.606	39.606	0.024	0.20	39.167	39.167	0.002
0.25	38.764	38.764	0.000	0.30	38.794	38.794	0.000				
From ID: 4P-122											
0.01	45.650	59.548	38.237	0.02	44.702	50.253	22.958	0.03	43.809	45.714	13.058
0.04	42.979	43.616	7.427	0.05	42.214	42.478	4.729	0.06	41.840	41.931	2.751
0.07	41.482	41.513	1.601	0.08	41.138	41.149	0.931	0.09	40.810	40.814	0.542
0.10	40.497	40.498	0.351	0.15	39.987	39.987	0.025	0.20	39.518	39.518	0.002
0.25	39.088	39.088	0.000	0.30	39.118	39.118	0.000				
From ID: 4P-4006A											
0.01	45.571	59.416	38.126	0.02	44.632	50.160	22.892	0.03	43.749	45.645	13.021
0.04	42.926	43.561	7.406	0.05	42.169	42.432	4.716	0.06	41.799	41.889	2.743
0.07	41.444	41.475	1.596	0.08	41.104	41.115	0.929	0.09	40.779	40.783	0.540
0.10	40.469	40.471	0.350	0.15	39.964	39.964	0.025	0.20	39.498	39.498	0.002
0.25	39.073	39.073	0.000	0.30	39.102	39.102	0.000				
From ID: 4P-4008											
0.01	45.639	59.526	38.216	0.02	44.692	50.238	22.945	0.03	43.801	45.704	13.051
0.04	42.972	43.609	7.423	0.05	42.208	42.472	4.727	0.06	41.836	41.926	2.750
0.07	41.478	41.509	1.600	0.08	41.135	41.145	0.931	0.09	40.807	40.811	0.541
0.10	40.495	40.496	0.351	0.15	39.985	39.985	0.025	0.20	39.516	39.516	0.002
0.25	39.088	39.088	0.000	0.30	39.117	39.117	0.000				
From ID: 4P-4009A											
0.01	45.612	59.487	38.187	0.02	44.667	50.208	22.928	0.03	43.778	45.679	13.041
0.04	42.950	43.586	7.418	0.05	42.188	42.451	4.723	0.06	41.815	41.905	2.748
0.07	41.458	41.489	1.599	0.08	41.115	41.126	0.930	0.09	40.788	40.792	0.541
0.10	40.476	40.478	0.351	0.15	39.967	39.967	0.025	0.20	39.499	39.499	0.002
0.25	39.071	39.071	0.000	0.30	39.100	39.100	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 130
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 A**

Nominal kV = 0.400 I"k = 49.59

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 4P-4012A											
0.01	45.325	59.056	37.858	0.02	44.412	49.891	22.731	0.03	43.554	45.432	12.929
0.04	42.754	43.382	7.354	0.05	42.018	42.278	4.682	0.06	41.658	41.747	2.724
0.07	41.313	41.343	1.585	0.08	40.982	40.992	0.922	0.09	40.666	40.669	0.536
0.10	40.364	40.366	0.348	0.15	39.873	39.873	0.024	0.20	39.420	39.420	0.002
0.25	39.006	39.006	0.000	0.30	39.035	39.035	0.000				
From ID: 4P-4013A											
0.01	45.639	59.526	38.216	0.02	44.692	50.238	22.945	0.03	43.801	45.704	13.051
0.04	42.972	43.609	7.423	0.05	42.208	42.472	4.727	0.06	41.836	41.926	2.750
0.07	41.478	41.509	1.600	0.08	41.135	41.145	0.931	0.09	40.807	40.811	0.541
0.10	40.495	40.496	0.351	0.15	39.985	39.985	0.025	0.20	39.516	39.516	0.002
0.25	39.088	39.088	0.000	0.30	39.117	39.117	0.000				
From ID: Cable427											
0.01	34.889	43.864	26.586	0.02	34.889	38.367	15.963	0.03	34.889	36.051	9.079
0.04	34.889	35.269	5.164	0.05	34.889	35.044	3.288	0.06	34.889	34.941	1.913
0.07	34.889	34.907	1.113	0.08	34.889	34.895	0.647	0.09	34.889	34.891	0.377
0.10	34.889	34.890	0.244	0.15	34.889	34.889	0.017	0.20	34.889	34.889	0.001
0.25	34.889	34.889	0.000	0.30	34.889	34.889	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 131
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-1001O				0.25	37.936	37.936	0.000	0.30	37.962	37.962	0.000
From ID: 4A-1001P				0.20	38.305	38.305	0.002	0.25	37.936	37.936	0.000
From ID: 4A-101B				0.20	38.286	38.286	0.002	0.25	37.921	37.921	0.000
From ID: 4A-102B				0.25	37.936	37.936	0.000	0.30	37.962	37.962	0.000
From ID: 4A-103B				0.25	37.962	37.962	0.000	0.30	37.988	37.988	0.000
From ID: 4A-104B				0.25	37.962	37.962	0.000	0.30	37.988	37.988	0.000
From ID: 4A-105D				0.20	38.268	38.268	0.002	0.25	37.902	37.902	0.000
From ID: 4A-105E				0.25	37.921	37.921	0.000	0.30	37.946	37.946	0.000
From ID: 4A-105F				0.25	37.921	37.921	0.000	0.30	37.946	37.946	0.000
From ID: 4A-108 B				0.20	38.305	38.305	0.002	0.25	37.936	37.936	0.000
From ID: 4A-108B				0.25	37.951	37.951	0.000	0.30	37.976	37.976	0.000
From ID: 4A-109B				0.25	37.993	37.993	0.000	0.30	38.019	38.019	0.000
From ID: 4A-110B				0.20	38.305	38.305	0.002	0.25	37.936	37.936	0.000
From ID: 4A-4001I				0.25	37.936	37.936	0.000	0.30	37.962	37.962	0.000
From ID: 4A-4001J				0.25	37.883	37.883	0.000	0.30	37.908	37.908	0.000
From ID: 4A-4001K				0.25	37.936	37.936	0.000	0.30	37.962	37.962	0.000
From ID: 4A-4001L				0.20	38.305	38.305	0.002	0.25	37.936	37.936	0.000
From ID: 4A-4001M				0.25	37.936	37.936	0.000	0.30	37.962	37.962	0.000
From ID: 4A-4001N				0.20	38.305	38.305	0.002	0.25	37.936	37.936	0.000
From ID: 4A-4003B											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 132
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.20	38.353	38.353	0.002	0.25	37.980	37.980	0.000	0.30	38.006	38.006	0.000
From ID: 4A-4004D											
0.20	38.150	38.150	0.002	0.25	37.794	37.794	0.000	0.30	37.819	37.819	0.000
From ID: 4A-4004E											
0.20	38.150	38.150	0.002	0.25	37.794	37.794	0.000	0.30	37.819	37.819	0.000
From ID: 4A-4004F											
0.20	38.149	38.149	0.002	0.25	37.792	37.792	0.000	0.30	37.818	37.818	0.000
From ID: 4J-4001C											
0.20	38.391	38.391	0.002	0.25	38.015	38.015	0.000	0.30	38.041	38.041	0.000
From ID: 4J-4001D											
0.20	38.391	38.391	0.002	0.25	38.015	38.015	0.000	0.30	38.041	38.041	0.000
From ID: 4P-103B											
0.20	38.297	38.297	0.002	0.25	37.937	37.937	0.000	0.30	37.962	37.962	0.000
From ID: 4P-104B											
0.20	38.391	38.391	0.002	0.25	38.016	38.016	0.000	0.30	38.042	38.042	0.000
From ID: 4P-106B											
0.20	38.386	38.386	0.002	0.25	38.010	38.010	0.000	0.30	38.036	38.036	0.000
From ID: 4P-108B											
0.20	38.270	38.270	0.002	0.25	37.914	37.914	0.000	0.30	37.939	37.939	0.000
From ID: 4P-109B											
0.20	38.030	38.030	0.002	0.25	37.710	37.710	0.000	0.30	37.736	37.736	0.000
From ID: 4P-110B											
0.20	38.267	38.267	0.002	0.25	37.900	37.900	0.000	0.30	37.925	37.925	0.000
From ID: 4P-111B											
0.20	38.235	38.235	0.002	0.25	37.885	37.885	0.000	0.30	37.910	37.910	0.000
From ID: 4P-112B											
0.20	38.319	38.319	0.002	0.25	37.956	37.956	0.000	0.30	37.981	37.981	0.000
From ID: 4P-117B											
0.20	38.381	38.381	0.002	0.25	38.006	38.006	0.000	0.30	38.032	38.032	0.000
From ID: 4P-119B											
0.20	38.076	38.076	0.002	0.25	37.715	37.715	0.000	0.30	37.741	37.741	0.000
From ID: Cable499											
0.25	34.885	34.885	0.000	0.30	34.885	34.885	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 133
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOP 2-01**

Nominal kV = 0.400 I"k = 13.43

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable54											
0.01	13.428	13.765	3.028	0.02	13.428	13.436	0.488	0.03	13.428	13.428	0.078
0.04	13.428	13.428	0.013	0.05	13.428	13.428	0.002	0.06	13.428	13.428	0.000
0.07	13.428	13.428	0.000								
From ID: Cable581											
0.01	13.428	13.765	3.028	0.02	13.428	13.436	0.488	0.03	13.428	13.428	0.078
0.04	13.428	13.428	0.013	0.05	13.428	13.428	0.002	0.06	13.428	13.428	0.000
0.07	13.428	13.428	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 134
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4A-1001O											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027	0.20	38.305	38.305	0.002
From ID: 4A-1001P											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027				
From ID: 4A-101B											
0.01	43.381	56.811	36.682	0.02	42.603	48.009	22.133	0.03	41.869	43.771	12.763
0.04	41.183	41.835	7.359	0.05	40.548	40.816	4.671	0.06	40.237	40.331	2.745
0.07	39.938	39.971	1.614	0.08	39.651	39.663	0.949	0.09	39.376	39.380	0.558
0.10	39.114	39.115	0.360	0.15	38.684	38.684	0.026				
From ID: 4A-102B											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027	0.20	38.305	38.305	0.002
From ID: 4A-103B											
0.01	43.553	57.073	36.884	0.02	42.757	48.202	22.255	0.03	42.004	43.921	12.833
0.04	41.302	41.959	7.400	0.05	40.652	40.922	4.696	0.06	40.333	40.428	2.761
0.07	40.027	40.060	1.623	0.08	39.733	39.745	0.954	0.09	39.452	39.456	0.561
0.10	39.183	39.184	0.362	0.15	38.743	38.743	0.027	0.20	38.336	38.336	0.002
From ID: 4A-104B											
0.01	43.553	57.073	36.884	0.02	42.757	48.202	22.255	0.03	42.004	43.921	12.833
0.04	41.302	41.959	7.400	0.05	40.652	40.922	4.696	0.06	40.333	40.428	2.761
0.07	40.027	40.060	1.623	0.08	39.733	39.745	0.954	0.09	39.452	39.456	0.561
0.10	39.183	39.184	0.362	0.15	38.743	38.743	0.027	0.20	38.336	38.336	0.002
From ID: 4A-105D											
0.01	43.376	56.808	36.684	0.02	42.596	48.003	22.134	0.03	41.860	43.762	12.763
0.04	41.172	41.825	7.360	0.05	40.536	40.804	4.671	0.06	40.224	40.318	2.746
0.07	39.925	39.957	1.614	0.08	39.637	39.648	0.949	0.09	39.361	39.365	0.558
0.10	39.098	39.099	0.360	0.15	38.667	38.667	0.026				
From ID: 4A-105E											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 135
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **MCL 5-01 B**

Nominal kV = 0.400 I"k = 46.76

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.01	43.381	56.811	36.682	0.02	42.603	48.009	22.133	0.03	41.869	43.771	12.763
0.04	41.183	41.835	7.359	0.05	40.548	40.816	4.671	0.06	40.237	40.331	2.745
0.07	39.938	39.971	1.614	0.08	39.651	39.663	0.949	0.09	39.376	39.380	0.558
0.10	39.114	39.115	0.360	0.15	38.684	38.684	0.026	0.20	38.286	38.286	0.002
From ID: 4A-105F											
0.01	43.381	56.811	36.682	0.02	42.603	48.009	22.133	0.03	41.869	43.771	12.763
0.04	41.183	41.835	7.359	0.05	40.548	40.816	4.671	0.06	40.237	40.331	2.745
0.07	39.938	39.971	1.614	0.08	39.651	39.663	0.949	0.09	39.376	39.380	0.558
0.10	39.114	39.115	0.360	0.15	38.684	38.684	0.026	0.20	38.286	38.286	0.002
From ID: 4A-108 B											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027				
From ID: 4A-108B											
0.01	43.460	56.926	36.766	0.02	42.675	48.097	22.184	0.03	41.934	43.842	12.792
0.04	41.242	41.896	7.376	0.05	40.601	40.870	4.681	0.06	40.288	40.382	2.752
0.07	39.986	40.019	1.617	0.08	39.696	39.708	0.951	0.09	39.419	39.423	0.559
0.10	39.154	39.155	0.361	0.15	38.720	38.720	0.027	0.20	38.319	38.319	0.002
From ID: 4A-109B											
0.01	43.591	57.123	36.917	0.02	42.793	48.243	22.275	0.03	42.040	43.958	12.845
0.04	41.336	41.994	7.407	0.05	40.685	40.956	4.701	0.06	40.367	40.461	2.763
0.07	40.060	40.093	1.624	0.08	39.766	39.777	0.955	0.09	39.484	39.488	0.561
0.10	39.215	39.216	0.362	0.15	38.774	38.774	0.027	0.20	38.367	38.367	0.002
From ID: 4A-110B											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027				
From ID: 4A-4001I											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027	0.20	38.305	38.305	0.002
From ID: 4A-4001J											
0.01	43.440	56.917	36.776	0.02	42.649	48.076	22.190	0.03	41.901	43.811	12.795

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 136
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.04	41.203	41.859	7.378	0.05	40.557	40.827	4.683	0.06	40.241	40.335	2.752
0.07	39.937	39.969	1.618	0.08	39.644	39.656	0.951	0.09	39.364	39.368	0.559
0.10	39.097	39.098	0.361	0.15	38.659	38.659	0.027	0.20	38.254	38.254	0.002
From ID: 4A-4001K											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027	0.20	38.305	38.305	0.002
From ID: 4A-4001L											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027				
From ID: 4A-4001M											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027	0.20	38.305	38.305	0.002
From ID: 4A-4001N											
0.01	43.456	56.924	36.768	0.02	42.670	48.092	22.185	0.03	41.927	43.835	12.793
0.04	41.234	41.888	7.377	0.05	40.592	40.861	4.682	0.06	40.278	40.372	2.752
0.07	39.976	40.008	1.618	0.08	39.685	39.697	0.951	0.09	39.407	39.411	0.559
0.10	39.142	39.143	0.361	0.15	38.707	38.707	0.027				
From ID: 4A-4003B											
0.01	43.560	57.076	36.881	0.02	42.764	48.208	22.253	0.03	42.014	43.930	12.832
0.04	41.312	41.970	7.399	0.05	40.664	40.934	4.696	0.06	40.346	40.441	2.760
0.07	40.041	40.074	1.623	0.08	39.748	39.759	0.954	0.09	39.467	39.471	0.561
0.10	39.198	39.200	0.362	0.15	38.759	38.759	0.027				
From ID: 4A-4004D											
0.01	43.123	56.453	36.433	0.02	42.364	47.728	21.983	0.03	41.648	43.534	12.676
0.04	40.978	41.625	7.309	0.05	40.359	40.625	4.639	0.06	40.055	40.148	2.727
0.07	39.763	39.796	1.603	0.08	39.483	39.494	0.942	0.09	39.214	39.218	0.554
0.10	38.957	38.959	0.357	0.15	38.538	38.538	0.026				
From ID: 4A-4004E											
0.01	43.123	56.453	36.433	0.02	42.364	47.728	21.983	0.03	41.648	43.534	12.676
0.04	40.978	41.625	7.309	0.05	40.359	40.625	4.639	0.06	40.055	40.148	2.727

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 137
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.07	39.763	39.796	1.603	0.08	39.483	39.494	0.942	0.09	39.214	39.218	0.554
0.10	38.957	38.959	0.357	0.15	38.538	38.538	0.026				
From ID: 4A-4004F											
0.01	43.120	56.449	36.430	0.02	42.362	47.725	21.981	0.03	41.645	43.532	12.675
0.04	40.976	41.623	7.309	0.05	40.357	40.623	4.639	0.06	40.053	40.146	2.727
0.07	39.761	39.794	1.603	0.08	39.481	39.492	0.942	0.09	39.212	39.216	0.554
0.10	38.955	38.957	0.357	0.15	38.536	38.536	0.026				
From ID: 4J-4001C											
0.01	43.645	57.209	36.987	0.02	42.842	48.306	22.317	0.03	42.084	44.007	12.869
0.04	41.376	42.036	7.421	0.05	40.721	40.993	4.710	0.06	40.401	40.495	2.768
0.07	40.092	40.125	1.627	0.08	39.797	39.808	0.956	0.09	39.513	39.517	0.562
0.10	39.242	39.244	0.363	0.15	38.800	38.800	0.027				
From ID: 4J-4001D											
0.01	43.645	57.209	36.987	0.02	42.842	48.306	22.317	0.03	42.084	44.007	12.869
0.04	41.376	42.036	7.421	0.05	40.721	40.993	4.710	0.06	40.401	40.495	2.768
0.07	40.092	40.125	1.627	0.08	39.797	39.808	0.956	0.09	39.513	39.517	0.562
0.10	39.242	39.244	0.363	0.15	38.800	38.800	0.027				
From ID: 4P-103B											
0.01	43.323	56.718	36.606	0.02	42.555	47.946	22.087	0.03	41.831	43.726	12.736
0.04	41.154	41.804	7.344	0.05	40.528	40.795	4.661	0.06	40.221	40.314	2.740
0.07	39.926	39.958	1.610	0.08	39.643	39.654	0.947	0.09	39.372	39.375	0.556
0.10	39.112	39.114	0.359	0.15	38.689	38.689	0.026				
From ID: 4P-104B											
0.01	43.647	57.214	36.991	0.02	42.843	48.309	22.319	0.03	42.085	44.009	12.870
0.04	41.377	42.037	7.421	0.05	40.722	40.994	4.710	0.06	40.402	40.497	2.769
0.07	40.093	40.127	1.627	0.08	39.798	39.809	0.957	0.09	39.514	39.518	0.562
0.10	39.243	39.245	0.363	0.15	38.800	38.800	0.027				
From ID: 4P-106B											
0.01	43.635	57.194	36.974	0.02	42.833	48.294	22.309	0.03	42.076	43.998	12.864
0.04	41.368	42.028	7.418	0.05	40.714	40.986	4.708	0.06	40.394	40.489	2.767
0.07	40.086	40.119	1.627	0.08	39.791	39.802	0.956	0.09	39.507	39.511	0.562
0.10	39.237	39.239	0.363	0.15	38.795	38.795	0.027				
From ID: 4P-108B											
0.01	43.242	56.601	36.522	0.02	42.482	47.858	22.037	0.03	41.765	43.656	12.707
0.04	41.096	41.744	7.327	0.05	40.476	40.743	4.650	0.06	40.173	40.266	2.733
0.07	39.881	39.914	1.607	0.08	39.601	39.612	0.944	0.09	39.333	39.337	0.555

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 138
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 46.76

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.10	39.076	39.078	0.358	0.15	38.657	38.657	0.026				
From ID: 4P-109B											
0.01	42.550	55.641	35.853	0.02	41.858	47.117	21.633	0.03	41.205	43.052	12.474
0.04	40.595	41.228	7.193	0.05	40.032	40.292	4.565	0.06	39.755	39.846	2.683
0.07	39.489	39.521	1.577	0.08	39.234	39.245	0.927	0.09	38.989	38.993	0.545
0.10	38.756	38.757	0.352	0.15	38.379	38.379	0.026				
From ID: 4P-110B											
0.01	43.396	56.841	36.712	0.02	42.613	48.026	22.151	0.03	41.874	43.779	12.773
0.04	41.183	41.837	7.365	0.05	40.544	40.813	4.675	0.06	40.232	40.325	2.748
0.07	39.931	39.963	1.615	0.08	39.642	39.653	0.949	0.09	39.365	39.369	0.558
0.10	39.100	39.102	0.360	0.15	38.667	38.667	0.026				
From ID: 4P-111B											
0.01	43.138	56.455	36.417	0.02	42.389	47.746	21.973	0.03	41.682	43.565	12.670
0.04	41.022	41.667	7.306	0.05	40.411	40.676	4.637	0.06	40.112	40.204	2.726
0.07	39.824	39.856	1.602	0.08	39.547	39.559	0.942	0.09	39.283	39.286	0.554
0.10	39.030	39.031	0.357	0.15	38.617	38.617	0.026				
From ID: 4P-112B											
0.01	43.391	56.816	36.679	0.02	42.616	48.020	22.131	0.03	41.885	43.786	12.761
0.04	41.202	41.854	7.359	0.05	40.570	40.838	4.670	0.06	40.261	40.354	2.745
0.07	39.963	39.996	1.614	0.08	39.677	39.689	0.948	0.09	39.404	39.408	0.558
0.10	39.142	39.144	0.360	0.15	38.714	38.714	0.026				
From ID: 4P-117B											
0.01	43.623	57.173	36.957	0.02	42.822	48.280	22.299	0.03	42.066	43.987	12.858
0.04	41.360	42.019	7.414	0.05	40.707	40.978	4.706	0.06	40.387	40.482	2.766
0.07	40.079	40.112	1.626	0.08	39.784	39.796	0.956	0.09	39.502	39.506	0.562
0.10	39.231	39.233	0.363	0.15	38.790	38.790	0.027				
From ID: 4P-119B											
0.01	43.107	56.449	36.446	0.02	42.340	47.710	21.990	0.03	41.616	43.505	12.680
0.04	40.939	41.587	7.312	0.05	40.312	40.579	4.641	0.06	40.005	40.098	2.728
0.07	39.710	39.742	1.603	0.08	39.426	39.437	0.942	0.09	39.154	39.158	0.554
0.10	38.894	38.895	0.358	0.15	38.469	38.469	0.026				
From ID: Cable499											
0.01	34.885	44.228	27.187	0.02	34.885	38.549	16.404	0.03	34.885	36.144	9.459
0.04	34.885	35.309	5.454	0.05	34.885	35.056	3.462	0.06	34.885	34.944	2.035
0.07	34.885	34.905	1.196	0.08	34.885	34.892	0.703	0.09	34.885	34.887	0.413
0.10	34.885	34.886	0.267	0.15	34.885	34.885	0.020	0.20	34.885	34.885	0.001

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 139
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: MCL 5-01 B

Nominal kV = 0.400 I"k = 47.18

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 140
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-01B**

Nominal kV = 0.400 I"k = 43.05

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 2AM-1101-3											
0.01	44.007	57.900	37.626	0.02	43.923	49.691	23.237	0.03	43.843	46.067	14.140
From ID: 2AM-1101-4											
0.01	44.007	57.900	37.626	0.02	43.923	49.691	23.237	0.03	43.843	46.067	14.140
From ID: 2PM-1104B											
0.01	44.613	58.801	38.305	0.02	44.473	50.373	23.656	0.03	44.339	46.617	14.395
From ID: Cable584											
0.01	44.715	58.955	38.423	0.02	44.568	50.491	23.729	0.03	44.428	46.715	14.439
0.04	44.295	45.158	8.786								
From ID: TG-03-FM1											
0.01	44.700	58.927	38.397	0.02	44.555	50.472	23.712	0.03	44.416	46.701	14.429
From ID: TG-03-PM1A											
0.01	44.602	58.770	38.270	0.02	44.466	50.357	23.634	0.03	44.337	46.611	14.382
From ID: TG-03-TM1											
0.01	44.699	58.926	38.397	0.02	44.554	50.471	23.713	0.03	44.415	46.700	14.429
From ID: TRL-2-01B											
0.01	43.054	56.449	36.508	0.02	43.054	48.600	22.546	0.03	43.054	45.187	13.719
0.04	43.054	43.856	8.348								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 141
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOP 2-01**

Nominal kV = 0.400 I"k = 13.43

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable54											
0.08	13.428	13.428	0.000	0.09	13.428	13.428	0.000	0.10	13.428	13.428	0.000
0.15	13.428	13.428	0.000	0.20	13.428	13.428	0.000	0.25	13.428	13.428	0.000
0.30	13.428	13.428	0.000								
From ID: Cable581											
0.08	13.428	13.428	0.000	0.09	13.428	13.428	0.000	0.10	13.428	13.428	0.000
0.15	13.428	13.428	0.000	0.20	13.428	13.428	0.000	0.25	13.428	13.428	0.000
0.30	13.428	13.428	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 142
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOP-3-01**

Nominal kV = 0.400 I"k = 15.86

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: TRL-3-03											
0.01	15.855	19.747	11.771	0.02	15.855	17.076	6.339	0.03	15.855	16.210	3.371
0.04	15.855	15.956	1.792	0.05	15.855	15.886	0.994	0.06	15.855	15.864	0.533
0.07	15.855	15.858	0.286	0.08	15.855	15.856	0.153	0.09	15.855	15.856	0.082
0.10	15.855	15.855	0.046	0.15	15.855	15.855	0.002	0.20	15.855	15.855	0.000
0.25	15.855	15.855	0.000	0.30	15.855	15.855	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 143
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **MOV-001**

Nominal kV = 0.400 I"k = 9.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable22											
0.01	9.871	9.871	0.062	0.02	9.871	9.871	0.000	0.03	9.870	9.870	0.000
0.04	9.869	9.869	0.000	0.05	9.869	9.869	0.000	0.06	9.868	9.868	0.000
0.07	9.868	9.868	0.000	0.08	9.868	9.868	0.000	0.09	9.868	9.868	0.000
0.10	9.867	9.867	0.000	0.15	9.867	9.867	0.000	0.20	9.867	9.867	0.000
0.25	9.866	9.866	0.000	0.30	9.866	9.866	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 144
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-01A

Nominal kV = 0.400 I"k = 47.38

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-1101-1											
0.01	46.125	60.452	39.076	0.02	45.858	51.768	24.020	0.03	45.604	47.832	14.427
0.04	45.363	46.183	8.665	0.05	45.138	45.471	5.497	0.06	45.027	45.151	3.338
0.07	44.921	44.966	2.027	0.08	44.818	44.835	1.231	0.09	44.718	44.725	0.747
0.10	44.623	44.626	0.482	0.15	44.457	44.457	0.041	0.20	44.302	44.302	0.003
0.25	44.158	44.158	0.000	0.30	44.162	44.162	0.000				
From ID: 2AM-1101-2											
0.01	46.125	60.452	39.076	0.02	45.858	51.768	24.020	0.03	45.604	47.832	14.427
0.04	45.363	46.183	8.665	0.05	45.138	45.471	5.497	0.06	45.027	45.151	3.338
0.07	44.921	44.966	2.027	0.08	44.818	44.835	1.231	0.09	44.718	44.725	0.747
0.10	44.623	44.626	0.482	0.15	44.457	44.457	0.041	0.20	44.302	44.302	0.003
0.25	44.158	44.158	0.000	0.30	44.162	44.162	0.000				
From ID: 2KM-1211A											
0.01	46.085	60.393	39.032	0.02	45.822	51.723	23.993	0.03	45.571	47.795	14.411
0.04	45.333	46.152	8.656	0.05	45.111	45.444	5.491	0.06	45.002	45.125	3.334
0.07	44.897	44.942	2.025	0.08	44.795	44.812	1.230	0.09	44.697	44.703	0.747
0.10	44.603	44.605	0.482	0.15	44.439	44.439	0.041	0.20	44.286	44.286	0.003
0.25	44.144	44.144	0.000	0.30	44.148	44.148	0.000				
From ID: 2KM-1211B											
0.01	46.085	60.393	39.032	0.02	45.822	51.723	23.993	0.03	45.571	47.795	14.411
0.04	45.333	46.152	8.656	0.05	45.111	45.444	5.491	0.06	45.002	45.125	3.334
0.07	44.897	44.942	2.025	0.08	44.795	44.812	1.230	0.09	44.697	44.703	0.747
0.10	44.603	44.605	0.482	0.15	44.439	44.439	0.041	0.20	44.286	44.286	0.003
0.25	44.144	44.144	0.000	0.30	44.148	44.148	0.000				
From ID: 2PM-1101A											
0.01	46.412	60.900	39.430	0.02	46.110	52.093	24.238	0.03	45.822	48.079	14.558
0.04	45.549	46.381	8.744	0.05	45.293	45.632	5.547	0.06	45.168	45.294	3.369
0.07	45.048	45.094	2.045	0.08	44.931	44.948	1.242	0.09	44.818	44.825	0.754
0.10	44.710	44.713	0.487	0.15	44.522	44.522	0.041	0.20	44.347	44.347	0.004
0.25	44.184	44.184	0.000	0.30	44.189	44.189	0.000				
From ID: 2PM-1105A											
0.01	46.325	60.761	39.319	0.02	46.040	51.998	24.170	0.03	45.767	48.014	14.517
0.04	45.510	46.338	8.719	0.05	45.269	45.606	5.532	0.06	45.151	45.276	3.359
0.07	45.037	45.083	2.040	0.08	44.927	44.944	1.239	0.09	44.821	44.827	0.752
0.10	44.719	44.721	0.485	0.15	44.542	44.542	0.041	0.20	44.377	44.377	0.004
0.25	44.224	44.224	0.000	0.30	44.229	44.229	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 145
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-01A**

Nominal kV = 0.400 I"k = 47.38

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: TRL-2-01A											
0.01	42.995	55.873	35.683	0.02	42.995	48.267	21.935	0.03	42.995	44.968	13.175
0.04	42.995	43.717	7.913	0.05	42.995	43.287	5.020	0.06	42.995	43.102	3.048
0.07	42.995	43.034	1.851	0.08	42.995	43.009	1.124	0.09	42.995	43.000	0.683
0.10	42.995	42.997	0.441	0.15	42.995	42.995	0.037	0.20	42.995	42.995	0.003
0.25	42.995	42.995	0.000	0.30	42.995	42.995	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 146
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-01B

Nominal kV = 0.400 I"k = 43.05

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-1101-3											
0.04	43.767	44.605	8.604	0.05	43.696	44.033	5.440	0.06	43.661	43.788	3.336
0.07	43.627	43.675	2.046	0.08	43.594	43.612	1.254	0.09	43.563	43.569	0.769
0.10	43.532	43.535	0.494	0.15	43.482	43.482	0.044	0.20	43.434	43.434	0.004
0.25	43.390	43.390	0.000	0.30	43.393	43.393	0.000				
From ID: 2AM-1101-4											
0.04	43.767	44.605	8.604	0.05	43.696	44.033	5.440	0.06	43.661	43.788	3.336
0.07	43.627	43.675	2.046	0.08	43.594	43.612	1.254	0.09	43.563	43.569	0.769
0.10	43.532	43.535	0.494	0.15	43.482	43.482	0.044	0.20	43.434	43.434	0.004
0.25	43.390	43.390	0.000	0.30	43.393	43.393	0.000				
From ID: 2PM-1104B											
0.04	44.212	45.072	8.759	0.05	44.094	44.440	5.538	0.06	44.036	44.167	3.396
0.07	43.979	44.029	2.082	0.08	43.925	43.944	1.277	0.09	43.873	43.880	0.783
0.10	43.822	43.825	0.503	0.15	43.736	43.736	0.045	0.20	43.656	43.656	0.004
0.25	43.581	43.581	0.000	0.30	43.585	43.585	0.000				
From ID: Cable584											
0.05	44.171	44.519	5.555	0.06	44.110	44.241	3.407	0.07	44.051	44.100	2.089
0.08	43.994	44.012	1.281	0.09	43.939	43.946	0.785	0.10	43.886	43.889	0.504
0.15	43.796	43.796	0.045	0.20	43.713	43.713	0.004	0.25	43.635	43.635	0.000
0.30	43.638	43.638	0.000								
From ID: TG-03-FM1											
0.04	44.285	45.147	8.780	0.05	44.162	44.510	5.552	0.06	44.102	44.233	3.404
0.07	44.044	44.093	2.087	0.08	43.987	44.006	1.280	0.09	43.933	43.940	0.785
0.10	43.881	43.884	0.504	0.15	43.792	43.792	0.045	0.20	43.709	43.709	0.004
0.25	43.632	43.632	0.000	0.30	43.635	43.635	0.000				
From ID: TG-03-PM1A											
0.04	44.214	45.072	8.752	0.05	44.099	44.445	5.533	0.06	44.042	44.173	3.393
0.07	43.988	44.037	2.081	0.08	43.935	43.954	1.276	0.09	43.884	43.891	0.782
0.10	43.835	43.838	0.502	0.15	43.752	43.752	0.045	0.20	43.673	43.673	0.004
0.25	43.601	43.601	0.000	0.30	43.604	43.604	0.000				
From ID: TG-03-TM1											
0.04	44.284	45.146	8.780	0.05	44.161	44.509	5.552	0.06	44.101	44.232	3.404
0.07	44.042	44.092	2.087	0.08	43.986	44.005	1.280	0.09	43.931	43.939	0.785
0.10	43.879	43.882	0.504	0.15	43.790	43.790	0.045	0.20	43.707	43.707	0.004
0.25	43.630	43.630	0.000	0.30	43.633	43.633	0.000				
From ID: TRL-2-01B											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 147
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-01B**

Nominal kV = 0.400 I"k = 43.05

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.05	43.054	43.376	5.278	0.06	43.054	43.176	3.237	0.07	43.054	43.100	1.985
0.08	43.054	43.071	1.217	0.09	43.054	43.061	0.746	0.10	43.054	43.057	0.479
0.15	43.054	43.054	0.043	0.20	43.054	43.054	0.004	0.25	43.054	43.054	0.000
0.30	43.054	43.054	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 148
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-02 BUS A**

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 2AM-101-1				0.02	45.059	49.381	20.202				
0.01	45.641	57.887	35.607								
From ID: 2AM-102-1				0.02	45.116	49.449	20.242	0.03	44.558	45.907	11.047
0.01	45.705	57.981	35.678								
From ID: 2AM-103-1				0.02	45.106	49.441	20.244	0.03	44.546	45.896	11.048
0.01	45.697	57.977	35.681								
From ID: 2AM-104-1				0.02	45.142	49.482	20.266	0.03	44.580	45.931	11.060
0.01	45.735	58.031	35.720								
From ID: 2AM-1801A				0.02	45.044	49.366	20.202				
0.01	45.625	57.874	35.607								
From ID: 2AM-201-1				0.02	45.073	49.402	20.224				
0.01	45.661	57.927	35.646								
From ID: 2AM-202-2				0.02	44.961	49.277	20.167				
0.01	45.544	57.774	35.546								
From ID: 2AM-203-1				0.02	45.136	49.476	20.266				
0.01	45.730	58.027	35.719								
From ID: 2AM-301-1				0.02	44.961	49.274	20.158				
0.01	45.537	57.758	35.530								
From ID: 2AM-302-1				0.02	45.142	49.482	20.266				
0.01	45.735	58.031	35.720								
From ID: 2FM-301/302/303				0.02	45.223	49.578	20.318				
0.01	45.822	58.157	35.812								
From ID: 2FM-304				0.02	45.229	49.586	20.323				
0.01	45.829	58.167	35.821								
From ID: 2FM-305				0.02	45.222	49.577	20.318				
0.01	45.821	58.155	35.811								
From ID: 2KM-302-PM1B				0.02	45.216	49.569	20.313				
0.01	45.815	58.145	35.803								
From ID: 2KM-303A				0.02	44.106	48.310	19.711				
0.01	44.609	56.542	34.742								
From ID: 2PM-105A				0.02	44.966	49.277	20.157				
0.01	45.539	57.758	35.527								
From ID: 2PM-106				0.02	45.054	49.377	20.203				
0.01	45.637	57.886	35.609								
From ID: 2PM-108A				0.02	44.700	48.982	20.028				
0.01	45.268	57.405	35.300								
From ID: 2PM-110A				0.02	44.981	49.291	20.158				
0.01	45.557	57.774	35.530								
From ID: 2PM-113A											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 149
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS A

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.01	45.258	57.387	35.284	0.02	44.705	48.982	20.019				
From ID: 2PM-114A											
0.01	45.822	58.156	35.811	0.02	45.222	49.577	20.318				
From ID: 2PM-119A											
0.01	45.825	58.161	35.814	0.02	45.226	49.581	20.320				
From ID: 2PM-121A											
0.01	45.386	57.554	35.391	0.02	44.817	49.109	20.080				
From ID: 2PM-1803A											
0.01	45.787	58.104	35.772	0.02	45.191	49.539	20.295				
From ID: 2PM-1804A											
0.01	45.625	57.874	35.607	0.02	45.044	49.366	20.202				
From ID: 2PM-1806											
0.01	45.830	58.170	35.823	0.02	45.230	49.587	20.325				
From ID: 2PM-206A											
0.01	45.027	57.079	35.078	0.02	44.497	48.745	19.902				
From ID: 2PM-302A											
0.01	45.014	57.080	35.099	0.02	44.468	48.723	19.914				
From ID: 2PM-303A											
0.01	45.625	57.874	35.607	0.02	45.044	49.366	20.202				
From ID: 2PM-307A											
0.01	45.729	58.026	35.720	0.02	45.136	49.477	20.266				
From ID: 2PM-310											
0.01	45.829	58.168	35.821	0.02	45.229	49.586	20.323				
From ID: 2PM-311A											
0.01	45.828	58.166	35.820	0.02	45.229	49.585	20.323				
From ID: 2PM-701											
0.01	45.734	58.029	35.717	0.02	45.143	49.483	20.265				
From ID: 2PM-703											
0.01	45.768	58.077	35.752	0.02	45.174	49.519	20.284				
From ID: Cable6037											
0.01	38.148	47.511	28.320	0.02	38.148	41.394	16.068	0.03	38.148	39.143	8.769

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 150
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400 I"k = 47.64

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-101-2											
0.05	43.289	43.435	3.559	0.06	43.077	43.123	1.978	0.07	42.874	42.888	1.099
0.08	42.678	42.682	0.611	0.09	42.490	42.491	0.339	0.10	42.310	42.311	0.205
From ID: 2AM-102-2											
0.06	43.091	43.136	1.981	0.07	42.885	42.899	1.101	0.08	42.686	42.691	0.612
0.09	42.496	42.497	0.340	0.10	42.314	42.315	0.205				
From ID: 2AM-104-2											
0.04	43.794	44.205	6.015	0.06	43.141	43.187	1.983	0.07	42.935	42.949	1.102
0.08	42.737	42.741	0.612	0.09	42.547	42.548	0.340	0.10	42.365	42.366	0.205
From ID: 2AM-201-2											
0.05	43.308	43.454	3.561	0.07	42.892	42.906	1.099	0.08	42.696	42.700	0.611
0.09	42.508	42.509	0.339	0.10	42.328	42.329	0.205	0.15	42.028	42.028	0.011
From ID: 2AM-202-3											
0.05	43.228	43.374	3.549	0.07	42.820	42.834	1.096	0.08	42.627	42.632	0.609
0.09	42.443	42.444	0.338	0.10	42.266	42.266	0.204	0.15	41.971	41.971	0.011
From ID: 2AM-203-2											
0.05	43.355	43.502	3.568	0.07	42.935	42.949	1.102	0.08	42.737	42.741	0.612
0.09	42.547	42.548	0.340	0.10	42.365	42.366	0.205	0.15	42.062	42.062	0.011
From ID: 2AM-301-2											
0.05	43.201	43.347	3.550	0.07	42.789	42.803	1.096	0.08	42.595	42.599	0.609
0.09	42.409	42.410	0.338	0.10	42.230	42.231	0.204	0.15	41.933	41.933	0.011
From ID: 2AM-302-2											
0.05	43.349	43.496	3.567	0.07	42.930	42.944	1.101	0.08	42.733	42.737	0.612
0.09	42.543	42.545	0.340	0.10	42.362	42.363	0.205	0.15	42.060	42.060	0.011
From ID: 2KM-301-PM1B											
0.05	43.284	43.430	3.557	0.07	42.870	42.884	1.098	0.08	42.675	42.680	0.610
0.09	42.488	42.490	0.339	0.10	42.310	42.310	0.205				
From ID: 2KM-303B											
0.05	42.574	42.716	3.477	0.07	42.203	42.217	1.074	0.08	42.028	42.033	0.597
0.09	41.860	41.862	0.331	0.10	41.700	41.700	0.200				
From ID: 2PM-103B											
0.04	43.710	44.120	6.004	0.06	43.059	43.105	1.979	0.07	42.854	42.868	1.100
0.08	42.656	42.661	0.611	0.09	42.467	42.468	0.339	0.10	42.286	42.286	0.205
From ID: 2PM-104B											
0.04	43.369	43.775	5.945	0.06	42.746	42.791	1.959	0.07	42.549	42.563	1.089
0.08	42.360	42.364	0.605	0.09	42.178	42.179	0.336	0.10	42.004	42.005	0.203
From ID: 2PM-107B											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 151
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.04	43.645	44.054	5.983	0.06	43.015	43.060	1.972	0.07	42.816	42.830	1.096
0.08	42.625	42.629	0.609	0.09	42.441	42.442	0.338	0.10	42.265	42.266	0.204
From ID: 2PM-109B											
0.04	43.693	44.103	6.001	0.06	43.044	43.089	1.978	0.07	42.839	42.853	1.099
0.08	42.642	42.646	0.611	0.09	42.453	42.454	0.339	0.10	42.272	42.272	0.205
From ID: 2PM-111B											
0.05	43.331	43.477	3.564	0.07	42.913	42.927	1.100	0.08	42.716	42.720	0.611
0.09	42.527	42.528	0.340	0.10	42.346	42.347	0.205	0.15	42.045	42.045	0.011
From ID: 2PM-112B											
0.05	42.739	42.882	3.500	0.07	42.356	42.370	1.081	0.08	42.176	42.180	0.600
0.09	42.003	42.005	0.334	0.10	41.838	41.838	0.201	0.15	41.565	41.565	0.011
From ID: 2PM-115											
0.05	43.410	43.557	3.578	0.07	42.984	42.999	1.105	0.08	42.784	42.788	0.614
0.09	42.591	42.593	0.341	0.10	42.407	42.408	0.206	0.15	42.101	42.101	0.011
From ID: 2PM-116B											
0.05	43.399	43.546	3.575	0.07	42.975	42.989	1.104	0.08	42.775	42.779	0.613
0.09	42.583	42.584	0.341	0.10	42.399	42.400	0.206	0.15	42.094	42.094	0.011
From ID: 2PM-117B											
0.05	43.094	43.239	3.534	0.07	42.697	42.711	1.091	0.08	42.510	42.514	0.606
0.09	42.330	42.331	0.337	0.10	42.158	42.159	0.203	0.15	41.873	41.873	0.011
From ID: 2PM-122B											
0.05	43.390	43.537	3.573	0.07	42.967	42.981	1.103	0.08	42.768	42.772	0.613
0.09	42.577	42.578	0.341	0.10	42.394	42.394	0.206	0.15	42.089	42.089	0.011
From ID: 2PM-1601B											
0.05	43.406	43.554	3.577	0.07	42.981	42.995	1.104	0.08	42.781	42.785	0.614
0.09	42.588	42.590	0.341	0.10	42.404	42.405	0.206				
From ID: 2PM-1801B											
0.04	43.736	44.146	6.002	0.06	43.093	43.138	1.978	0.07	42.890	42.904	1.099
0.08	42.694	42.699	0.611	0.09	42.507	42.508	0.339	0.10	42.328	42.328	0.205
From ID: 2PM-202-4											
0.05	43.228	43.374	3.549	0.07	42.820	42.834	1.096	0.08	42.627	42.632	0.609
0.09	42.443	42.444	0.338	0.10	42.266	42.266	0.204	0.15	41.971	41.971	0.011
From ID: 2PM-203B											
0.05	43.374	43.520	3.572	0.07	42.951	42.965	1.103	0.08	42.752	42.757	0.613
0.09	42.561	42.563	0.340	0.10	42.379	42.379	0.206	0.15	42.075	42.075	0.011
From ID: 2PM-205B											
0.05	43.060	43.205	3.535	0.07	42.657	42.671	1.091	0.08	42.467	42.471	0.606

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 152
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS B**

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.09	42.284	42.286	0.337	0.10	42.110	42.110	0.203	0.15	41.820	41.820	0.011
From ID: 2PM-207											
0.05	43.267	43.413	3.560	0.07	42.850	42.864	1.099	0.08	42.654	42.658	0.611
0.09	42.466	42.467	0.339	0.10	42.285	42.286	0.205	0.15	41.985	41.985	0.011
From ID: 2PM-305B											
0.05	43.119	43.264	3.534	0.07	42.721	42.735	1.091	0.08	42.533	42.537	0.606
0.09	42.353	42.354	0.337	0.10	42.180	42.181	0.203	0.15	41.893	41.893	0.011
From ID: 2PM-306B											
0.05	43.349	43.496	3.568	0.07	42.929	42.943	1.102	0.08	42.731	42.735	0.612
0.09	42.541	42.543	0.340	0.10	42.360	42.360	0.205	0.15	42.057	42.057	0.011
From ID: 2PM-308											
0.05	43.413	43.560	3.578	0.07	42.987	43.001	1.105	0.08	42.786	42.791	0.614
0.09	42.594	42.595	0.341	0.10	42.409	42.410	0.206				
From ID: 2PM-602B											
0.05	43.356	43.503	3.568	0.07	42.936	42.950	1.102	0.08	42.738	42.742	0.612
0.09	42.548	42.549	0.340	0.10	42.366	42.366	0.205				
From ID: Cable6060											
0.05	38.132	38.238	2.856	0.07	38.132	38.142	0.882	0.08	38.132	38.135	0.490
0.09	38.132	38.133	0.272	0.10	38.132	38.132	0.164	0.15	38.132	38.132	0.009

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 153
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-02 BUS A

Nominal kV = 0.400 I"k = 47.88

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-101-1											
0.03	44.508	45.853	11.025	0.04	43.991	44.401	6.017	0.05	43.512	43.657	3.562
0.06	43.278	43.323	1.976	0.07	43.053	43.067	1.096	0.08	42.836	42.840	0.608
0.09	42.628	42.629	0.337	0.10	42.429	42.429	0.203	0.15	42.090	42.090	0.011
0.20	41.775	41.775	0.001	0.25	41.486	41.486	0.000	0.30	41.497	41.497	0.000
From ID: 2AM-102-1											
0.04	44.036	44.446	6.029	0.05	43.550	43.696	3.569	0.06	43.313	43.359	1.980
0.07	43.085	43.099	1.098	0.08	42.866	42.870	0.609	0.09	42.656	42.657	0.338
0.10	42.454	42.454	0.204	0.15	42.111	42.111	0.011	0.20	41.793	41.793	0.001
0.25	41.500	41.500	0.000	0.30	41.512	41.512	0.000				
From ID: 2AM-103-1											
0.04	44.022	44.433	6.029	0.05	43.534	43.680	3.570	0.06	43.297	43.342	1.980
0.07	43.068	43.082	1.098	0.08	42.848	42.852	0.609	0.09	42.636	42.638	0.338
0.10	42.434	42.434	0.204	0.15	42.090	42.090	0.011	0.20	41.771	41.771	0.001
0.25	41.477	41.477	0.000	0.30	41.489	41.489	0.000				
From ID: 2AM-104-1											
0.04	44.053	44.464	6.036	0.05	43.563	43.710	3.574	0.06	43.325	43.370	1.982
0.07	43.095	43.109	1.100	0.08	42.874	42.878	0.610	0.09	42.662	42.663	0.338
0.10	42.459	42.459	0.204	0.15	42.113	42.113	0.011	0.20	41.793	41.793	0.001
0.25	41.498	41.498	0.000	0.30	41.510	41.510	0.000				
From ID: 2AM-1801A											
0.03	44.493	45.839	11.025	0.04	43.977	44.387	6.017	0.05	43.498	43.644	3.562
0.06	43.265	43.310	1.976	0.07	43.040	43.054	1.096	0.08	42.824	42.828	0.608
0.09	42.616	42.617	0.337	0.10	42.417	42.417	0.203	0.15	42.079	42.079	0.011
0.20	41.766	41.766	0.001	0.25	41.477	41.477	0.000	0.30	41.489	41.489	0.000
From ID: 2AM-201-1											
0.03	44.515	45.863	11.037	0.04	43.993	44.403	6.023	0.05	43.507	43.653	3.566
0.06	43.271	43.316	1.978	0.07	43.043	43.057	1.097	0.08	42.823	42.828	0.609
0.09	42.613	42.614	0.338	0.10	42.411	42.412	0.203	0.15	42.068	42.068	0.011
0.20	41.750	41.750	0.001	0.25	41.457	41.457	0.000	0.30	41.469	41.469	0.000
From ID: 2AM-202-2											
0.03	44.408	45.752	11.006	0.04	43.889	44.299	6.006	0.05	43.408	43.553	3.556
0.06	43.173	43.218	1.973	0.07	42.947	42.961	1.094	0.08	42.729	42.733	0.607
0.09	42.520	42.521	0.337	0.10	42.320	42.320	0.203	0.15	41.979	41.979	0.011
0.20	41.663	41.663	0.001	0.25	41.372	41.372	0.000	0.30	41.384	41.384	0.000
From ID: 2AM-203-1											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 154
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS A**

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.03	44.573	45.924	11.060	0.04	44.045	44.457	6.036	0.05	43.555	43.701	3.574
0.06	43.316	43.361	1.982	0.07	43.086	43.100	1.100	0.08	42.865	42.869	0.610
0.09	42.652	42.653	0.338	0.10	42.448	42.449	0.204	0.15	42.103	42.103	0.011
0.20	41.782	41.782	0.001	0.25	41.486	41.486	0.000	0.30	41.498	41.498	0.000
From ID: 2AM-301-1											
0.03	44.416	45.759	11.001	0.04	43.905	44.314	6.004	0.05	43.431	43.576	3.555
0.06	43.199	43.244	1.972	0.07	42.977	42.990	1.094	0.08	42.762	42.766	0.607
0.09	42.556	42.558	0.337	0.10	42.359	42.359	0.203	0.15	42.024	42.024	0.011
0.20	41.714	41.714	0.001	0.25	41.428	41.428	0.000	0.30	41.440	41.440	0.000
From ID: 2AM-302-1											
0.03	44.580	45.931	11.060	0.04	44.053	44.464	6.036	0.05	43.563	43.710	3.574
0.06	43.325	43.370	1.982	0.07	43.095	43.109	1.100	0.08	42.874	42.878	0.610
0.09	42.662	42.663	0.338	0.10	42.459	42.459	0.204	0.15	42.113	42.113	0.011
0.20	41.793	41.793	0.001	0.25	41.498	41.498	0.000	0.30	41.510	41.510	0.000
From ID: 2FM-301/302/303											
0.03	44.656	46.012	11.088	0.04	44.124	44.537	6.051	0.05	43.630	43.777	3.583
0.06	43.389	43.435	1.987	0.07	43.158	43.172	1.102	0.08	42.935	42.939	0.612
0.09	42.721	42.722	0.339	0.10	42.516	42.516	0.204	0.15	42.168	42.168	0.011
0.20	41.845	41.845	0.001	0.25	41.548	41.548	0.000	0.30	41.560	41.560	0.000
From ID: 2FM-304											
0.03	44.661	46.018	11.091	0.04	44.129	44.542	6.053	0.05	43.634	43.781	3.584
0.06	43.393	43.439	1.988	0.07	43.161	43.175	1.103	0.08	42.938	42.942	0.612
0.09	42.724	42.725	0.339	0.10	42.518	42.519	0.204	0.15	42.170	42.170	0.011
0.20	41.847	41.847	0.001	0.25	41.550	41.550	0.000	0.30	41.562	41.562	0.000
From ID: 2FM-305											
0.03	44.655	46.011	11.088	0.04	44.123	44.536	6.051	0.05	43.629	43.776	3.583
0.06	43.389	43.434	1.987	0.07	43.157	43.171	1.102	0.08	42.934	42.938	0.611
0.09	42.720	42.721	0.339	0.10	42.515	42.516	0.204	0.15	42.167	42.167	0.011
0.20	41.845	41.845	0.001	0.25	41.548	41.548	0.000	0.30	41.560	41.560	0.000
From ID: 2KM-302-PM1B											
0.03	44.649	46.005	11.086	0.04	44.118	44.531	6.050	0.05	43.624	43.771	3.582
0.06	43.384	43.430	1.987	0.07	43.152	43.167	1.102	0.08	42.930	42.934	0.611
0.09	42.716	42.717	0.339	0.10	42.511	42.511	0.204	0.15	42.163	42.163	0.011
0.20	41.841	41.841	0.001	0.25	41.544	41.544	0.000	0.30	41.556	41.556	0.000
From ID: 2KM-303A											
0.03	43.630	44.937	10.757	0.04	43.184	43.581	5.871	0.05	42.770	42.911	3.476

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 155
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS A

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.06	42.567	42.611	1.928	0.07	42.372	42.385	1.069	0.08	42.184	42.188	0.593
0.09	42.004	42.005	0.329	0.10	41.831	41.831	0.198	0.15	41.542	41.542	0.011
0.20	41.275	41.275	0.001	0.25	41.028	41.028	0.000	0.30	41.042	41.042	0.000
From ID: 2PM-105A				0.04	43.913	44.322	6.003	0.05	43.440	43.586	3.554
0.03	44.423	45.764	11.000	0.07	42.988	43.002	1.094	0.08	42.774	42.778	0.607
0.06	43.210	43.255	1.972	0.10	42.373	42.373	0.203	0.15	42.039	42.039	0.011
0.09	42.569	42.570	0.337	0.25	41.445	41.445	0.000	0.30	41.457	41.457	0.000
0.20	41.730	41.730	0.001	0.04	43.984	44.394	6.017	0.05	43.503	43.649	3.562
From ID: 2PM-106				0.07	43.043	43.057	1.096	0.08	42.826	42.830	0.608
0.03	44.502	45.847	11.026	0.10	42.417	42.418	0.203	0.15	42.078	42.078	0.011
0.06	43.269	43.314	1.976	0.25	41.472	41.472	0.000	0.30	41.484	41.484	0.000
0.09	42.617	42.618	0.337	0.04	43.658	44.063	5.965	0.05	43.189	43.333	3.532
0.20	41.762	41.762	0.001	0.07	42.739	42.753	1.087	0.08	42.527	42.531	0.603
From ID: 2PM-108A				0.10	42.128	42.129	0.201	0.15	41.796	41.796	0.011
0.03	44.163	45.495	10.930	0.25	41.204	41.204	0.000	0.30	41.216	41.216	0.000
0.06	42.960	43.005	1.959	0.04	43.923	44.331	6.004	0.05	43.447	43.593	3.555
0.09	42.323	42.325	0.334	0.07	42.992	43.006	1.094	0.08	42.778	42.782	0.607
0.20	41.488	41.488	0.001	0.10	42.374	42.374	0.203	0.15	42.038	42.038	0.011
From ID: 2PM-110A				0.25	41.439	41.439	0.000	0.30	41.450	41.450	0.000
0.03	44.435	45.777	11.001	0.04	43.689	44.094	5.962	0.05	43.233	43.377	3.530
0.06	43.216	43.261	1.972	0.07	42.796	42.810	1.086	0.08	42.590	42.594	0.602
0.09	42.571	42.573	0.337	0.10	42.202	42.202	0.201	0.15	41.881	41.881	0.011
0.20	41.726	41.726	0.001	0.25	41.309	41.309	0.000	0.30	41.321	41.321	0.000
From ID: 2PM-113A				0.04	44.123	44.536	6.051	0.05	43.629	43.776	3.583
0.03	44.181	45.512	10.925	0.07	43.157	43.171	1.102	0.08	42.934	42.938	0.611
0.06	43.011	43.055	1.958	0.10	42.514	42.515	0.204	0.15	42.167	42.167	0.011
0.09	42.392	42.393	0.334	0.25	41.547	41.547	0.000	0.30	41.559	41.559	0.000
0.20	41.583	41.583	0.001	0.04	44.126	44.539	6.052	0.05	43.632	43.779	3.583
From ID: 2PM-114A				0.07	43.159	43.173	1.102	0.08	42.936	42.940	0.612
0.03	44.655	46.011	11.088								
0.06	43.388	43.434	1.987								
0.09	42.720	42.721	0.339								
0.20	41.844	41.844	0.001								
From ID: 2PM-119A											
0.03	44.658	46.014	11.089								
0.06	43.391	43.437	1.988								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 156
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS A

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.09	42.722	42.723	0.339	0.10	42.517	42.517	0.204	0.15	42.169	42.169	0.011
0.20	41.846	41.846	0.001	0.25	41.548	41.548	0.000	0.30	41.561	41.561	0.000
From ID: 2PM-121A				0.04	43.770	44.177	5.980	0.05	43.299	43.444	3.541
0.03	44.277	45.612	10.958	0.07	42.848	42.862	1.089	0.08	42.635	42.640	0.604
0.06	43.070	43.114	1.964	0.10	42.235	42.236	0.202	0.15	41.902	41.902	0.011
0.09	42.431	42.432	0.335	0.25	41.309	41.309	0.000	0.30	41.321	41.321	0.000
0.20	41.594	41.594	0.001	0.04	44.097	44.509	6.045	0.05	43.606	43.752	3.579
From ID: 2PM-1803A				0.07	43.135	43.149	1.101	0.08	42.914	42.918	0.611
0.03	44.626	45.980	11.076	0.10	42.496	42.497	0.204	0.15	42.150	42.150	0.011
0.06	43.366	43.412	1.985	0.25	41.533	41.533	0.000	0.30	41.545	41.545	0.000
0.09	42.701	42.702	0.339	0.04	43.977	44.387	6.017	0.05	43.498	43.644	3.562
0.20	41.829	41.829	0.001	0.07	43.040	43.054	1.096	0.08	42.824	42.828	0.608
From ID: 2PM-1804A				0.10	42.417	42.417	0.203	0.15	42.079	42.079	0.011
0.03	44.493	45.839	11.025	0.25	41.477	41.477	0.000	0.30	41.489	41.489	0.000
0.06	43.265	43.310	1.976	0.04	44.129	44.542	6.053	0.05	43.635	43.781	3.584
0.09	42.616	42.617	0.337	0.07	43.161	43.175	1.103	0.08	42.938	42.942	0.612
0.20	41.766	41.766	0.001	0.10	42.518	42.519	0.204	0.15	42.170	42.170	0.011
From ID: 2PM-1806				0.25	41.550	41.550	0.000	0.30	41.562	41.562	0.000
0.03	44.662	46.019	11.092	0.04	43.525	43.926	5.927	0.05	43.088	43.231	3.509
0.06	43.394	43.439	1.988	0.07	42.669	42.683	1.080	0.08	42.471	42.476	0.599
0.09	42.724	42.725	0.339	0.10	42.100	42.100	0.200	0.15	41.794	41.794	0.011
0.20	41.847	41.847	0.001	0.25	41.249	41.249	0.000	0.30	41.261	41.261	0.000
From ID: 2PM-206A				0.04	43.465	43.868	5.931	0.05	43.014	43.157	3.511
0.03	43.995	45.316	10.861	0.07	42.581	42.595	1.080	0.08	42.377	42.381	0.599
0.06	42.875	42.919	1.947	0.10	41.993	41.993	0.200	0.15	41.675	41.675	0.011
0.09	42.282	42.283	0.332	0.25	41.109	41.109	0.000	0.30	41.122	41.122	0.000
0.20	41.510	41.510	0.001	0.04	43.977	44.387	6.017	0.05	43.498	43.644	3.562
From ID: 2PM-302A				0.07	43.040	43.054	1.096	0.08	42.824	42.828	0.608
0.03	43.950	45.274	10.868	0.10	42.417	42.417	0.203	0.15	42.079	42.079	0.011
0.06	42.794	42.838	1.948	0.25	41.550	41.550	0.000	0.30	41.562	41.562	0.000
0.09	42.181	42.182	0.332	0.04	43.977	44.387	6.017	0.05	43.498	43.644	3.562
0.20	41.381	41.381	0.001	0.07	43.040	43.054	1.096	0.08	42.824	42.828	0.608
From ID: 2PM-303A				0.10	42.417	42.417	0.203	0.15	42.079	42.079	0.011
0.03	44.493	45.839	11.025	0.25	41.550	41.550	0.000	0.30	41.562	41.562	0.000
0.06	43.265	43.310	1.976	0.04	43.977	44.387	6.017	0.05	43.498	43.644	3.562
0.09	42.616	42.617	0.337	0.07	43.040	43.054	1.096	0.08	42.824	42.828	0.608

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 157
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS A**

Nominal kV = 0.400 I"k = 47.88

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.20	41.766	41.766	0.001	0.25	41.477	41.477	0.000	0.30	41.489	41.489	0.000
From ID: 2PM-307A											
0.03	44.574	45.926	11.060	0.04	44.048	44.459	6.036	0.05	43.558	43.705	3.574
0.06	43.320	43.365	1.982	0.07	43.090	43.104	1.100	0.08	42.870	42.874	0.610
0.09	42.657	42.659	0.338	0.10	42.454	42.455	0.204	0.15	42.109	42.109	0.011
0.20	41.789	41.789	0.001	0.25	41.494	41.494	0.000	0.30	41.507	41.507	0.000
From ID: 2PM-310											
0.03	44.661	46.018	11.091	0.04	44.129	44.542	6.053	0.05	43.634	43.781	3.584
0.06	43.393	43.439	1.988	0.07	43.161	43.175	1.103	0.08	42.938	42.942	0.612
0.09	42.724	42.725	0.339	0.10	42.518	42.519	0.204	0.15	42.170	42.170	0.011
0.20	41.847	41.847	0.001	0.25	41.550	41.550	0.000	0.30	41.562	41.562	0.000
From ID: 2PM-311A											
0.03	44.661	46.017	11.091	0.04	44.128	44.541	6.053	0.05	43.634	43.780	3.584
0.06	43.393	43.438	1.988	0.07	43.161	43.175	1.103	0.08	42.937	42.942	0.612
0.09	42.723	42.724	0.339	0.10	42.518	42.518	0.204	0.15	42.170	42.170	0.011
0.20	41.847	41.847	0.001	0.25	41.549	41.549	0.000	0.30	41.562	41.562	0.000
From ID: 2PM-701											
0.03	44.583	45.934	11.059	0.04	44.057	44.469	6.035	0.05	43.569	43.716	3.573
0.06	43.332	43.377	1.982	0.07	43.103	43.117	1.099	0.08	42.882	42.887	0.610
0.09	42.671	42.672	0.338	0.10	42.468	42.469	0.204	0.15	42.124	42.124	0.011
0.20	41.805	41.805	0.001	0.25	41.511	41.511	0.000	0.30	41.523	41.523	0.000
From ID: 2PM-703											
0.03	44.611	45.964	11.070	0.04	44.083	44.495	6.041	0.05	43.593	43.739	3.577
0.06	43.354	43.399	1.984	0.07	43.124	43.138	1.101	0.08	42.903	42.907	0.610
0.09	42.690	42.691	0.339	0.10	42.487	42.487	0.204	0.15	42.141	42.141	0.011
0.20	41.820	41.820	0.001	0.25	41.525	41.525	0.000	0.30	41.537	41.537	0.000
From ID: Cable6037											
0.04	38.148	38.447	4.785	0.05	38.148	38.253	2.833	0.06	38.148	38.181	1.572
0.07	38.148	38.158	0.872	0.08	38.148	38.151	0.484	0.09	38.148	38.149	0.268
0.10	38.148	38.149	0.162	0.15	38.148	38.148	0.009	0.20	38.148	38.148	0.000
0.25	38.148	38.148	0.000	0.30	38.148	38.148	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 158
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-2-02 BUS B**

Nominal kV = 0.400 I"k = 47.64

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-101-2											
0.01	45.218	57.376	35.317	0.02	44.689	48.993	20.080	0.03	44.190	45.532	10.976
0.04	43.722	44.132	6.000								
From ID: 2AM-102-2											
0.01	45.259	57.442	35.372	0.02	44.724	49.038	20.112	0.03	44.218	45.564	10.993
0.04	43.744	44.155	6.009								
From ID: 2AM-104-2											
0.01	45.308	57.501	35.405	0.02	44.773	49.090	20.130	0.03	44.267	45.614	11.004
From ID: 2AM-201-2											
0.01	45.239	57.402	35.333	0.02	44.710	49.016	20.089	0.03	44.209	45.553	10.981
0.04	43.741	44.151	6.003								
From ID: 2AM-202-3											
0.01	45.125	57.242	35.220	0.02	44.605	48.894	20.025	0.03	44.114	45.452	10.946
0.04	43.654	44.062	5.983								
From ID: 2AM-203-2											
0.01	45.308	57.501	35.405	0.02	44.773	49.090	20.130	0.03	44.267	45.614	11.004
0.04	43.794	44.205	6.015								
From ID: 2AM-301-2											
0.01	45.114	57.239	35.227	0.02	44.590	48.882	20.029	0.03	44.095	45.434	10.948
0.04	43.631	44.040	5.985								
From ID: 2AM--302-2											
0.01	45.296	57.486	35.397	0.02	44.762	49.078	20.126	0.03	44.258	45.605	11.001
0.04	43.786	44.197	6.014								
From ID: 2KM-301-PM1B											
0.01	45.205	57.354	35.299	0.02	44.678	48.979	20.070	0.03	44.181	45.523	10.971
0.04	43.715	44.125	5.997								
From ID: 2KM-303B											
0.01	44.290	56.144	34.505	0.02	43.820	48.012	19.619	0.03	43.376	44.682	10.724
0.04	42.960	43.358	5.862								
From ID: 2PM-103B											
0.01	45.218	57.391	35.342	0.02	44.685	48.995	20.094	0.03	44.181	45.526	10.984
From ID: 2PM-104B											
0.01	44.812	56.856	34.992	0.02	44.302	48.565	19.896	0.03	43.820	45.150	10.875
From ID: 2PM-107B											
0.01	45.108	57.228	35.218	0.02	44.591	48.881	20.024	0.03	44.103	45.440	10.945
From ID: 2PM-109B											
0.01	45.198	57.365	35.325	0.02	44.666	48.974	20.085	0.03	44.163	45.507	10.979

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 159
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS B**

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 2PM-111B											
0.01	45.272	57.450	35.368	0.02	44.740	49.052	20.109	0.03	44.237	45.582	10.992
0.04	43.767	44.177	6.009								
From ID: 2PM-112B											
0.01	44.508	56.457	34.733	0.02	44.024	48.250	19.748	0.03	43.565	44.883	10.795
0.04	43.136	43.538	5.901								
From ID: 2PM-115											
0.01	45.389	57.623	35.500	0.02	44.846	49.179	20.184	0.03	44.334	45.686	11.033
0.04	43.854	44.267	6.031								
From ID: 2PM-116B											
0.01	45.372	57.596	35.479	0.02	44.831	49.160	20.172	0.03	44.320	45.671	11.027
0.04	43.842	44.254	6.027								
From ID: 2PM-117B											
0.01	44.939	57.004	35.072	0.02	44.433	48.702	19.941	0.03	43.955	45.287	10.900
0.04	43.508	43.915	5.958								
From ID: 2PM-122B											
0.01	45.357	57.572	35.457	0.02	44.818	49.144	20.160	0.03	44.309	45.658	11.020
0.04	43.832	44.244	6.024								
From ID: 2PM-1601B											
0.01	45.384	57.614	35.492	0.02	44.842	49.173	20.180	0.03	44.330	45.681	11.031
0.04	43.850	44.263	6.030								
From ID: 2PM-1801B											
0.01	45.228	57.393	35.331	0.02	44.701	49.007	20.088	0.03	44.202	45.546	10.981
From ID: 2PM-202-4											
0.01	45.125	57.242	35.220	0.02	44.605	48.894	20.025	0.03	44.114	45.452	10.946
0.04	43.654	44.062	5.983								
From ID: 2PM-203B											
0.01	45.336	57.545	35.442	0.02	44.798	49.122	20.151	0.03	44.290	45.639	11.015
0.04	43.814	44.226	6.021								
From ID: 2PM-205B											
0.01	44.929	57.002	35.080	0.02	44.417	48.690	19.946	0.03	43.933	45.265	10.903
0.04	43.480	43.886	5.960								
From ID: 2PM-207											
0.01	45.202	57.366	35.322	0.02	44.671	48.978	20.083	0.03	44.170	45.514	10.978
0.04	43.701	44.111	6.001								
From ID: 2PM-305B											
0.01	44.969	57.029	35.072	0.02	44.462	48.729	19.941	0.03	43.983	45.314	10.900

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 160
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-02 BUS B**

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.04	43.535	43.941	5.958								
From ID: 2PM-306B											
0.01	45.300	57.495	35.405	0.02	44.765	49.083	20.130	0.03	44.260	45.607	11.004
0.04	43.787	44.198	6.015								
From ID: 2PM-308											
0.01	45.394	57.631	35.506	0.02	44.851	49.185	20.188	0.03	44.338	45.691	11.035
0.04	43.858	44.271	6.032								
From ID: 2PM-602B											
0.01	45.309	57.503	35.407	0.02	44.774	49.092	20.131	0.03	44.268	45.615	11.004
0.04	43.795	44.206	6.015								
From ID: Cable6060											
0.01	38.132	47.509	28.339	0.02	38.132	41.396	16.113	0.03	38.132	39.136	8.808
0.04	38.132	38.434	4.815								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 161
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-101A											
0.20	40.601	40.601	0.008	0.25	40.365	40.365	0.001	0.30	40.380	40.380	0.000
From ID: 3AM-101C											
0.20	40.601	40.601	0.008	0.25	40.365	40.365	0.001	0.30	40.380	40.380	0.000
From ID: 3AM-101E											
0.20	40.601	40.601	0.008	0.25	40.365	40.365	0.001	0.30	40.380	40.380	0.000
From ID: 3AM-102A											
0.20	40.618	40.618	0.008	0.25	40.380	40.380	0.001	0.30	40.395	40.395	0.000
From ID: 3AM-105A											
0.20	40.618	40.618	0.008	0.25	40.380	40.380	0.001	0.30	40.395	40.395	0.000
From ID: 3AM-105C											
0.20	40.618	40.618	0.008	0.25	40.380	40.380	0.001	0.30	40.395	40.395	0.000
From ID: 3AM-105E											
0.20	40.618	40.618	0.008	0.25	40.380	40.380	0.001	0.30	40.395	40.395	0.000
From ID: 3AM-611/612A											
0.20	40.612	40.612	0.008	0.25	40.373	40.373	0.001	0.30	40.388	40.388	0.000
From ID: 3JM-1902											
0.20	40.701	40.701	0.008	0.25	40.455	40.455	0.001	0.30	40.471	40.471	0.000
From ID: 3K-101A-P											
0.20	40.701	40.701	0.008	0.25	40.455	40.455	0.001	0.30	40.471	40.471	0.000
From ID: 3K-201-PM01B											
0.25	40.457	40.457	0.001	0.30	40.472	40.472	0.000				
From ID: 3KM-101A											
0.20	40.191	40.191	0.008	0.25	39.990	39.990	0.001	0.30	40.004	40.004	0.000
From ID: 3KM-201											
0.20	40.168	40.168	0.008	0.25	39.969	39.969	0.001	0.30	39.983	39.983	0.000
From ID: 3KM-351											
0.20	40.516	40.516	0.008	0.25	40.284	40.284	0.001	0.30	40.298	40.298	0.000
From ID: 3KM-501A											
0.20	40.686	40.686	0.008	0.25	40.442	40.442	0.001	0.30	40.457	40.457	0.000
From ID: 3PM-1304A											
0.20	40.668	40.668	0.008	0.25	40.424	40.424	0.001	0.30	40.440	40.440	0.000
From ID: 3PM-1601A											
0.20	40.694	40.694	0.008	0.25	40.449	40.449	0.001	0.30	40.464	40.464	0.000
From ID: 3PM-1651A											
0.20	40.686	40.686	0.008	0.25	40.442	40.442	0.001	0.30	40.457	40.457	0.000
From ID: 3PM-1801A											
0.20	40.660	40.660	0.008	0.25	40.418	40.418	0.001	0.30	40.433	40.433	0.000
From ID: 3PM-1803A											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 162
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.20	40.686	40.686	0.008	0.25	40.442	40.442	0.001	0.30	40.457	40.457	0.000
From ID: 3PM-1805A											
0.20	40.660	40.660	0.008	0.25	40.418	40.418	0.001	0.30	40.433	40.433	0.000
From ID: 3PM-1806A											
0.20	40.703	40.703	0.008	0.25	40.458	40.458	0.001	0.30	40.473	40.473	0.000
From ID: 3PM-1903											
0.20	40.694	40.694	0.008	0.25	40.449	40.449	0.001	0.30	40.464	40.464	0.000
From ID: 3PM-1904											
0.20	40.701	40.701	0.008	0.25	40.455	40.455	0.001	0.30	40.471	40.471	0.000
From ID: 3PM-201A											
0.20	40.694	40.694	0.008	0.25	40.449	40.449	0.001	0.30	40.464	40.464	0.000
From ID: 3PM-302A											
0.20	40.686	40.686	0.008	0.25	40.442	40.442	0.001	0.30	40.457	40.457	0.000
From ID: 3PM-303A											
0.20	40.668	40.668	0.008	0.25	40.424	40.424	0.001	0.30	40.440	40.440	0.000
From ID: 3PM-304A											
0.20	40.612	40.612	0.008	0.25	40.373	40.373	0.001	0.30	40.388	40.388	0.000
From ID: 3PM-305A/306A											
0.20	40.702	40.702	0.008	0.25	40.457	40.457	0.001	0.30	40.472	40.472	0.000
From ID: 3PM-307A/308A											
0.20	40.702	40.702	0.008	0.25	40.457	40.457	0.001	0.30	40.472	40.472	0.000
From ID: 3PM-309											
0.20	40.701	40.701	0.008	0.25	40.455	40.455	0.001	0.30	40.471	40.471	0.000
From ID: 3PM-310											
0.20	40.686	40.686	0.008	0.25	40.442	40.442	0.001	0.30	40.457	40.457	0.000
From ID: 3PM-401A											
0.20	40.612	40.612	0.008	0.25	40.373	40.373	0.001	0.30	40.388	40.388	0.000
From ID: 3PM-402A											
0.20	40.644	40.644	0.008	0.25	40.403	40.403	0.001	0.30	40.418	40.418	0.000
From ID: 3PM-404A											
0.20	40.579	40.579	0.008	0.25	40.342	40.342	0.001	0.30	40.357	40.357	0.000
From ID: 3PM-405A/306A											
0.20	40.703	40.703	0.008	0.25	40.458	40.458	0.001	0.30	40.473	40.473	0.000
From ID: 3PM-502											
0.20	40.678	40.678	0.008	0.25	40.433	40.433	0.001	0.30	40.449	40.449	0.000
From ID: 3PM-601											
0.20	40.660	40.660	0.008	0.25	40.418	40.418	0.001	0.30	40.433	40.433	0.000
From ID: 3PM-611A											
0.20	40.644	40.644	0.008	0.25	40.403	40.403	0.001	0.30	40.418	40.418	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 163
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 3PM-641											
0.20	40.579	40.579	0.008	0.25	40.342	40.342	0.001	0.30	40.357	40.357	0.000
From ID: TRL-3-02A											
0.20	37.861	37.861	0.006	0.25	37.861	37.861	0.001	0.30	37.861	37.861	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 164
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400 I"k = 47.64

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-101-2											
0.15	42.011	42.011	0.011	0.20	41.734	41.734	0.001	0.25	41.478	41.478	0.000
0.30	41.492	41.492	0.000								
From ID: 2AM-102-2											
0.05	43.305	43.452	3.565	0.15	42.011	42.011	0.011	0.20	41.730	41.730	0.001
0.25	41.471	41.471	0.000	0.30	41.486	41.486	0.000				
From ID: 2AM-104-2											
0.05	43.355	43.502	3.568	0.15	42.062	42.062	0.011	0.20	41.781	41.781	0.001
0.25	41.523	41.523	0.000	0.30	41.537	41.537	0.000				
From ID: 2AM-201-2											
0.06	43.096	43.141	1.979	0.20	41.750	41.750	0.001	0.25	41.495	41.495	0.000
0.30	41.509	41.509	0.000								
From ID: 2AM-202-3											
0.06	43.020	43.065	1.972	0.20	41.699	41.699	0.001	0.25	41.448	41.448	0.000
0.30	41.461	41.461	0.000								
From ID: 2AM-203-2											
0.06	43.141	43.187	1.983	0.20	41.781	41.781	0.001	0.25	41.523	41.523	0.000
0.30	41.537	41.537	0.000								
From ID: 2AM-301-2											
0.06	42.992	43.037	1.973	0.20	41.658	41.658	0.001	0.25	41.404	41.404	0.000
0.30	41.418	41.418	0.000								
From ID: 2AM-302-2											
0.06	43.136	43.181	1.982	0.20	41.781	41.781	0.001	0.25	41.524	41.524	0.000
0.30	41.538	41.538	0.000								
From ID: 2KM-301-PM1B											
0.06	43.073	43.119	1.977	0.15	42.011	42.011	0.011	0.20	41.735	41.735	0.001
0.25	41.481	41.481	0.000	0.30	41.495	41.495	0.000				
From ID: 2KM-303B											
0.06	42.385	42.429	1.932	0.15	41.434	41.434	0.011	0.20	41.188	41.188	0.001
0.25	40.962	40.962	0.000	0.30	40.976	40.976	0.000				
From ID: 2PM-103B											
0.05	43.273	43.419	3.562	0.15	41.984	41.984	0.011	0.20	41.704	41.704	0.001
0.25	41.447	41.447	0.000	0.30	41.462	41.462	0.000				
From ID: 2PM-104B											
0.05	42.951	43.095	3.526	0.15	41.716	41.716	0.011	0.20	41.448	41.448	0.001
0.25	41.202	41.202	0.000	0.30	41.217	41.217	0.000				
From ID: 2PM-107B											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 165
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.05	43.222	43.368	3.549	0.15	41.973	41.973	0.011	0.20	41.703	41.703	0.001
0.25	41.454	41.454	0.000	0.30	41.469	41.469	0.000				
From ID: 2PM-109B											
0.05	43.257	43.403	3.560	0.15	41.971	41.971	0.011	0.20	41.692	41.692	0.001
0.25	41.435	41.435	0.000	0.30	41.450	41.450	0.000				
From ID: 2PM-111B											
0.06	43.118	43.163	1.980	0.20	41.765	41.765	0.001	0.25	41.509	41.509	0.000
0.30	41.523	41.523	0.000								
From ID: 2PM-112B											
0.06	42.544	42.588	1.945	0.20	41.312	41.312	0.001	0.25	41.080	41.080	0.000
0.30	41.095	41.095	0.000								
From ID: 2PM-115											
0.06	43.193	43.239	1.988	0.20	41.817	41.817	0.001	0.25	41.556	41.556	0.000
0.30	41.571	41.571	0.000								
From ID: 2PM-116B											
0.06	43.183	43.228	1.987	0.20	41.811	41.811	0.001	0.25	41.550	41.550	0.000
0.30	41.565	41.565	0.000								
From ID: 2PM-117B											
0.06	42.892	42.937	1.964	0.20	41.609	41.609	0.001	0.25	41.366	41.366	0.000
0.30	41.381	41.381	0.000								
From ID: 2PM-122B											
0.06	43.175	43.220	1.985	0.20	41.806	41.806	0.001	0.25	41.546	41.546	0.000
0.30	41.561	41.561	0.000								
From ID: 2PM-1601B											
0.06	43.190	43.235	1.987	0.15	42.098	42.098	0.011	0.20	41.814	41.814	0.001
0.25	41.553	41.553	0.000	0.30	41.568	41.568	0.000				
From ID: 2PM-1801B											
0.05	43.304	43.450	3.561	0.15	42.030	42.030	0.011	0.20	41.753	41.753	0.001
0.25	41.499	41.499	0.000	0.30	41.513	41.513	0.000				
From ID: 2PM-202-4											
0.06	43.020	43.065	1.972	0.20	41.699	41.699	0.001	0.25	41.448	41.448	0.000
0.30	41.461	41.461	0.000								
From ID: 2PM-203B											
0.06	43.158	43.204	1.985	0.20	41.793	41.793	0.001	0.25	41.534	41.534	0.000
0.30	41.548	41.548	0.000								
From ID: 2PM-205B											
0.06	42.854	42.899	1.964	0.20	41.552	41.552	0.001	0.25	41.305	41.305	0.000

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 166
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-02 BUS B

Nominal kV = 0.400 I"k = 47.64

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.30	41.319	41.319	0.000								
From ID: 2PM-207											
0.06	43.055	43.100	1.978	0.20	41.707	41.707	0.001	0.25	41.452	41.452	0.000
0.30	41.466	41.466	0.000								
From ID: 2PM-305B											
0.06	42.916	42.961	1.964	0.20	41.627	41.627	0.001	0.25	41.383	41.383	0.000
0.30	41.396	41.396	0.000								
From ID: 2PM-306B											
0.06	43.135	43.180	1.983	0.20	41.777	41.777	0.001	0.25	41.519	41.519	0.000
0.30	41.533	41.533	0.000								
From ID: 2PM-308											
0.06	43.196	43.242	1.988	0.15	42.103	42.103	0.011	0.20	41.819	41.819	0.001
0.25	41.557	41.557	0.000	0.30	41.572	41.572	0.000				
From ID: 2PM-602B											
0.06	43.142	43.187	1.983	0.15	42.063	42.063	0.011	0.20	41.782	41.782	0.001
0.25	41.524	41.524	0.000	0.30	41.538	41.538	0.000				
From ID: Cable6060											
0.06	38.132	38.165	1.587	0.20	38.132	38.132	0.001	0.25	38.132	38.132	0.000
0.30	38.132	38.132	0.000								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 167
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-03 BUS A

Nominal kV = 0.400 I"k = 39.81

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-2401A											
0.01	39.194	50.132	31.257	0.02	39.118	43.007	17.872	0.03	39.045	40.328	10.093
0.04	38.976	39.391	5.700	0.05	38.912	39.054	3.323	0.06	38.881	38.926	1.889
From ID: 2AM-3701A											
0.01	39.152	50.079	31.225	0.02	39.075	42.961	17.854	0.03	39.002	40.285	10.083
0.04	38.934	39.348	5.694	0.05	38.870	39.012	3.320	0.06	38.839	38.884	1.887
From ID: 2JM-2410											
0.01	39.319	50.322	31.406	0.02	39.231	43.145	17.958	0.03	39.147	40.440	10.142
0.04	39.069	39.486	5.727	0.05	38.996	39.138	3.339	0.06	38.959	39.005	1.898
From ID: 2KM-3701/02A-MP2											
0.01	39.263	50.234	31.335	0.02	39.180	43.082	17.917	0.03	39.102	40.390	10.118
0.04	39.028	39.444	5.714	0.05	38.959	39.101	3.331				
From ID: 2PM-2401A											
0.01	39.293	50.282	31.373	0.02	39.208	43.117	17.939	0.03	39.127	40.417	10.131
0.04	39.051	39.468	5.721	0.05	38.980	39.122	3.336	0.06	38.945	38.991	1.896
From ID: 2PM-2402A											
0.01	39.018	49.902	31.109	0.02	38.950	42.819	17.788	0.03	38.885	40.162	10.046
0.04	38.824	39.237	5.673	0.05	38.768	38.909	3.307	0.06	38.740	38.785	1.880
From ID: 2PM-2404											
0.01	39.224	50.181	31.298	0.02	39.144	43.041	17.896	0.03	39.069	40.355	10.107
0.04	38.998	39.413	5.708	0.05	38.931	39.073	3.328	0.06	38.898	38.944	1.891
From ID: 2PM-2408											
0.01	39.320	50.325	31.409	0.02	39.232	43.147	17.959	0.03	39.148	40.441	10.142
0.04	39.069	39.487	5.728	0.05	38.996	39.139	3.339	0.06	38.960	39.006	1.898
From ID: 2PM-2501A											
0.01	39.223	50.180	31.298	0.02	39.144	43.041	17.896	0.03	39.068	40.354	10.107
0.04	38.997	39.413	5.708	0.05	38.931	39.073	3.327	0.06	38.898	38.944	1.891
From ID: 2PM-2503A											
0.01	39.223	50.180	31.298	0.02	39.144	43.041	17.896	0.03	39.068	40.354	10.107
0.04	38.997	39.413	5.708	0.05	38.931	39.073	3.327	0.06	38.898	38.944	1.891
From ID: 2PM-3703A											
0.01	39.279	50.257	31.351	0.02	39.196	43.100	17.926	0.03	39.116	40.405	10.124
0.04	39.041	39.458	5.717	0.05	38.972	39.114	3.333	0.06	38.937	38.983	1.894
From ID: 2PM-3705											
0.01	39.303	50.297	31.386	0.02	39.216	43.127	17.946	0.03	39.134	40.425	10.135
0.04	39.057	39.474	5.724	0.05	38.985	39.128	3.337				
From ID: 2PM-704A											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 168
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-03 BUS A**

Nominal kV = 0.400 I"k = 39.81

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.01	39.292	50.281	31.374	0.02	39.207	43.116	17.939	0.03	39.126	40.416	10.131
0.04	39.049	39.466	5.722	0.05	38.978	39.121	3.336	0.06	38.943	38.989	1.896
From ID: Cable6035											
0.01	38.247	48.714	30.171	0.02	38.247	41.957	17.251	0.03	38.247	39.468	9.743
0.04	38.247	38.641	5.502	0.05	38.247	38.381	3.208	0.06	38.247	38.290	1.823

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 169
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400 I"k = 41.83

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-101B											
0.01	45.429	59.327	38.157	0.02	44.823	51.100	24.537	0.03	44.236	46.659	14.842
From ID: 3AM-101D											
0.01	45.429	59.327	38.157	0.02	44.823	51.100	24.537	0.03	44.236	46.659	14.842
From ID: 3AM-101F											
0.01	45.429	59.327	38.157	0.02	44.823	51.100	24.537	0.03	44.236	46.659	14.842
From ID: 3AM-611/612B											
0.01	45.434	59.331	38.157	0.02	44.828	51.104	24.537	0.03	44.241	46.664	14.842
0.04	43.688	44.601	8.978								
From ID: 3K-101B-PM01B											
0.01	45.655	59.646	38.383	0.02	45.030	51.352	24.683	0.03	44.426	46.868	14.930
0.04	43.858	44.778	9.031								
From ID: 3KM-101B											
0.01	44.497	58.012	37.221	0.02	43.965	50.058	23.936	0.03	43.449	45.798	14.478
From ID: 3KM-151											
0.01	44.521	58.031	37.221	0.02	43.989	50.080	23.936	0.03	43.472	45.820	14.478
From ID: 3KM-152											
0.01	44.521	58.031	37.221	0.02	43.989	50.080	23.936	0.03	43.472	45.820	14.478
0.04	42.985	43.868	8.757								
From ID: 3KM-352											
0.01	45.094	58.843	37.802	0.02	44.519	50.723	24.309	0.03	43.960	46.354	14.704
0.04	43.435	44.336	8.894								
From ID: 3PM-104B											
0.01	44.263	57.683	36.987	0.02	43.751	49.798	23.785	0.03	43.252	45.582	14.387
From ID: 3PM-123											
0.01	45.647	59.635	38.376	0.02	45.023	51.343	24.678	0.03	44.420	46.861	14.927
From ID: 3PM-1802A											
0.01	45.587	59.550	38.315	0.02	44.968	51.276	24.639	0.03	44.368	46.805	14.904
0.04	43.804	44.722	9.015								
From ID: 3PM-1901A											
0.01	45.625	59.604	38.354	0.02	45.003	51.318	24.664	0.03	44.401	46.840	14.919
0.04	43.834	44.753	9.024								
From ID: 3PM-1902											
0.01	45.640	59.625	38.369	0.02	45.017	51.335	24.674	0.03	44.414	46.854	14.925
0.04	43.846	44.766	9.028								
From ID: 3PM-1905A											
0.01	45.607	59.579	38.336	0.02	44.986	51.298	24.652	0.03	44.385	46.823	14.912
0.04	43.820	44.738	9.020								

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 170
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400 I"k = 41.83

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: 3PM-202											
0.01	45.625	59.604	38.354	0.02	45.003	51.318	24.664	0.03	44.401	46.840	14.919
0.04	43.834	44.753	9.024								
From ID: 3PM-203											
0.01	45.658	59.651	38.387	0.02	45.034	51.356	24.685	0.03	44.429	46.871	14.932
0.04	43.860	44.781	9.032								
From ID: 3PM-301A											
0.01	44.832	58.474	37.540	0.02	44.275	50.429	24.141	0.03	43.734	46.108	14.602
0.04	43.225	44.118	8.833								
From ID: 3PM-403A											
0.01	45.351	59.213	38.072	0.02	44.751	51.011	24.483	0.03	44.171	46.587	14.809
0.04	43.624	44.534	8.958								
From ID: 3PM-501A											
0.01	45.547	59.492	38.273	0.02	44.932	51.231	24.612	0.03	44.336	46.769	14.887
0.04	43.776	44.692	9.005								
From ID: 3PM-642											
0.01	45.607	59.579	38.336	0.02	44.986	51.298	24.652	0.03	44.385	46.823	14.912
0.04	43.820	44.738	9.020								
From ID: 3PM-643											
0.01	45.640	59.625	38.369	0.02	45.016	51.335	24.674	0.03	44.413	46.854	14.925
From ID: 3PM-751											
0.01	45.647	59.635	38.376	0.02	45.023	51.343	24.678	0.03	44.420	46.861	14.927
From ID: TRL-3-02B											
0.01	37.728	48.430	30.365	0.02	37.739	42.491	19.527	0.03	37.739	39.544	11.811

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 171
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-03 BUS A

Nominal kV = 0.400 I"k = 39.81

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-2401A											
0.07	38.850	38.865	1.073	0.08	38.820	38.825	0.610	0.09	38.792	38.793	0.347
0.10	38.765	38.765	0.205	0.15	38.722	38.722	0.012	0.20	38.683	38.683	0.001
0.25	38.646	38.646	0.000	0.30	38.650	38.650	0.000				
From ID: 2AM-3701A											
0.07	38.808	38.823	1.072	0.08	38.779	38.783	0.609	0.09	38.750	38.752	0.346
0.10	38.723	38.723	0.205	0.15	38.681	38.681	0.012	0.20	38.641	38.641	0.001
0.25	38.605	38.605	0.000	0.30	38.609	38.609	0.000				
From ID: 2JM-2410											
0.07	38.924	38.939	1.079	0.08	38.890	38.895	0.613	0.09	38.858	38.859	0.348
0.10	38.826	38.827	0.206	0.15	38.778	38.778	0.012	0.20	38.733	38.733	0.001
0.25	38.691	38.691	0.000	0.30	38.696	38.696	0.000				
From ID: 2KM-3701/02A-MP2											
0.06	38.925	38.971	1.893	0.07	38.892	38.906	1.076	0.08	38.860	38.865	0.612
0.09	38.829	38.831	0.348	0.10	38.800	38.800	0.205	0.15	38.754	38.754	0.012
0.20	38.711	38.711	0.001	0.25	38.672	38.672	0.000	0.30	38.676	38.676	0.000
From ID: 2PM-2401A											
0.07	38.911	38.925	1.077	0.08	38.878	38.882	0.612	0.09	38.846	38.848	0.348
0.10	38.816	38.816	0.206	0.15	38.769	38.769	0.012	0.20	38.725	38.725	0.001
0.25	38.684	38.684	0.000	0.30	38.689	38.689	0.000				
From ID: 2PM-2402A											
0.07	38.713	38.727	1.068	0.08	38.686	38.691	0.607	0.09	38.661	38.663	0.345
0.10	38.637	38.638	0.204	0.15	38.601	38.601	0.012	0.20	38.567	38.567	0.001
0.25	38.536	38.536	0.000	0.30	38.540	38.540	0.000				
From ID: 2PM-2404											
0.07	38.867	38.881	1.075	0.08	38.836	38.841	0.611	0.09	38.806	38.808	0.347
0.10	38.778	38.779	0.205	0.15	38.734	38.734	0.012	0.20	38.694	38.694	0.001
0.25	38.656	38.656	0.000	0.30	38.661	38.661	0.000				
From ID: 2PM-2408											
0.07	38.925	38.940	1.079	0.08	38.891	38.896	0.613	0.09	38.858	38.860	0.348
0.10	38.827	38.827	0.206	0.15	38.778	38.778	0.012	0.20	38.733	38.733	0.001
0.25	38.691	38.691	0.000	0.30	38.696	38.696	0.000				
From ID: 2PM-2501A											
0.07	38.866	38.881	1.075	0.08	38.836	38.840	0.611	0.09	38.806	38.808	0.347
0.10	38.778	38.778	0.205	0.15	38.734	38.734	0.012	0.20	38.693	38.693	0.001
0.25	38.656	38.656	0.000	0.30	38.660	38.660	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 172
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-03 BUS A

Nominal kV = 0.400 I"k = 39.81

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2PM-2503A											
0.07	38.866	38.881	1.075	0.08	38.836	38.840	0.611	0.09	38.806	38.808	0.347
0.10	38.778	38.778	0.205	0.15	38.734	38.734	0.012	0.20	38.693	38.693	0.001
0.25	38.656	38.656	0.000	0.30	38.660	38.660	0.000				
From ID: 2PM-3703A											
0.07	38.904	38.918	1.077	0.08	38.871	38.876	0.612	0.09	38.840	38.842	0.348
0.10	38.811	38.811	0.206	0.15	38.764	38.764	0.012	0.20	38.721	38.721	0.001
0.25	38.681	38.681	0.000	0.30	38.686	38.686	0.000				
From ID: 2PM-3705											
0.06	38.949	38.995	1.896	0.07	38.915	38.930	1.078	0.08	38.881	38.886	0.613
0.09	38.849	38.851	0.348	0.10	38.819	38.819	0.206	0.15	38.771	38.771	0.012
0.20	38.727	38.727	0.001	0.25	38.686	38.686	0.000	0.30	38.690	38.690	0.000
From ID: 2PM-704A											
0.07	38.909	38.923	1.077	0.08	38.876	38.880	0.612	0.09	38.844	38.845	0.348
0.10	38.814	38.814	0.206	0.15	38.766	38.766	0.012	0.20	38.722	38.722	0.001
0.25	38.682	38.682	0.000	0.30	38.686	38.686	0.000				
From ID: Cable6035											
0.07	38.247	38.261	1.036	0.08	38.247	38.251	0.589	0.09	38.247	38.248	0.335
0.10	38.247	38.247	0.198	0.15	38.247	38.247	0.012	0.20	38.247	38.247	0.001
0.25	38.247	38.247	0.000	0.30	38.247	38.247	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 173
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-2-03 BUS B

Nominal kV = 0.400 I"k = 40.41

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2AM-2401B											
0.01	39.638	50.653	31.537	0.02	39.526	43.434	18.005	0.03	39.420	40.700	10.124
0.04	39.321	39.731	5.693	0.05	39.228	39.369	3.323	0.06	39.182	39.227	1.883
0.07	39.138	39.152	1.067	0.08	39.095	39.100	0.604	0.09	39.054	39.055	0.342
0.10	39.014	39.015	0.203	0.15	38.953	38.953	0.012	0.20	38.896	38.896	0.001
0.25	38.844	38.844	0.000	0.30	38.850	38.850	0.000				
From ID: 2AM-2402B											
0.01	39.595	50.600	31.505	0.02	39.484	43.387	17.987	0.03	39.378	40.656	10.114
0.04	39.279	39.688	5.687	0.05	39.186	39.327	3.320	0.06	39.140	39.186	1.881
0.07	39.096	39.110	1.065	0.08	39.053	39.058	0.604	0.09	39.012	39.014	0.342
0.10	38.973	38.973	0.203	0.15	38.912	38.912	0.012	0.20	38.855	38.855	0.001
0.25	38.802	38.802	0.000	0.30	38.809	38.809	0.000				
From ID: 2AM-3701B											
0.01	39.595	50.600	31.505	0.02	39.484	43.387	17.987	0.03	39.378	40.656	10.114
0.04	39.279	39.688	5.687	0.05	39.186	39.327	3.320	0.06	39.140	39.186	1.881
0.07	39.096	39.110	1.065	0.08	39.053	39.058	0.604	0.09	39.012	39.014	0.342
0.10	38.973	38.973	0.203	0.15	38.912	38.912	0.012	0.20	38.855	38.855	0.001
0.25	38.802	38.802	0.000	0.30	38.809	38.809	0.000				
From ID: 2AM-3701D											
0.01	39.595	50.600	31.505	0.02	39.484	43.387	17.987	0.03	39.378	40.656	10.114
0.04	39.279	39.688	5.687	0.05	39.186	39.327	3.320	0.06	39.140	39.186	1.881
0.07	39.096	39.110	1.065	0.08	39.053	39.058	0.604	0.09	39.012	39.014	0.342
0.10	38.973	38.973	0.203	0.15	38.912	38.912	0.012	0.20	38.855	38.855	0.001
0.25	38.802	38.802	0.000	0.30	38.809	38.809	0.000				
From ID: 2JM-3710											
0.01	39.762	50.842	31.685	0.02	39.639	43.571	18.089	0.03	39.522	40.810	10.172
0.04	39.413	39.826	5.720	0.05	39.311	39.453	3.339	0.06	39.261	39.306	1.891
0.07	39.212	39.227	1.072	0.08	39.165	39.170	0.607	0.09	39.120	39.121	0.344
0.10	39.076	39.077	0.204	0.15	39.009	39.009	0.012	0.20	38.946	38.946	0.001
0.25	38.889	38.889	0.000	0.30	38.895	38.895	0.000				
From ID: 2KM-3701/02B-MP2											
0.01	39.706	50.755	31.614	0.02	39.589	43.509	18.049	0.03	39.477	40.761	10.149
0.04	39.372	39.784	5.707	0.05	39.275	39.416	3.331	0.06	39.226	39.272	1.887
0.07	39.180	39.194	1.069	0.08	39.135	39.139	0.606	0.09	39.091	39.093	0.343
0.10	39.050	39.050	0.203	0.15	38.985	38.985	0.012	0.20	38.925	38.925	0.001
0.25	38.869	38.869	0.000	0.30	38.876	38.876	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 174
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-03 BUS B

Nominal kV = 0.400 I"k = 40.41

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2PM-2401B											
0.01	39.736	50.802	31.653	0.02	39.615	43.542	18.071	0.03	39.501	40.787	10.162
0.04	39.394	39.806	5.714	0.05	39.294	39.435	3.335	0.06	39.245	39.290	1.890
0.07	39.197	39.211	1.070	0.08	39.150	39.155	0.606	0.09	39.106	39.108	0.344
0.10	39.064	39.064	0.204	0.15	38.998	38.998	0.012	0.20	38.936	38.936	0.001
0.25	38.879	38.879	0.000	0.30	38.886	38.886	0.000				
From ID: 2PM-2409											
0.01	39.759	50.837	31.680	0.02	39.637	43.568	18.087	0.03	39.520	40.808	10.170
0.04	39.411	39.824	5.719	0.05	39.310	39.451	3.338	0.06	39.259	39.305	1.891
0.07	39.211	39.225	1.071	0.08	39.164	39.168	0.607	0.09	39.119	39.120	0.344
0.10	39.075	39.076	0.204	0.15	39.008	39.008	0.012	0.20	38.946	38.946	0.001
0.25	38.888	38.888	0.000	0.30	38.895	38.895	0.000				
From ID: 2PM-2410											
0.01	39.736	50.802	31.653	0.02	39.615	43.542	18.071	0.03	39.501	40.787	10.162
0.04	39.394	39.806	5.714	0.05	39.294	39.435	3.335	0.06	39.245	39.290	1.890
0.07	39.197	39.211	1.070	0.08	39.150	39.155	0.606	0.09	39.106	39.108	0.344
0.10	39.064	39.064	0.204	0.15	38.998	38.998	0.012	0.20	38.936	38.936	0.001
0.25	38.879	38.879	0.000	0.30	38.886	38.886	0.000				
From ID: 2PM-2501B											
0.01	39.667	50.701	31.577	0.02	39.552	43.467	18.028	0.03	39.444	40.726	10.137
0.04	39.342	39.753	5.700	0.05	39.247	39.388	3.327	0.06	39.200	39.245	1.885
0.07	39.154	39.169	1.068	0.08	39.110	39.115	0.605	0.09	39.068	39.070	0.343
0.10	39.028	39.028	0.203	0.15	38.965	38.965	0.012	0.20	38.907	38.907	0.001
0.25	38.853	38.853	0.000	0.30	38.860	38.860	0.000				
From ID: 2PM-2503B											
0.01	39.667	50.701	31.577	0.02	39.552	43.467	18.028	0.03	39.444	40.726	10.137
0.04	39.342	39.753	5.700	0.05	39.247	39.388	3.327	0.06	39.200	39.245	1.885
0.07	39.154	39.169	1.068	0.08	39.110	39.115	0.605	0.09	39.068	39.070	0.343
0.10	39.028	39.028	0.203	0.15	38.965	38.965	0.012	0.20	38.907	38.907	0.001
0.25	38.853	38.853	0.000	0.30	38.860	38.860	0.000				
From ID: 2PM-3702B											
0.01	39.384	50.319	31.319	0.02	39.286	43.164	17.880	0.03	39.193	40.463	10.054
0.04	39.106	39.513	5.654	0.05	39.025	39.165	3.300	0.06	38.985	39.030	1.870
0.07	38.946	38.960	1.059	0.08	38.908	38.913	0.600	0.09	38.872	38.874	0.340
0.10	38.838	38.838	0.201	0.15	38.786	38.786	0.012	0.20	38.737	38.737	0.001
0.25	38.693	38.693	0.000	0.30	38.699	38.699	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 175
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-2-03 BUS B

Nominal kV = 0.400 I"k = 40.41

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2PM-3703B											
0.01	39.722	50.777	31.630	0.02	39.604	43.527	18.058	0.03	39.492	40.776	10.154
0.04	39.386	39.798	5.710	0.05	39.288	39.429	3.333	0.06	39.239	39.284	1.888
0.07	39.192	39.206	1.070	0.08	39.146	39.151	0.606	0.09	39.102	39.104	0.343
0.10	39.061	39.061	0.203	0.15	38.995	38.995	0.012	0.20	38.935	38.935	0.001
0.25	38.879	38.879	0.000	0.30	38.885	38.885	0.000				
From ID: 2PM-3706B											
0.01	39.667	50.701	31.577	0.02	39.552	43.467	18.028	0.03	39.444	40.726	10.137
0.04	39.342	39.753	5.700	0.05	39.247	39.388	3.327	0.06	39.200	39.245	1.885
0.07	39.154	39.169	1.068	0.08	39.110	39.115	0.605	0.09	39.068	39.070	0.343
0.10	39.028	39.028	0.203	0.15	38.965	38.965	0.012	0.20	38.907	38.907	0.001
0.25	38.853	38.853	0.000	0.30	38.860	38.860	0.000				
From ID: 2PM-3707											
0.01	39.763	50.845	31.688	0.02	39.640	43.573	18.091	0.03	39.524	40.812	10.173
0.04	39.414	39.827	5.720	0.05	39.312	39.454	3.339	0.06	39.262	39.307	1.892
0.07	39.213	39.227	1.072	0.08	39.166	39.170	0.607	0.09	39.120	39.122	0.344
0.10	39.077	39.077	0.204	0.15	39.010	39.010	0.012	0.20	38.947	38.947	0.001
0.25	38.889	38.889	0.000	0.30	38.896	38.896	0.000				
From ID: 2PM-3708											
0.01	39.722	50.776	31.629	0.02	39.603	43.526	18.057	0.03	39.491	40.775	10.154
0.04	39.385	39.797	5.710	0.05	39.287	39.428	3.333	0.06	39.238	39.284	1.888
0.07	39.191	39.206	1.070	0.08	39.146	39.150	0.606	0.09	39.102	39.104	0.343
0.10	39.060	39.061	0.203	0.15	38.995	38.995	0.012	0.20	38.934	38.934	0.001
0.25	38.878	38.878	0.000	0.30	38.885	38.885	0.000				
From ID: 2PM-704B											
0.01	39.736	50.802	31.653	0.02	39.615	43.542	18.071	0.03	39.501	40.787	10.162
0.04	39.394	39.806	5.714	0.05	39.294	39.435	3.335	0.06	39.245	39.290	1.890
0.07	39.197	39.211	1.070	0.08	39.150	39.155	0.606	0.09	39.106	39.108	0.344
0.10	39.064	39.064	0.204	0.15	38.998	38.998	0.012	0.20	38.936	38.936	0.001
0.25	38.879	38.879	0.000	0.30	38.886	38.886	0.000				
From ID: Cable6063											
0.01	38.212	48.538	29.930	0.02	38.212	41.859	17.087	0.03	38.212	39.402	9.609
0.04	38.212	38.592	5.403	0.05	38.212	38.342	3.154	0.06	38.212	38.254	1.787
0.07	38.212	38.226	1.012	0.08	38.212	38.216	0.573	0.09	38.212	38.214	0.325
0.10	38.212	38.213	0.192	0.15	38.212	38.212	0.011	0.20	38.212	38.212	0.001
0.25	38.212	38.212	0.000	0.30	38.212	38.212	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 176
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-2-03 BUS B**

Nominal kV = 0.400 I"k = 40.31

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 177
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-01 A

Nominal kV = 0.400 I"k = 37.61

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-103A											
0.01	47.244	60.412	37.651	0.02	46.439	51.724	22.776	0.03	45.660	47.459	12.942
0.04	44.926	45.524	7.355	0.05	44.242	44.514	4.914	0.06	43.910	44.005	2.884
0.07	43.590	43.623	1.693	0.08	43.282	43.293	0.994	0.09	42.985	42.989	0.583
0.10	42.700	42.702	0.407	0.15	42.196	42.196	0.031	0.20	41.728	41.728	0.002
0.25	41.295	41.295	0.000	0.30	41.300	41.300	0.000				
From ID: 3AM-104A											
0.01	47.244	60.412	37.651	0.02	46.439	51.724	22.776	0.03	45.660	47.459	12.942
0.04	44.926	45.524	7.355	0.05	44.242	44.514	4.914	0.06	43.910	44.005	2.884
0.07	43.590	43.623	1.693	0.08	43.282	43.293	0.994	0.09	42.985	42.989	0.583
0.10	42.700	42.702	0.407	0.15	42.196	42.196	0.031	0.20	41.728	41.728	0.002
0.25	41.295	41.295	0.000	0.30	41.300	41.300	0.000				
From ID: 3AM-106A											
0.01	47.244	60.412	37.651	0.02	46.439	51.724	22.776	0.03	45.660	47.459	12.942
0.04	44.926	45.524	7.355	0.05	44.242	44.514	4.914	0.06	43.910	44.005	2.884
0.07	43.590	43.623	1.693	0.08	43.282	43.293	0.994	0.09	42.985	42.989	0.583
0.10	42.700	42.702	0.407	0.15	42.196	42.196	0.031	0.20	41.728	41.728	0.002
0.25	41.295	41.295	0.000	0.30	41.300	41.300	0.000				
From ID: 3AM-106C											
0.01	47.244	60.412	37.651	0.02	46.439	51.724	22.776	0.03	45.660	47.459	12.942
0.04	44.926	45.524	7.355	0.05	44.242	44.514	4.914	0.06	43.910	44.005	2.884
0.07	43.590	43.623	1.693	0.08	43.282	43.293	0.994	0.09	42.985	42.989	0.583
0.10	42.700	42.702	0.407	0.15	42.196	42.196	0.031	0.20	41.728	41.728	0.002
0.25	41.295	41.295	0.000	0.30	41.300	41.300	0.000				
From ID: 3AM-301A											
0.01	47.242	60.410	37.651	0.02	46.438	51.723	22.776	0.03	45.661	47.459	12.942
0.04	44.928	45.526	7.355	0.05	44.245	44.517	4.914	0.06	43.914	44.009	2.884
0.07	43.595	43.627	1.693	0.08	43.287	43.298	0.994	0.09	42.991	42.995	0.583
0.10	42.706	42.708	0.407	0.15	42.204	42.204	0.031	0.20	41.736	41.736	0.002
0.25	41.305	41.305	0.000	0.30	41.310	41.310	0.000				
From ID: 3AM-301B											
0.01	47.242	60.410	37.651	0.02	46.438	51.723	22.776	0.03	45.661	47.459	12.942
0.04	44.928	45.526	7.355	0.05	44.245	44.517	4.914	0.06	43.914	44.009	2.884
0.07	43.595	43.627	1.693	0.08	43.287	43.298	0.994	0.09	42.991	42.995	0.583
0.10	42.706	42.708	0.407	0.15	42.204	42.204	0.031	0.20	41.736	41.736	0.002
0.25	41.305	41.305	0.000	0.30	41.310	41.310	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 178
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-01 A

Nominal kV = 0.400 I"k = 37.61

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3K-101C-PM01B											
0.01	47.453	60.704	37.857	0.02	46.631	51.950	22.900	0.03	45.835	47.647	13.013
0.04	45.086	45.688	7.395	0.05	44.387	44.661	4.941	0.06	44.049	44.144	2.900
0.07	43.722	43.755	1.702	0.08	43.407	43.419	0.999	0.09	43.105	43.109	0.586
0.10	42.814	42.816	0.410	0.15	42.300	42.300	0.031	0.20	41.823	41.823	0.002
0.25	41.382	41.382	0.000	0.30	41.387	41.387	0.000				
From ID: 3PM-104A											
0.01	46.121	58.847	36.549	0.02	45.409	50.505	22.109	0.03	44.718	46.450	12.564
0.04	44.066	44.641	7.139	0.05	43.457	43.718	4.770	0.06	43.162	43.253	2.800
0.07	42.877	42.909	1.643	0.08	42.602	42.613	0.965	0.09	42.338	42.341	0.566
0.10	42.083	42.085	0.395	0.15	41.632	41.632	0.030	0.20	41.212	41.212	0.002
0.25	40.823	40.823	0.000	0.30	40.827	40.827	0.000				
From ID: 3PM-105A											
0.01	46.875	59.917	37.320	0.02	46.098	51.330	22.576	0.03	45.347	47.127	12.829
0.04	44.639	45.230	7.290	0.05	43.978	44.246	4.871	0.06	43.657	43.751	2.859
0.07	43.348	43.381	1.678	0.08	43.050	43.061	0.985	0.09	42.763	42.767	0.578
0.10	42.488	42.490	0.404	0.15	42.002	42.002	0.031	0.20	41.549	41.549	0.002
0.25	41.131	41.131	0.000	0.30	41.136	41.136	0.000				
From ID: 3PM-106A											
0.01	46.856	59.871	37.270	0.02	46.083	51.303	22.545	0.03	45.335	47.110	12.812
0.04	44.629	45.219	7.280	0.05	43.971	44.239	4.864	0.06	43.652	43.745	2.855
0.07	43.344	43.376	1.676	0.08	43.047	43.058	0.984	0.09	42.761	42.765	0.577
0.10	42.487	42.489	0.403	0.15	42.001	42.001	0.031	0.20	41.549	41.549	0.002
0.25	41.131	41.131	0.000	0.30	41.136	41.136	0.000				
From ID: 3PM-107A											
0.01	47.088	60.194	37.496	0.02	46.297	51.555	22.682	0.03	45.531	47.320	12.889
0.04	44.809	45.404	7.324	0.05	44.135	44.406	4.894	0.06	43.809	43.903	2.872
0.07	43.494	43.527	1.686	0.08	43.191	43.202	0.990	0.09	42.899	42.903	0.581
0.10	42.619	42.621	0.406	0.15	42.122	42.122	0.031	0.20	41.661	41.661	0.002
0.25	41.234	41.234	0.000	0.30	41.239	41.239	0.000				
From ID: 3PM-109											
0.01	46.658	59.623	37.120	0.02	45.900	51.098	22.454	0.03	45.164	46.932	12.760
0.04	44.471	45.059	7.251	0.05	43.825	44.091	4.844	0.06	43.511	43.604	2.844
0.07	43.208	43.241	1.669	0.08	42.917	42.928	0.980	0.09	42.636	42.640	0.575
0.10	42.366	42.368	0.402	0.15	41.890	41.890	0.031	0.20	41.447	41.447	0.002
0.25	41.037	41.037	0.000	0.30	41.042	41.042	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 179
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-01 A

Nominal kV = 0.400 I"k = 37.61

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3PM-110A											
0.01	46.592	59.508	37.020	0.02	45.845	51.022	22.394	0.03	45.122	46.882	12.726
0.04	44.440	45.025	7.231	0.05	43.804	44.070	4.831	0.06	43.496	43.588	2.836
0.07	43.198	43.231	1.665	0.08	42.912	42.923	0.977	0.09	42.636	42.639	0.573
0.10	42.370	42.372	0.400	0.15	41.902	41.902	0.030	0.20	41.465	41.465	0.002
0.25	41.062	41.062	0.000	0.30	41.067	41.067	0.000				
From ID: 3PM-113A											
0.01	46.280	59.109	36.770	0.02	45.552	50.692	22.242	0.03	44.845	46.592	12.639
0.04	44.179	44.759	7.182	0.05	43.557	43.820	4.799	0.06	43.255	43.347	2.817
0.07	42.964	42.995	1.653	0.08	42.683	42.694	0.970	0.09	42.412	42.416	0.570
0.10	42.153	42.155	0.398	0.15	41.694	41.694	0.030	0.20	41.268	41.268	0.002
0.25	40.873	40.873	0.000	0.30	40.878	40.878	0.000				
From ID: 3PM-114A											
0.01	47.446	60.694	37.850	0.02	46.624	51.943	22.896	0.03	45.829	47.640	13.011
0.04	45.080	45.682	7.394	0.05	44.382	44.656	4.940	0.06	44.044	44.139	2.899
0.07	43.717	43.750	1.702	0.08	43.403	43.414	0.999	0.09	43.100	43.104	0.586
0.10	42.810	42.812	0.409	0.15	42.296	42.296	0.031	0.20	41.819	41.819	0.002
0.25	41.378	41.378	0.000	0.30	41.383	41.383	0.000				
From ID: 3PM-117A											
0.01	47.467	60.722	37.869	0.02	46.643	51.965	22.908	0.03	45.847	47.659	13.018
0.04	45.097	45.699	7.397	0.05	44.397	44.671	4.942	0.06	44.058	44.154	2.901
0.07	43.731	43.765	1.703	0.08	43.416	43.428	0.999	0.09	43.113	43.117	0.587
0.10	42.823	42.824	0.410	0.15	42.308	42.308	0.031	0.20	41.830	41.830	0.002
0.25	41.388	41.388	0.000	0.30	41.394	41.394	0.000				
From ID: 3PM-118											
0.01	47.465	60.720	37.868	0.02	46.641	51.963	22.907	0.03	45.845	47.657	13.017
0.04	45.095	45.698	7.397	0.05	44.396	44.670	4.942	0.06	44.057	44.152	2.901
0.07	43.730	43.763	1.703	0.08	43.415	43.427	0.999	0.09	43.112	43.116	0.587
0.10	42.821	42.823	0.410	0.15	42.307	42.307	0.031	0.20	41.829	41.829	0.002
0.25	41.387	41.387	0.000	0.30	41.393	41.393	0.000				
From ID: 3PM-120A											
0.01	47.467	60.722	37.869	0.02	46.643	51.965	22.908	0.03	45.847	47.659	13.018
0.04	45.097	45.699	7.397	0.05	44.397	44.671	4.942	0.06	44.058	44.154	2.901
0.07	43.731	43.765	1.703	0.08	43.416	43.428	0.999	0.09	43.113	43.117	0.587
0.10	42.823	42.824	0.410	0.15	42.308	42.308	0.031	0.20	41.830	41.830	0.002
0.25	41.388	41.388	0.000	0.30	41.394	41.394	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 180
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-01 A

Nominal kV = 0.400 I"k = 37.61

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3PM-122A											
0.01	47.453	60.704	37.857	0.02	46.631	51.950	22.900	0.03	45.835	47.647	13.013
0.04	45.086	45.688	7.395	0.05	44.387	44.661	4.941	0.06	44.049	44.144	2.900
0.07	43.722	43.755	1.702	0.08	43.407	43.419	0.999	0.09	43.105	43.109	0.586
0.10	42.814	42.816	0.410	0.15	42.300	42.300	0.031	0.20	41.823	41.823	0.002
0.25	41.382	41.382	0.000	0.30	41.387	41.387	0.000				
From ID: KM-1307											
0.01	46.484	59.350	36.900	0.02	45.754	50.909	22.322	0.03	45.047	46.799	12.684
0.04	44.381	44.963	7.208	0.05	43.759	44.024	4.816	0.06	43.459	43.550	2.827
0.07	43.168	43.200	1.659	0.08	42.888	42.899	0.974	0.09	42.619	42.622	0.572
0.10	42.360	42.362	0.399	0.15	41.902	41.903	0.030	0.20	41.477	41.477	0.002
0.25	41.084	41.084	0.000	0.30	41.089	41.089	0.000				
From ID: SX-A/C-A											
0.01	45.804	58.414	36.251	0.02	45.130	50.176	21.929	0.03	44.475	46.188	12.461
0.04	43.857	44.425	7.081	0.05	43.281	43.538	4.731	0.06	43.001	43.091	2.777
0.07	42.731	42.762	1.630	0.08	42.471	42.482	0.957	0.09	42.221	42.224	0.562
0.10	41.980	41.982	0.392	0.15	41.554	41.554	0.030	0.20	41.158	41.158	0.002
0.25	40.791	40.791	0.000	0.30	40.796	40.796	0.000				
From ID: TRL-3-01A											
0.01	37.598	47.116	28.395	0.02	37.612	41.348	17.176	0.03	37.612	38.858	9.761
0.04	37.612	38.019	5.547	0.05	37.612	37.794	3.706	0.06	37.612	37.675	2.175
0.07	37.612	37.633	1.277	0.08	37.612	37.619	0.749	0.09	37.612	37.614	0.440
0.10	37.612	37.613	0.307	0.15	37.612	37.612	0.023	0.20	37.612	37.612	0.002
0.25	37.612	37.612	0.000	0.30	37.612	37.612	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 181
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-01 B

Nominal kV = 0.400 I"k = 46.57

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-102B											
0.01	44.141	58.130	37.825	0.02	43.596	49.902	24.283	0.03	43.066	45.532	14.783
0.04	42.566	43.507	9.000	0.05	42.100	42.570	6.308	0.06	41.872	42.058	3.950
0.07	41.651	41.725	2.474	0.08	41.439	41.468	1.549	0.09	41.234	41.246	0.970
0.10	41.038	41.044	0.708	0.15	40.701	40.701	0.074	0.20	40.388	40.388	0.008
0.25	40.098	40.098	0.001	0.30	40.109	40.109	0.000				
From ID: 3AM-103B											
0.01	44.110	58.083	37.787	0.02	43.568	49.866	24.258	0.03	43.041	45.504	14.768
0.04	42.543	43.483	8.991	0.05	42.079	42.548	6.302	0.06	41.852	42.038	3.946
0.07	41.633	41.706	2.471	0.08	41.421	41.450	1.547	0.09	41.217	41.229	0.969
0.10	41.022	41.028	0.708	0.15	40.687	40.687	0.074	0.20	40.374	40.374	0.008
0.25	40.085	40.085	0.001	0.30	40.096	40.096	0.000				
From ID: 3AM-104B											
0.01	44.110	58.083	37.787	0.02	43.568	49.866	24.258	0.03	43.041	45.504	14.768
0.04	42.543	43.483	8.991	0.05	42.079	42.548	6.302	0.06	41.852	42.038	3.946
0.07	41.633	41.706	2.471	0.08	41.421	41.450	1.547	0.09	41.217	41.229	0.969
0.10	41.022	41.028	0.708	0.15	40.687	40.687	0.074	0.20	40.374	40.374	0.008
0.25	40.085	40.085	0.001	0.30	40.096	40.096	0.000				
From ID: 3AM-105B											
0.01	44.141	58.130	37.825	0.02	43.596	49.902	24.283	0.03	43.066	45.532	14.783
0.04	42.566	43.507	9.000	0.05	42.100	42.570	6.308	0.06	41.872	42.058	3.950
0.07	41.651	41.725	2.474	0.08	41.439	41.468	1.549	0.09	41.234	41.246	0.970
0.10	41.038	41.044	0.708	0.15	40.701	40.701	0.074	0.20	40.388	40.388	0.008
0.25	40.098	40.098	0.001	0.30	40.109	40.109	0.000				
From ID: 3AM-105D											
0.01	44.141	58.130	37.825	0.02	43.596	49.902	24.283	0.03	43.066	45.532	14.783
0.04	42.566	43.507	9.000	0.05	42.100	42.570	6.308	0.06	41.872	42.058	3.950
0.07	41.651	41.725	2.474	0.08	41.439	41.468	1.549	0.09	41.234	41.246	0.970
0.10	41.038	41.044	0.708	0.15	40.701	40.701	0.074	0.20	40.388	40.388	0.008
0.25	40.098	40.098	0.001	0.30	40.109	40.109	0.000				
From ID: 3AM-105F											
0.01	44.141	58.130	37.825	0.02	43.596	49.902	24.283	0.03	43.066	45.532	14.783
0.04	42.566	43.507	9.000	0.05	42.100	42.570	6.308	0.06	41.872	42.058	3.950
0.07	41.651	41.725	2.474	0.08	41.439	41.468	1.549	0.09	41.234	41.246	0.970
0.10	41.038	41.044	0.708	0.15	40.701	40.701	0.074	0.20	40.388	40.388	0.008
0.25	40.098	40.098	0.001	0.30	40.109	40.109	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 182
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-01 B

Nominal kV = 0.400 I"k = 46.57

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-106B											
0.01	44.110	58.083	37.787	0.02	43.568	49.866	24.258	0.03	43.041	45.504	14.768
0.04	42.543	43.483	8.991	0.05	42.079	42.548	6.302	0.06	41.852	42.038	3.946
0.07	41.633	41.706	2.471	0.08	41.421	41.450	1.547	0.09	41.217	41.229	0.969
0.10	41.022	41.028	0.708	0.15	40.687	40.687	0.074	0.20	40.374	40.374	0.008
0.25	40.085	40.085	0.001	0.30	40.096	40.096	0.000				
From ID: 3AM-106D											
0.01	44.110	58.083	37.787	0.02	43.568	49.866	24.258	0.03	43.041	45.504	14.768
0.04	42.543	43.483	8.991	0.05	42.079	42.548	6.302	0.06	41.852	42.038	3.946
0.07	41.633	41.706	2.471	0.08	41.421	41.450	1.547	0.09	41.217	41.229	0.969
0.10	41.022	41.028	0.708	0.15	40.687	40.687	0.074	0.20	40.374	40.374	0.008
0.25	40.085	40.085	0.001	0.30	40.096	40.096	0.000				
From ID: 3PM-107B											
0.01	43.979	57.875	37.621	0.02	43.449	49.710	24.152	0.03	42.933	45.381	14.703
0.04	42.447	43.381	8.951	0.05	41.993	42.459	6.274	0.06	41.771	41.955	3.929
0.07	41.556	41.629	2.460	0.08	41.349	41.378	1.541	0.09	41.150	41.161	0.965
0.10	40.958	40.964	0.704	0.15	40.629	40.630	0.073	0.20	40.323	40.323	0.008
0.25	40.039	40.039	0.001	0.30	40.050	40.050	0.000				
From ID: 3PM-108A											
0.01	43.510	57.256	37.217	0.02	43.014	49.204	23.892	0.03	42.531	44.950	14.546
0.04	42.076	42.998	8.855	0.05	41.651	42.111	6.207	0.06	41.443	41.625	3.887
0.07	41.242	41.314	2.434	0.08	41.048	41.076	1.524	0.09	40.861	40.872	0.954
0.10	40.681	40.687	0.697	0.15	40.376	40.376	0.072	0.20	40.092	40.092	0.008
0.25	39.829	39.829	0.001	0.30	39.840	39.840	0.000				
From ID: 3PM-1101B											
0.01	43.907	57.820	37.621	0.02	43.380	49.650	24.152	0.03	42.868	45.320	14.703
0.04	42.385	43.320	8.951	0.05	41.934	42.401	6.274	0.06	41.713	41.898	3.929
0.07	41.500	41.573	2.460	0.08	41.294	41.323	1.541	0.09	41.096	41.108	0.965
0.10	40.906	40.912	0.704	0.15	40.582	40.582	0.073	0.20	40.280	40.280	0.008
0.25	40.001	40.001	0.001	0.30	40.013	40.013	0.000				
From ID: 3PM-112A											
0.01	43.907	57.820	37.621	0.02	43.380	49.650	24.152	0.03	42.868	45.320	14.703
0.04	42.385	43.320	8.951	0.05	41.934	42.401	6.274	0.06	41.713	41.898	3.929
0.07	41.500	41.573	2.460	0.08	41.294	41.323	1.541	0.09	41.096	41.108	0.965
0.10	40.906	40.912	0.704	0.15	40.582	40.582	0.073	0.20	40.280	40.280	0.008
0.25	40.001	40.001	0.001	0.30	40.013	40.013	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 183
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-3-01 B**

Nominal kV = 0.400 I"k = 46.57

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3PM-116A											
0.01	43.510	57.256	37.217	0.02	43.014	49.204	23.892	0.03	42.531	44.950	14.546
0.04	42.076	42.998	8.855	0.05	41.651	42.111	6.207	0.06	41.443	41.625	3.887
0.07	41.242	41.314	2.434	0.08	41.048	41.076	1.524	0.09	40.861	40.872	0.954
0.10	40.681	40.687	0.697	0.15	40.376	40.376	0.072	0.20	40.092	40.092	0.008
0.25	39.829	39.829	0.001	0.30	39.840	39.840	0.000				
From ID: 3PM-119											
0.01	44.286	58.361	38.009	0.02	43.728	50.075	24.401	0.03	43.186	45.669	14.855
0.04	42.675	43.623	9.044	0.05	42.198	42.671	6.339	0.06	41.965	42.152	3.970
0.07	41.739	41.813	2.486	0.08	41.522	41.551	1.557	0.09	41.313	41.324	0.975
0.10	41.112	41.118	0.712	0.15	40.769	40.769	0.074	0.20	40.449	40.449	0.008
0.25	40.154	40.154	0.001	0.30	40.166	40.166	0.000				
From ID: 3PM-121											
0.01	44.298	58.376	38.020	0.02	43.738	50.088	24.408	0.03	43.195	45.680	14.859
0.04	42.684	43.632	9.046	0.05	42.206	42.680	6.341	0.06	41.973	42.160	3.971
0.07	41.747	41.821	2.486	0.08	41.529	41.558	1.557	0.09	41.320	41.331	0.975
0.10	41.119	41.125	0.712	0.15	40.775	40.775	0.074	0.20	40.455	40.455	0.008
0.25	40.159	40.159	0.001	0.30	40.171	40.171	0.000				
From ID: 3PN-115A											
0.01	43.351	57.030	37.056	0.02	42.868	49.027	23.789	0.03	42.398	44.803	14.483
0.04	41.954	42.871	8.817	0.05	41.540	41.997	6.180	0.06	41.337	41.517	3.870
0.07	41.140	41.212	2.423	0.08	40.951	40.979	1.518	0.09	40.768	40.780	0.950
0.10	40.593	40.599	0.694	0.15	40.296	40.296	0.072	0.20	40.019	40.019	0.007
0.25	39.762	39.762	0.001	0.30	39.774	39.774	0.000				
From ID: 4P-1103E											
0.01	44.037	57.983	37.721	0.02	43.504	49.790	24.216	0.03	42.988	45.445	14.743
0.04	42.500	43.438	8.975	0.05	42.045	42.513	6.291	0.06	41.823	42.008	3.939
0.07	41.608	41.681	2.467	0.08	41.401	41.430	1.545	0.09	41.202	41.213	0.967
0.10	41.010	41.016	0.706	0.15	40.683	40.683	0.073	0.20	40.379	40.379	0.008
0.25	40.097	40.097	0.001	0.30	40.108	40.108	0.000				
From ID: K-1309											
0.01	43.221	56.745	36.769	0.02	42.780	48.860	23.605	0.03	42.350	44.722	14.371
0.04	41.946	42.848	8.749	0.05	41.568	42.018	6.132	0.06	41.384	41.562	3.840
0.07	41.206	41.276	2.405	0.08	41.034	41.062	1.506	0.09	40.869	40.880	0.943
0.10	40.710	40.716	0.688	0.15	40.440	40.440	0.072	0.20	40.189	40.189	0.007
0.25	39.956	39.956	0.001	0.30	39.966	39.966	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 184
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-3-01 B**

Nominal kV = 0.400 I"k = 46.57

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: T2											
0.01	44.302	58.382	38.024	0.02	43.742	50.092	24.410	0.03	43.199	45.684	14.861
0.04	42.687	43.635	9.047	0.05	42.209	42.683	6.342	0.06	41.975	42.163	3.971
0.07	41.750	41.824	2.487	0.08	41.532	41.561	1.557	0.09	41.322	41.334	0.975
0.10	41.121	41.127	0.712	0.15	40.778	40.778	0.074	0.20	40.458	40.458	0.008
0.25	40.161	40.161	0.001	0.30	40.173	40.173	0.000				
From ID: TRL-3-01B											
0.01	37.884	48.913	30.940	0.02	37.895	42.785	19.863	0.03	37.895	39.777	12.092
0.04	37.895	38.603	7.362	0.05	37.895	38.244	5.160	0.06	37.895	38.032	3.231
0.07	37.895	37.949	2.023	0.08	37.895	37.916	1.267	0.09	37.895	37.903	0.793
0.10	37.895	37.899	0.579	0.15	37.895	37.895	0.060	0.20	37.895	37.895	0.006
0.25	37.895	37.895	0.001	0.30	37.895	37.895	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 185
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-101A											
0.01	43.817	57.668	37.493	0.02	43.343	49.632	24.182	0.03	42.882	45.342	14.733
0.04	42.449	43.388	8.976	0.05	42.048	42.520	6.320	0.06	41.851	42.038	3.964
0.07	41.661	41.735	2.486	0.08	41.479	41.508	1.559	0.09	41.303	41.315	0.978
0.10	41.135	41.142	0.716	0.15	40.859	40.859	0.075				
From ID: 3AM-101C											
0.01	43.817	57.668	37.493	0.02	43.343	49.632	24.182	0.03	42.882	45.342	14.733
0.04	42.449	43.388	8.976	0.05	42.048	42.520	6.320	0.06	41.851	42.038	3.964
0.07	41.661	41.735	2.486	0.08	41.479	41.508	1.559	0.09	41.303	41.315	0.978
0.10	41.135	41.142	0.716	0.15	40.859	40.859	0.075				
From ID: 3AM-101E											
0.01	43.817	57.668	37.493	0.02	43.343	49.632	24.182	0.03	42.882	45.342	14.733
0.04	42.449	43.388	8.976	0.05	42.048	42.520	6.320	0.06	41.851	42.038	3.964
0.07	41.661	41.735	2.486	0.08	41.479	41.508	1.559	0.09	41.303	41.315	0.978
0.10	41.135	41.142	0.716	0.15	40.859	40.859	0.075				
From ID: 3AM-102A											
0.01	43.852	57.719	37.530	0.02	43.375	49.672	24.206	0.03	42.911	45.375	14.747
0.04	42.476	43.416	8.985	0.05	42.073	42.546	6.326	0.06	41.875	42.062	3.968
0.07	41.684	41.758	2.488	0.08	41.500	41.529	1.560	0.09	41.324	41.335	0.979
0.10	41.155	41.161	0.716	0.15	40.876	40.876	0.075				
From ID: 3AM-105A											
0.01	43.852	57.719	37.530	0.02	43.375	49.672	24.206	0.03	42.911	45.375	14.747
0.04	42.476	43.416	8.985	0.05	42.073	42.546	6.326	0.06	41.875	42.062	3.968
0.07	41.684	41.758	2.488	0.08	41.500	41.529	1.560	0.09	41.324	41.335	0.979
0.10	41.155	41.161	0.716	0.15	40.876	40.876	0.075				
From ID: 3AM-105C											
0.01	43.852	57.719	37.530	0.02	43.375	49.672	24.206	0.03	42.911	45.375	14.747
0.04	42.476	43.416	8.985	0.05	42.073	42.546	6.326	0.06	41.875	42.062	3.968
0.07	41.684	41.758	2.488	0.08	41.500	41.529	1.560	0.09	41.324	41.335	0.979
0.10	41.155	41.161	0.716	0.15	40.876	40.876	0.075				
From ID: 3AM-105E											
0.01	43.852	57.719	37.530	0.02	43.375	49.672	24.206	0.03	42.911	45.375	14.747
0.04	42.476	43.416	8.985	0.05	42.073	42.546	6.326	0.06	41.875	42.062	3.968
0.07	41.684	41.758	2.488	0.08	41.500	41.529	1.560	0.09	41.324	41.335	0.979
0.10	41.155	41.161	0.716	0.15	40.876	40.876	0.075				
From ID: 3AM-611/612A											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 186
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.01	43.843	57.688	37.493	0.02	43.367	49.654	24.182	0.03	42.904	45.363	14.733
0.04	42.470	43.408	8.976	0.05	42.067	42.539	6.320	0.06	41.869	42.056	3.964
0.07	41.679	41.753	2.486	0.08	41.495	41.525	1.559	0.09	41.319	41.331	0.978
0.10	41.151	41.157	0.716	0.15	40.871	40.871	0.075				
From ID: 3JM-1902											
0.01	44.032	57.980	37.722	0.02	43.540	49.876	24.329	0.03	43.062	45.542	14.823
0.04	42.614	43.561	9.031	0.05	42.199	42.675	6.359	0.06	41.995	42.184	3.988
0.07	41.798	41.873	2.501	0.08	41.609	41.639	1.568	0.09	41.428	41.440	0.984
0.10	41.254	41.260	0.720	0.15	40.967	40.967	0.075				
From ID: 3K-101A-P											
0.01	44.032	57.980	37.722	0.02	43.540	49.876	24.329	0.03	43.062	45.542	14.823
0.04	42.614	43.561	9.031	0.05	42.199	42.675	6.359	0.06	41.995	42.184	3.988
0.07	41.798	41.873	2.501	0.08	41.609	41.639	1.568	0.09	41.428	41.440	0.984
0.10	41.254	41.260	0.720	0.15	40.967	40.967	0.075				
From ID: 3K-201-PM01B											
0.01	44.035	57.985	37.725	0.02	43.543	49.880	24.331	0.03	43.065	45.545	14.824
0.04	42.617	43.563	9.031	0.05	42.201	42.677	6.359	0.06	41.997	42.186	3.988
0.07	41.800	41.875	2.501	0.08	41.611	41.641	1.569	0.09	41.430	41.442	0.984
0.10	41.256	41.262	0.720	0.15	40.969	40.969	0.075	0.20	40.702	40.702	0.008
From ID: 3KM-101A											
0.01	42.931	56.381	36.548	0.02	42.529	48.625	23.572	0.03	42.136	44.517	14.361
0.04	41.768	42.674	8.750	0.05	41.426	41.881	6.161	0.06	41.257	41.438	3.864
0.07	41.095	41.166	2.423	0.08	40.939	40.967	1.520	0.09	40.789	40.800	0.953
0.10	40.645	40.651	0.698	0.15	40.410	40.410	0.073				
From ID: 3KM-201											
0.01	42.880	56.308	36.494	0.02	42.483	48.568	23.537	0.03	42.094	44.470	14.340
0.04	41.729	42.634	8.737	0.05	41.390	41.845	6.152	0.06	41.224	41.404	3.858
0.07	41.063	41.134	2.419	0.08	40.908	40.936	1.517	0.09	40.760	40.771	0.952
0.10	40.617	40.623	0.697	0.15	40.385	40.385	0.073				
From ID: 3KM-351											
0.01	43.639	57.373	37.246	0.02	43.180	49.413	24.022	0.03	42.733	45.170	14.635
0.04	42.314	43.243	8.917	0.05	41.924	42.392	6.278	0.06	41.733	41.918	3.937
0.07	41.549	41.622	2.469	0.08	41.372	41.401	1.549	0.09	41.201	41.213	0.971
0.10	41.038	41.044	0.711	0.15	40.767	40.768	0.075				
From ID: 3KM-501A											
0.01	44.006	57.941	37.692	0.02	43.516	49.846	24.310	0.03	43.040	45.517	14.811

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 187
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.04	42.594	43.539	9.023	0.05	42.179	42.655	6.354	0.06	41.976	42.165	3.985
0.07	41.781	41.855	2.499	0.08	41.592	41.622	1.567	0.09	41.411	41.423	0.983
0.10	41.238	41.244	0.720	0.15	40.952	40.952	0.075				
From ID: 3PM-1304A											
0.01	43.973	57.891	37.653	0.02	43.485	49.807	24.285	0.03	43.011	45.485	14.796
0.04	42.567	43.511	9.014	0.05	42.155	42.630	6.347	0.06	41.952	42.141	3.981
0.07	41.758	41.832	2.496	0.08	41.570	41.600	1.566	0.09	41.390	41.402	0.982
0.10	41.218	41.224	0.719	0.15	40.933	40.933	0.075				
From ID: 3PM-1601A											
0.01	44.019	57.961	37.707	0.02	43.528	49.861	24.320	0.03	43.051	45.530	14.817
0.04	42.604	43.550	9.027	0.05	42.189	42.665	6.356	0.06	41.986	42.175	3.986
0.07	41.790	41.864	2.500	0.08	41.601	41.630	1.568	0.09	41.420	41.431	0.983
0.10	41.246	41.253	0.720	0.15	40.960	40.960	0.075				
From ID: 3PM-1651A											
0.01	44.006	57.941	37.692	0.02	43.516	49.846	24.310	0.03	43.040	45.517	14.811
0.04	42.594	43.539	9.023	0.05	42.179	42.655	6.354	0.06	41.976	42.165	3.985
0.07	41.781	41.855	2.499	0.08	41.592	41.622	1.567	0.09	41.411	41.423	0.983
0.10	41.238	41.244	0.720	0.15	40.952	40.952	0.075				
From ID: 3PM-1801A											
0.01	43.940	57.838	37.610	0.02	43.457	49.768	24.257	0.03	42.986	45.456	14.778
0.04	42.545	43.488	9.004	0.05	42.136	42.610	6.340	0.06	41.935	42.123	3.976
0.07	41.742	41.816	2.493	0.08	41.555	41.585	1.564	0.09	41.377	41.388	0.981
0.10	41.206	41.212	0.718	0.15	40.922	40.923	0.075				
From ID: 3PM-1803A											
0.01	44.006	57.941	37.692	0.02	43.516	49.846	24.310	0.03	43.040	45.517	14.811
0.04	42.594	43.539	9.023	0.05	42.179	42.655	6.354	0.06	41.976	42.165	3.985
0.07	41.781	41.855	2.499	0.08	41.592	41.622	1.567	0.09	41.411	41.423	0.983
0.10	41.238	41.244	0.720	0.15	40.952	40.952	0.075				
From ID: 3PM-1805A											
0.01	43.940	57.838	37.610	0.02	43.457	49.768	24.257	0.03	42.986	45.456	14.778
0.04	42.545	43.488	9.004	0.05	42.136	42.610	6.340	0.06	41.935	42.123	3.976
0.07	41.742	41.816	2.493	0.08	41.555	41.585	1.564	0.09	41.377	41.388	0.981
0.10	41.206	41.212	0.718	0.15	40.922	40.923	0.075				
From ID: 3PM-1806A											
0.01	44.037	57.988	37.727	0.02	43.545	49.882	24.333	0.03	43.066	45.547	14.825
0.04	42.618	43.565	9.032	0.05	42.202	42.679	6.360	0.06	41.998	42.187	3.988

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 188
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.07	41.802	41.876	2.501	0.08	41.613	41.642	1.569	0.09	41.431	41.443	0.984
0.10	41.257	41.263	0.720	0.15	40.970	40.970	0.075				
From ID: 3PM-1903											
0.01	44.019	57.961	37.707	0.02	43.528	49.861	24.320	0.03	43.051	45.530	14.817
0.04	42.604	43.550	9.027	0.05	42.189	42.665	6.356	0.06	41.986	42.175	3.986
0.07	41.790	41.864	2.500	0.08	41.601	41.630	1.568	0.09	41.420	41.431	0.983
0.10	41.246	41.253	0.720	0.15	40.960	40.960	0.075				
From ID: 3PM-1904											
0.01	44.032	57.980	37.722	0.02	43.540	49.876	24.329	0.03	43.062	45.542	14.823
0.04	42.614	43.561	9.031	0.05	42.199	42.675	6.359	0.06	41.995	42.184	3.988
0.07	41.798	41.873	2.501	0.08	41.609	41.639	1.568	0.09	41.428	41.440	0.984
0.10	41.254	41.260	0.720	0.15	40.967	40.967	0.075				
From ID: 3PM-201A											
0.01	44.019	57.961	37.707	0.02	43.528	49.861	24.320	0.03	43.051	45.530	14.817
0.04	42.604	43.550	9.027	0.05	42.189	42.665	6.356	0.06	41.986	42.175	3.986
0.07	41.790	41.864	2.500	0.08	41.601	41.630	1.568	0.09	41.420	41.431	0.983
0.10	41.246	41.253	0.720	0.15	40.960	40.960	0.075				
From ID: 3PM-302A											
0.01	44.006	57.941	37.692	0.02	43.516	49.846	24.310	0.03	43.040	45.517	14.811
0.04	42.594	43.539	9.023	0.05	42.179	42.655	6.354	0.06	41.976	42.165	3.985
0.07	41.781	41.855	2.499	0.08	41.592	41.622	1.567	0.09	41.411	41.423	0.983
0.10	41.238	41.244	0.720	0.15	40.952	40.952	0.075				
From ID: 3PM-303A											
0.01	43.973	57.891	37.653	0.02	43.485	49.807	24.285	0.03	43.011	45.485	14.796
0.04	42.567	43.511	9.014	0.05	42.155	42.630	6.347	0.06	41.952	42.141	3.981
0.07	41.758	41.832	2.496	0.08	41.570	41.600	1.566	0.09	41.390	41.402	0.982
0.10	41.218	41.224	0.719	0.15	40.933	40.933	0.075				
From ID: 3PM-304A											
0.01	43.843	57.688	37.493	0.02	43.367	49.654	24.182	0.03	42.904	45.363	14.733
0.04	42.470	43.408	8.976	0.05	42.067	42.539	6.320	0.06	41.869	42.056	3.964
0.07	41.679	41.753	2.486	0.08	41.495	41.525	1.559	0.09	41.319	41.331	0.978
0.10	41.151	41.157	0.716	0.15	40.871	40.871	0.075				
From ID: 3PM-305A/306A											
0.01	44.035	57.985	37.725	0.02	43.543	49.880	24.331	0.03	43.065	45.545	14.824
0.04	42.617	43.563	9.031	0.05	42.201	42.677	6.359	0.06	41.997	42.186	3.988
0.07	41.800	41.875	2.501	0.08	41.611	41.641	1.569	0.09	41.430	41.442	0.984

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 189
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.10	41.256	41.262	0.720	0.15	40.969	40.969	0.075				
From ID: 3PM-307A/308A											
0.01	44.035	57.985	37.725	0.02	43.543	49.880	24.331	0.03	43.065	45.545	14.824
0.04	42.617	43.563	9.031	0.05	42.201	42.677	6.359	0.06	41.997	42.186	3.988
0.07	41.800	41.875	2.501	0.08	41.611	41.641	1.569	0.09	41.430	41.442	0.984
0.10	41.256	41.262	0.720	0.15	40.969	40.969	0.075				
From ID: 3PM-309											
0.01	44.032	57.980	37.722	0.02	43.540	49.876	24.329	0.03	43.062	45.542	14.823
0.04	42.614	43.561	9.031	0.05	42.199	42.675	6.359	0.06	41.995	42.184	3.988
0.07	41.798	41.873	2.501	0.08	41.609	41.639	1.568	0.09	41.428	41.440	0.984
0.10	41.254	41.260	0.720	0.15	40.967	40.967	0.075				
From ID: 3PM-310											
0.01	44.006	57.941	37.692	0.02	43.516	49.846	24.310	0.03	43.040	45.517	14.811
0.04	42.594	43.539	9.023	0.05	42.179	42.655	6.354	0.06	41.976	42.165	3.985
0.07	41.781	41.855	2.499	0.08	41.592	41.622	1.567	0.09	41.411	41.423	0.983
0.10	41.238	41.244	0.720	0.15	40.952	40.952	0.075				
From ID: 3PM-401A											
0.01	43.843	57.688	37.493	0.02	43.367	49.654	24.182	0.03	42.904	45.363	14.733
0.04	42.470	43.408	8.976	0.05	42.067	42.539	6.320	0.06	41.869	42.056	3.964
0.07	41.679	41.753	2.486	0.08	41.495	41.525	1.559	0.09	41.319	41.331	0.978
0.10	41.151	41.157	0.716	0.15	40.871	40.871	0.075				
From ID: 3PM-402A											
0.01	43.905	57.783	37.566	0.02	43.424	49.726	24.229	0.03	42.957	45.422	14.761
0.04	42.518	43.459	8.993	0.05	42.111	42.585	6.332	0.06	41.912	42.099	3.971
0.07	41.719	41.794	2.491	0.08	41.534	41.564	1.562	0.09	41.357	41.368	0.980
0.10	41.186	41.193	0.717	0.15	40.905	40.905	0.075				
From ID: 3PM-404A											
0.01	43.772	57.578	37.407	0.02	43.302	49.570	24.126	0.03	42.845	45.296	14.699
0.04	42.416	43.351	8.955	0.05	42.017	42.488	6.306	0.06	41.822	42.008	3.954
0.07	41.633	41.707	2.480	0.08	41.452	41.481	1.555	0.09	41.278	41.290	0.975
0.10	41.111	41.118	0.714	0.15	40.835	40.835	0.075				
From ID: 3PM-405A/306A											
0.01	44.037	57.988	37.727	0.02	43.545	49.882	24.333	0.03	43.066	45.547	14.825
0.04	42.618	43.565	9.032	0.05	42.202	42.679	6.360	0.06	41.998	42.187	3.988
0.07	41.802	41.876	2.501	0.08	41.613	41.642	1.569	0.09	41.431	41.443	0.984
0.10	41.257	41.263	0.720	0.15	40.970	40.970	0.075				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 190
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 A

Nominal kV = 0.400 I"k = 46.36

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3PM-502											
0.01	43.990	57.917	37.673	0.02	43.502	49.827	24.298	0.03	43.027	45.502	14.804
0.04	42.581	43.526	9.019	0.05	42.168	42.643	6.350	0.06	41.965	42.154	3.983
0.07	41.770	41.844	2.498	0.08	41.582	41.611	1.566	0.09	41.401	41.413	0.982
0.10	41.228	41.235	0.719	0.15	40.943	40.943	0.075				
From ID: 3PM-601											
0.01	43.940	57.838	37.610	0.02	43.457	49.768	24.257	0.03	42.986	45.456	14.778
0.04	42.545	43.488	9.004	0.05	42.136	42.610	6.340	0.06	41.935	42.123	3.976
0.07	41.742	41.816	2.493	0.08	41.555	41.585	1.564	0.09	41.377	41.388	0.981
0.10	41.206	41.212	0.718	0.15	40.922	40.923	0.075				
From ID: 3PM-611A											
0.01	43.905	57.783	37.566	0.02	43.424	49.726	24.229	0.03	42.957	45.422	14.761
0.04	42.518	43.459	8.993	0.05	42.111	42.585	6.332	0.06	41.912	42.099	3.971
0.07	41.719	41.794	2.491	0.08	41.534	41.564	1.562	0.09	41.357	41.368	0.980
0.10	41.186	41.193	0.717	0.15	40.905	40.905	0.075				
From ID: 3PM-641											
0.01	43.772	57.578	37.407	0.02	43.302	49.570	24.126	0.03	42.845	45.296	14.699
0.04	42.416	43.351	8.955	0.05	42.017	42.488	6.306	0.06	41.822	42.008	3.954
0.07	41.633	41.707	2.480	0.08	41.452	41.481	1.555	0.09	41.278	41.290	0.975
0.10	41.111	41.118	0.714	0.15	40.835	40.835	0.075				
From ID: TRL-3-02A											
0.01	37.848	48.806	30.815	0.02	37.861	42.761	19.875	0.03	37.861	39.750	12.109
0.04	37.861	38.573	7.377	0.05	37.861	38.216	5.194	0.06	37.861	38.001	3.258
0.07	37.861	37.916	2.043	0.08	37.861	37.883	1.281	0.09	37.861	37.870	0.804
0.10	37.861	37.866	0.588	0.15	37.861	37.861	0.062				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 191
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-3-02 B**

Nominal kV = 0.400 I"k = 41.83

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3AM-101B											
0.04	43.683	44.596	8.978	0.05	43.168	43.631	6.341	0.06	42.918	43.100	3.956
0.07	42.677	42.748	2.468	0.08	42.445	42.473	1.540	0.09	42.221	42.232	0.961
0.10	42.007	42.013	0.707	0.15	41.628	41.628	0.073	0.20	41.275	41.275	0.007
0.25	40.949	40.949	0.001	0.30	40.953	40.953	0.000				
From ID: 3AM-101D											
0.04	43.683	44.596	8.978	0.05	43.168	43.631	6.341	0.06	42.918	43.100	3.956
0.07	42.677	42.748	2.468	0.08	42.445	42.473	1.540	0.09	42.221	42.232	0.961
0.10	42.007	42.013	0.707	0.15	41.628	41.628	0.073	0.20	41.275	41.275	0.007
0.25	40.949	40.949	0.001	0.30	40.953	40.953	0.000				
From ID: 3AM-101F											
0.04	43.683	44.596	8.978	0.05	43.168	43.631	6.341	0.06	42.918	43.100	3.956
0.07	42.677	42.748	2.468	0.08	42.445	42.473	1.540	0.09	42.221	42.232	0.961
0.10	42.007	42.013	0.707	0.15	41.628	41.628	0.073	0.20	41.275	41.275	0.007
0.25	40.949	40.949	0.001	0.30	40.953	40.953	0.000				
From ID: 3AM-611/612B											
0.05	43.172	43.635	6.341	0.06	42.922	43.104	3.956	0.07	42.681	42.753	2.468
0.08	42.449	42.477	1.540	0.09	42.226	42.237	0.961	0.10	42.011	42.017	0.707
0.15	41.632	41.632	0.073	0.20	41.279	41.279	0.007	0.25	40.953	40.953	0.001
0.30	40.957	40.957	0.000								
From ID: 3K-101B-PM01B											
0.05	43.327	43.794	6.379	0.06	43.070	43.254	3.980	0.07	42.823	42.894	2.483
0.08	42.584	42.612	1.549	0.09	42.354	42.365	0.967	0.10	42.134	42.140	0.711
0.15	41.744	41.744	0.073	0.20	41.381	41.381	0.007	0.25	41.047	41.047	0.001
0.30	41.051	41.051	0.000								
From ID: 3KM-101B											
0.04	42.962	43.846	8.757	0.05	42.508	42.955	6.186	0.06	42.288	42.463	3.859
0.07	42.075	42.144	2.408	0.08	41.870	41.897	1.502	0.09	41.672	41.683	0.937
0.10	41.483	41.489	0.690	0.15	41.148	41.148	0.071	0.20	40.836	40.836	0.007
0.25	40.547	40.547	0.001	0.30	40.551	40.551	0.000				
From ID: 3KM-151											
0.04	42.985	43.868	8.757	0.05	42.530	42.977	6.186	0.06	42.309	42.485	3.859
0.07	42.096	42.165	2.408	0.08	41.891	41.918	1.502	0.09	41.693	41.704	0.937
0.10	41.504	41.509	0.690	0.15	41.167	41.167	0.071	0.20	40.854	40.854	0.007
0.25	40.565	40.565	0.001	0.30	40.568	40.568	0.000				
From ID: 3KM-152											

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 192
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400 I"k = 41.83

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.05	42.530	42.977	6.186	0.06	42.309	42.485	3.859	0.07	42.096	42.165	2.408
0.08	41.891	41.918	1.502	0.09	41.693	41.704	0.937	0.10	41.504	41.509	0.690
0.15	41.167	41.167	0.071	0.20	40.854	40.854	0.007	0.25	40.565	40.565	0.001
0.30	40.568	40.568	0.000								
From ID: 3KM-352											
0.05	42.944	43.401	6.282	0.06	42.706	42.886	3.919	0.07	42.477	42.548	2.445
0.08	42.256	42.284	1.526	0.09	42.044	42.054	0.952	0.10	41.839	41.845	0.701
0.15	41.478	41.478	0.072	0.20	41.142	41.142	0.007	0.25	40.831	40.831	0.001
0.30	40.835	40.835	0.000								
From ID: 3PM-104B											
0.04	42.782	43.658	8.702	0.05	42.343	42.787	6.147	0.06	42.130	42.304	3.835
0.07	41.924	41.993	2.393	0.08	41.726	41.753	1.493	0.09	41.535	41.546	0.931
0.10	41.352	41.358	0.685	0.15	41.028	41.028	0.070	0.20	40.726	40.726	0.007
0.25	40.447	40.447	0.001	0.30	40.451	40.451	0.000				
From ID: 3PM-123											
0.04	43.851	44.771	9.029	0.05	43.321	43.788	6.377	0.06	43.065	43.248	3.979
0.07	42.817	42.889	2.483	0.08	42.579	42.607	1.549	0.09	42.349	42.360	0.966
0.10	42.129	42.135	0.711	0.15	41.739	41.739	0.073	0.20	41.377	41.377	0.007
0.25	41.043	41.043	0.001	0.30	41.047	41.047	0.000				
From ID: 3PM-1802A											
0.05	43.277	43.743	6.367	0.06	43.023	43.206	3.973	0.07	42.777	42.848	2.479
0.08	42.539	42.568	1.547	0.09	42.311	42.322	0.965	0.10	42.093	42.099	0.710
0.15	41.706	41.706	0.073	0.20	41.346	41.346	0.007	0.25	41.013	41.013	0.001
0.30	41.017	41.017	0.000								
From ID: 3PM-1901A											
0.05	43.305	43.772	6.374	0.06	43.049	43.233	3.977	0.07	42.802	42.874	2.481
0.08	42.564	42.593	1.548	0.09	42.335	42.346	0.966	0.10	42.116	42.122	0.711
0.15	41.727	41.727	0.073	0.20	41.366	41.366	0.007	0.25	41.032	41.032	0.001
0.30	41.036	41.036	0.000								
From ID: 3PM-1902											
0.05	43.316	43.783	6.376	0.06	43.060	43.243	3.978	0.07	42.813	42.885	2.482
0.08	42.574	42.602	1.549	0.09	42.345	42.356	0.966	0.10	42.125	42.131	0.711
0.15	41.736	41.736	0.073	0.20	41.374	41.374	0.007	0.25	41.039	41.039	0.001
0.30	41.043	41.043	0.000								
From ID: 3PM-1905A											
0.05	43.292	43.758	6.371	0.06	43.037	43.220	3.975	0.07	42.790	42.862	2.480

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 193
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400 I"k = 41.83

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.08	42.553	42.581	1.547	0.09	42.324	42.335	0.965	0.10	42.105	42.111	0.710
0.15	41.717	41.717	0.073	0.20	41.356	41.356	0.007	0.25	41.023	41.023	0.001
0.30	41.027	41.027	0.000								
From ID: 3PM-202											
0.05	43.305	43.772	6.374	0.06	43.049	43.233	3.977	0.07	42.802	42.874	2.481
0.08	42.564	42.593	1.548	0.09	42.335	42.346	0.966	0.10	42.116	42.122	0.711
0.15	41.727	41.727	0.073	0.20	41.366	41.366	0.007	0.25	41.032	41.032	0.001
0.30	41.036	41.036	0.000								
From ID: 3PM-203											
0.05	43.330	43.797	6.379	0.06	43.073	43.256	3.980	0.07	42.825	42.897	2.483
0.08	42.586	42.614	1.549	0.09	42.356	42.367	0.967	0.10	42.136	42.142	0.711
0.15	41.746	41.746	0.073	0.20	41.383	41.383	0.008	0.25	41.048	41.048	0.001
0.30	41.052	41.052	0.000								
From ID: 3PM-301A											
0.05	42.749	43.202	6.239	0.06	42.518	42.696	3.892	0.07	42.296	42.365	2.429
0.08	42.081	42.109	1.515	0.09	41.875	41.885	0.945	0.10	41.677	41.682	0.696
0.15	41.326	41.326	0.071	0.20	40.999	40.999	0.007	0.25	40.697	40.697	0.001
0.30	40.700	40.700	0.000								
From ID: 3PM-403A											
0.05	43.114	43.575	6.327	0.06	42.867	43.048	3.947	0.07	42.628	42.699	2.463
0.08	42.398	42.426	1.537	0.09	42.177	42.188	0.959	0.10	41.965	41.971	0.706
0.15	41.590	41.590	0.072	0.20	41.240	41.240	0.007	0.25	40.917	40.917	0.001
0.30	40.921	40.921	0.000								
From ID: 3PM-501A											
0.05	43.252	43.718	6.360	0.06	42.999	43.182	3.968	0.07	42.755	42.827	2.476
0.08	42.519	42.547	1.545	0.09	42.293	42.304	0.964	0.10	42.075	42.081	0.709
0.15	41.691	41.691	0.073	0.20	41.333	41.333	0.007	0.25	41.003	41.003	0.001
0.30	41.007	41.007	0.000								
From ID: 3PM-642											
0.05	43.292	43.758	6.371	0.06	43.037	43.220	3.975	0.07	42.790	42.862	2.480
0.08	42.553	42.581	1.547	0.09	42.324	42.335	0.965	0.10	42.105	42.111	0.710
0.15	41.717	41.717	0.073	0.20	41.356	41.356	0.007	0.25	41.023	41.023	0.001
0.30	41.027	41.027	0.000								
From ID: 3PM-643											
0.04	43.846	44.765	9.028	0.05	43.316	43.783	6.376	0.06	43.060	43.243	3.978
0.07	42.812	42.884	2.482	0.08	42.574	42.602	1.549	0.09	42.345	42.356	0.966

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 194
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGL-3-02 B

Nominal kV = 0.400 I"k = 41.83

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
0.10	42.124	42.130	0.711	0.15	41.735	41.735	0.073	0.20	41.373	41.373	0.007
0.25	41.039	41.039	0.001	0.30	41.043	41.043	0.000				
From ID: 3PM-751											
0.04	43.851	44.771	9.029	0.05	43.321	43.788	6.377	0.06	43.065	43.248	3.979
0.07	42.817	42.889	2.483	0.08	42.579	42.607	1.549	0.09	42.349	42.360	0.966
0.10	42.129	42.135	0.711	0.15	41.739	41.739	0.073	0.20	41.377	41.377	0.007
0.25	41.043	41.043	0.001	0.30	41.047	41.047	0.000				
From ID: TRL-3-02B											
0.04	37.739	38.409	7.144	0.05	37.739	38.075	5.046	0.06	37.739	37.870	3.148
0.07	37.739	37.790	1.964	0.08	37.739	37.759	1.226	0.09	37.739	37.746	0.765
0.10	37.739	37.743	0.563	0.15	37.739	37.739	0.058	0.20	37.739	37.739	0.006
0.25	37.739	37.739	0.001	0.30	37.739	37.739	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 195
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-01 BUS A**

Nominal kV = 0.400 I"k = 53.23

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable426											
0.01	38.814	51.736	34.207	0.02	38.814	45.663	24.054	0.03	38.814	41.953	15.923
0.04	38.814	40.220	10.541	0.05	38.814	39.610	7.902	0.06	38.814	39.183	5.363
0.07	38.814	38.984	3.639	0.08	38.814	38.892	2.470	0.09	38.814	38.850	1.676
0.10	38.814	38.835	1.279	0.15	38.814	38.814	0.195	0.20	38.814	38.814	0.030
0.25	38.814	38.814	0.005	0.30	38.814	38.814	0.001				
From ID: Cable427											
0.01	38.814	51.736	34.207	0.02	38.814	45.663	24.054	0.03	38.814	41.953	15.923
0.04	38.814	40.220	10.541	0.05	38.814	39.610	7.902	0.06	38.814	39.183	5.363
0.07	38.814	38.984	3.639	0.08	38.814	38.892	2.470	0.09	38.814	38.850	1.676
0.10	38.814	38.835	1.279	0.15	38.814	38.814	0.195	0.20	38.814	38.814	0.030
0.25	38.814	38.814	0.005	0.30	38.814	38.814	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 196
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-5-01 BUS B

Nominal kV = 0.400 I"k = 50.78

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable1											
0.01	38.809	52.171	34.867	0.02	38.809	45.912	24.532	0.03	38.809	42.132	16.401
0.04	38.809	40.328	10.965	0.05	38.809	39.656	8.155	0.06	38.809	39.206	5.570
0.07	38.809	38.995	3.804	0.08	38.809	38.896	2.598	0.09	38.809	38.849	1.774
0.10	38.809	38.832	1.342	0.15	38.809	38.809	0.210	0.20	38.809	38.809	0.033
0.25	38.809	38.809	0.005	0.30	38.809	38.809	0.001				
From ID: Cable499											
0.01	38.809	52.171	34.867	0.02	38.809	45.912	24.532	0.03	38.809	42.132	16.401
0.04	38.809	40.328	10.965	0.05	38.809	39.656	8.155	0.06	38.809	39.206	5.570
0.07	38.809	38.995	3.804	0.08	38.809	38.896	2.598	0.09	38.809	38.849	1.774
0.10	38.809	38.832	1.342	0.15	38.809	38.809	0.210	0.20	38.809	38.809	0.033
0.25	38.809	38.809	0.005	0.30	38.809	38.809	0.001				
From ID: TRLP5-01											
0.01	47.371	65.767	45.620	0.02	46.654	56.629	32.098	0.03	45.976	50.737	21.459
0.04	45.340	47.556	14.347	0.05	44.751	46.006	10.670	0.06	44.462	45.055	7.287
0.07	44.184	44.463	4.977	0.08	43.916	44.047	3.399	0.09	43.659	43.721	2.322
0.10	43.413	43.449	1.756	0.15	43.010	43.011	0.275	0.20	42.637	42.637	0.043
0.25	42.294	42.294	0.007	0.30	42.318	42.318	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 197
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-3-02B

Nominal kV = 3.200 I"k = 20.33

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3KM-202/203											
0.01	18.375	25.175	17.209	0.02	17.773	21.683	12.420	0.03	17.114	18.973	8.189
0.04	16.383	17.250	5.400	0.05	15.674	16.344	4.631	0.06	15.355	15.688	3.218
0.07	15.042	15.207	2.236	0.08	14.736	14.818	1.554	0.09	14.437	14.478	1.080
0.10	14.147	14.182	1.008	0.15	13.592	13.593	0.189	0.20	13.059	13.059	0.036
0.25	12.552	12.552	0.007	0.30	12.459	12.459	0.001				
From ID: 3PM-103B											
0.01	18.465	25.316	17.319	0.02	17.853	21.794	12.500	0.03	17.185	19.060	8.242
0.04	16.445	17.320	5.434	0.05	15.728	16.404	4.660	0.06	15.404	15.740	3.239
0.07	15.086	15.253	2.251	0.08	14.776	14.859	1.564	0.09	14.474	14.514	1.087
0.10	14.179	14.215	1.015	0.15	13.617	13.618	0.191	0.20	13.078	13.078	0.036
0.25	12.565	12.565	0.007	0.30	12.472	12.472	0.001				
From ID: Cable132											
0.01	17.683	24.266	16.618	0.02	17.084	20.873	11.994	0.03	16.431	18.235	7.908
0.04	15.711	16.554	5.215	0.05	15.014	15.665	4.472	0.06	14.698	15.023	3.108
0.07	14.390	14.551	2.160	0.08	14.088	14.168	1.501	0.09	13.794	13.833	1.043
0.10	13.507	13.542	0.973	0.15	12.962	12.963	0.183	0.20	12.439	12.439	0.034
0.25	11.942	11.942	0.006	0.30	11.854	11.854	0.001				
From ID: Cable181											
0.01	17.563	24.101	16.505	0.02	16.967	20.731	11.912	0.03	16.319	18.111	7.855
0.04	15.603	16.440	5.179	0.05	14.910	15.558	4.441	0.06	14.597	14.920	3.087
0.07	14.291	14.451	2.145	0.08	13.991	14.070	1.491	0.09	13.699	13.738	1.036
0.10	13.414	13.449	0.967	0.15	12.872	12.874	0.182	0.20	12.353	12.353	0.034
0.25	11.859	11.859	0.006	0.30	11.772	11.772	0.001				
From ID: Cable1904											
0.01	16.209	22.189	15.154	0.02	15.690	19.126	10.937	0.03	15.119	16.751	7.212
0.04	14.484	15.244	4.755	0.05	13.867	14.454	4.078	0.06	13.589	13.882	2.834
0.07	13.317	13.462	1.969	0.08	13.052	13.123	1.369	0.09	12.792	12.827	0.951
0.10	12.539	12.570	0.888	0.15	12.056	12.057	0.167	0.20	11.591	11.591	0.031
0.25	11.148	11.148	0.006	0.30	11.066	11.066	0.001				
From ID: Cable2799											
0.01	18.626	25.557	17.499	0.02	17.996	21.986	12.630	0.03	17.310	19.209	8.328
0.04	16.553	17.440	5.491	0.05	15.820	16.506	4.709	0.06	15.488	15.830	3.272
0.07	15.164	15.333	2.274	0.08	14.847	14.931	1.580	0.09	14.537	14.579	1.098
0.10	14.236	14.273	1.025	0.15	13.663	13.664	0.193	0.20	13.113	13.113	0.036
0.25	12.590	12.590	0.007	0.30	12.497	12.497	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 198
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-3-02B**

Nominal kV = 3.200 I"k = 20.33

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable2805											
0.01	18.626	25.557	17.499	0.02	17.996	21.986	12.630	0.03	17.310	19.209	8.328
0.04	16.553	17.440	5.491	0.05	15.820	16.506	4.709	0.06	15.488	15.830	3.272
0.07	15.164	15.333	2.274	0.08	14.847	14.931	1.580	0.09	14.537	14.579	1.098
0.10	14.236	14.273	1.025	0.15	13.663	13.664	0.193	0.20	13.113	13.113	0.036
0.25	12.590	12.590	0.007	0.30	12.497	12.497	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 199
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-01 BUS A

Nominal kV = 6.600 I"k = 41.07

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable100											
0.01	40.661	62.970	48.082	0.02	39.709	57.569	41.683	0.03	38.695	51.879	34.555
0.04	37.677	47.330	28.646	0.05	36.670	45.677	27.234	0.06	36.227	43.021	23.205
From ID: Cable101											
0.01	39.204	60.471	46.040	0.02	38.462	55.429	39.913	0.03	37.652	50.124	33.088
0.04	36.823	45.916	27.430	0.05	35.991	44.446	26.078	0.06	35.636	41.996	22.219
From ID: Cable83											
0.01	36.760	57.036	43.610	0.02	35.850	52.101	37.806	0.03	34.885	46.896	31.341
0.04	33.929	42.735	25.982	0.05	32.989	41.212	24.701	0.06	32.577	38.784	21.046
From ID: Cable91											
0.01	37.580	57.921	44.074	0.02	36.847	53.081	38.208	0.03	36.089	48.018	31.675
0.04	35.317	44.009	26.258	0.05	34.548	42.624	24.964	0.06	34.215	40.288	21.270
From ID: Cable93											
0.01	41.641	64.513	49.274	0.02	40.657	58.972	42.716	0.03	39.611	53.132	35.412
0.04	38.559	48.462	29.356	0.05	37.517	46.760	27.910	0.06	37.061	44.034	23.780
From ID: MEA2											
0.01	25.167	39.847	30.894	0.02	24.156	36.067	26.782	0.03	23.082	32.027	22.202
0.04	22.003	28.687	18.406	0.05	20.938	27.287	17.499	0.06	20.471	25.325	14.909
From ID: STG-4											
0.01	37.654	58.232	44.420	0.02	36.799	53.263	38.508	0.03	35.887	48.031	31.923
0.04	34.972	43.856	26.464	0.05	34.070	42.353	25.160	0.06	33.670	39.915	21.437
From ID: X1											
0.01	36.851	56.968	43.443	0.02	36.022	52.115	37.661	0.03	35.137	47.004	31.221
0.04	34.250	42.929	25.882	0.05	33.376	41.466	24.607				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 200
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGL-5-02 BUS A**

Nominal kV = 0.400 I"k = 44.12

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable4106											
0.01	31.449	41.696	27.377	0.02	31.449	36.912	19.324	0.03	31.449	33.931	12.737
0.04	31.449	32.551	8.396	0.05	31.449	32.078	6.321	0.06	31.449	31.739	4.279
0.07	31.449	31.582	2.897	0.08	31.449	31.510	1.961	0.09	31.449	31.477	1.327
0.10	31.449	31.466	1.014	0.15	31.449	31.450	0.153	0.20	31.449	31.449	0.023
0.25	31.449	31.449	0.003	0.30	31.449	31.449	0.001				
From ID: Cable4431											
0.01	34.826	46.808	31.276	0.02	34.572	41.019	22.075	0.03	34.331	37.287	14.551
0.04	34.103	35.426	9.591	0.05	33.892	34.652	7.221	0.06	33.788	34.139	4.888
0.07	33.687	33.849	3.309	0.08	33.591	33.665	2.240	0.09	33.498	33.532	1.516
0.10	33.408	33.428	1.159	0.15	33.259	33.259	0.175	0.20	33.120	33.120	0.026
0.25	32.991	32.991	0.004	0.30	32.998	32.998	0.001				
From ID: Cable5646											
0.01	37.682	51.043	34.430	0.02	37.256	44.481	24.302	0.03	36.852	40.183	16.018
0.04	36.474	37.972	10.559	0.05	36.124	36.988	7.950	0.06	35.953	36.353	5.381
0.07	35.788	35.973	3.643	0.08	35.629	35.714	2.466	0.09	35.477	35.516	1.669
0.10	35.331	35.354	1.276	0.15	35.088	35.089	0.193	0.20	34.863	34.863	0.029
0.25	34.656	34.656	0.004	0.30	34.668	34.668	0.001				
From ID: Cable5647											
0.01	41.071	56.234	38.412	0.02	40.382	48.639	27.112	0.03	39.733	43.567	17.871
0.04	39.129	40.864	11.780	0.05	38.573	39.579	8.869	0.06	38.302	38.770	6.004
0.07	38.042	38.259	4.064	0.08	37.794	37.894	2.751	0.09	37.556	37.602	1.862
0.10	37.329	37.356	1.423	0.15	36.952	36.952	0.215	0.20	36.605	36.605	0.032
0.25	36.289	36.289	0.005	0.30	36.306	36.306	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 201
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-5-02 BUS B

Nominal kV = 0.400 I"k = 33.90

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable4166											
0.01	31.269	43.255	29.887	0.02	31.269	37.720	21.097	0.03	31.269	34.498	14.572
0.04	31.269	32.849	10.065	0.05	31.269	32.098	7.250	0.06	31.269	31.674	5.050
0.07	31.269	31.466	3.518	0.08	31.269	31.365	2.450	0.09	31.269	31.315	1.707
0.10	31.269	31.293	1.239	0.15	31.269	31.270	0.207	0.20	31.269	31.269	0.035
0.25	31.269	31.269	0.006	0.30	31.269	31.269	0.001				
From ID: Cable4707											
0.01	33.291	46.455	32.399	0.02	33.163	40.285	22.870	0.03	33.042	36.623	15.797
0.04	32.927	34.688	10.911	0.05	32.821	33.749	7.860	0.06	32.768	33.222	5.475
0.07	32.717	32.939	3.813	0.08	32.669	32.776	2.656	0.09	32.622	32.674	1.850
0.10	32.577	32.604	1.343	0.15	32.503	32.504	0.225	0.20	32.434	32.434	0.038
0.25	32.371	32.371	0.006	0.30	32.375	32.375	0.001				
From ID: Cable4736											
0.01	31.554	43.763	30.324	0.02	31.528	38.108	21.406	0.03	31.503	34.800	14.785
0.04	31.480	33.095	10.212	0.05	31.459	32.307	7.356	0.06	31.448	31.863	5.124
0.07	31.438	31.640	3.569	0.08	31.428	31.526	2.486	0.09	31.418	31.466	1.732
0.10	31.409	31.434	1.257	0.15	31.396	31.396	0.210	0.20	31.383	31.383	0.035
0.25	31.372	31.372	0.006	0.30	31.374	31.374	0.001				
From ID: Cable4765											
0.01	33.576	46.967	32.841	0.02	33.422	40.675	23.183	0.03	33.276	36.928	16.012
0.04	33.139	34.936	11.060	0.05	33.011	33.959	7.967	0.06	32.949	33.413	5.549
0.07	32.888	33.114	3.865	0.08	32.829	32.940	2.692	0.09	32.773	32.827	1.875
0.10	32.720	32.748	1.362	0.15	32.633	32.634	0.228	0.20	32.553	32.553	0.038
0.25	32.479	32.479	0.006	0.30	32.486	32.486	0.001				
From ID: Cable5649											
0.01	33.576	46.967	32.841	0.02	33.422	40.675	23.183	0.03	33.276	36.928	16.012
0.04	33.139	34.936	11.060	0.05	33.011	33.959	7.967	0.06	32.949	33.413	5.549
0.07	32.888	33.114	3.865	0.08	32.829	32.940	2.692	0.09	32.773	32.827	1.875
0.10	32.720	32.748	1.362	0.15	32.633	32.634	0.228	0.20	32.553	32.553	0.038
0.25	32.479	32.479	0.006	0.30	32.486	32.486	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 202
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-5-03 BUS A

Nominal kV = 0.400 I"k = 37.23

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable4202											
0.01	37.234	49.102	32.010	0.02	37.234	43.196	21.898	0.03	37.234	39.822	14.122
0.04	37.234	38.331	9.107	0.05	37.234	37.812	6.588	0.06	37.234	37.487	4.347
0.07	37.234	37.344	2.869	0.08	37.234	37.282	1.893	0.09	37.234	37.255	1.249
0.10	37.234	37.245	0.917	0.15	37.234	37.234	0.121	0.20	37.234	37.234	0.016
0.25	37.234	37.234	0.002	0.30	37.234	37.234	0.000				
From ID: Cable5421											
0.01	39.474	52.146	34.074	0.02	39.321	45.711	23.311	0.03	39.171	41.956	15.032
0.04	39.025	40.211	9.694	0.05	38.885	39.512	7.013	0.06	38.817	39.091	4.628
0.07	38.750	38.870	3.054	0.08	38.684	38.737	2.015	0.09	38.621	38.643	1.330
0.10	38.558	38.570	0.976	0.15	38.432	38.432	0.129	0.20	38.312	38.312	0.017
0.25	38.198	38.198	0.002	0.30	38.193	38.193	0.000				
From ID: Cable5496											
0.01	47.311	64.001	43.102	0.02	46.611	55.155	29.487	0.03	45.947	49.727	19.015
0.04	45.325	46.955	12.263	0.05	44.748	45.618	8.871	0.06	44.466	44.850	5.854
0.07	44.195	44.364	3.863	0.08	43.934	44.008	2.549	0.09	43.684	43.716	1.682
0.10	43.444	43.461	1.235	0.15	43.032	43.032	0.163	0.20	42.649	42.650	0.022
0.25	42.298	42.298	0.003	0.30	42.311	42.311	0.000				
From ID: Cable5500											
0.01	47.311	64.001	43.102	0.02	46.611	55.155	29.487	0.03	45.947	49.727	19.015
0.04	45.325	46.955	12.263	0.05	44.748	45.618	8.871	0.06	44.466	44.850	5.854
0.07	44.195	44.364	3.863	0.08	43.934	44.008	2.549	0.09	43.684	43.716	1.682
0.10	43.444	43.461	1.235	0.15	43.032	43.032	0.163	0.20	42.649	42.650	0.022
0.25	42.298	42.298	0.003	0.30	42.311	42.311	0.000				
From ID: Cable5502											
0.01	47.311	64.001	43.102	0.02	46.611	55.155	29.487	0.03	45.947	49.727	19.015
0.04	45.325	46.955	12.263	0.05	44.748	45.618	8.871	0.06	44.466	44.850	5.854
0.07	44.195	44.364	3.863	0.08	43.934	44.008	2.549	0.09	43.684	43.716	1.682
0.10	43.444	43.461	1.235	0.15	43.032	43.032	0.163	0.20	42.649	42.650	0.022
0.25	42.298	42.298	0.003	0.30	42.311	42.311	0.000				
From ID: SS-ACP-P1											
0.01	45.057	60.915	40.993	0.02	44.518	52.615	28.044	0.03	44.011	47.582	18.085
0.04	43.537	45.072	11.663	0.05	43.099	43.917	8.437	0.06	42.885	43.245	5.567
0.07	42.679	42.836	3.674	0.08	42.481	42.550	2.424	0.09	42.291	42.321	1.600
0.10	42.110	42.126	1.174	0.15	41.815	41.815	0.155	0.20	41.542	41.542	0.020
0.25	41.293	41.293	0.003	0.30	41.311	41.311	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 203
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGL-5-03 BUS A**

Nominal kV = 0.400 I"k = 50.14

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 204
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGL-5-03 BUS B

Nominal kV = 0.400 I"k = 36.83

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable4204											
0.01	36.833	48.959	32.254	0.02	36.833	42.869	21.932	0.03	36.833	39.487	14.231
0.04	36.833	37.973	9.234	0.05	36.833	37.414	6.564	0.06	36.833	37.088	4.338
0.07	36.833	36.945	2.866	0.08	36.833	36.882	1.894	0.09	36.833	36.855	1.252
0.10	36.833	36.844	0.901	0.15	36.833	36.834	0.119	0.20	36.833	36.833	0.016
0.25	36.833	36.833	0.002	0.30	36.833	36.833	0.000				
From ID: Cable5625											
0.01	44.307	60.201	40.756	0.02	43.773	51.808	27.713	0.03	43.268	46.856	17.982
0.04	42.795	44.357	11.668	0.05	42.355	43.160	8.294	0.06	42.141	42.496	5.481
0.07	41.934	42.090	3.622	0.08	41.736	41.804	2.393	0.09	41.545	41.575	1.582
0.10	41.363	41.378	1.139	0.15	41.054	41.055	0.150	0.20	40.769	40.769	0.020
0.25	40.506	40.506	0.003	0.30	40.518	40.518	0.000				
From ID: Cable5626											
0.01	36.833	48.959	32.254	0.02	36.833	42.869	21.932	0.03	36.833	39.487	14.231
0.04	36.833	37.973	9.234	0.05	36.833	37.414	6.564	0.06	36.833	37.088	4.338
0.07	36.833	36.945	2.866	0.08	36.833	36.882	1.894	0.09	36.833	36.855	1.252
0.10	36.833	36.844	0.901	0.15	36.833	36.834	0.119	0.20	36.833	36.833	0.016
0.25	36.833	36.833	0.002	0.30	36.833	36.833	0.000				
From ID: Cable5627											
0.01	44.307	60.201	40.756	0.02	43.773	51.808	27.713	0.03	43.268	46.856	17.982
0.04	42.795	44.357	11.668	0.05	42.355	43.160	8.294	0.06	42.141	42.496	5.481
0.07	41.934	42.090	3.622	0.08	41.736	41.804	2.393	0.09	41.545	41.575	1.582
0.10	41.363	41.378	1.139	0.15	41.054	41.055	0.150	0.20	40.769	40.769	0.020
0.25	40.506	40.506	0.003	0.30	40.518	40.518	0.000				
From ID: Cable5628											
0.01	44.307	60.201	40.756	0.02	43.773	51.808	27.713	0.03	43.268	46.856	17.982
0.04	42.795	44.357	11.668	0.05	42.355	43.160	8.294	0.06	42.141	42.496	5.481
0.07	41.934	42.090	3.622	0.08	41.736	41.804	2.393	0.09	41.545	41.575	1.582
0.10	41.363	41.378	1.139	0.15	41.054	41.055	0.150	0.20	40.769	40.769	0.020
0.25	40.506	40.506	0.003	0.30	40.518	40.518	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 205
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-01B

Nominal kV = 3.200 I"k = 36.80

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2PM-101A											
0.01	34.453	47.684	32.966	0.02	33.611	40.660	22.882	0.03	32.733	36.105	15.237
0.04	31.788	33.368	10.146	0.05	30.846	31.785	7.669	0.06	30.432	30.879	5.238
0.07	30.021	30.234	3.577	0.08	29.615	29.715	2.443	0.09	29.213	29.260	1.669
0.10	28.815	28.846	1.348	0.15	28.133	28.134	0.218	0.20	27.472	27.472	0.035
0.25	26.834	26.834	0.006	0.30	26.558	26.558	0.001				
From ID: 2PM-1102A											
0.01	34.521	47.779	33.031	0.02	33.673	40.737	22.927	0.03	32.789	36.169	15.267
0.04	31.838	33.421	10.166	0.05	30.890	31.832	7.684	0.06	30.473	30.922	5.248
0.07	30.060	30.273	3.584	0.08	29.651	29.752	2.448	0.09	29.246	29.294	1.672
0.10	28.846	28.878	1.351	0.15	28.160	28.161	0.218	0.20	27.494	27.494	0.035
0.25	26.852	26.852	0.006	0.30	26.576	26.576	0.001				
From ID: 2PM-1211B											
0.01	34.149	47.269	32.683	0.02	33.334	40.321	22.685	0.03	32.486	35.826	15.106
0.04	31.569	33.133	10.059	0.05	30.654	31.583	7.603	0.06	30.252	30.695	5.193
0.07	29.854	30.064	3.547	0.08	29.459	29.558	2.422	0.09	29.068	29.115	1.654
0.10	28.682	28.713	1.337	0.15	28.022	28.023	0.216	0.20	27.381	27.381	0.035
0.25	26.762	26.762	0.006	0.30	26.488	26.488	0.001				
From ID: Cable296											
0.01	33.463	46.248	31.924	0.02	32.715	39.513	22.159	0.03	31.932	35.176	14.755
0.04	31.077	32.593	9.825	0.05	30.221	31.120	7.426	0.06	29.847	30.275	5.072
0.07	29.476	29.679	3.464	0.08	29.107	29.203	2.366	0.09	28.742	28.787	1.616
0.10	28.379	28.409	1.306	0.15	27.765	27.766	0.211	0.20	27.167	27.167	0.034
0.25	26.587	26.587	0.006	0.30	26.314	26.314	0.001				
From ID: Cable2606											
0.01	34.501	47.724	32.973	0.02	33.651	40.696	22.887	0.03	32.764	36.135	15.240
0.04	31.811	33.390	10.148	0.05	30.860	31.799	7.671	0.06	30.442	30.890	5.239
0.07	30.028	30.240	3.578	0.08	29.617	29.718	2.444	0.09	29.211	29.259	1.669
0.10	28.809	28.841	1.349	0.15	28.119	28.119	0.218	0.20	27.448	27.448	0.035
0.25	26.802	26.802	0.006	0.30	26.525	26.525	0.001				
From ID: Cable2613											
0.01	34.721	48.069	33.243	0.02	33.851	40.967	23.074	0.03	32.947	36.353	15.365
0.04	31.976	33.573	10.231	0.05	31.010	31.960	7.733	0.06	30.584	31.037	5.282
0.07	30.162	30.377	3.607	0.08	29.745	29.847	2.464	0.09	29.332	29.380	1.683
0.10	28.924	28.956	1.360	0.15	28.223	28.224	0.220	0.20	27.543	27.543	0.036
0.25	26.888	26.888	0.006	0.30	26.612	26.612	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 206
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGM-2-01B

Nominal kV = 3.200 I"k = 36.80

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 207
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-01 BUS A

Nominal kV = 3.200 I"k = 40.03

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable1295											
0.01	36.144	53.763	39.800	0.02	35.213	47.333	31.631	0.03	34.244	41.886	24.120
0.04	33.192	37.948	18.393	0.05	32.144	35.846	15.866	0.06	31.685	34.025	12.401
0.07	31.229	32.699	9.692	0.08	30.778	31.697	7.576	0.09	30.331	30.904	5.921
0.10	29.889	30.377	5.423	0.15	29.153	29.204	1.712	0.20	28.439	28.444	0.541
0.25	27.750	27.750	0.171	0.30	27.427	27.427	0.054				
From ID: Cable1296											
0.01	36.232	53.915	39.925	0.02	35.300	47.464	31.730	0.03	34.329	41.999	24.196
0.04	33.278	38.051	18.451	0.05	32.229	35.945	15.916	0.06	31.770	34.118	12.440
0.07	31.315	32.789	9.723	0.08	30.864	31.785	7.599	0.09	30.417	30.991	5.940
0.10	29.975	30.465	5.440	0.15	29.241	29.291	1.717	0.20	28.529	28.534	0.542
0.25	27.841	27.842	0.171	0.30	27.519	27.519	0.054				
From ID: Cable1298											
0.01	34.446	51.173	37.843	0.02	33.546	45.053	30.075	0.03	32.617	39.873	22.934
0.04	31.690	36.195	17.489	0.05	30.768	34.268	15.086	0.06	30.371	32.579	11.791
0.07	29.977	31.361	9.216	0.08	29.585	30.450	7.203	0.09	29.198	29.735	5.630
0.10	28.814	29.271	5.156	0.15	28.204	28.251	1.628	0.20	27.612	27.617	0.514
0.25	27.040	27.040	0.162	0.30	26.723	26.723	0.051				
From ID: Cable1303											
0.01	35.303	52.407	38.732	0.02	34.420	46.176	30.781	0.03	33.505	40.909	23.473
0.04	32.506	37.109	17.899	0.05	31.507	35.087	15.440	0.06	31.073	33.334	12.068
0.07	30.642	32.060	9.432	0.08	30.214	31.100	7.372	0.09	29.790	30.342	5.762
0.10	29.370	29.840	5.277	0.15	28.674	28.723	1.666	0.20	27.998	28.003	0.526
0.25	27.345	27.345	0.166	0.30	27.021	27.021	0.052				
From ID: Cable1504											
0.01	20.436	31.367	23.796	0.02	19.383	27.080	18.912	0.03	18.294	23.295	14.421
0.04	17.133	20.359	10.997	0.05	15.985	18.588	9.486	0.06	15.480	17.164	7.414
0.07	14.982	16.063	5.795	0.08	14.490	15.182	4.529	0.09	14.006	14.446	3.540
0.10	13.530	13.913	3.242	0.15	12.732	12.774	1.024	0.20	11.968	11.973	0.323
0.25	11.240	11.241	0.102	0.30	10.922	10.922	0.032				
From ID: STG-3											
0.01	24.863	36.744	27.054	0.02	24.302	32.448	21.501	0.03	23.725	28.839	16.396
0.04	23.091	26.259	12.503	0.05	22.482	24.935	10.785	0.06	22.189	23.736	8.429
0.07	21.904	22.873	6.588	0.08	21.627	22.231	5.149	0.09	21.357	21.733	4.025
0.10	21.096	21.416	3.686	0.15	20.586	20.619	1.164	0.20	20.105	20.108	0.367
0.25	19.654	19.654	0.116	0.30	19.638	19.638	0.037				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 208
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-2-01 BUS A**

Nominal kV = 3.200 I"k = 40.03

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 209
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-01 BUS B

Nominal kV = 3.200 I"k = 40.03

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable1295											
0.01	36.014	53.676	39.800	0.02	35.003	47.178	31.631	0.03	33.957	41.652	24.120
0.04	32.838	37.638	18.393	0.05	31.727	35.473	15.866	0.06	31.237	33.609	12.401
0.07	30.752	32.244	9.692	0.08	30.273	31.207	7.576	0.09	29.800	30.382	5.921
0.10	29.332	29.829	5.423	0.15	28.545	28.596	1.712	0.20	27.784	27.790	0.541
0.25	27.053	27.053	0.171	0.30	26.741	26.741	0.054				
From ID: Cable1296											
0.01	36.127	53.844	39.925	0.02	35.113	47.326	31.730	0.03	34.063	41.782	24.196
0.04	32.941	37.756	18.451	0.05	31.827	35.585	15.916	0.06	31.335	33.714	12.440
0.07	30.849	32.345	9.723	0.08	30.368	31.304	7.599	0.09	29.893	30.478	5.940
0.10	29.424	29.923	5.440	0.15	28.635	28.686	1.717	0.20	27.871	27.877	0.542
0.25	27.138	27.138	0.171	0.30	26.824	26.825	0.054				
From ID: Cable1298											
0.01	34.243	51.036	37.843	0.02	33.282	44.857	30.075	0.03	32.287	39.603	22.934
0.04	31.223	35.787	17.489	0.05	30.167	33.729	15.086	0.06	29.701	31.956	11.791
0.07	29.240	30.658	9.216	0.08	28.784	29.672	7.203	0.09	28.334	28.888	5.630
0.10	27.890	28.362	5.156	0.15	27.141	27.190	1.628	0.20	26.418	26.423	0.514
0.25	25.722	25.723	0.162	0.30	25.425	25.425	0.051				
From ID: Cable1303											
0.01	35.047	52.235	38.732	0.02	34.064	45.911	30.781	0.03	33.045	40.533	23.473
0.04	31.956	36.628	17.899	0.05	30.876	34.521	15.440	0.06	30.399	32.707	12.068
0.07	29.927	31.378	9.432	0.08	29.460	30.369	7.372	0.09	29.000	29.567	5.762
0.10	28.545	29.029	5.277	0.15	27.779	27.829	1.666	0.20	27.038	27.044	0.526
0.25	26.327	26.327	0.166	0.30	26.023	26.023	0.052				
From ID: Cable1504											
0.01	21.532	32.092	23.796	0.02	20.928	28.207	18.912	0.03	20.303	24.903	14.421
0.04	19.633	22.504	10.997	0.05	18.970	21.209	9.486	0.06	18.677	20.095	7.414
0.07	18.387	19.278	5.795	0.08	18.100	18.658	4.529	0.09	17.817	18.165	3.540
0.10	17.538	17.835	3.242	0.15	17.067	17.098	1.024	0.20	16.612	16.615	0.323
0.25	16.175	16.175	0.102	0.30	15.988	15.988	0.032				
From ID: STG-3											
0.01	24.480	36.486	27.054	0.02	23.793	32.069	21.501	0.03	23.082	28.312	16.396
0.04	22.321	25.584	12.503	0.05	21.567	24.113	10.785	0.06	21.233	22.845	8.429
0.07	20.904	21.918	6.588	0.08	20.578	21.213	5.149	0.09	20.256	20.652	4.025
0.10	19.939	20.276	3.686	0.15	19.403	19.438	1.164	0.20	18.886	18.890	0.367
0.25	18.389	18.389	0.116	0.30	18.177	18.177	0.037				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 210
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGM-2-01 BUS B

Nominal kV = 3.200 I"k = 40.03

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 211
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-02A

Nominal kV = 3.200 I"k = 36.19

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2PM-1211A											
0.01	34.166	47.284	32.687	0.02	33.349	40.329	22.678	0.03	32.499	35.833	15.093
0.04	31.581	33.140	10.045	0.05	30.665	31.591	7.593	0.06	30.262	30.703	5.184
0.07	29.863	30.072	3.539	0.08	29.468	29.567	2.416	0.09	29.077	29.124	1.650
0.10	28.690	28.721	1.334	0.15	28.030	28.030	0.215	0.20	27.388	27.388	0.035
0.25	26.769	26.769	0.006	0.30	26.495	26.495	0.001				
From ID: 2PM-1211E											
0.01	34.450	47.669	32.948	0.02	33.609	40.646	22.858	0.03	32.732	36.094	15.213
0.04	31.787	33.361	10.125	0.05	30.846	31.782	7.654	0.06	30.432	30.878	5.225
0.07	30.022	30.233	3.567	0.08	29.616	29.716	2.436	0.09	29.214	29.261	1.663
0.10	28.816	28.847	1.344	0.15	28.135	28.136	0.217	0.20	27.474	27.474	0.035
0.25	26.836	26.836	0.006	0.30	26.561	26.561	0.001				
From ID: Cable1226											
0.01	34.248	47.334	32.675	0.02	33.416	40.380	22.669	0.03	32.548	35.874	15.087
0.04	31.611	33.167	10.041	0.05	30.676	31.602	7.591	0.06	30.266	30.706	5.182
0.07	29.859	30.068	3.538	0.08	29.455	29.554	2.415	0.09	29.056	29.103	1.649
0.10	28.661	28.692	1.333	0.15	27.982	27.983	0.215	0.20	27.323	27.323	0.035
0.25	26.686	26.686	0.006	0.30	26.410	26.410	0.001				
From ID: Cable1295											
0.01	33.389	46.120	31.816	0.02	32.642	39.404	22.073	0.03	31.859	35.083	14.690
0.04	31.003	32.508	9.777	0.05	30.146	31.039	7.391	0.06	29.772	30.196	5.046
0.07	29.400	29.601	3.445	0.08	29.031	29.126	2.352	0.09	28.665	28.710	1.606
0.10	28.302	28.332	1.298	0.15	27.686	27.687	0.210	0.20	27.086	27.086	0.034
0.25	26.504	26.504	0.005	0.30	26.230	26.230	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 212
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-2-03 BUS A**

Nominal kV = 3.200 I"k = 37.17

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2KM-302A											
0.01	34.472	47.924	33.292	0.02	33.623	40.836	23.175	0.03	32.747	36.234	15.509
0.04	31.789	33.440	10.378	0.05	30.833	31.810	7.820	0.06	30.413	30.881	5.358
0.07	29.996	30.220	3.672	0.08	29.584	29.691	2.516	0.09	29.176	29.227	1.724
0.10	28.773	28.806	1.383	0.15	28.083	28.084	0.226	0.20	27.415	27.415	0.037
0.25	26.770	26.770	0.006	0.30	26.492	26.492	0.001				
From ID: 2KM-3701/02A											
0.01	33.719	46.889	32.582	0.02	32.852	39.921	22.681	0.03	31.951	35.373	15.178
0.04	31.054	32.673	10.157	0.05	30.167	31.123	7.653	0.06	29.780	30.238	5.244
0.07	29.396	29.614	3.594	0.08	29.015	29.120	2.463	0.09	28.640	28.689	1.687
0.10	28.268	28.301	1.353	0.15	27.655	27.655	0.221	0.20	27.060	27.060	0.036
0.25	26.486	26.486	0.006	0.30	26.214	26.214	0.001				
From ID: 2PM-201A											
0.01	34.800	48.370	33.595	0.02	33.932	41.210	23.386	0.03	33.026	36.546	15.650
0.04	32.038	33.706	10.473	0.05	31.054	32.040	7.891	0.06	30.619	31.093	5.407
0.07	30.190	30.416	3.705	0.08	29.764	29.872	2.539	0.09	29.344	29.395	1.740
0.10	28.928	28.962	1.395	0.15	28.213	28.214	0.228	0.20	27.519	27.519	0.037
0.25	26.851	26.851	0.006	0.30	26.572	26.572	0.001				
From ID: Cable1298											
0.01	31.938	44.244	30.619	0.02	31.204	37.789	21.314	0.03	30.444	33.619	14.263
0.04	29.681	31.178	9.545	0.05	28.919	29.800	7.192	0.06	28.593	29.014	4.928
0.07	28.268	28.469	3.377	0.08	27.945	28.041	2.314	0.09	27.624	27.670	1.586
0.10	27.307	27.336	1.272	0.15	26.792	26.793	0.208	0.20	26.290	26.290	0.034
0.25	25.802	25.802	0.006	0.30	25.531	25.531	0.001				
From ID: Cable5781											
0.01	34.106	47.305	32.780	0.02	33.274	40.347	22.818	0.03	32.403	35.821	15.270
0.04	31.448	33.066	10.219	0.05	30.494	31.451	7.699	0.06	30.075	30.534	5.276
0.07	29.659	29.879	3.615	0.08	29.247	29.352	2.477	0.09	28.840	28.890	1.698
0.10	28.437	28.469	1.361	0.15	27.740	27.741	0.223	0.20	27.064	27.064	0.036
0.25	26.411	26.411	0.006	0.30	26.130	26.130	0.001				
From ID: Cable5896											
0.01	34.863	48.436	33.624	0.02	33.984	41.264	23.406	0.03	33.067	36.589	15.663
0.04	32.068	33.738	10.482	0.05	31.074	32.062	7.898	0.06	30.635	31.109	5.412
0.07	30.200	30.427	3.709	0.08	29.770	29.878	2.541	0.09	29.344	29.396	1.741
0.10	28.924	28.958	1.396	0.15	28.198	28.199	0.228	0.20	27.494	27.494	0.037
0.25	26.817	26.817	0.006	0.30	26.536	26.536	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 213
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-2-03 BUS A**

Nominal kV = 3.200 I"k = 37.17

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable6057											
0.01	35.006	48.670	33.814	0.02	34.115	41.447	23.538	0.03	33.188	36.736	15.752
0.04	32.179	33.862	10.541	0.05	31.176	32.171	7.942	0.06	30.732	31.210	5.442
0.07	30.293	30.522	3.729	0.08	29.859	29.968	2.556	0.09	29.430	29.482	1.751
0.10	29.006	29.040	1.404	0.15	28.275	28.276	0.230	0.20	27.566	27.566	0.038
0.25	26.884	26.884	0.006	0.30	26.604	26.604	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 214
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-2-03 BUS B

Nominal kV = 3.200 I"k = 36.77

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 2KM-302B											
0.01	34.337	47.618	32.992	0.02	33.491	40.581	22.917	0.03	32.619	36.021	15.281
0.04	31.680	33.278	10.189	0.05	30.744	31.692	7.694	0.06	30.333	30.786	5.260
0.07	29.926	30.141	3.596	0.08	29.522	29.624	2.458	0.09	29.123	29.172	1.680
0.10	28.729	28.761	1.355	0.15	28.057	28.058	0.220	0.20	27.406	27.406	0.036
0.25	26.778	26.778	0.006	0.30	26.503	26.503	0.001				
From ID: 2PM-102B											
0.01	34.654	48.047	33.281	0.02	33.789	40.941	23.118	0.03	32.888	36.321	15.415
0.04	31.920	33.534	10.279	0.05	30.957	31.915	7.762	0.06	30.533	30.990	5.306
0.07	30.112	30.330	3.627	0.08	29.696	29.800	2.480	0.09	29.285	29.334	1.695
0.10	28.879	28.911	1.366	0.15	28.183	28.183	0.222	0.20	27.508	27.508	0.036
0.25	26.857	26.857	0.006	0.30	26.580	26.580	0.001				
From ID: 2PM-3701B											
0.01	34.484	47.817	33.126	0.02	33.636	40.753	23.010	0.03	32.750	36.166	15.343
0.04	31.798	33.403	10.231	0.05	30.850	31.802	7.726	0.06	30.432	30.887	5.281
0.07	30.019	30.235	3.610	0.08	29.610	29.712	2.468	0.09	29.205	29.253	1.687
0.10	28.805	28.837	1.360	0.15	28.121	28.122	0.220	0.20	27.458	27.458	0.036
0.25	26.819	26.819	0.006	0.30	26.543	26.543	0.001				
From ID: Cable1303											
0.01	32.672	45.122	31.121	0.02	31.959	38.583	21.618	0.03	31.215	34.382	14.415
0.04	30.397	31.881	9.612	0.05	29.576	30.453	7.258	0.06	29.220	29.638	4.962
0.07	28.866	29.064	3.392	0.08	28.514	28.608	2.319	0.09	28.164	28.209	1.585
0.10	27.818	27.847	1.278	0.15	27.233	27.233	0.207	0.20	26.661	26.661	0.034
0.25	26.107	26.107	0.005	0.30	25.831	25.831	0.001				
From ID: Cable5766											
0.01	34.015	47.058	32.519	0.02	33.181	40.140	22.589	0.03	32.310	35.648	15.062
0.04	31.370	32.938	10.043	0.05	30.432	31.363	7.584	0.06	30.020	30.465	5.185
0.07	29.612	29.823	3.544	0.08	29.207	29.308	2.423	0.09	28.807	28.855	1.656
0.10	28.411	28.442	1.335	0.15	27.729	27.730	0.216	0.20	27.067	27.067	0.035
0.25	26.428	26.428	0.006	0.30	26.149	26.149	0.001				
From ID: Cable6064											
0.01	34.667	48.031	33.245	0.02	33.795	40.931	23.093	0.03	32.885	36.312	15.398
0.04	31.909	33.521	10.267	0.05	30.938	31.895	7.754	0.06	30.510	30.967	5.300
0.07	30.086	30.303	3.623	0.08	29.666	29.769	2.477	0.09	29.251	29.300	1.693
0.10	28.841	28.873	1.365	0.15	28.135	28.136	0.221	0.20	27.451	27.451	0.036
0.25	26.791	26.791	0.006	0.30	26.513	26.513	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 215
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-2-03 BUS B**

Nominal kV = 3.200 I"k = 36.77

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable6066											
0.01	34.871	48.363	33.511	0.02	33.983	41.191	23.278	0.03	33.059	36.522	15.521
0.04	32.070	33.699	10.350	0.05	31.086	32.054	7.816	0.06	30.652	31.114	5.343
0.07	30.222	30.442	3.652	0.08	29.797	29.902	2.497	0.09	29.377	29.426	1.707
0.10	28.962	28.994	1.376	0.15	28.249	28.249	0.223	0.20	27.558	27.558	0.036
0.25	26.892	26.892	0.006	0.30	26.615	26.615	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 216
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-3-01 BUS A

Nominal kV = 3.200 I"k = 18.10

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable1904											
0.01	16.954	23.393	16.118	0.02	16.457	20.367	11.999	0.03	15.894	17.862	8.152
0.04	15.244	16.219	5.539	0.05	14.609	15.409	4.901	0.06	14.327	14.751	3.511
0.07	14.049	14.273	2.515	0.08	13.777	13.894	1.801	0.09	13.510	13.571	1.290
0.10	13.249	13.307	1.242	0.15	12.743	12.746	0.272	0.20	12.253	12.253	0.059
0.25	11.782	11.782	0.013	0.30	11.676	11.676	0.003				
From ID: Cable2001											
0.01	15.939	21.950	15.091	0.02	15.533	19.170	11.234	0.03	15.055	16.880	7.633
0.04	14.488	15.388	5.186	0.05	13.930	14.667	4.589	0.06	13.685	14.074	3.287
0.07	13.443	13.648	2.355	0.08	13.205	13.312	1.687	0.09	12.971	13.027	1.208
0.10	12.741	12.794	1.163	0.15	12.295	12.298	0.254	0.20	11.861	11.861	0.056
0.25	11.440	11.440	0.012	0.30	11.336	11.336	0.003				
From ID: Cable2103											
0.01	19.092	26.596	18.517	0.02	18.423	23.009	13.785	0.03	17.694	20.020	9.366
0.04	16.890	18.049	6.363	0.05	16.111	17.067	5.631	0.06	15.760	16.268	4.033
0.07	15.416	15.684	2.889	0.08	15.080	15.221	2.070	0.09	14.752	14.827	1.482
0.10	14.433	14.504	1.427	0.15	13.828	13.831	0.312	0.20	13.247	13.248	0.068
0.25	12.696	12.696	0.015	0.30	12.593	12.593	0.003				
From ID: Cable392											
0.01	16.379	22.812	15.877	0.02	15.819	19.747	11.819	0.03	15.240	17.226	8.031
0.04	14.671	15.653	5.456	0.05	14.117	14.920	4.828	0.06	13.872	14.297	3.458
0.07	13.632	13.855	2.477	0.08	13.396	13.513	1.775	0.09	13.166	13.228	1.271
0.10	12.942	12.999	1.223	0.15	12.531	12.533	0.267	0.20	12.132	12.132	0.058
0.25	11.749	11.749	0.013	0.30	11.657	11.657	0.003				
From ID: Cable396											
0.01	18.135	25.225	17.534	0.02	17.518	21.846	13.053	0.03	16.861	19.051	8.869
0.04	16.126	17.215	6.026	0.05	15.413	16.309	5.332	0.06	15.093	15.569	3.819
0.07	14.780	15.031	2.736	0.08	14.474	14.606	1.960	0.09	14.176	14.245	1.404
0.10	13.884	13.950	1.351	0.15	13.334	13.337	0.295	0.20	12.804	12.805	0.065
0.25	12.300	12.300	0.014	0.30	12.198	12.198	0.003				
From ID: Cable8											
0.01	8.988	13.086	9.511	0.02	8.380	10.971	7.080	0.03	7.734	9.108	4.811
0.04	7.032	7.754	3.268	0.05	6.377	7.002	2.892	0.06	6.066	6.410	2.072
0.07	5.768	5.956	1.484	0.08	5.484	5.586	1.063	0.09	5.214	5.269	0.761
0.10	4.959	5.013	0.733	0.15	4.492	4.495	0.160	0.20	4.086	4.086	0.035
0.25	3.746	3.746	0.008	0.30	3.736	3.736	0.002				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 217
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-3-01 BUS A**

Nominal kV = 3.200 I"k = 10.85

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 218
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-3-01 BUS B**

Nominal kV = 3.200 I"k = 19.99

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable1904											
0.01	16.612	23.146	16.118	0.02	16.027	20.021	11.999	0.03	15.389	17.415	8.152
0.04	14.685	15.695	5.539	0.05	14.005	14.838	4.901	0.06	13.697	14.140	3.511
0.07	13.396	13.630	2.515	0.08	13.103	13.226	1.801	0.09	12.816	12.881	1.290
0.10	12.537	12.598	1.242	0.15	12.007	12.010	0.272	0.20	11.500	11.500	0.059
0.25	11.017	11.017	0.013	0.30	10.928	10.928	0.003				
From ID: Cable2001											
0.01	15.550	21.669	15.091	0.02	15.001	18.742	11.234	0.03	14.402	16.299	7.633
0.04	13.741	14.688	5.186	0.05	13.103	13.883	4.589	0.06	12.814	13.229	3.287
0.07	12.532	12.751	2.355	0.08	12.256	12.371	1.687	0.09	11.987	12.047	1.208
0.10	11.725	11.782	1.163	0.15	11.227	11.230	0.254	0.20	10.751	10.751	0.056
0.25	10.299	10.299	0.012	0.30	10.215	10.215	0.003				
From ID: Cable2103											
0.01	19.092	26.596	18.517	0.02	18.423	23.009	13.785	0.03	17.694	20.020	9.366
0.04	16.890	18.049	6.363	0.05	16.111	17.067	5.631	0.06	15.760	16.268	4.033
0.07	15.416	15.684	2.889	0.08	15.080	15.221	2.070	0.09	14.752	14.827	1.482
0.10	14.433	14.504	1.427	0.15	13.828	13.831	0.312	0.20	13.247	13.248	0.068
0.25	12.696	12.696	0.015	0.30	12.593	12.593	0.003				
From ID: Cable392											
0.01	16.362	22.799	15.877	0.02	15.785	19.720	11.819	0.03	15.156	17.152	8.031
0.04	14.462	15.457	5.456	0.05	13.792	14.612	4.828	0.06	13.488	13.925	3.458
0.07	13.192	13.422	2.477	0.08	12.902	13.023	1.775	0.09	12.619	12.683	1.271
0.10	12.344	12.404	1.223	0.15	11.821	11.824	0.267	0.20	11.321	11.321	0.058
0.25	10.845	10.845	0.013	0.30	10.758	10.758	0.003				
From ID: Cable396											
0.01	18.135	25.225	17.534	0.02	17.518	21.846	13.053	0.03	16.861	19.051	8.869
0.04	16.126	17.215	6.026	0.05	15.413	16.309	5.332	0.06	15.093	15.569	3.819
0.07	14.780	15.031	2.736	0.08	14.474	14.606	1.960	0.09	14.176	14.245	1.404
0.10	13.884	13.950	1.351	0.15	13.334	13.337	0.295	0.20	12.804	12.805	0.065
0.25	12.300	12.300	0.014	0.30	12.198	12.198	0.003				
From ID: Cable8											
0.01	9.773	13.637	9.511	0.02	9.420	11.784	7.080	0.03	9.027	10.229	4.811
0.04	8.600	9.200	3.268	0.05	8.186	8.682	2.892	0.06	7.998	8.262	2.072
0.07	7.814	7.954	1.484	0.08	7.634	7.708	1.063	0.09	7.459	7.498	0.761
0.10	7.289	7.326	0.733	0.15	6.965	6.967	0.160	0.20	6.655	6.655	0.035
0.25	6.360	6.360	0.008	0.30	6.310	6.310	0.002				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 219
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGM-3-01 BUS B

Nominal kV = 3.200 I"k = 21.11

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
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Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 220
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-3-02A**

Nominal kV = 3.200 I"k = 20.23

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 3KM-101C											
0.01	18.392	25.226	17.265	0.02	17.783	21.718	12.467	0.03	17.118	18.993	8.229
0.04	16.380	17.257	5.431	0.05	15.666	16.343	4.653	0.06	15.344	15.682	3.236
0.07	15.029	15.196	2.250	0.08	14.721	14.804	1.565	0.09	14.420	14.461	1.088
0.10	14.127	14.164	1.014	0.15	13.569	13.571	0.191	0.20	13.034	13.034	0.036
0.25	12.524	12.524	0.007	0.30	12.430	12.430	0.001				
From ID: 3PM-102B											
0.01	18.176	24.973	17.125	0.02	17.586	21.499	12.366	0.03	16.939	18.803	8.162
0.04	16.218	17.090	5.387	0.05	15.519	16.191	4.616	0.06	15.204	15.539	3.210
0.07	14.895	15.062	2.232	0.08	14.593	14.676	1.552	0.09	14.299	14.339	1.079
0.10	14.011	14.047	1.006	0.15	13.466	13.467	0.189	0.20	12.941	12.941	0.036
0.25	12.441	12.441	0.007	0.30	12.350	12.350	0.001				
From ID: 3PM-103A											
0.01	18.529	25.433	17.422	0.02	17.907	21.884	12.580	0.03	17.228	19.125	8.303
0.04	16.477	17.365	5.480	0.05	15.750	16.435	4.696	0.06	15.422	15.764	3.265
0.07	15.100	15.270	2.271	0.08	14.786	14.870	1.579	0.09	14.480	14.521	1.098
0.10	14.181	14.218	1.023	0.15	13.613	13.614	0.193	0.20	13.068	13.068	0.036
0.25	12.549	12.549	0.007	0.30	12.455	12.455	0.001				
From ID: 3PM-111A											
0.01	18.471	25.362	17.380	0.02	17.854	21.823	12.549	0.03	17.180	19.073	8.283
0.04	16.434	17.320	5.467	0.05	15.712	16.395	4.684	0.06	15.385	15.726	3.257
0.07	15.066	15.235	2.265	0.08	14.754	14.838	1.575	0.09	14.449	14.490	1.095
0.10	14.152	14.189	1.021	0.15	13.588	13.589	0.192	0.20	13.046	13.046	0.036
0.25	12.530	12.530	0.007	0.30	12.437	12.437	0.001				
From ID: Cable1911											
0.01	18.691	25.675	17.603	0.02	18.049	22.076	12.710	0.03	17.353	19.275	8.389
0.04	16.585	17.485	5.537	0.05	15.843	16.538	4.744	0.06	15.507	15.854	3.299
0.07	15.178	15.350	2.294	0.08	14.857	14.942	1.595	0.09	14.543	14.586	1.109
0.10	14.238	14.276	1.034	0.15	13.658	13.660	0.195	0.20	13.103	13.103	0.037
0.25	12.574	12.574	0.007	0.30	12.481	12.481	0.001				
From ID: Cable2001											
0.01	15.217	20.841	14.241	0.02	14.773	17.999	10.283	0.03	14.276	15.807	6.787
0.04	13.711	14.424	4.480	0.05	13.161	13.710	3.838	0.06	12.916	13.188	2.669
0.07	12.674	12.809	1.856	0.08	12.438	12.505	1.291	0.09	12.207	12.240	0.898
0.10	11.981	12.010	0.836	0.15	11.551	11.552	0.157	0.20	11.136	11.136	0.030
0.25	10.738	10.738	0.006	0.30	10.658	10.658	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 221
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGM-3-02A

Nominal kV = 3.200 I"k = 20.23

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable2002											
0.01	17.762	24.402	16.733	0.02	17.148	20.977	12.083	0.03	16.482	18.310	7.975
0.04	15.749	16.605	5.264	0.05	15.040	15.702	4.510	0.06	14.719	15.050	3.136
0.07	14.405	14.570	2.181	0.08	14.099	14.180	1.517	0.09	13.800	13.840	1.055
0.10	13.509	13.544	0.983	0.15	12.955	12.957	0.185	0.20	12.425	12.425	0.035
0.25	11.921	11.921	0.007	0.30	11.833	11.833	0.001				
From ID: Cable2099											
0.01	17.412	23.924	16.407	0.02	16.809	20.564	11.847	0.03	16.154	17.947	7.819
0.04	15.435	16.275	5.161	0.05	14.738	15.387	4.422	0.06	14.423	14.747	3.075
0.07	14.115	14.276	2.138	0.08	13.814	13.893	1.487	0.09	13.520	13.559	1.034
0.10	13.234	13.269	0.964	0.15	12.691	12.692	0.181	0.20	12.170	12.170	0.034
0.25	11.676	11.676	0.006	0.30	11.589	11.589	0.001				
From ID: Lab load											
0.01	18.615	25.564	17.522	0.02	17.980	21.985	12.652	0.03	17.290	19.201	8.351
0.04	16.527	17.422	5.512	0.05	15.790	16.481	4.723	0.06	15.456	15.801	3.284
0.07	15.130	15.301	2.284	0.08	14.811	14.896	1.588	0.09	14.500	14.542	1.104
0.10	14.197	14.234	1.029	0.15	13.621	13.622	0.194	0.20	13.068	13.068	0.036
0.25	12.543	12.543	0.007	0.30	12.449	12.449	0.001				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 222
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-01 BUS A

Nominal kV = 6.600 I"k = 41.07

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable100											
0.07	35.789	40.887	19.771	0.08	35.356	39.164	16.845	0.09	34.929	37.763	14.353
0.10	34.508	37.508	14.697	0.15	33.758	34.525	7.235	0.20	33.028	33.219	3.561
0.25	32.319	32.367	1.753	0.30	32.054	32.065	0.863				
From ID: Cable101											
0.07	35.283	40.041	18.931	0.08	34.932	38.476	16.130	0.09	34.583	37.214	13.743
0.10	34.237	37.016	14.073	0.15	33.633	34.339	6.928	0.20	33.036	33.212	3.410
0.25	32.450	32.494	1.679	0.30	32.166	32.176	0.826				
From ID: Cable83											
0.07	32.170	36.830	17.932	0.08	31.769	35.252	15.279	0.09	31.373	33.967	13.018
0.10	30.985	33.730	13.330	0.15	30.305	31.007	6.562	0.20	29.645	29.821	3.230
0.25	29.009	29.052	1.590	0.30	28.757	28.768	0.783				
From ID: Cable91											
0.07	33.884	38.426	18.123	0.08	33.556	36.939	15.441	0.09	33.231	35.741	13.156
0.10	32.910	35.560	13.472	0.15	32.341	33.014	6.632	0.20	31.782	31.949	3.265
0.25	31.235	31.276	1.607	0.30	31.006	31.016	0.791				
From ID: Cable93											
0.07	36.609	41.842	20.261	0.08	36.162	40.071	17.263	0.09	35.721	38.631	14.709
0.10	35.287	38.367	15.061	0.15	34.514	35.302	7.414	0.20	33.761	33.957	3.650
0.25	33.030	33.079	1.797	0.30	32.749	32.761	0.884				
From ID: MEA2											
0.07	20.011	23.702	12.703	0.08	19.556	22.351	10.824	0.09	19.108	21.217	9.222
0.10	18.666	20.919	9.443	0.15	17.885	18.479	4.649	0.20	17.125	17.277	2.288
0.25	16.391	16.430	1.126	0.30	16.103	16.113	0.554				
From ID: STG-4											
0.07	33.275	37.958	18.265	0.08	32.885	36.382	15.562	0.09	32.501	35.102	13.260
0.10	32.123	34.875	13.578	0.15	31.443	32.146	6.684	0.20	30.782	30.958	3.290
0.25	30.144	30.187	1.620	0.30	29.925	29.936	0.797				
From ID: X1											
0.06	32.987	39.086	20.966	0.07	32.604	37.177	17.863	0.08	32.225	35.639	15.220
0.09	31.853	34.391	12.968	0.10	31.486	34.172	13.279	0.15	30.825	31.510	6.537
0.20	30.183	30.354	3.218	0.25	29.563	29.605	1.584	0.30	29.357	29.367	0.780

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 223
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-01 BUS B

Nominal kV = 6.600 I"k = 38.75

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable100											
0.01	40.798	63.058	48.082	0.02	39.917	57.713	41.683	0.03	38.972	52.085	34.555
0.04	38.014	47.599	28.646	0.05	37.060	45.991	27.234	0.06	36.647	43.376	23.205
0.07	36.237	41.280	19.771	0.08	35.831	39.593	16.845	0.09	35.428	38.225	14.353
0.10	35.030	37.988	14.697	0.15	34.328	35.082	7.235	0.20	33.638	33.826	3.561
0.25	32.966	33.013	1.753	0.30	32.679	32.690	0.863				
From ID: Cable101											
0.01	38.857	60.246	46.040	0.02	37.924	55.056	39.913	0.03	36.931	49.586	33.088
0.04	35.932	45.205	27.430	0.05	34.943	43.601	26.078	0.06	34.510	41.045	22.219
0.07	34.083	38.988	18.931	0.08	33.660	37.325	16.130	0.09	33.242	35.971	13.743
0.10	32.829	35.718	14.073	0.15	32.100	32.839	6.928	0.20	31.388	31.572	3.410
0.25	30.695	30.741	1.679	0.30	30.418	30.429	0.826				
From ID: Cable83											
0.01	36.779	57.049	43.610	0.02	35.888	52.127	37.806	0.03	34.942	46.938	31.341
0.04	33.988	42.781	25.982	0.05	33.042	41.254	24.701	0.06	32.630	38.829	21.046
0.07	32.222	36.876	17.932	0.08	31.818	35.297	15.279	0.09	31.420	34.010	13.018
0.10	31.026	33.768	13.330	0.15	30.331	31.033	6.562	0.20	29.652	29.828	3.230
0.25	28.992	29.036	1.590	0.30	28.722	28.732	0.783				
From ID: Cable91											
0.01	37.176	57.659	44.074	0.02	36.277	52.687	38.208	0.03	35.322	47.444	31.675
0.04	34.359	43.244	26.258	0.05	33.405	41.703	24.964	0.06	32.989	39.252	21.270
0.07	32.578	37.279	18.123	0.08	32.170	35.684	15.441	0.09	31.768	34.384	13.156
0.10	31.370	34.141	13.472	0.15	30.669	31.378	6.632	0.20	29.984	30.161	3.265
0.25	29.318	29.362	1.607	0.30	29.046	29.057	0.791				
From ID: Cable93											
0.01	41.740	64.577	49.274	0.02	40.770	59.049	42.716	0.03	39.734	53.224	35.412
0.04	38.691	48.567	29.356	0.05	37.656	46.871	27.910	0.06	37.205	44.155	23.780
0.07	36.758	41.972	20.261	0.08	36.315	40.210	17.263	0.09	35.878	38.776	14.709
0.10	35.447	38.514	15.061	0.15	34.680	35.464	7.414	0.20	33.931	34.127	3.650
0.25	33.203	33.251	1.797	0.30	32.913	32.925	0.884				
From ID: MEA2											
0.01	25.912	40.322	30.894	0.02	25.243	36.803	26.782	0.03	24.534	33.088	22.202
0.04	23.816	30.100	18.406	0.05	23.101	28.980	17.499	0.06	22.794	27.237	14.909
0.07	22.490	25.830	12.703	0.08	22.189	24.688	10.824	0.09	21.890	23.753	9.222
0.10	21.594	23.568	9.443	0.15	21.081	21.588	4.649	0.20	20.577	20.704	2.288
0.25	20.085	20.116	1.126	0.30	19.851	19.858	0.554				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 224
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-5-01 BUS B**

Nominal kV = 6.600 I"k = 38.75

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: STG-4											
0.01	37.704	58.264	44.420	0.02	36.872	53.314	38.508	0.03	35.985	48.104	31.923
0.04	35.100	43.958	26.464	0.05	34.231	42.483	25.160	0.06	33.842	40.060	21.437
0.07	33.459	38.120	18.265	0.08	33.082	36.559	15.562	0.09	32.711	35.296	13.260
0.10	32.347	35.082	13.578	0.15	31.674	32.372	6.684	0.20	31.021	31.195	3.290
0.25	30.390	30.433	1.620	0.30	30.213	30.224	0.797				
From ID: X1											
0.01	36.563	56.782	43.443	0.02	35.626	51.841	37.661	0.03	34.636	46.630	31.221
0.04	33.649	42.452	25.882	0.05	32.683	40.910	24.607	0.06	32.248	38.465	20.966
0.07	31.821	36.492	17.863	0.08	31.399	34.894	15.220	0.09	30.985	33.589	12.968
0.10	30.578	33.336	13.279	0.15	29.858	30.565	6.537	0.20	29.163	29.340	3.218
0.25	28.497	28.541	1.584	0.30	28.281	28.292	0.780				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 225
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-02-BUS A

Nominal kV = 6.600 I"k = 43.68

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4F-101K1											
0.01	41.461	63.756	48.434	0.02	40.506	57.979	41.483	0.03	39.486	52.096	33.983
0.04	38.459	47.477	27.839	0.05	37.441	45.670	26.151	0.06	36.996	43.052	22.017
0.07	36.555	40.987	18.537	0.08	36.119	39.347	15.607	0.09	35.689	38.031	13.140
0.10	35.264	37.689	13.302	0.15	34.577	35.123	6.171	0.20	33.854	33.975	2.863
0.25	33.053	33.080	1.328	0.30	32.773	32.779	0.616				
From ID: 4F-101K2A											
0.01	41.482	63.800	48.473	0.02	40.524	58.016	41.517	0.03	39.502	52.126	34.011
0.04	38.472	47.501	27.862	0.05	37.451	45.690	26.172	0.06	37.005	43.069	22.035
0.07	36.563	41.000	18.552	0.08	36.126	39.358	15.620	0.09	35.694	38.040	13.151
0.10	35.268	37.697	13.313	0.15	34.580	35.127	6.176	0.20	33.855	33.976	2.865
0.25	33.053	33.080	1.329	0.30	32.773	32.779	0.616				
From ID: 4K-4002A											
0.01	39.447	60.623	46.034	0.02	38.548	55.140	39.427	0.03	37.590	49.560	32.299
0.04	36.630	45.186	26.459	0.05	35.684	43.487	24.855	0.06	35.265	41.006	20.926
0.07	34.851	39.051	17.619	0.08	34.443	37.501	14.834	0.09	34.040	36.259	12.489
0.10	33.644	35.942	12.643	0.15	33.000	33.517	5.865	0.20	32.322	32.436	2.721
0.25	31.567	31.592	1.262	0.30	31.341	31.347	0.585				
From ID: 4P-107											
0.01	41.228	63.399	48.163	0.02	40.298	57.667	41.251	0.03	39.302	51.832	33.793
0.04	38.297	47.255	27.683	0.05	37.301	45.470	26.004	0.06	36.865	42.877	21.894
0.07	36.435	40.832	18.433	0.08	36.008	39.210	15.520	0.09	35.587	37.910	13.067
0.10	35.171	37.576	13.228	0.15	34.502	35.044	6.136	0.20	33.796	33.916	2.846
0.25	33.011	33.037	1.320	0.30	32.732	32.737	0.613				
From ID: 4P-114A											
0.01	41.461	63.757	48.435	0.02	40.506	57.980	41.484	0.03	39.486	52.096	33.984
0.04	38.459	47.477	27.839	0.05	37.441	45.670	26.151	0.06	36.996	43.052	22.018
0.07	36.555	40.986	18.537	0.08	36.119	39.347	15.607	0.09	35.688	38.031	13.140
0.10	35.263	37.689	13.302	0.15	34.577	35.123	6.171	0.20	33.854	33.974	2.863
0.25	33.053	33.079	1.328	0.30	32.773	32.778	0.616				
From ID: 4P-115A											
0.01	41.461	63.757	48.435	0.02	40.506	57.980	41.484	0.03	39.486	52.096	33.983
0.04	38.459	47.477	27.839	0.05	37.441	45.670	26.151	0.06	36.996	43.052	22.018
0.07	36.555	40.986	18.537	0.08	36.119	39.347	15.607	0.09	35.688	38.031	13.140
0.10	35.263	37.689	13.302	0.15	34.577	35.123	6.171	0.20	33.854	33.975	2.863
0.25	33.053	33.079	1.328	0.30	32.773	32.778	0.616				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 226
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: SGM-5-02-BUS A

Nominal kV = 6.600 I"k = 43.68

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4P-4001A											
0.01	40.773	62.698	47.630	0.02	39.846	57.025	40.795	0.03	38.895	51.280	33.419
0.04	37.933	46.780	27.377	0.05	36.977	45.041	25.717	0.06	36.562	42.492	21.652
0.07	36.149	40.486	18.230	0.08	35.741	38.897	15.348	0.09	35.337	37.626	12.922
0.10	34.938	37.307	13.081	0.15	34.304	34.837	6.068	0.20	33.631	33.749	2.815
0.25	32.876	32.902	1.306	0.30	32.600	32.606	0.606				
From ID: 4P-4004A											
0.01	41.429	63.706	48.396	0.02	40.477	57.936	41.450	0.03	39.461	52.059	33.956
0.04	38.436	47.446	27.817	0.05	37.421	45.641	26.130	0.06	36.977	43.027	22.000
0.07	36.538	40.965	18.522	0.08	36.103	39.328	15.595	0.09	35.674	38.013	13.130
0.10	35.250	37.673	13.292	0.15	34.566	35.112	6.166	0.20	33.845	33.966	2.860
0.25	33.046	33.073	1.327	0.30	32.766	32.772	0.616				
From ID: Cable13											
0.01	41.044	63.030	47.835	0.02	40.108	57.334	40.970	0.03	39.106	51.534	33.563
0.04	38.095	46.981	27.495	0.05	37.093	45.199	25.828	0.06	36.656	42.620	21.745
0.07	36.223	40.586	18.308	0.08	35.794	38.972	15.414	0.09	35.371	37.677	12.978
0.10	34.953	37.340	13.138	0.15	34.277	34.815	6.094	0.20	33.564	33.683	2.827
0.25	32.772	32.799	1.311	0.30	32.491	32.497	0.608				
From ID: Cable18											
0.01	41.603	63.999	48.631	0.02	40.632	58.188	41.652	0.03	39.597	52.271	34.121
0.04	38.556	47.622	27.952	0.05	37.524	45.799	26.257	0.06	37.072	43.163	22.107
0.07	36.625	41.083	18.613	0.08	36.183	39.431	15.671	0.09	35.747	38.104	13.194
0.10	35.316	37.757	13.356	0.15	34.619	35.169	6.196	0.20	33.887	34.008	2.874
0.25	33.077	33.104	1.333	0.30	32.797	32.802	0.618				
From ID: Cable91											
0.01	36.959	56.539	42.787	0.02	36.258	51.552	36.646	0.03	35.533	46.517	30.021
0.04	34.794	42.608	24.593	0.05	34.056	41.153	23.102	0.06	33.737	38.942	19.450
0.07	33.420	37.217	16.376	0.08	33.106	35.862	13.787	0.09	32.794	34.788	11.608
0.10	32.485	34.545	11.751	0.15	32.007	32.468	5.451	0.20	31.483	31.584	2.529
0.25	30.871	30.894	1.173	0.30	30.651	30.656	0.544				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 227
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-02-BUS B

Nominal kV = 6.600 I"k = 43.70

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: Cable131											
0.01	40.978	62.830	47.628	0.02	40.055	57.113	40.713	0.03	39.069	51.323	33.282
0.04	38.073	46.795	27.208	0.05	37.086	45.017	25.518	0.06	36.655	42.466	21.442
0.07	36.228	40.461	18.017	0.08	35.805	38.874	15.139	0.09	35.388	37.605	12.721
0.10	35.029	37.318	12.869	0.15	34.309	34.815	5.915	0.20	33.604	33.714	2.719
0.25	32.920	32.943	1.250	0.30	32.543	32.548	0.574				
From ID: Cable162											
0.01	41.453	63.661	48.316	0.02	40.498	57.844	41.301	0.03	39.481	51.949	33.763
0.04	38.457	47.337	27.601	0.05	37.443	45.520	25.887	0.06	36.998	42.919	21.752
0.07	36.559	40.873	18.278	0.08	36.124	39.253	15.358	0.09	35.695	37.956	12.905
0.10	35.324	37.660	13.055	0.15	34.585	35.101	6.000	0.20	33.863	33.975	2.758
0.25	33.162	33.186	1.268	0.30	32.787	32.792	0.583				
From ID: Cable93											
0.01	40.978	62.830	47.628	0.02	40.055	57.113	40.713	0.03	39.069	51.323	33.282
0.04	38.073	46.795	27.208	0.05	37.086	45.017	25.518	0.06	36.655	42.466	21.442
0.07	36.228	40.461	18.017	0.08	35.805	38.874	15.139	0.09	35.388	37.605	12.721
0.10	35.029	37.318	12.869	0.15	34.309	34.815	5.915	0.20	33.604	33.714	2.719
0.25	32.920	32.943	1.250	0.30	32.543	32.548	0.574				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 228
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **SGM-5-03 BUS A**

Nominal kV = 6.600 I"k = 42.94

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4K-4101A											
0.01	40.333	61.451	46.363	0.02	39.451	55.544	39.099	0.03	38.512	49.781	31.544
0.04	37.563	45.372	25.449	0.05	36.620	43.535	23.543	0.06	36.209	41.136	19.521
0.07	35.802	39.291	16.186	0.08	35.439	37.895	13.421	0.09	35.046	36.770	11.128
0.10	34.658	36.397	11.114	0.15	33.973	34.308	4.781	0.20	33.303	33.367	2.056
0.25	32.652	32.664	0.885	0.30	32.387	32.390	0.380				
From ID: 4K-4103											
0.01	40.707	62.014	46.783	0.02	39.792	56.036	39.454	0.03	38.815	50.198	31.831
0.04	37.831	45.724	25.680	0.05	36.855	43.848	23.756	0.06	36.428	41.413	19.698
0.07	36.006	39.537	16.333	0.08	35.627	38.114	13.542	0.09	35.220	36.967	11.229
0.10	34.818	36.580	11.215	0.15	34.105	34.445	4.824	0.20	33.409	33.473	2.075
0.25	32.732	32.744	0.893	0.30	32.466	32.468	0.384				
From ID: 4P-1202C											
0.01	40.707	62.014	46.783	0.02	39.792	56.035	39.453	0.03	38.815	50.197	31.830
0.04	37.831	45.724	25.680	0.05	36.856	43.848	23.756	0.06	36.429	41.413	19.698
0.07	36.006	39.537	16.332	0.08	35.628	38.115	13.542	0.09	35.221	36.968	11.229
0.10	34.819	36.581	11.215	0.15	34.106	34.446	4.824	0.20	33.410	33.474	2.075
0.25	32.733	32.746	0.893	0.30	32.467	32.470	0.384				
From ID: 4P-3901A											
0.01	40.778	62.125	46.868	0.02	39.856	56.131	39.525	0.03	38.872	50.278	31.888
0.04	37.881	45.791	25.727	0.05	36.899	43.909	23.799	0.06	36.469	41.466	19.733
0.07	36.044	39.584	16.362	0.08	35.663	38.156	13.567	0.09	35.253	37.004	11.249
0.10	34.849	36.615	11.236	0.15	34.131	34.471	4.833	0.20	33.429	33.494	2.079
0.25	32.748	32.761	0.894	0.30	32.482	32.484	0.385				
From ID: 4P-3905A											
0.01	40.374	61.514	46.411	0.02	39.491	55.601	39.140	0.03	38.548	49.830	31.577
0.04	37.595	45.414	25.476	0.05	36.649	43.573	23.567	0.06	36.237	41.170	19.541
0.07	35.828	39.321	16.203	0.08	35.463	37.922	13.435	0.09	35.069	36.795	11.139
0.10	34.679	36.420	11.126	0.15	33.992	34.327	4.786	0.20	33.319	33.382	2.059
0.25	32.665	32.677	0.885	0.30	32.400	32.402	0.381				
From ID: 4P-4103A											
0.01	40.663	61.962	46.753	0.02	39.751	55.988	39.428	0.03	38.777	50.155	31.810
0.04	37.795	45.685	25.663	0.05	36.822	43.812	23.741	0.06	36.397	41.379	19.685
0.07	35.975	39.505	16.322	0.08	35.598	38.084	13.534	0.09	35.192	36.938	11.222
0.10	34.792	36.552	11.208	0.15	34.081	34.421	4.821	0.20	33.387	33.452	2.074
0.25	32.713	32.726	0.892	0.30	32.448	32.450	0.384				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 229
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-5-03 BUS A**

Nominal kV = 6.600 I"k = 42.94

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4P-4901A											
0.01	40.759	62.095	46.845	0.02	39.839	56.105	39.506	0.03	38.857	50.256	31.872
0.04	37.868	45.773	25.714	0.05	36.887	43.892	23.788	0.06	36.458	41.452	19.724
0.07	36.034	39.571	16.354	0.08	35.653	38.145	13.560	0.09	35.244	36.994	11.244
0.10	34.841	36.606	11.230	0.15	34.124	34.464	4.831	0.20	33.424	33.488	2.078
0.25	32.744	32.756	0.894	0.30	32.478	32.480	0.384				
From ID: Cable101											
0.01	37.880	57.449	43.192	0.02	37.206	52.068	36.425	0.03	36.467	46.834	29.387
0.04	35.709	42.863	23.709	0.05	34.947	41.259	21.933	0.06	34.623	39.108	18.186
0.07	34.300	37.468	15.079	0.08	34.018	36.243	12.503	0.09	33.704	35.263	10.367
0.10	33.393	34.961	10.354	0.15	32.850	33.150	4.454	0.20	32.312	32.369	1.916
0.25	31.783	31.794	0.824	0.30	31.522	31.524	0.354				
From ID: Cable4077											
0.01	40.901	62.334	47.038	0.02	39.965	56.310	39.669	0.03	38.968	50.426	32.004
0.04	37.965	45.913	25.820	0.05	36.971	44.016	23.886	0.06	36.536	41.558	19.805
0.07	36.105	39.664	16.422	0.08	35.718	38.225	13.616	0.09	35.303	37.065	11.290
0.10	34.894	36.671	11.276	0.15	34.167	34.510	4.850	0.20	33.457	33.522	2.086
0.25	32.769	32.781	0.897	0.30	32.502	32.505	0.386				
From ID: Cable4105											
0.01	40.402	61.496	46.362	0.02	39.494	55.574	39.099	0.03	38.524	49.791	31.544
0.04	37.546	45.358	25.449	0.05	36.577	43.498	23.543	0.06	36.153	41.086	19.521
0.07	35.734	39.228	16.186	0.08	35.358	37.820	13.421	0.09	34.954	36.683	11.128
0.10	34.556	36.299	11.114	0.15	33.846	34.182	4.781	0.20	33.153	33.217	2.056
0.25	32.480	32.492	0.885	0.30	32.213	32.215	0.380				
From ID: Cable4170											
0.01	40.366	61.444	46.324	0.02	39.460	55.527	39.066	0.03	38.492	49.750	31.518
0.04	37.517	45.322	25.428	0.05	36.549	43.465	23.523	0.06	36.126	41.055	19.504
0.07	35.708	39.200	16.172	0.08	35.334	37.793	13.409	0.09	34.931	36.658	11.119
0.10	34.533	36.274	11.105	0.15	33.825	34.161	4.777	0.20	33.134	33.198	2.055
0.25	32.463	32.475	0.884	0.30	32.196	32.198	0.380				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 230
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: SGM-5-03 BUS B

Nominal kV = 6.600 I"k = 42.95

TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc	TD (S)	Ib sym	Ib asym	Idc
From ID: 4K-2701B											
0.01	40.675	61.935	46.707	0.02	39.767	55.972	39.388	0.03	38.798	50.147	31.772
0.04	37.820	45.686	25.628	0.05	36.851	43.823	23.716	0.06	36.428	41.396	19.663
0.07	36.008	39.526	16.303	0.08	35.632	38.110	13.517	0.09	35.228	36.967	11.206
0.10	34.828	36.585	11.199	0.15	34.119	34.458	4.817	0.20	33.426	33.490	2.072
0.25	32.753	32.765	0.891	0.30	32.488	32.490	0.383				
From ID: 4K-4101B											
0.01	40.229	61.261	46.201	0.02	39.362	55.384	38.962	0.03	38.437	49.650	31.428
0.04	37.502	45.266	25.350	0.05	36.573	43.450	23.459	0.06	36.168	41.066	19.450
0.07	35.766	39.234	16.126	0.08	35.408	37.848	13.370	0.09	35.021	36.733	11.085
0.10	34.638	36.367	11.078	0.15	33.963	34.295	4.765	0.20	33.301	33.364	2.049
0.25	32.657	32.669	0.881	0.30	32.394	32.396	0.379				
From ID: 4P-1202A											
0.01	40.591	61.804	46.606	0.02	39.692	55.859	39.303	0.03	38.731	50.052	31.703
0.04	37.762	45.606	25.573	0.05	36.800	43.753	23.665	0.06	36.380	41.334	19.621
0.07	35.964	39.472	16.267	0.08	35.591	38.061	13.487	0.09	35.190	36.924	11.182
0.10	34.794	36.545	11.175	0.15	34.091	34.428	4.806	0.20	33.404	33.468	2.067
0.25	32.736	32.748	0.889	0.30	32.471	32.473	0.382				
From ID: Cable100											
0.01	39.365	59.801	45.017	0.02	38.567	54.117	37.963	0.03	37.708	48.575	30.622
0.04	36.834	44.349	24.701	0.05	35.963	42.612	22.858	0.06	35.586	40.317	18.951
0.07	35.211	38.558	15.713	0.08	34.879	37.233	13.027	0.09	34.517	36.168	10.801
0.10	34.159	35.823	10.794	0.15	33.525	33.845	4.642	0.20	32.903	32.964	1.997
0.25	32.296	32.307	0.859	0.30	32.032	32.034	0.369				
From ID: Cable4090											
0.01	40.643	61.875	46.655	0.02	39.732	55.916	39.344	0.03	38.760	50.095	31.736
0.04	37.779	45.636	25.599	0.05	36.807	43.772	23.690	0.06	36.382	41.345	19.641
0.07	35.961	39.476	16.284	0.08	35.584	38.059	13.501	0.09	35.178	36.916	11.194
0.10	34.777	36.532	11.186	0.15	34.065	34.403	4.811	0.20	33.369	33.433	2.069
0.25	32.692	32.705	0.890	0.30	32.427	32.429	0.383				
From ID: Cable4098											
0.01	40.785	62.124	46.861	0.02	39.865	56.133	39.519	0.03	38.884	50.280	31.877
0.04	37.895	45.795	25.713	0.05	36.916	43.920	23.795	0.06	36.487	41.479	19.728
0.07	36.062	39.598	16.357	0.08	35.681	38.172	13.561	0.09	35.272	37.021	11.244
0.10	34.869	36.634	11.236	0.15	34.152	34.492	4.833	0.20	33.451	33.516	2.079
0.25	32.771	32.783	0.894	0.30	32.506	32.508	0.385				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 231
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

(Cont.)

3-Phase fault at bus: **SGM-5-03 BUS B**

Nominal kV = 6.600 I"k = 42.95

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable4169											
0.01	40.369	61.422	46.292	0.02	39.474	55.518	39.039	0.03	38.517	49.751	31.490
0.04	37.551	45.335	25.401	0.05	36.593	43.493	23.506	0.06	36.175	41.091	19.489
0.07	35.760	39.241	16.158	0.08	35.390	37.841	13.397	0.09	34.990	36.711	11.107
0.10	34.596	36.333	11.100	0.15	33.894	34.229	4.774	0.20	33.208	33.271	2.053
0.25	32.541	32.553	0.883	0.30	32.275	32.277	0.380				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 232
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase fault at bus: **Terminal_MEA**

Nominal kV = 69.000 I"k = 41.04

<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>	<u>TD (S)</u>	<u>Ib sym</u>	<u>Ib asym</u>	<u>Idc</u>
From ID: Cable5											
0.01	40.000	50.400	30.662	0.02	40.000	43.456	16.984	0.03	40.000	41.068	9.306
0.04	40.000	40.324	5.099	0.05	40.000	40.120	3.101	0.06	40.000	40.038	1.735
0.07	40.000	40.012	0.971	0.08	40.000	40.004	0.543	0.09	40.000	40.001	0.304
0.10	40.000	40.001	0.247	0.15	40.000	40.000	0.016	0.20	40.000	40.000	0.001
0.25	40.000	40.000	0.000	0.30	40.000	40.000	0.000				
From ID: MEA2											
0.01	40.000	50.400	30.662	0.02	40.000	43.456	16.984	0.03	40.000	41.068	9.306
0.04	40.000	40.324	5.099	0.05	40.000	40.120	3.101	0.06	40.000	40.038	1.735
0.07	40.000	40.012	0.971	0.08	40.000	40.004	0.543	0.09	40.000	40.001	0.304
0.10	40.000	40.001	0.247	0.15	40.000	40.000	0.016	0.20	40.000	40.000	0.001
0.25	40.000	40.000	0.000	0.30	40.000	40.000	0.000				

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 233
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Short-Circuit Summary Report

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
4200-MD-001	0.400	4200-MD-001	SwthBoard	143.000				47.624	103.423				37.821
	0.400	ACB-A	CB	220.000	100.000	101.269		41.574	90.284	41.574	42.275	7.671	
	0.400	ACB-MD4	CB	143.000	65.000	81.046		46.514	101.012	45.657	57.353	34.710	
	0.400	ACB-MD7	CB	143.000	65.000	81.046		46.514	101.012	45.657	57.353	34.710	
	0.400	ACB-MD8	CB	143.000	65.000	81.046		47.570	103.306	46.342	58.376	35.498	
	0.400	B-MD11	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD12	CB	154.000	70.000	87.280		47.553	103.269	46.324	58.354	35.485	
	0.400	B-MD13	CB	154.000	70.000	87.280		47.553	103.269	46.324	58.354	35.485	
	0.400	B-MD15	CB	154.000	70.000	87.280		47.464	103.075	46.209	58.222	35.419	
	0.400	B-MD16	CB	154.000	70.000	71.477		45.874	99.622	44.369	45.654	10.756	
	0.400	B-MD17	CB	154.000	70.000	71.477		45.874	99.622	44.369	45.654	10.756	
	0.400	B-MD5	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD6	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD19	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD20	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD21	CB	154.000	70.000	71.477		47.624	103.423	45.719	47.063	11.167	
	0.400	B-MD-1	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
	0.400	B-MD-3	CB	154.000	70.000	87.280		47.624	103.423	46.369	58.421	35.538	
AC DB.	0.400	AC DB.	SwthBoard	143.000				28.596	46.367				25.345
	0.400	AC DB-1	CB	143.000	65.000	69.821		28.596	46.367	28.290	28.296	0.608	
	0.400	AC DB-2	CB	143.000	65.000	69.821		28.596	46.367	28.290	28.296	0.608	
	0.400	AC DB-4	CB	143.000	65.000	69.821		28.596	46.367	28.290	28.296	0.608	
	0.400	AC DB-5	CB	143.000	65.000	69.821		28.596	46.367	28.290	28.296	0.608	
	0.400	AC DB-6	CB	143.000	65.000	69.821		28.596	46.367	28.290	28.296	0.608	
	0.400	AC DB-10	CB	143.000	65.000	103.746		28.596	46.367	28.403	38.898	26.577	
BOP MCC	0.400	BOP MCC	MCC					20.041	32.040				18.394
	0.400	BOP-1	CB	143.000	65.000	69.821		20.027	32.017	19.868	19.871	0.313	
	0.400	BOP-3	CB	143.000	65.000	69.821		20.027	32.017	19.868	19.871	0.313	
	0.400	BOP-4	CB	143.000	65.000	69.821		20.027	32.017	19.868	19.871	0.313	
	0.400	BOP-5	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	
	0.400	BOP-6	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	
	0.400	BOP-7	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	
	0.400	BOP-8	CB	143.000	65.000	69.821		20.030	32.022	19.863	19.865	0.313	
	0.400	BOP-9	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	
	0.400	BOP-12	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 234
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
BOP MCC	0.400	BOP-13	CB	143.000	65.000	69.821		20.041	32.040	19.871	19.874	0.314	
BUP-A	6.600	BUP-A	SwthGear	125.000				13.206	32.811				3.173
	6.600	B-MV-A1	CB	125.000	50.000	53.361	18.639	12.852	31.932	9.684	12.151	7.340	
	6.600	B-MV-A2	CB	125.000	50.000	53.361	18.639	12.928	32.121	9.745	12.226	7.383	
	6.600	B-MV-G1	CB	125.000	50.000	53.361	18.639	8.733	21.697	6.859	8.481	4.987	
	6.600	B-MV-S#3	CB	125.000	50.000	53.361	18.639	9.352	23.235	7.229	8.988	5.341	
BUP-B	6.600	BUP-B	SwthGear	125.000				20.599	53.332				19.222
	6.600	B-MV-B1	CB	125.000	50.000	53.361	18.639	20.599	53.332	18.419	21.443	10.979	
	6.600	B-MV-G2	CB	125.000	50.000	53.361	18.639	11.897	30.802	11.562	13.186	6.341	
	6.600	B-MV-B2	CB	125.000	50.000	53.361	18.639	20.323	52.619	18.264	21.234	10.832	
	6.600	B-MV-S#5	CB	125.000	50.000	53.361	18.639	11.620	30.086	11.406	12.979	6.194	
GTG1 MCC.1	0.400	GTG1 MCC.1	MCC	52.500				19.527	30.455				17.223
	0.400	F2-GT1-MCC	Fuse		120.000	159.693		18.524	28.891	18.400	18.513	2.066	
	0.400	F1-GT1-MCC	Fuse		120.000	159.693		19.377	30.221	18.836	19.154	2.161	
GTG1 MCC.1-INT	0.400	GTG1 MCC.1-INT	MCC	52.500				19.527	30.455				17.223
	0.400	F2-GT1-MCC	Fuse		120.000	159.693		18.524	28.891	18.400	18.482	2.066	
GTG1 MCC.1-RF	0.400	GTG1 MCC.1-RF	MCC	52.500				19.527	30.455				17.223
	0.400	F1-GT1-MCC	Fuse		120.000	159.693		19.377	30.221	18.836	18.966	2.161	
GTG2 MCC.2	0.400	GTG2 MCC.2	MCC	55.000				19.527	30.455				17.223
	0.400	F1-GT2-MCC	Fuse		120.000	159.693		19.377	30.221	18.836	19.154	2.161	
	0.400	F2-GT2-MCC	Fuse		120.000	159.693		18.524	28.891	18.400	18.513	2.066	
GTG2 MCC.2-INT	0.400	GTG2 MCC.2-INT	MCC	52.500				19.527	30.455				17.223
	0.400	F2-GT2-MCC	Fuse		120.000	159.693		18.524	28.891	18.400	18.482	2.066	
GTG2 MCC.2-RF	0.400	GTG2 MCC.2-RF	MCC	52.500				19.527	30.455				17.223
	0.400	F1-GT2-MCC	Fuse		120.000	159.693		19.377	30.221	18.836	18.966	2.161	
GTG-1 DB	0.400	GTG-1 DB	Bus					0.952	1.419				0.946
MCL 5-01 A	0.400	MCL 5-01 A	MCC	143.000				50.181	109.080				34.394
	0.400	S5-MCL A2	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A3	CB	143.000	65.000	69.821		50.038	108.769	44.613	49.117	20.545	
	0.400	S5-MCL A4	CB	143.000	65.000	69.821		50.038	108.769	44.613	49.117	20.545	
	0.400	S5-MCL A6	CB	143.000	65.000	69.821		49.778	108.204	44.460	48.933	20.438	
	0.400	S5-MCL A10	CB	143.000	65.000	69.821		50.085	108.871	44.640	49.149	20.564	
	0.400	S5-MCL A13	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A15	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A5	CB	143.000	65.000	69.821		49.778	108.204	44.460	48.933	20.438	
	0.400	S5-MCL A7	CB	143.000	65.000	69.821		49.778	108.204	44.460	48.933	20.438	
	0.400	S5-MCL A8	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 235
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
MCL 5-01 A	0.400	S5-MCL A9	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A11	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A12	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A14	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A16	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A17	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A18	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A19	CB	143.000	65.000	69.821		49.889	108.445	44.526	49.012	20.483	
	0.400	S5-MCL A20	CB	143.000	65.000	69.821		50.038	108.769	44.613	49.117	20.545	
	0.400	S5-MCL A21	CB	143.000	65.000	69.821		49.447	107.484	44.251	48.686	20.302	
	0.400	S5-MCL A22	CB	143.000	65.000	69.821		49.447	107.484	44.251	48.686	20.302	
	0.400	S5-MCL A23	CB	143.000	65.000	69.821		49.447	107.484	44.251	48.686	20.302	
	0.400	S5-MCL A26	CB	143.000	65.000	69.821		49.777	108.201	44.474	48.945	20.437	
	0.400	S5-MCL A29	CB	143.000	65.000	69.821		50.112	108.929	44.656	49.168	20.575	
	0.400	S5-MCL A1	CB	143.000	65.000	69.821		49.778	108.204	44.460	48.933	20.438	
	0.400	S5-MCL A31	CB	143.000	65.000	69.821		50.081	108.863	44.650	49.157	20.563	
	0.400	S5-MCL A33	CB	143.000	65.000	69.821		49.473	107.541	44.197	48.641	20.313	
	0.400	S5-MCL A35	CB	143.000	65.000	69.821		50.176	109.068	44.701	49.219	20.601	
	0.400	S5-MCL A36	CB	143.000	65.000	69.821		49.174	106.891	44.027	48.436	20.190	
	0.400	S5-MCL A37	CB	143.000	65.000	69.821		50.152	109.016	44.689	49.205	20.591	
	0.400	S5-MCL A39	CB	143.000	65.000	69.821		48.772	106.016	43.606	47.984	20.025	
	0.400	S5-MCL A41	CB	143.000	65.000	69.821		49.458	107.509	44.221	48.661	20.307	
	0.400	S5-MCL A43	CB	143.000	65.000	69.821		50.035	108.762	44.621	49.123	20.543	
	0.400	S5-MCL A45	CB	143.000	65.000	69.821		49.590	107.795	44.317	48.770	20.361	
	0.400	S5-MCL A47	CB	143.000	65.000	69.821		49.590	107.795	44.317	48.770	20.361	
	0.400	S5-MCL A48	CB	143.000	65.000	69.821		49.185	106.915	44.017	48.429	20.195	
	0.400	S5-MCL A49	CB	143.000	65.000	69.821		50.180	109.077	44.702	49.221	20.603	
	0.400	S5-MCL A51	CB	143.000	65.000	69.821		50.034	108.761	44.632	49.133	20.543	
	0.400	S5-MCL A52	CB	143.000	65.000	69.821		50.151	109.015	44.692	49.207	20.591	
	0.400	S5-MCL A53	CB	143.000	65.000	69.821		50.114	108.935	44.667	49.178	20.576	
	0.400	S5-MCL A54	CB	143.000	65.000	69.821		49.682	107.995	44.412	48.873	20.399	
	0.400	S5-MCL A55	CB	143.000	65.000	69.821		50.151	109.015	44.692	49.207	20.591	
	0.400	S5-MCL A57	CB	143.000	65.000	69.821		50.172	109.060	44.697	49.215	20.600	
	0.400	S5-MCL A58	CB	143.000	65.000	69.821		50.171	109.058	44.699	49.218	20.599	
	0.400	S5-MCL A59	CB	143.000	65.000	69.821		50.181	109.080	44.702	49.222	20.603	
MCL 5-01 B	0.400	MCL 5-01 B	MCC	143.000				47.470	104.244				34.389
	0.400	S5-MCL B2	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 236
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
MCL 5-01 B	0.400	S5-MCL B3	CB	143.000	65.000	69.821		47.327	103.931	42.757	47.342	20.326	
	0.400	S5-MCL B4	CB	143.000	65.000	69.821		47.327	103.931	42.757	47.342	20.326	
	0.400	S5-MCL B6	CB	143.000	65.000	69.821		47.068	103.361	42.603	47.156	20.214	
	0.400	S5-MCL B10	CB	143.000	65.000	69.821		47.189	103.627	42.649	47.219	20.266	
	0.400	S5-MCL B13	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B15	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B5	CB	143.000	65.000	69.821		47.068	103.361	42.603	47.156	20.214	
	0.400	S5-MCL B7	CB	143.000	65.000	69.821		47.176	103.599	42.675	47.241	20.261	
	0.400	S5-MCL B8	CB	143.000	65.000	69.821		47.370	104.025	42.793	47.383	20.344	
	0.400	S5-MCL B9	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B11	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B12	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B14	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B16	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B17	CB	143.000	65.000	69.821		47.324	103.924	42.764	47.348	20.324	
	0.400	S5-MCL B18	CB	143.000	65.000	69.821		46.749	102.662	42.364	46.881	20.078	
	0.400	S5-MCL B19	CB	143.000	65.000	69.821		46.745	102.653	42.362	46.878	20.076	
	0.400	S5-MCL B23	CB	143.000	65.000	69.821		46.971	103.149	42.555	47.094	20.173	
	0.400	S5-MCL B24	CB	143.000	65.000	69.821		47.465	104.233	42.843	47.446	20.385	
	0.400	S5-MCL B25	CB	143.000	65.000	69.821		47.443	104.185	42.833	47.432	20.375	
	0.400	S5-MCL B26	CB	143.000	65.000	69.821		46.863	102.912	42.482	47.009	20.126	
	0.400	S5-MCL B27	CB	143.000	65.000	69.821		46.004	101.025	41.858	46.286	19.757	
	0.400	S5-MCL B1	CB	143.000	65.000	69.821		47.068	103.361	42.603	47.156	20.214	
	0.400	S5-MCL B28	CB	143.000	65.000	69.821		47.107	103.447	42.613	47.171	20.231	
	0.400	S5-MCL B29	CB	143.000	65.000	69.821		46.728	102.616	42.389	46.900	20.069	
	0.400	S5-MCL B30	CB	143.000	65.000	69.821		47.064	103.352	42.616	47.167	20.213	
	0.400	S5-MCL B32	CB	143.000	65.000	69.821		47.421	104.136	42.822	47.418	20.366	
	0.400	S5-MCL B34	CB	143.000	65.000	69.821		46.765	102.696	42.340	46.862	20.084	
	0.400	S5-MCL B41	CB	143.000	65.000	69.821		47.470	104.244	42.845	47.448	20.387	
	0.400	S5-MCL B42	CB	143.000	65.000	69.821		47.460	104.222	42.842	47.443	20.383	
	0.400	S5-MCL B43	CB	143.000	65.000	69.821		47.460	104.222	42.842	47.443	20.383	
	0.400	S5-MCL B45	CB	143.000	65.000	69.821		47.071	103.368	42.596	47.150	20.216	
	0.400	S5-MCL B47	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B44	CB	143.000	65.000	69.821		47.470	104.244	42.845	47.448	20.387	
	0.400	S5-MCL B46	CB	143.000	65.000	69.821		47.178	103.604	42.670	47.236	20.262	
	0.400	S5-MCL B48	CB	143.000	65.000	69.821		46.749	102.662	42.364	46.881	20.078	
MOP 2-01	0.400	MOP 2-01	SwitchBoard	110.000				13.428	22.582				13.248

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 237
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
MOP 2-01	0.400	MOP-A1	CB	110.000	50.000	50.383		13.428	22.582	13.428	13.428	0.078	
	0.400	MOP-A2	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A3	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A4	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A5	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A6	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A7	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A8	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A9	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A10	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A11	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A12	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A13	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A14	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A20	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A21	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A22	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A23	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A24	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A26	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A28	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A29	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A31	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A33	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
	0.400	MOP-A34	CB	110.000	50.000	51.913		13.428	22.582	13.428	13.436	0.483	
MOP-3-01	0.400	MOP-3-01	SwthchBoard	63.000				15.855	34.659				14.224
MOV-001	0.400	MOV-001	MCC	143.000				9.878	14.322				9.632
	0.400	MOV-1	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-2	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-3	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-4	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-5	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-6	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-7	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-8	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-9	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-10	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 238
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
MOV-001	0.400	MOV-11	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-12	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-13	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-14	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-15	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-16	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-17	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-18	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-19	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-20	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-21	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-22	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-23	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-24	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-25	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-26	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-27	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-28	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-29	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-30	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-31	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
	0.400	MOV-32	CB	143.000	65.000	69.821		9.878	14.322	9.871	9.871	0.000	
SGL-2-01A	0.400	SGL-2-01A	SwthBoard	143.000				48.025	108.496				41.042
	0.400	S2-SL1-A1	CB	143.000	65.000	66.372		42.995	97.130	42.995	44.968	13.175	
	0.400	S2-SL1-A3	CB	143.000	65.000	69.821		47.083	106.366	45.858	51.273	22.932	
	0.400	S2-SL1-A4	CB	143.000	65.000	69.821		47.509	107.330	46.110	51.591	23.140	
	0.400	S2-SL1-A7	CB	143.000	65.000	69.821		47.029	106.245	45.822	51.228	22.906	
	0.400	S2-SL1-A6	CB	143.000	65.000	69.821		47.375	107.026	46.040	51.498	23.075	
	0.400	S2-SL1-A2	CB	143.000	65.000	69.821		47.083	106.366	45.858	51.273	22.932	
	0.400	S2-SL1-A8	CB	143.000	65.000	69.821		47.029	106.245	45.822	51.228	22.906	
	0.400	S2-SL1-A12	CB	143.000	65.000	69.821		48.025	108.496	46.503	52.055	23.391	
SGL-2-01B	0.400	SGL-2-01B	MCC	143.000				45.313	103.436				41.042
	0.400	S2-SL1-B2	CB	143.000	65.000	69.821		44.373	101.292	43.923	49.378	22.560	
	0.400	S2-SL1-B3	CB	143.000	65.000	69.821		44.373	101.292	43.923	49.378	22.560	
	0.400	S2-SL1-B5	CB	143.000	65.000	69.821		45.173	103.118	44.473	50.053	22.967	
	0.400	S2-SL1-B7	CB	143.000	65.000	69.821		45.282	103.365	44.555	50.151	23.022	
	0.400	S2-SL1-B8	CB	143.000	65.000	69.821		45.133	103.025	44.466	50.038	22.946	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 239
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGL-2-01B	0.400	S2-SL1-B9	CB	143.000	65.000	69.821		45.282	103.366	44.554	50.150	23.022	
	0.400	S2-SL1-B14	CB	143.000	65.000	69.821		45.313	103.436	44.568	50.170	23.038	
	0.400	S2-SL1-B1	CB	143.000	65.000	66.372		43.054	98.280	43.054	45.187	13.719	
	0.400	S2-SL1-B16	CB	143.000	65.000	69.821		45.313	103.436	44.568	50.170	23.038	
SGL-2-02 BUS A	0.400	SGL-2-02 BUS A	SwitchBoard	143.000				48.259	104.441				36.632
	0.400	S2-SL2-A1	CB	143.000	65.000	66.372		38.148	82.560	38.148	39.143	8.769	
	0.400	S2-MCL2-A63	CB	143.000	65.000	66.372		48.259	104.441	44.663	46.020	11.093	
	0.400	S2-MCL2-A2	CB	143.000	65.000	69.821		48.059	104.010	45.116	48.849	18.729	
	0.400	S2-MCL2-A3	CB	143.000	65.000	69.821		48.063	104.019	45.106	48.840	18.730	
	0.400	S2-MCL2-A4	CB	143.000	65.000	69.821		48.115	104.131	45.142	48.881	18.751	
	0.400	S2-MCL2-A10	CB	143.000	65.000	69.821		47.551	102.910	44.700	48.389	18.531	
	0.400	S2-MCL2-A15	CB	143.000	65.000	69.821		47.528	102.861	44.705	48.390	18.522	
	0.400	S2-MCL2-A8	CB	143.000	65.000	69.821		47.967	103.809	45.054	48.778	18.693	
	0.400	S2-MCL2-A1	CB	143.000	65.000	69.821		47.963	103.802	45.059	48.782	18.691	
	0.400	S2-MCL2-A12	CB	143.000	65.000	69.821		47.860	103.579	44.981	48.694	18.651	
	0.400	S2-MCL2-A7	CB	143.000	65.000	69.821		47.856	103.570	44.966	48.680	18.649	
	0.400	S2-MCL2-A16	CB	143.000	65.000	69.821		48.239	104.399	45.222	48.974	18.799	
	0.400	S2-MCL2-A20	CB	143.000	65.000	69.821		48.243	104.408	45.226	48.978	18.800	
	0.400	S2-MCL2-A22	CB	143.000	65.000	69.821		47.673	103.174	44.817	48.515	18.578	
	0.400	S2-MCL2-A24	CB	143.000	65.000	69.821		48.259	104.441	45.232	48.985	18.806	
	0.400	S2-MCL2-A25	CB	143.000	65.000	69.821		48.017	103.917	45.073	48.802	18.712	
	0.400	S2-MCL2-A27	CB	143.000	65.000	69.821		47.882	103.625	44.961	48.679	18.659	
	0.400	S2-MCL2-A28	CB	143.000	65.000	69.821		48.115	104.130	45.136	48.875	18.750	
	0.400	S2-MCL2-A32	CB	143.000	65.000	69.821		47.860	103.579	44.961	48.676	18.651	
	0.400	S2-MCL2-A33	CB	143.000	65.000	69.821		48.116	104.132	45.142	48.881	18.751	
	0.400	S2-MCL2-A34	CB	143.000	65.000	69.821		47.279	102.321	44.468	48.134	18.425	
	0.400	S2-MCL2-A43	CB	143.000	65.000	69.821		48.227	104.373	45.216	48.966	18.794	
	0.400	S2-MCL2-A45	CB	143.000	65.000	69.821		48.240	104.401	45.223	48.975	18.799	
	0.400	S2-MCL2-A44	CB	143.000	65.000	69.821		46.799	101.282	44.106	47.728	18.237	
	0.400	S2-MCL2-A31	CB	143.000	65.000	69.821		47.252	102.262	44.497	48.157	18.414	
	0.400	S2-MCL2-A35	CB	143.000	65.000	69.821		47.963	103.802	45.044	48.768	18.691	
	0.400	S2-MCL2-A39	CB	143.000	65.000	69.821		48.115	104.131	45.136	48.876	18.751	
	0.400	S2-MCL2-A41	CB	143.000	65.000	69.821		48.252	104.427	45.229	48.982	18.804	
	0.400	S2-MCL2-A42	CB	143.000	65.000	69.821		48.250	104.424	45.229	48.981	18.803	
	0.400	S2-MCL2-A46	CB	143.000	65.000	69.821		48.252	104.426	45.229	48.982	18.804	
	0.400	S2-MCL2-A47	CB	143.000	65.000	69.821		48.238	104.397	45.222	48.974	18.798	
	0.400	S2-MCL2-A50	CB	143.000	65.000	69.821		48.113	104.125	45.143	48.882	18.749	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 240
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGL-2-02 BUS A	0.400	S2-MCL2-A51	CB	143.000	65.000	69.821		48.159	104.226	45.174	48.917	18.768	
	0.400	S2-SL2-SWA1	CB	143.000	65.000	99.881		47.963	103.802	46.047	72.428	55.906	
	0.400	S2-SL2-SWA4	CB	143.000	65.000	99.881		48.186	104.283	46.221	72.738	56.165	
	0.400	S2-SL2-SWA5	CB	143.000	65.000	99.881		47.963	103.802	46.047	72.428	55.906	
	0.400	S2-SL2-SWA7	CB	143.000	65.000	99.881		48.255	104.434	46.267	72.830	56.246	
SGL-2-02 BUS B	0.400	SGL-2-02 BUS B	MCC	143.000				47.788	103.409				36.632
	0.400	S2-SL2-B1	CB	143.000	65.000	66.372		38.132	82.514	38.132	39.136	8.808	
	0.400	S2-MCL2.B51	CB	143.000	65.000	66.372		47.788	103.409	44.342	45.695	11.038	
	0.400	S2-MCL2.B2	CB	143.000	65.000	69.821		47.588	102.978	44.740	48.447	18.586	
	0.400	S2-MCL2.B3	CB	143.000	65.000	69.821		46.735	101.130	44.024	47.658	18.253	
	0.400	S2-MCL2.B8	CB	143.000	65.000	69.821		47.190	102.115	44.433	48.104	18.431	
	0.400	S2-MCL2.B14	CB	143.000	65.000	69.821		47.542	102.877	44.710	48.412	18.568	
	0.400	S2-MCL2.B7	CB	143.000	65.000	69.821		47.738	103.301	44.831	48.553	18.645	
	0.400	S2-MCL2.B19	CB	143.000	65.000	69.821		47.202	102.141	44.417	48.091	18.435	
	0.400	S2-MCL2.B21	CB	143.000	65.000	69.821		47.527	102.845	44.671	48.375	18.562	
	0.400	S2-MCL2.B22	CB	143.000	65.000	69.821		47.400	102.569	44.590	48.281	18.513	
	0.400	S2-MCL2.B23	CB	143.000	65.000	69.821		47.628	103.063	44.762	48.473	18.602	
	0.400	S2-MCL2.B6	CB	143.000	65.000	69.821		47.766	103.362	44.846	48.572	18.656	
	0.400	S2-MCL2.B13	CB	143.000	65.000	69.821		47.709	103.239	44.818	48.537	18.634	
	0.400	S2-MCL2.B15	CB	143.000	65.000	69.821		47.389	102.546	44.605	48.293	18.509	
	0.400	S2-MCL2.B18	CB	143.000	65.000	69.821		47.688	103.193	44.798	48.516	18.625	
	0.400	S2-MCL2.B16	CB	143.000	65.000	69.821		47.389	102.546	44.605	48.293	18.509	
	0.400	S2-MCL2.B17	CB	143.000	65.000	69.821		47.639	103.087	44.773	48.485	18.606	
	0.400	S2-MCL2.B26	CB	143.000	65.000	69.821		47.190	102.115	44.462	48.131	18.431	
	0.400	S2-MCL2.B27	CB	143.000	65.000	69.821		47.639	103.087	44.765	48.478	18.606	
	0.400	S2-MCL2.B29	CB	143.000	65.000	69.821		47.775	103.382	44.851	48.578	18.659	
	0.400	S2-MCL2.B32	CB	143.000	65.000	69.821		47.495	102.776	44.678	48.376	18.550	
	0.400	S2-MCL2.B34	CB	143.000	65.000	69.821		46.428	100.466	43.820	47.424	18.133	
	0.400	S2-MCL2.B38	CB	143.000	65.000	69.821		47.641	103.092	44.774	48.486	18.607	
	0.400	S2-MCL2.B39	CB	143.000	65.000	69.821		47.756	103.341	44.842	48.566	18.652	
	0.400	S2-MCL2.B41	CB	143.000	65.000	69.821		47.521	102.831	44.689	48.390	18.560	
	0.400	S2-MCL2.B42	CB	143.000	65.000	69.821		47.594	102.990	44.724	48.433	18.589	
	0.400	S2-MCL2.B44	CB	143.000	65.000	69.821		47.639	103.087	44.773	48.485	18.606	
	0.400	S2-MCL2.B45	CB	143.000	65.000	69.821		47.553	102.902	44.685	48.391	18.573	
	0.400	S2-MCL2.B46	CB	143.000	65.000	69.821		47.083	101.884	44.302	47.967	18.389	
	0.400	S2-MCL2.B45	CB	143.000	65.000	69.821		47.386	102.541	44.591	48.279	18.508	
	0.400	S2-MCL2.B50	CB	143.000	65.000	69.821		47.531	102.853	44.666	48.370	18.564	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 241
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGL-2-02 BUS B	0.400	S2-SL2-SWB2	CB	143.000	65.000	99.881		47.539	102.871	45.613	71.784	55.430	
SGL-2-03 BUS A	0.400	SGL-2-03 BUS A	SwthBoard	143.000				39.821	88.713				36.596
	0.400	S2-SL3-A1	CB	143.000	65.000	69.821		38.247	85.207	38.247	41.786	16.829	
	0.400	S2-MCL3.A25	CB	143.000	65.000	69.821		39.821	88.713	39.233	42.968	17.522	
	0.400	S2-MCL3.A8	CB	143.000	65.000	69.821		39.676	88.391	39.144	42.861	17.458	
	0.400	S2-MCL3.A5	CB	143.000	65.000	69.821		39.771	88.603	39.208	42.936	17.500	
	0.400	S2-MCL3.A23	CB	143.000	65.000	69.821		39.772	88.604	39.207	42.935	17.500	
	0.400	S2-MCL3.A19	CB	143.000	65.000	69.821		39.743	88.540	39.196	42.920	17.488	
	0.400	S2-MCL3.A24	CB	143.000	65.000	69.821		39.821	88.713	39.233	42.968	17.522	
	0.400	S2-MCL3.A1	CB	143.000	65.000	69.821		39.623	88.274	39.118	42.827	17.435	
	0.400	S2-MCL3.A3	CB	143.000	65.000	69.821		39.816	88.703	39.232	42.966	17.520	
	0.400	S2-MCL3.A4	CB	143.000	65.000	69.821		39.813	88.695	39.231	42.965	17.518	
	0.400	S2-MCL3.A6	CB	143.000	65.000	69.821		39.436	87.856	38.950	42.640	17.353	
	0.400	S2-MCL3.A11	CB	143.000	65.000	69.821		39.675	88.389	39.144	42.860	17.458	
	0.400	S2-MCL3.A12	CB	143.000	65.000	69.821		39.675	88.389	39.144	42.860	17.458	
	0.400	S2-MCL3.A13	CB	143.000	65.000	69.821		39.583	88.184	39.075	42.781	17.417	
	0.400	S2-MCL3.A17	CB	143.000	65.000	69.821		39.722	88.493	39.180	42.902	17.479	
	0.400	S2-MCL3.A21	CB	143.000	65.000	69.821		39.787	88.638	39.216	42.947	17.507	
SGL-2-03 BUS B	0.400	SGL-2-03 BUS B	MCC	143.000				40.461	89.832				36.596
	0.400	S2-SL3-B1	CB	143.000	65.000	69.821		38.212	84.840	38.212	41.653	16.577	
	0.400	S2-MCL3.B26	CB	143.000	65.000	69.821		40.461	89.832	39.642	43.354	17.552	
	0.400	S2-MCL3.B18	CB	143.000	65.000	69.821		40.383	89.659	39.604	43.306	17.518	
	0.400	S2-MCL3.B1	CB	143.000	65.000	69.821		40.263	89.394	39.526	43.213	17.467	
	0.400	S2-MCL3.B2	CB	143.000	65.000	69.821		40.223	89.304	39.484	43.167	17.449	
	0.400	S2-MCL3.B3	CB	143.000	65.000	69.821		40.446	89.800	39.637	43.347	17.546	
	0.400	S2-MCL3.B4	CB	143.000	65.000	69.821		40.412	89.723	39.615	43.321	17.531	
	0.400	S2-MCL3.B10	CB	143.000	65.000	69.821		40.315	89.508	39.552	43.246	17.489	
	0.400	S2-MCL3.B11	CB	143.000	65.000	69.821		40.315	89.508	39.552	43.246	17.489	
	0.400	S2-MCL3.B12	CB	143.000	65.000	69.821		40.223	89.304	39.484	43.167	17.449	
	0.400	S2-MCL3.B13	CB	143.000	65.000	69.821		40.223	89.304	39.484	43.167	17.449	
	0.400	S2-MCL3.B16	CB	143.000	65.000	69.821		40.362	89.613	39.589	43.288	17.509	
	0.400	S2-MCL3.B17	CB	143.000	65.000	69.821		39.985	88.776	39.286	42.945	17.346	
	0.400	S2-MCL3.B20	CB	143.000	65.000	69.821		40.315	89.508	39.552	43.246	17.489	
	0.400	S2-MCL3.B7	CB	143.000	65.000	69.821		40.412	89.723	39.615	43.321	17.531	
	0.400	S2-MCL3.B21	CB	143.000	65.000	69.821		40.456	89.822	39.640	43.352	17.550	
	0.400	S2-MCL3.B22	CB	143.000	65.000	69.821		40.381	89.655	39.603	43.305	17.518	
	0.400	S2-MCL3.B23	CB	143.000	65.000	69.821		40.453	89.814	39.639	43.350	17.549	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 242
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGL-2-03 BUS B	0.400	S2-MCL3.B24	CB	143.000	65.000	69.821		40.461	89.832	39.642	43.354	17.552	
	0.400	S2-MCL3.B25	CB	143.000	65.000	69.821		40.412	89.723	39.615	43.321	17.531	
SGL-3-01 A	0.400	SGL-3-01 A	SwthBoard	143.000				50.165	108.767				29.919
	0.400	S3-SL1-A1	CB	143.000	65.000	66.372		37.612	81.550	37.612	38.858	9.761	
	0.400	S3-SL1-A2	CB	143.000	65.000	66.372		45.024	97.621	42.571	44.145	11.684	
	0.400	S3-SL1-A3	CB	143.000	65.000	66.372		46.908	101.705	43.605	45.272	12.173	
	0.400	S3-SL1-A4	CB	143.000	65.000	66.372		45.958	99.647	43.133	44.751	11.927	
SGL-3-01 B	0.400	SGL-3-01 B	SwthBoard	143.000				46.571	103.888				29.989
	0.400	S3-SL1-B1	CB	143.000	65.000	66.372		37.895	84.534	37.895	39.777	12.092	
	0.400	S3-SL1-B2	CB	143.000	65.000	66.372		42.406	94.596	40.385	42.592	13.532	
	0.400	S3-SL1-B3	CB	143.000	65.000	66.372		43.945	98.030	41.768	44.059	14.023	
	0.400	S3-SL1-B4	CB	143.000	65.000	66.372		44.663	99.631	42.139	44.484	14.252	
SGL-3-02 A	0.400	SGL-3-02 A	SwthBoard	143.000				46.356	103.101				29.934
	0.400	S3-SL2-A1	CB	143.000	65.000	66.372		37.861	84.207	37.861	39.750	12.109	
	0.400	S3-SL2-A2	CB	143.000	65.000	66.372		42.638	94.831	40.952	43.162	13.636	
	0.400	S3-SL2-A3	CB	143.000	65.000	66.372		41.549	92.409	39.977	42.128	13.288	
SGL-3-02 B	0.400	SGL-3-02 B	SwthBoard	143.000				47.713	105.601				29.934
	0.400	S3-SL2-B1	CB	143.000	65.000	66.372		37.739	83.525	37.739	39.544	11.811	
	0.400	S3-SL2-B3	CB	143.000	65.000	66.372		43.584	96.462	41.632	43.810	13.641	
	0.400	S3-SL2-B2	CB	143.000	65.000	66.372		41.831	92.583	40.539	42.601	13.092	
SGL-5-01 BUS A	0.400	SGL-5-01 BUS A	SwthBoard	143.000				53.231	121.238				38.196
	0.400	S5-SL1-A1	CB	143.000	65.000	66.372		38.814	88.401	38.814	41.953	15.923	
	0.400	S5-SL1-A2	CB	143.000	65.000	66.372		38.814	88.401	38.814	41.953	15.923	
	0.400	S5-SL1-A3	CB	143.000	65.000	103.746		53.231	121.238	49.957	84.770	68.486	
SGL-5-01 BUS B	0.400	SGL-5-01 BUS B	SwthBoard	143.000				50.778	116.834				38.190
	0.400	S5-SL1-B2	CB	143.000	65.000	66.372		38.809	89.295	38.809	42.132	16.401	
	0.400	S5-SL1-B3	CB	143.000	65.000	103.746		50.778	116.834	47.969	81.253	65.581	
	0.400	S5-SL1-B1	CB	143.000	65.000	66.372		38.809	89.295	38.809	42.132	16.401	
SGL-5-02 BUS A	0.400	SGL-5-02 BUS A	SwthBoard	143.000				44.124	99.655				31.033
	0.400	S5-SL2-A1	CB	143.000	65.000	66.372		31.449	71.028	31.449	33.931	12.737	
	0.400	S5-SL2-A2	CB	143.000	65.000	66.372		35.928	81.142	34.331	37.287	14.551	
	0.400	S5-SL2-A4	CB	143.000	65.000	66.372		44.124	99.655	39.733	43.567	17.871	
	0.400	S5-SL2-A3	CB	143.000	65.000	66.372		39.551	89.325	36.852	40.183	16.018	
SGL-5-02 BUS B	0.400	SGL-5-02 BUS B	SwthBoard	143.000				34.360	81.574				30.847
	0.400	S5-SL2-B5	CB	143.000	65.000	66.372		34.360	81.574	33.276	36.928	16.012	
	0.400	S5-SL2-B1	CB	143.000	65.000	66.372		31.269	74.235	31.269	34.498	14.572	
	0.400	S5-SL2-B3	CB	143.000	65.000	66.372		33.898	80.476	33.042	36.623	15.797	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 243
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGL-5-02 BUS B	0.400	S5-SL2-B2	CB	143.000	65.000	66.372		31.727	75.321	31.503	34.800	14.785	
	0.400	S5-SL2-B4	CB	143.000	65.000	66.372		34.360	81.574	33.276	36.928	16.012	
SGL-5-03 BUS A	0.400	SGL-5-03 BUS A	SwthBoard	143.000				50.137	113.080				36.654
	0.400	S5-SL3-A1	CB	143.000	65.000	66.372		37.234	83.978	37.234	39.822	14.122	
	0.400	S5-SL3-A3	CB	143.000	65.000	66.372		39.635	89.394	39.171	41.956	15.032	
	0.400	S5-SL3-A4	CB	143.000	65.000	66.372		47.684	107.547	44.011	47.582	18.085	
	0.400	S5-SL3-A6	CB	143.000	65.000	103.746		50.137	113.080	47.855	80.062	64.186	
	0.400	S5-SL3-A5	CB	143.000	65.000	103.746		50.137	113.080	47.855	80.062	64.186	
	0.400	S5-SL3-A2	CB	143.000	65.000	66.372		50.137	113.080	45.947	49.727	19.015	
SGL-5-03 BUS B	0.400	SGL-5-03 BUS B	SwthBoard	143.000				46.542	106.094				36.268
	0.400	S5-SL3-B1	CB	143.000	65.000	66.372		36.833	83.963	36.833	39.487	14.231	
	0.400	S5-SL3-B4	CB	143.000	65.000	66.372		36.833	83.963	36.833	39.487	14.231	
	0.400	S5-SL3-B5	CB	143.000	65.000	103.746		46.542	106.094	44.752	74.694	59.804	
	0.400	S5-SL3-B2	CB	143.000	65.000	103.746		46.542	106.094	44.752	74.694	59.804	
	0.400	S5-SL3-B3	CB	143.000	65.000	66.372		46.542	106.094	43.268	46.856	17.982	
SGM-2-01B	3.200	SGM-2-01B	SwthGear	100.000				36.797	85.375				28.009
	3.200	S2-SM2-B2	CB	100.000	40.000	41.402	10.684	36.498	84.681	29.822	29.968	2.957	
	3.200	F2-SM2-B4	Fuse		40.000	53.231		36.563	84.831	34.521	46.317	33.031	
	3.200	F2-SM2-B7	Fuse		40.000	53.231		36.490	84.663	34.453	46.236	32.966	
	3.200	F2-SM2-B5	Fuse		40.000	53.231		36.177	83.936	34.149	45.851	32.683	
	3.200	S2-SM2-B1	CB	100.000	40.000	41.402	10.684	35.337	81.987	29.291	29.431	2.863	
	3.200	S2-SM2-B3	CB	100.000	40.000	41.402	10.684	36.797	85.375	29.953	30.101	2.981	
SGM-2-01 BUS A	3.200	SGM-2-01 BUS A	SwthGear	100.000				40.031	97.735				29.950
	3.200	S2-SM1-C	CB	100.000	40.000	41.402	10.684	40.031	97.735	31.756	32.985	8.918	
	3.200	S2-SM1-S#3 A	CB	100.000	40.000	41.402	10.684	40.031	97.735	31.756	32.985	8.918	
	3.200	S2-SM1-A1	CB	100.000	40.000	41.402	10.684	38.463	93.905	31.003	32.166	8.569	
	3.200	S2-SM1-A2	CB	100.000	40.000	41.402	10.684	38.583	94.200	31.089	32.255	8.596	
	3.200	S2-SM1-A3	CB	100.000	40.000	41.402	10.684	36.571	89.287	29.781	30.875	8.147	
	3.200	S2-SM1-A4	CB	100.000	40.000	41.402	10.684	37.430	91.384	30.427	31.549	8.339	
	3.200	S2-SM1-S#5 A	CB	100.000	40.000	41.402	10.684	22.997	56.145	14.735	15.600	5.123	
	3.200	S2-G-A	CB	100.000	40.000	41.402	10.684	26.145	63.831	21.764	22.530	5.825	
SGM-2-01 BUS B	3.200	SGM-2-01 BUS B	SwthGear	100.000				40.031	97.735				29.950
	3.200	S2-SM1-C	CB	100.000	40.000	41.402	10.684	40.031	97.735	31.756	32.985	8.918	
SGM-2-02A	3.200	SGM-2-02A	SwthGear	100.000				36.823	85.420				28.009
	3.200	S2-SM2-A8	CB	100.000	40.000	41.402	10.684	36.190	83.950	29.657	29.800	2.923	
	3.200	S2-SM2-A1	CB	100.000	40.000	41.402	10.684	35.239	81.743	29.215	29.354	2.846	
	3.200	F2-SM2-A3	Fuse		40.000	53.231		36.492	84.651	34.450	46.257	32.948	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 244
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
ID	kV	ID	Type										
SGM-2-02A	3.200	F2-SM2-A5	Fuse		40.000	53.231		36.203	83.981	34.166	45.896	32.687	
SGM-2-03 BUS A	3.200	SGM-2-03 BUS A	SwthGear	100.000				37.167	86.487				28.009
	3.200	S2-SM3-A2	CB	100.000	40.000	41.402	10.684	36.031	83.842	29.453	29.604	2.993	
	3.200	S2-SM3-A1	CB	100.000	40.000	41.402	10.684	33.655	78.315	28.106	28.245	2.796	
	3.200	S2-SM3-A8	CB	100.000	40.000	41.402	10.684	36.959	86.002	29.984	30.141	3.070	
	3.200	F2-SM3-A6	Fuse		40.000	53.231		36.594	85.153	34.472	46.569	33.292	
	3.200	F2-SM3-A4	Fuse		40.000	53.231		36.927	85.926	34.800	46.985	33.595	
	3.200	S2-SM3-A9	CB	100.000	40.000	41.402	10.684	35.814	83.337	29.205	29.356	2.975	
	3.200	F2-SM3-A3	Fuse		40.000	53.231		37.167	86.487	35.006	47.261	33.814	
SGM-2-03 BUS B	3.200	SGM-2-03 BUS B	SwthGear	100.000				37.020	85.968				28.009
	3.200	S2-SM3-B2	CB	100.000	40.000	41.402	10.684	35.925	83.424	29.409	29.555	2.930	
	3.200	S2-SM3-B1	CB	100.000	40.000	41.402	10.684	34.380	79.837	28.689	28.826	2.804	
	3.200	S2-SM3-B8	CB	100.000	40.000	41.402	10.684	36.727	85.285	29.876	30.025	2.996	
	3.200	F2-SM3-B5	Fuse		40.000	53.231		36.447	84.636	34.337	46.265	32.992	
	3.200	F2-SM3-B6	Fuse		40.000	53.231		36.767	85.380	34.654	46.666	33.281	
	3.200	F2-SM3-B10	Fuse		40.000	53.231		36.595	84.980	34.484	46.450	33.126	
	3.200	F2-SM3-B3	Fuse		40.000	53.231		37.020	85.968	34.871	46.957	33.511	
SGM-3-01 BUS A	3.200	SGM-3-01 BUS A	SwthGear	100.000				21.115	47.907				5.938
	3.200	S3-SM1-C	CB	100.000	40.000	41.402	10.684	19.994	45.364	14.626	14.808	2.315	
	3.200	S3-SM1-A1	CB	100.000	40.000	41.402	10.684	17.208	39.044	13.323	13.472	1.993	
	3.200	S3-SM1-A2	CB	100.000	40.000	41.402	10.684	18.379	41.701	13.912	14.074	2.128	
	3.200	S3-SM1-S#2A	CB	100.000	40.000	41.402	10.684	21.115	47.907	15.247	15.442	2.445	
	3.200	S3-SM1-BUPA	CB	100.000	40.000	41.402	10.684	10.845	24.607	5.625	5.763	1.256	
	3.200	S3-SM1-S#4A1	CB	100.000	40.000	41.402	10.684	18.104	41.077	13.513	13.675	2.097	
SGM-3-01 BUS B	3.200	SGM-3-01 BUS B	SwthGear	100.000				21.115	47.907				5.938
	3.200	S3-SM1-C	CB	100.000	40.000	41.402	10.684	19.994	45.364	14.626	14.808	2.315	
	3.200	S3-SM1-S#4B2	CB	100.000	40.000	41.402	10.684	19.994	45.364	14.626	14.808	2.315	
SGM-5-01 BUS B	6.600	S5-SM1-B3	CB	125.000	50.000	53.361	18.639	42.887	108.121	36.647	43.376	23.205 *	
	6.600	S5-SM1-BUP	CB	125.000	50.000	53.361	18.639	38.749	97.688	32.248	38.465	20.966 *	
	6.600	SW3	SPST	125.000				38.749	97.688	37.308	66.294	54.800	
SGM-5-02-BUS A	6.600	SGM-5-02-BUS A	SwthGear	125.000				43.888	110.125				33.940
	6.600	F5-SM2-A2	Fuse		50.000	66.539		43.675	109.592	41.429	61.658	48.396	
	6.600	S5-SM2-A6	CB	125.000	50.000	53.361	18.639	43.169	108.323	36.656	42.620	21.745 *	
	6.600	S5-SM2-A10	CB	125.000	50.000	53.361	18.639	43.888	110.125	37.072	43.163	22.107 *	
	6.600	F5-SM2-A3	Fuse		50.000	66.539		43.465	109.065	41.228	61.391	48.163	
	6.600	F5-SM2-A4	Fuse		50.000	66.539		43.710	109.681	41.461	61.698	48.435	
	6.600	F5-SM2-A5	Fuse		50.000	66.539		43.710	109.681	41.461	61.698	48.435	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 245
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGM-5-02-BUS A	6.600	F5-SM2-A7	Fuse		50.000	66.539		42.985	107.859	40.773	60.841	47.630	
	6.600	F5-SM2-A11	Fuse		50.000	66.539		43.745	109.769	41.482	61.730	48.473	
	6.600	F5-SM2-A12	Fuse		50.000	66.539		43.710	109.680	41.461	61.697	48.434	
	6.600	S5-SM2-A8	CB	125.000	50.000	53.361	18.639	41.544	104.244	35.265	41.006	20.926 *	
SGM-5-02-BUS B	6.600	SGM-5-02-BUS B	SwtchGear	125.000				43.700	109.555				33.868
	6.600	S5-SM2-B2	CB	125.000	50.000	53.361	18.639	43.078	107.993	36.655	42.466	21.442 *	
	6.600	S5-SM2-B7	CB	125.000	50.000	53.361	18.639	43.700	109.555	36.998	42.919	21.752 *	
SGM-5-03 BUS A	6.600	SGM-5-03 BUS A	SwtchGear	125.000				43.095	107.486				33.353
	6.600	F3-SM3-A6	Fuse		50.000	66.539		42.476	105.944	40.333	59.750	46.363	
	6.600	S5-SM3-A10	CB	125.000	50.000	53.361	18.639	43.095	107.486	36.536	41.558	19.805 *	
	6.600	F5-SM3-A3	Fuse		50.000	66.539		42.833	106.835	40.663	60.184	46.753	
	6.600	S5-SM3-A2	CB	125.000	50.000	53.361	18.639	42.476	105.943	36.153	41.086	19.521 *	
	6.600	S5-SM3-A9	CB	125.000	50.000	53.361	18.639	42.440	105.855	36.126	41.055	19.504 *	
	6.600	F5-SM3-A4	Fuse		50.000	66.539		42.520	106.054	40.374	59.795	46.411	
	6.600	F5-SM3-A5	Fuse		50.000	66.539		42.939	107.098	40.778	60.313	46.868	
	6.600	F5-SM3-A7	Fuse		50.000	66.539		42.861	106.903	40.707	60.225	46.783	
	6.600	F5-SM3-A12	Fuse		50.000	66.539		42.918	107.045	40.759	60.290	46.845	
	6.600	F5-SM3-A11	Fuse		50.000	66.539		42.861	106.905	40.707	60.227	46.783	
SGM-5-03 BUS B	6.600	SGM-5-03 BUS B	SwtchGear	125.000				42.948	107.101				33.353
	6.600	S5-SM3-B9	CB	125.000	50.000	53.361	18.639	42.758	106.629	36.382	41.345	19.641 *	
	6.600	S5-SM3-B8	CB	125.000	50.000	53.361	18.639	42.948	107.101	36.487	41.479	19.728 *	
	6.600	S5-SM3-B2	CB	125.000	50.000	53.361	18.639	42.426	105.801	36.175	41.091	19.489 *	
	6.600	F5-SM3-B4	Fuse		50.000	66.539		42.342	105.592	40.229	59.397	46.201	
	6.600	F5-SM3-B5	Fuse		50.000	66.539		42.714	106.518	40.591	59.857	46.606	
	6.600	F5-SM3-B12	Fuse		50.000	66.539		42.806	106.749	40.675	59.962	46.707	
Terminal_MEA	69.000	Terminal_MEA	Bus					41.044	90.812				40.843
SGM-3-02A	3.200	SGM-3-02A	SwtchGear	100.000				20.630	46.387				5.923
	3.200	F3-SM2-A3	Fuse		40.000	53.231		20.630	46.387	18.691	24.969	17.603	
	3.200	F3-SM2-A4	Fuse		40.000	53.231		20.070	45.129	18.176	24.338	17.125	
	3.200	F3-SM2-A5	Fuse		40.000	53.231		20.368	45.799	18.471	24.680	17.380	
	3.200	F3-SM2-A6	Fuse		40.000	53.231		20.234	45.498	18.392	24.567	17.265	
	3.200	S3-SM2-A1	CB	100.000	40.000	41.402	10.684	19.107	42.962	14.374	14.482	1.772	
	3.200	F3-SM2-A7	Fuse		40.000	53.231		20.418	45.911	18.529	24.748	17.422	
	3.200	F3-SM2-A2	Fuse		40.000	53.231		20.535	46.175	18.615	24.882	17.522	
SGM-3-02B	3.200	SGM-3-02B	SwtchGear	100.000				20.541	46.159				5.923
	3.200	F3-SM2-B7	Fuse		40.000	53.231		20.541	46.159	18.626	24.784	17.499	
	3.200	F3-SM2-B2	Fuse		40.000	53.231		20.200	45.392	18.375	24.440	17.209	

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 246
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

3-Phase Fault Currents

Bus		Device		Device Capacity (kA)				Short-Circuit Current (kA)					
				Making Peak	Ib sym	Ib asym	Idc	I"k	ip	Ib sym	Ib asym	Idc	Ik
SGM-3-02B	3.200	F3-SM2-B8	Fuse		40.000	53.231		20.541	46.159	18.626	24.784	17.499	
	3.200	S3-SM2-B1	CB	100.000	40.000	41.402	10.684	19.988	44.915	14.814	14.929	1.845	
	3.200	F3-SM2-B3	Fuse		40.000	53.231		20.330	45.683	18.465	24.563	17.319	
SGM-5-01 BUS A	6.600	SGM-5-01 BUS A	SwthGear	125.000				44.572	112.369				24.490
	6.600	S5-SM1-SUB#2	CB	125.000	50.000	53.361	18.639	38.898	98.064	32.577	38.784	21.046 *	
	6.600	S5-SM1-A2	CB	125.000	50.000	53.361	18.639	39.312	99.108	34.215	40.288	21.270 *	
	6.600	S5-SM1-A3	CB	125.000	50.000	53.361	18.639	41.066	103.529	35.636	41.996	22.219 *	
	6.600	S5-SM1-C	CB	125.000	50.000	53.361	18.639	31.487	79.381	27.296	32.177	17.036	
	6.600	S5-SM1-MEA	CB	125.000	50.000	53.361	18.639	27.556	69.470	20.471	25.325	14.909	
SGM-5-01 BUS B	6.600	SGM-5-01 BUS B	SwthGear	125.000				44.572	112.369				24.490
	6.600	S5-SM1-GEN	CB	125.000	50.000	53.361	18.639	39.621	99.885	33.842	40.060	21.437 *	
	6.600	S5-SM1-C	CB	125.000	50.000	53.361	18.639	31.487	79.381	27.296	32.177	17.036	
	6.600	S5-SM1-B2	CB	125.000	50.000	53.361	18.639	43.950	110.801	37.205	44.155	23.780 *	

ip is calculated using method C
Ib does not include decay of non-terminal faulted induction motors
Ik is the maximum steady state fault current
Idc is based on X/R from Method C and Ib as specified above

LV CB duty determined based on ultimate rating.
Maximum through current is used for device duty.

* Indicates a device with calculated duty exceeding the device capability.
Indicates a device with calculated duty exceeding the device marginal limit. (95 % times device capability)

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 247
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Short-Circuit Summary Report

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
4200-MD-001	ACB-A	100.000	1.00	44.117
AC DB.	AC DB-1	65.000	1.00	27.109
AC DB.	AC DB-2	65.000	1.00	27.109
AC DB.	AC DB-4	65.000	1.00	27.109
AC DB.	AC DB-5	65.000	1.00	27.109
AC DB.	AC DB-6	65.000	1.00	27.109
AC DB.	AC DB-10	65.000	1.00	27.109
BOP MCC	BOP-1	65.000	1.00	19.165
BOP MCC	BOP-3	65.000	1.00	19.165
BOP MCC	BOP-4	65.000	1.00	19.165
BOP MCC	BOP-5	65.000	1.00	19.165
BOP MCC	BOP-6	65.000	1.00	19.165
BOP MCC	BOP-7	65.000	1.00	19.165
BOP MCC	BOP-8	65.000	1.00	19.165
BOP MCC	BOP-9	65.000	1.00	19.165
BOP MCC	BOP-13	65.000	1.00	19.165
BUP-A	B-MV-A1	50.000	3.00	5.731
BUP-A	B-MV-A2	50.000	3.00	5.731
BUP-A	B-MV-G1	50.000	3.00	5.731
BUP-A	B-MV-S#3	50.000	3.00	5.731
BUP-B	B-MV-B1	50.000	3.00	19.652
BUP-B	B-MV-G2	50.000	3.00	19.652
BUP-B	B-MV-B2	50.000	3.00	19.652
BUP-B	B-MV-S#5	50.000	3.00	19.652
MCL 5-01 A	S5-MCL A2	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A3	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A4	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A6	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A10	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A13	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A15	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A5	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A7	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A8	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A9	65.000	1.00	44.534
MCL 5-01 A	S5-MCL A11	65.000	1.00	44.534

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 249
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
MCL 5-01 B	S5-MCL B15	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B5	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B7	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B8	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B9	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B11	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B12	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B14	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B16	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B17	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B18	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B19	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B23	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B24	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B25	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B26	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B27	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B1	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B28	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B29	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B30	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B32	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B34	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B41	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B42	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B43	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B45	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B47	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B44	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B46	65.000	1.00	42.857
MCL 5-01 B	S5-MCL B48	65.000	1.00	42.857
MOP 2-01	MOP-A1	50.000	1.00	13.468
SGL-2-01A	S2-SL1-A1	100.000	1.00	45.460
SGL-2-01A	S2-SL1-A3	65.000	1.00	45.460
SGL-2-01A	S2-SL1-A4	65.000	1.00	45.460
SGL-2-01A	S2-SL1-A7	65.000	1.00	45.460
SGL-2-01A	S2-SL1-A6	65.000	1.00	45.460
SGL-2-01A	S2-SL1-A2	65.000	1.00	45.460
SGL-2-01A	S2-SL1-A8	65.000	1.00	45.460

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 250
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
SGL-2-01A	S2-SL1-A12	65.000	1.00	45.460
SGL-2-01B	S2-SL1-B2	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B3	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B5	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B7	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B8	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B9	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B14	65.000	1.00	43.558
SGL-2-01B	S2-SL1-B1	100.000	1.00	43.558
SGL-2-01B	S2-SL1-B16	65.000	1.00	43.558
SGL-2-02 BUS A	S2-SL2-A1	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2.A63	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A2	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A3	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A4	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A10	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A15	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A8	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A1	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A12	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A7	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A16	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A20	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A22	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A24	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A25	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A27	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A28	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A32	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A33	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A34	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A43	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2.A45	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A44	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A31	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A35	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A39	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A41	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A42	65.000	1.00	44.134

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 251
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
SGL-2-02 BUS A	S2-MCL2-A46	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A47	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A50	65.000	1.00	44.134
SGL-2-02 BUS A	S2-MCL2-A51	65.000	1.00	44.134
SGL-2-02 BUS A	S2-SL2-SWA1	80.000	1.00	44.134
SGL-2-02 BUS A	S2-SL2-SWA4	80.000	1.00	44.134
SGL-2-02 BUS A	S2-SL2-SWA5	80.000	1.00	44.134
SGL-2-02 BUS A	S2-SL2-SWA7	80.000	1.00	44.134
SGL-2-02 BUS B	S2-SL2-B1	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B51	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B2	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B3	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B8	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B14	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B7	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B19	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B21	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B22	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B23	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B6	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B13	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B15	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B18	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B16	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B17	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B26	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B27	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B29	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B32	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B34	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B38	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B39	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B41	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B42	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B44	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B45	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B46	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B45	65.000	1.00	43.825
SGL-2-02 BUS B	S2-MCL2.B50	65.000	1.00	43.825

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 252
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
SGL-2-02 BUS B	S2-SL2-SWB2	80.000	1.00	43.825
SGL-2-03 BUS A	S2-SL3-A1	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A25	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A8	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A5	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A23	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A19	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A24	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A1	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A3	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A4	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A6	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A11	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A12	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A13	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A17	65.000	1.00	38.366
SGL-2-03 BUS A	S2-MCL3.A21	65.000	1.00	38.366
SGL-2-03 BUS B	S2-SL3-B1	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B26	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B18	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B1	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B2	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B3	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B4	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B10	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B11	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B12	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B13	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B16	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B17	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B20	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B7	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B21	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B22	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B23	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B24	65.000	1.00	38.823
SGL-2-03 BUS B	S2-MCL3.B25	65.000	1.00	38.823
SGL-3-01 A	S3-SL1-A1	65.000	1.00	42.570
SGL-3-01 A	S3-SL1-A2	65.000	1.00	42.570

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 253
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
SGL-3-01 A	S3-SL1-A3	65.000	1.00	42.570
SGL-3-01 A	S3-SL1-A4	65.000	1.00	42.570
SGL-3-01 B	S3-SL1-B1	65.000	1.00	40.587
SGL-3-01 B	S3-SL1-B2	65.000	1.00	40.587
SGL-3-01 B	S3-SL1-B3	65.000	1.00	40.587
SGL-3-01 B	S3-SL1-B4	65.000	1.00	40.587
SGL-3-02 A	S3-SL2-A1	65.000	1.00	40.429
SGL-3-02 A	S3-SL2-A2	65.000	1.00	40.429
SGL-3-02 A	S3-SL2-A3	65.000	1.00	40.429
SGL-3-02 B	S3-SL2-B1	65.000	1.00	41.217
SGL-3-02 B	S3-SL2-B3	65.000	1.00	41.217
SGL-3-02 B	S3-SL2-B2	65.000	1.00	41.217
SGL-5-01 BUS A	S5-SL1-A1	100.000	1.00	48.023
SGL-5-01 BUS A	S5-SL1-A2	100.000	1.00	48.023
SGL-5-01 BUS B	S5-SL1-B2	100.000	1.00	46.472
SGL-5-01 BUS B	S5-SL1-B1	100.000	1.00	46.472
SGL-5-02 BUS A	S5-SL2-A1	100.000	1.00	39.549
SGL-5-02 BUS A	S5-SL2-A2	65.000	1.00	39.549
SGL-5-02 BUS A	S5-SL2-A4	65.000	1.00	39.549
SGL-5-02 BUS A	S5-SL2-A3	65.000	1.00	39.549
SGL-5-02 BUS B	S5-SL2-B5	65.000	1.00	33.051
SGL-5-02 BUS B	S5-SL2-B1	100.000	1.00	33.051
SGL-5-02 BUS B	S5-SL2-B3	65.000	1.00	33.051
SGL-5-02 BUS B	S5-SL2-B2	65.000	1.00	33.051
SGL-5-02 BUS B	S5-SL2-B4	65.000	1.00	33.051
SGL-5-03 BUS A	S5-SL3-A1	100.000	1.00	45.452
SGL-5-03 BUS A	S5-SL3-A3	100.000	1.00	45.452
SGL-5-03 BUS A	S5-SL3-A4	55.000	1.00	45.452
SGL-5-03 BUS A	S5-SL3-A2	55.000	1.00	45.452
SGL-5-03 BUS B	S5-SL3-B1	100.000	1.00	42.997
SGL-5-03 BUS B	S5-SL3-B4	100.000	1.00	42.997
SGL-5-03 BUS B	S5-SL3-B3	55.000	1.00	42.997
SGM-2-01B	S2-SM2-B2	40.000	3.00	31.684
SGM-2-01B	S2-SM2-B1	40.000	3.00	31.684
SGM-2-01B	S2-SM2-B3	40.000	3.00	31.684
SGM-2-01 BUS A	S2-SM1-C	40.000	3.00	34.240
SGM-2-01 BUS A	S2-SM1-S#3 A	40.000	3.00	34.240
SGM-2-01 BUS A	S2-SM1-A1	40.000	3.00	34.240
SGM-2-01 BUS A	S2-SM1-A2	40.000	3.00	34.240

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 254
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current Ith (kA)
		Ithr (kA)	Tkr (sec.)	
SGM-2-01 BUS A	S2-SM1-A3	40.000	3.00	34.240
SGM-2-01 BUS A	S2-SM1-A4	40.000	3.00	34.240
SGM-2-01 BUS A	S2-SM1-S#5 A	40.000	3.00	34.240
SGM-2-01 BUS A	S2-G-A	40.000	3.00	34.240
SGM-2-01 BUS B	S2-SM1-C	40.000	3.00	34.240
SGM-2-02A	S2-SM2-A8	40.000	3.00	31.695
SGM-2-02A	S2-SM2-A1	40.000	3.00	31.695
SGM-2-03 BUS A	S2-SM3.A2	40.000	3.00	31.845
SGM-2-03 BUS A	S2-SM3-A1	40.000	3.00	31.845
SGM-2-03 BUS A	S2-SM3-A8	40.000	3.00	31.845
SGM-2-03 BUS A	S2-SM3-A9	40.000	3.00	31.845
SGM-2-03 BUS B	S2-SM3-B2	40.000	3.00	31.781
SGM-2-03 BUS B	S2-SM3-B1	40.000	3.00	31.781
SGM-2-03 BUS B	S2-SM3-B8	40.000	3.00	31.781
SGM-3-01 BUS A	S3-SM1-C	40.000	3.00	10.029
SGM-3-01 BUS A	S3-SM1-A1	40.000	3.00	10.029
SGM-3-01 BUS A	S3-SM1-A2	40.000	3.00	10.029
SGM-3-01 BUS A	S3-SM1-S#2A	40.000	3.00	10.029
SGM-3-01 BUS A	S3-SM1-BUPA	40.000	3.00	10.029
SGM-3-01 BUS A	S3-SM1-S#4A1	40.000	3.00	10.029
SGM-3-01 BUS B	S3-SM1-C	40.000	3.00	10.029
SGM-3-01 BUS B	S3-SM1-S#4B2	40.000	3.00	10.029
SGM-3-02A	S3-SM2-A1	40.000	3.00	9.927
SGM-3-02B	S3-SM2-B1	40.000	3.00	9.912
SGM-5-01 BUS A	S5-SM1-SUB#2	50.000	3.00	32.405
SGM-5-01 BUS A	S5-SM1-A2	50.000	3.00	32.405
SGM-5-01 BUS A	S5-SM1-A3	50.000	3.00	32.405
SGM-5-01 BUS A	S5-SM1-C	50.000	3.00	32.405
SGM-5-01 BUS A	S5-SM1-MEA	50.000	3.00	32.405
SGM-5-01 BUS B	S5-SM1-GEN	50.000	3.00	32.405
SGM-5-01 BUS B	S5-SM1-C	50.000	3.00	32.405
SGM-5-01 BUS B	S5-SM1-B2	50.000	3.00	32.405
SGM-5-01 BUS B	S5-SM1-B3	50.000	3.00	32.405
SGM-5-01 BUS B	S5-SM1-BUP	50.000	3.00	32.405
SGM-5-02-BUS A	S5-SM2-A6	50.000	3.00	38.228
SGM-5-02-BUS A	S5-SM2-A10	50.000	3.00	38.228
SGM-5-02-BUS A	S5-SM2-A8	50.000	3.00	38.228
SGM-5-02-BUS B	S5-SM2-B2	50.000	3.00	38.103
SGM-5-02-BUS B	S5-SM2-B7	50.000	3.00	38.103

Project: Bangchak Utility Project
Location:
Contract:
Engineer: SRP
Filename: BUP_G_23APR09

ETAP
6.0.0C

Study Case: SC-B2

Page: 255
Date: 07-09-2009
SN: POYRYENRGY
Revision: Base
Config.: Case B2

Bus ID	Device ID	Device Capacity		3-Phase Short-Circuit Current
		Ithr (kA)	Tkr (sec.)	Ith (kA)
SGM-5-03 BUS A	S5-SM3-A10	50.000	3.00	37.536
SGM-5-03 BUS A	S5-SM3-A2	50.000	3.00	37.536
SGM-5-03 BUS A	S5-SM3-A9	50.000	3.00	37.536
SGM-5-03 BUS B	S5-SM3-B9	50.000	3.00	37.470
SGM-5-03 BUS B	S5-SM3-B8	50.000	3.00	37.470
SGM-5-03 BUS B	S5-SM3-B2	50.000	3.00	37.470

Ithr = Rated short-circuit withstand current
Tkr = Rated short-time
Ith = Thermal equivalent short-time current
* Indicates a device with calculated duty exceeding the device capability.
Indicates a device with calculated duty exceeding the device marginal limit. (95 % times device capability)