

2010-4 Preliminary Faults on line 8004, 3-5 miles from San Luis Valley (no customer interconnection modeled) from PSCO_MASTER_2013.GDB

7/10/10 BJR

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 Midline node on "504 SAN LUIS" to "159 ALAMOSA TERM" Ckt 1
 "999001 SAN LUIS" (NEWBUS1) distant 0.138 from "504 SAN LUIS" 3 miles from SLV
 SINGLE_LINE_GROUND at temporary bus "999001 SAN LUIS" (NEWBUS1)
 =====

Substation SANLUI SV		Area	1 T	Zone	1 ZONE 1	Prefault 1.000 V (p.u.) @ 0.00		
Bus 999001 SAN LUIS	FI	Base kV 115.00	Ph-Ph (66.40 @0 deg A-Gnd)			A phase	B phase	C phase
	+ seq	- seq	0 seq / 3Io					
Voltage (kV) Ph-Gnd	> 43.8440 @ -0.5	22.5594 @ -179.0	21.3000 @ 177.9	0.00000 @ 0.0	64.7663 @ -119.5	66.7837 @ 118.6		
Thevenin (R, X) (p.u.)	> 0.01227, 0.09395	0.01228, 0.09396	0.01629, 0.08797					
Thevenin (R, X) (Ohms)	> 1.62325, 12.4248	1.62401, 12.4264	2.15473, 11.6347					
Fault Currents (Amps)	> 1800.13 @ -81.6	1800.13 @ -81.6	5400.38 @ -81.6	5400.38 @ -81.6	0.00000 @ 0.0	0.00000 @ 0.0		
Line Currents (Amps) incremental from	>							
ALAM TER Line: L_8004								
159 ALAMOSA TERM	1 44.3430 @ -78.3	44.3432 @ -78.3	808.379 @ -82.5	357.966 @ -81.5	225.259 @ -83.3	225.260 @ -83.3		
SANLUI SV Line: L_8004								
504 SAN LUIS	1 1755.86 @ -81.7	1755.86 @ -81.7	4592.13 @ -81.4	5042.42 @ -81.6	225.259 @ 96.7	225.260 @ 96.7		

Enter a midpoint distance from bus 504 to bus 159

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 Midline node on "504 SAN LUIS" to "159 ALAMOSA TERM" Ckt 1
 "999001 SAN LUIS" (NEWBUS1) distant 0.138 from "504 SAN LUIS" 3 miles from SLV
 THREE_PHASE at temporary bus "999001 SAN LUIS" (NEWBUS1)
 =====

Substation SANLUI SV		Area	1 T	Zone	1 ZONE 1	Prefault 1.000 V (p.u.) @ 0.00		
Bus 999001 SAN LUIS	FI	Base kV 115.00	Ph-Ph (66.40 @0 deg A-Gnd)			A phase	B phase	C phase
	+ seq	- seq	0 seq / 3Io					
Voltage (kV) Ph-Gnd	> 0.00000 @ 0.0	0.00000 @ 0.0	0.00000 @ 0.0	0.00000 @ 0.0	0.00000 @ 0.0	0.00000 @ 0.0		
Thevenin (R, X) (p.u.)	> 0.01227, 0.09395	0.01228, 0.09396	0.01629, 0.08797					
Thevenin (R, X) (Ohms)	> 1.62325, 12.4248	1.62401, 12.4264	2.15473, 11.6347					
Fault Currents (Amps)	> 5298.74 @ -82.6	0.00000 @ 0.0	0.00000 @ 0.0	5298.74 @ -82.6	5298.74 @ 157.4	5298.74 @ 37.4		

Line Currents (Amps) incremental from >

ALAM TER Line: L_8004

159 ALAMOSA TERM 1 130.525 @ -79.3 0.00000 @ 0.0 0.00000 @ 0.0 | 130.525 @ -79.3 130.525 @ 160.7 130.525 @ 40.7

SANLUI SV Line: L_8004

504 SAN LUIS 1 5168.43 @ -82.6 0.00000 @ 0.0 0.00000 @ 0.0 | 5168.43 @ -82.6 5168.43 @ 157.4 5168.43 @ 37.4

Enter a midpoint distance from bus 504 to bus 159

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Midline node on "504 SAN LUIS" to "159 ALAMOSA TERM" Ckt 1

"999001 SAN LUIS" (NEWBUS1) distant 0.231 from "504 SAN LUIS" 5 miles from SLV

SINGLE_LINE_GROUND at temporary bus "999001 SAN LUIS" (NEWBUS1)

Substation SANLUI SV

Bus 999001 SAN LUIS FI Base kV 115.00 Ph-Ph (66.40 @0 deg A-Gnd) Prefault 1.000 V (p.u.) @ 0.00

+ seq - seq 0 seq / 3Io A phase B phase C phase
Voltage (kV) Ph-Gnd > 44.8483 @ -0.6 21.5565 @-178.8 23.3112 @ 177.8 | 0.00000 @ 0.0 66.1468 @-121.9 68.4324 @ 120.7

Thevenin (R, X) (p.u.)> 0.01497,0.10502 0.01497,0.10503 0.02285,0.11243

Thevenin (R, X) (Ohms)> 1.97947,13.8891 1.98023,13.8908 3.02249,14.8692

Fault Currents (Amps)> 1536.33 @ -80.7 1536.33 @ -80.7 4608.99 @ -80.7 | 4608.99 @ -80.7 0.00000 @ 0.0 0.00000 @ 0.0

Line Currents (Amps) incremental from >

ALAM TER Line: L_8004

159 ALAMOSA TERM 1 58.3998 @ -78.4 58.4000 @ -78.4 951.490 @ -83.0 | 433.691 @ -81.8 258.991 @ -84.0 258.992 @ -84.0

SANLUI SV Line: L_8004

504 SAN LUIS 1 1477.98 @ -80.8 1477.98 @ -80.8 3658.45 @ -80.1 | 4175.38 @ -80.6 258.991 @ 96.0 258.992 @ 96.0

Enter a midpoint distance from bus 504 to bus 159

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Midline node on "504 SAN LUIS" to "159 ALAMOSA TERM" Ckt 1

"999001 SAN LUIS" (NEWBUS1) distant 0.231 from "504 SAN LUIS" 5 miles from SLV

THREE_PHASE at temporary bus "999001 SAN LUIS" (NEWBUS1)

Substation SANLUI SV

Bus 999001 SAN LUIS FI Base kV 115.00 Ph-Ph (66.40 @0 deg A-Gnd) Prefault 1.000 V (p.u.) @ 0.00

+ seq - seq 0 seq / 3Io A phase B phase C phase
Voltage (kV) Ph-Gnd > 0.00000 @ 0.0 0.00000 @ 0.0 0.00000 @ 0.0 | 0.00000 @ 0.0 0.00000 @ 0.0 0.00000 @ 0.0

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Thevenin (R, X) (p.u.)> 0.01497,0.10502 0.01497,0.10503 0.02285,0.11243
Thevenin (R, X) (Ohms)> 1.97947,13.8891 1.98023,13.8908 3.02249,14.8692

Fault Currents (Amps)> 4732.56 @ -81.9 0.00000 @ 0.0 0.00000 @ 0.0 | 4732.56 @ -81.9 4732.56 @ 158.1 4732.56 @ 38.1

Line Currents (Amps) incremental from >
ALAM TER Line: L_8004
 159 ALAMOSA TERM 1 179.897 @ -79.6 0.00000 @ 0.0 0.00000 @ 0.0 | 179.897 @ -79.6 179.897 @ 160.4 179.897 @ 40.4
SANLUI SV Line: L_8004
 504 SAN LUIS 1 4552.81 @ -82.0 0.00000 @ 0.0 0.00000 @ 0.0 | 4552.81 @ -82.0 4552.81 @ 158.0 4552.81 @ 38.0

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