

Loss of Offsite Power Sequence of Events

06/16/04 7:45 PM

61.
Release

<u>Time</u>	<u>Event</u>
07:40:55.747	Fault inception, C phase to ground, 115th Ave and Union Hills (Westwing – Liberty line)
07:40:55.814	Westwing breaker 1126 opens <i>Westwing breaker 1022 failed to open, resulting in a failure to isolate the Liberty line fault from the PVNGS switchyard</i>
07:40:55.822	Liberty breaker 1282 opens, <i>isolated faulted line from Liberty substation</i>
07:40:56.115	Breakers AFX732 and AFX735 open (directional ground time overcurrent) <i>(WHERE ARE THESE BREAKERS?)</i>
07:40:56.136	Westwing breakers 1426 and 1522 open, isolated AFX line from Westwing substation
07:40:56.165	Deer Valley breakers 322, 722, and 962 open <i>(WHERE ARE THESE BREAKERS? WHY DID THEY OPEN?)</i>
07:40:56.172	Westwing 1726 and 1822 open, isolated OV line from Westwing substation
07:40:56.515	46.1 cycles Westwing 1222 opens
07:40:59.489	Hassayampa 935 and 938 open (Arlington Valley Line) Received direct transfer trip from Arlington
07:41:01.982	Fault becomes phase B and C to ground
07:41:02.154	Fault becomes phase C to ground
07:41:02.799	Fault becomes phase B and C to ground
07:41:07.851	PVNGS Switchyard 975 and 972 open (Hassayampa #2 line line isolated from PVNGS Switchyard) trips on broken conductor detection
04:41:07.875	PVNGS Switchyard 982 and 985 open (Hassaymapa # 3 line line isolated from PVNGS Switchyard) trips on broken conductor detection

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07:41:07.88 PVNGS Switchyard 942 and 945 open (Hassaymapa # 1 line
line isolated from PVNGS Switchyard) trips on broken
conductor detection

07:41:08.104 Fault becomes phase A, B, C to ground

07:41:20.005 PVNGS Switchyard 992 opens (Devers line isolated from
PVNGS Switchyard)

07:41:20.113 PVNGS Switchyard 932 and 935 open (Rudd line isolated
from PVNGS Switchyard)

07:41:20.864 PVNGS Switchyard 912 and 915 open (Westwing 1 line
isolated from PVNGS Switchyard)

07:41:20.895 PVNGS Switchyard 922 and 925 open (Westwing 2 line
isolated from PVNGS Switchyard)

07:41:23.848 PVNGS Switchyard 988 opens (trips Unit 3)

07:41:24.641 PVNGS Switchyard 918 opens (trips Unit 1)

07:41:24.652 PVNGS Switchyard 938 opens (trips Unit 2)

07:41:34.615 Fault cleared