



Liberty UtilitiesSM

2013 SYSTEM RELIABILITY STATISTICS

**LIBERTY UTILITIES (CALPECO ELECTRIC) LLC
(U 933-E)**

MARCH 2014

Report on California System Reliability Liberty Utilities (CalPeco Electric) LLC Report Year 2013

HISTORICAL SYSTEM RELIABILITY DATA (USING D.96-09-045 EXCLUSION CRITERIA)

System Indices: NV Energy (through 2010); Liberty (2011-2013)

YEAR	Major Events Included			Major Events Excluded		
	SAIDI CMI	SAIFI	MAIFI	SAIDI CMI	SAIFI	MAIFI
1990	256.3	2.29		183.6	1.64	
1991	319.2	1.92		71.9	0.84	
1992	161.4	2.02		100.6	1.61	
1993	160.1	1.21		64.1	0.84	
1994*	214.3	2.44		214.3	2.44	
1995	463.3	4.89		244.8	4.04	
1996	638.0	3.11		168.6	2.68	
1997	323.0	2.62		124.8	1.82	
1998*	164.3	3.15	3.78	164.3	3.15	3.78
1999*	137.9	1.81	1.8	137.6	1.81	1.8
2000	219.3	2.37	2.78	118.857	1.65	2.78
2001	153.24	1.2224	0.901	166.044	1.2301	0.901
2002	951.5	14.97	1.4909	82.065	1.281	1.4909
2003*	84.2	1.4027	0.5954	84.2	1.4027	0.5954
2004	184.96	2.14	0.49	135.33	1.88	0.49
2005	739.1682	2.1284	0.3936	129.3935	1.6455	0.2269
2006	401.51	2.4619	1.5933	153.06	1.6497	0.2065
2007*	181.2276	0.9817	0.3435	181.2276	0.9817	0.3435
2008*	148.0688	1.5539	0.0573	148.0688	1.5539	0.0753
2009	68.8732	0.9235	0.1252	55.6512	0.8226	0.1252
2010*	136.554	0.9340	0.3806	136.554	0.9340	0.3806
2011**	294.795	1.8130	1.88	192.215	1.2460	1.88
2012***	216.349	1.5530	2.752	216.349	1.5530	2.752
2013***	119.109	1.2311	2.079	119.109	1.2311	2.079

* No major storms or incidents, resulting in no major events being excluded.

** IEEE 1366 2.5 Beta method yielded same results (based on 2011 - 2013 SAIDI/Day data)

*** Both notes above apply to 2012 and 2013 data

At the end of 2013, 49,047 of Liberty Utilities electric customers lived in its California Service area.

NORMALIZATION EXCEPTIONS:

A. The Liberty Utilities definition of a Sustained outage is loss of power to two or more customers for greater than five minutes.

B. The following circuits feed customers in both Nevada and California:

Muller 1296, Topaz 1261, California 204, Washoe 201, and Silver Lake 257

Current reporting limitations prevent the segregation of these 1,593 California customers from the customer total.

Report on California System Reliability Liberty Utilities (CalPeco Electric) LLC Report Year 2013

HISTORICAL SYSTEM RELIABILITY DATA (USING IEEE 1366 EXCLUSION CRITERIA)

System Indices: NV Energy (through 2010); Liberty (2011-2013)

YEAR	Major Events Included			Major Events Excluded		
	SAIDI CMI	SAIFI	MAIFI	SAIDI CMI	SAIFI	MAIFI
1990	(1)	(1)	(1)	(1)	(1)	(1)
1991	(1)	(1)	(1)	(1)	(1)	(1)
1992	(1)	(1)	(1)	(1)	(1)	(1)
1993	(1)	(1)	(1)	(1)	(1)	(1)
1994*	(1)	(1)	(1)	(1)	(1)	(1)
1995	(1)	(1)	(1)	(1)	(1)	(1)
1996	(1)	(1)	(1)	(1)	(1)	(1)
1997	(1)	(1)	(1)	(1)	(1)	(1)
1998*	(1)	(1)	(1)	(1)	(1)	(1)
1999*	(1)	(1)	(1)	(1)	(1)	(1)
2000	(1)	(1)	(1)	(1)	(1)	(1)
2001	(1)	(1)	(1)	(1)	(1)	(1)
2002	(1)	(1)	(1)	(1)	(1)	(1)
2003*	(1)	(1)	(1)	(1)	(1)	(1)
2004	(1)	(1)	(1)	(1)	(1)	(1)
2005	(1)	(1)	(1)	(1)	(1)	(1)
2006	(1)	(1)	(1)	(1)	(1)	(1)
2007*	(1)	(1)	(1)	(1)	(1)	(1)
2008*	(1)	(1)	(1)	(1)	(1)	(1)
2009	(1)	(1)	(1)	(1)	(1)	(1)
2010*	(1)	(1)	(1)	(1)	(1)	(1)
2011**	294.795	1.8130	1.88	192.215	1.2460	1.88
2012***	216.349	1.5530	2.752	216.349	1.5530	2.752
2013***	119.109	1.2311	2.079	119.109	1.2311	2.079

* No major storms or incidents, resulting in no major events being excluded.

** IEEE 1366 2.5 Beta method yielded same results (based on 2011 - 2013 SAIDI/Day data)

*** Both notes above apply to 2012-13 data

At the end of 2011, 49,047 of Liberty Utilities electric customers lived in its California Service area.

(1) Historical data was not readily available due to the 1/1/2011 acquisition from NV Energy.

NORMALIZATION EXCEPTIONS:

A. The Liberty Utilities definition of a Sustained outage is loss of power to one or more customers for greater than five minutes.

B. The following circuits feed customers in both Nevada and California:

Muller 1296, Topaz 1261, California 204, Washoe 201, and Silver Lake 257

Current reporting limitations prevent the segregation of these 1,593 California customers from the customer total.

Significant Outage Events: Liberty 2013

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Overhead Insulator	3/6/2013	3,000	8.13	14,740	n/a	n
2	Wire Down Transformer	7/4/2013	5,650	9.82	10,816	n/a	n
3	Lighting / Blow Fuse	7/2/2013	3,000	2.10	6,300	n/a	n
4	Lighting / Blow Fuse	8/21/2013	878	10.92	6,224	n/a	n
5	Car Pole/Guy	2/13/2013	790	7.80	5,878	n/a	n
6	Cable Junction Bar	8/7/2013	3,475	8.50	4,413	n/a	n
7	Birds / Animals	10/5/2013	2,000	4.00	2,108	n/a	n
8	Hardware/Material	4/21/2013	1,976	4.73	1,991	n/a	n
9	Other	10/27/2013	878	2.23	1,961	n/a	n
10	Lighting / Blow Fuse	8/20/2013	878	2.33	1,781	n/a	n

Significant Outage Events: Liberty 2012

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Tree-Green	4/1/2012	4,120	13	33,146	n/a	n
2	Birds/Animals	8/19/2012	8,677	2	12,166	n/a	n
3	Tree-Green	11/29/2012	4,200	18	9,157	n/a	n
4	Birds/Animals	5/11/2012	3,201	2.5	7,949	n/a	n
5	Birds/Animals	6/25/2012	1,967	6	6,792	n/a	n
6	Cutout Failure	4/13/2012	4,120	2	5,449	n/a	n
7	External System (NVE)	12/2/2012	878	6	5,297	n/a	n
8	Hardware/Material	1/21/2012	780	6	3,837	n/a	n
9	Car Pole/Guy	7/16/2012	3,315	9	2,724	n/a	n
10	Cable Failure	7/26/2012	1,589	3.5	2,681	n/a	n

Significant Outage Events: Liberty 2011

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	NV Energy Outage	5/9/2011	24,550	3	74,059	n/a	y
2	Floater/Bad Fuse	3/16/2011	3,957	3	11,871	n/a	n
3	Over Current	3/20/2011	4,396	1	4,396	n/a	n
4	Tree-Green	5/25/2011	4,120	2.5	10,231	n/a	n
5	Tree-Green	6/29/2011	2,700	4.15	11,520	n/a	n
6	Breaker Opened	9/2/2011	2,594	1.15	3,243	n/a	n
7	Insulator Broke	9/12/2011	3,475	0.5	1,738	n/a	n
8	Birds/Animals	9/24/2011	3,885	0.1	648	n/a	n
9	Tree-Green	10/19/2011	2,662	0.15	666	n/a	n
10	Tree-Green	11/18/2011	4,100	0.2	1,373	n/a	n

Significant Outage Events: **NV Energy North 2010**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Tree-Green	1/12/2010	3,201	3	14,023	n/a	n
2	Tree Trimming	6/25/2010	4,100	1.83	9,404	n/a	n
3	Car Pole/Guy	1/22/2010	3,315	11.93	8,133	n/a	n
4	Tree-Green	3/12/2010	4,120	2.05	7,561	n/a	n
5	Tree-Green	12/29/2010	1,782	3	5,346	n/a	n
6	Unknown	7/21/2010	3,475	1.33	4,633	n/a	n
7	Tree-Green	12/30/2010	2,300	2	4,600	n/a	n
8	Wire Down	12/29/2010	1,100	4	4,400	n/a	n
9	Tree-Green	12/30/2010	1,100	4	4,400	n/a	n
10	Lightning/Blown Fuse	7/25/2010	3,475	3.53	4,231	n/a	n

Significant Outage Events: **NV Energy North 2009**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Tree-Green	8/13/2009	4,503	3.2	9,827	n/a	y
2	Unknown	12/31/2009	2,741	2.37	6,659	n/a	n
3	Cutout Failure	8/3/2009	3,475	1.58	5,471	n/a	n
4	Lightning/Blown Fuse	5/30/2009	2,741	1.02	4,378	n/a	n
5	Birds/Animals	9/11/2009	3,587	1.92	3,011	n/a	n
6	Tree-Green	8/4/2009	3,587	0.55	1,973	n/a	n
7	Car Pole/Guy	10/30/2009	3,315	0.58	1,934	n/a	n
8	Cutout Failure	5/2/2009	500	2.83	1,417	n/a	n
9	Other	10/15/2009	250	5.08	1,271	n/a	n
10	Fuse Overload	12/27/2009	810	2.05	1,014	n/a	n

Significant Outage Events: **NV Energy North 2008**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Tree-Dead	6/25/2008	2,742	2.88	19,608	n/a	n
2	Arrestor	4/30/2008	2,741	3.77	8,913	n/a	n
3	Arrestor	12/26/2008	3,201	2.5	8,078	n/a	n
4	Unknown	6/17/2008	3,821	1.05	5,921	n/a	n
5	Tree-Green	10/31/2008	3,000	10.27	5,035	n/a	n
6	Cable	7/29/2008	2,516	2.92	4,825	n/a	n
7	Unknown	1/7/2008	2,662	1.72	4,570	n/a	n
8	Snow Unloading	1/27/2008	3,201	1.33	4,285	n/a	n
9	Tree-Green	1/4/2008	672	12.25	2,835	n/a	n
10	Tree-Green	1/3/2008	4,120	2.38	2,637	n/a	n

Significant Outage Events: **SPPCo. 2007**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Range Fire	6/24/2007	1,023	67.7	60,370	n/a	y
2	Wire Slapping	12/20/2007	2,741	2.82	14,537	n/a	n
3	Insulator	12/7/2007	922	4.52	4,127	n/a	n
4	Birds/Animals	9/6/2007	3,201	1.25	4,001	n/a	n
5	Tree-Dead	12/24/2007	4,120	1.42	3,347	n/a	n
6	Tree-Green	10/20/2007	4,120	2.82	3,255	n/a	n
7	Car Pole/Guy	2/25/2007	3,200	0.98	3,147	n/a	n
8	Birds/Animals	11/3/2007	1,976	1.38	2,799	n/a	n
9	Birds/Animals	11/3/2007	1,976	1.28	2,733	n/a	n
10	Range Fire	8/18/2007	1,444	21	2,516	n/a	n

Significant Outage Events: **SPPCo. 2006**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Snow Unloading	1/2/2006	16,000	2.92	95,663.33	n/a	y
2	Tree-Green	1/3/2006	8,000	8.55	69,793.40	n/a	y
3	Tree-Green	11/14/2006	3,201	3.17	10,601.33	n/a	n
4	Car Pole/Guy	4/13/2006	3,548	6.7	9,046.33	n/a	n
5	Wire Slapping	1/3/2006	6,854	1.07	9,038.10	n/a	y
6	Wire Down	12/26/2006	1,976	4.18	8,958.33	n/a	n
7	Tree Trimming	10/2/2006	1,230	7.00	8,610.00	n/a	n
8	Hardware/Material	11/14/2006	3,587	4.28	5,618.95	n/a	n
9	Tree-Green	12/26/2006	3,200	0.92	3,766.67	n/a	n
10	Cable	6/19/2006	1,444	9.67	3,496.83	n/a	n

Significant Outage Events: **SPPCo. 2005**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Structure Down	12/31/2005	8,005	31.50	255,703.18	n/a	y
2	Tree-Green	12/31/2005	3,587	33.45	62,639.32	n/a	y
3	Tree-Green	12/31/2005	3,548	20.33	57,701.10	n/a	y
4	Tree-Green	12/31/2005	550	49.57	27,261.67	n/a	y
5	Car Pole/Guy	5/9/2005	3,587	8.28	8,134.97	n/a	n
6	Splice	4/30/2005	3,587	23.58	8,090.43	n/a	n
7	Unknown	12/8/2005	3,300	2.33	7,700.00	n/a	n
8	Tree-Green	12/31/2005	290	26.25	7,612.50	n/a	y
9	Unknown	12/31/2005	1,967	3.33	6,556.67	n/a	y
10	Tree-Green	12/31/2005	70	85.2	5,964.00	n/a	y

Significant Outage Events: **SPPCo. 2004**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Wire Down	10/20/2004	8,005	5.97	47,763.17	n/a	y
2	Unknown	9/13/2004	8,005	1.38	11,073.58	n/a	n
3	Unknown	9/14/2004	2,594	2.65	6,969.18	n/a	n
4	Switch	2/26/2004	7,295	0.95	6,930.25	n/a	n
5	Tree-Green	2/25/2004	3,201	9.55	5,950.57	n/a	n
6	Car Pole/Guy	8/26/2004	3,201	4.58	5,331.25	n/a	n
7	Wire Down	2/26/2004	1,581	2.88	4,558.55	n/a	n
8	Birds/Animals	1/15/2004	7,295	0.53	3,890.67	n/a	n
9	Tree-Dead	10/20/2004	4,120	1.43	3,763.50	n/a	n
10	Birds/Animals	9/14/2004	3,587	2.37	3,214.83	n/a	n

Significant Outage Events: **SPPCo. 2003**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Overhead Trees	4/13/2003	5743	11.85	11941.6	n/a	n
2	Overhead Trees	4/13/2003	3548	2.00	6630.2	n/a	n
3	3D Car Pole	2/7/03	3475	7	6476.0	n/a	n
4	OH Birds/Animals	7/13/2003	4018	5.33	4636.4	n/a	n
5	OH Other	4/14/03	2742	4.27	3846.8	n/a	n
6	UG Elbow	9/16/03	2558	1.67	3297.5	n/a	n
7	Lightning	7/31/03	1444	4.50	2266.4	n/a	n
8	UG Cable	1/6/03	250	12.50	2425.0	n/a	n
9	Overhead Trees	4/13/03	165	13.87	1176.2	n/a	n
10	UG Cable	1/6/2003	1444	7.1	1063.4	n/a	n

Significant Outage Events: **SPPCo. 2002**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Green Trees/Storm	12/14-12/20/02	81820	113.42	533479.00	n/a	y
2	Green Trees/Storm	11/07-11/10/02	47895	30.65	43424.00	n/a	y
3	UG Cable	1/10/02	5120	13.95	5489.70	n/a	n
4	Trees	12/28/2002	4120	1.17	1099.10	n/a	n
5	3D tree Trimming	7/18/02	4120	8.97	1798.70	n/a	n
6	Trees	3/1/02	4120	7.08	2571.50	n/a	n
7	3D Car/Pole	6/21/02	3315	0.50	1657.50	n/a	n
9	Lightning	7/18/02	3587	1.52	4161.40	n/a	n
10	Birds/Animals	9/25/2002	3587	1.33	2241.7	n/a	n

Note: The 12/14 and 11/07 storms affected multiple same circuit outages from high winds and snow loading on green trees.

Significant Outage Events: **SPPCo. 2001**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Birds & Animals	9/8/2001	8,005	3.40	21,181	n/a	n
2	Trees	12/2/2001	4,120	9.05	17,371	n/a	n
3	Trees	12/3/2001	2,596	16.30	11,540	n/a	n
4	Trees	11/21/2001	2,656	10.83	8,426	n/a	n
5	Wire Down	12/3/2001	960	7.42	7,120	n/a	n
7	Birds/Animals	10/1/2001	7,295	0.65	4,742	n/a	n
8	OH Insulator	3/5/2001	3,266	1.43	4,680	n/a	n
9	Snow Unloading	12/2/2001	922	4.83	4,456	n/a	n
10	Trees	8/1/2001	1,444	16.43	4,121	n/a	n

Significant Outage Events: **SPPCo. 2000**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Trees (Storm)	2/14/2000	30,343	34.92	70,836	n/a	y
2	3D Other (3rd party tree)	2/22/2000	4,000	5.63	15,091	n/a	n
3	OH Hardware/Matls.	8/10/2000	4,038	5.23	13,466	n/a	n
5	Trees	12/17/2000	4,038	5.00	6,757	n/a	n
6	3D Dig in	11/9/2000	4,038	1.83	6,217	n/a	n
7	OH Wire Down	1/16/2000	2,537	2.73	3,763	n/a	n
8	SB Hardware/Matls.	7/19/2000	3,235	0.97	3,101	n/a	n
9	SB Hardware/Matls.	7/19/2000	2,969	0.98	2,829	n/a	n
10	OH Insulator	2/14/2000	5,298	0.50	2,649	n/a	n

Significant Outage Events: **SPPCo. 1999**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Wire Down	2/10/1999	2,766	4.35	7,917	n/a	n
2	Trees	2/7/1999	2,656	3.3	6,878	n/a	n
3	Trees	2/8/1999	5,298	2.4	6,305	n/a	n
4	Hardware Failure	3/4/1999	2,656	2.3	4,515	n/a	n
5	Wire Down	2/10/1999	1,968	1.77	3,477	n/a	n
6	Trees	2/23/1999	2,766	1.08	2,995	n/a	n
7	Birds/Animals	5/9/1999	1,439	2	2,878	n/a	n
8	UG Cable	6/23/1999	2,518	12.45	2,580	n/a	n
9	Birds/Animals	9/6/1999	2,700	0.83	2,249	n/a	n
10	Birds/Animals	8/6/1999	2,049	1.07	2,186	n/a	n

Significant Outage Events: **SPPCo. 1998**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	Trees	1/18/1998	2,550	15.33	24,564	n/a	n
2	Trees	11/22/1998	4,000	3.3	6,875	n/a	n
3	Birds/animals	2/13/1998	2,550	2.63	6,222	n/a	n
4	Tree Trimming	10/1/1998	2,536	2.18	5,536	n/a	n
6	Trees	11/7/1998	200	17.75	3,550	n/a	n
7	Trees	11/23/1998	2,536	2.8	3,141	n/a	n
8	Car pole/down guy	4/13/1998	4,000	2.75	3,015	n/a	n
9	Trees	11/21/1998	2,550	1	2,656	n/a	n
10	Hardware Failure	11/18/1998	1,760	1.5	2,607	n/a	n

Significant Outage Events: **SPPCo. 1997**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	wind/snow	1/2/1997	21,042	21.2	81,683	20	y
2	wind/snow	1/22/1997	17,059	15.5	64,517	21	y
3	wind/trees	4/2/1997	19,924	8.6	30,427		n
4	s. equip.	4/18/1997	7,154	1.2	8,227		n
6	elbow	3/14/1997	2,656	1.4	3,631		n
7	3d trees	1/3/1997	2,656	3.4	2,647		n
8	trees	11/26/1997	1,121	1.7	1,869		n
9	trees	11/19/1997	961	1.6	1,553		n
10	lightning	7/30/1997	14,355	0.1	758		n

Significant Outage Events: **SPPCo. 1996**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	forest fire	6/23/1996	15,626	24.12	291,433	45	y
2	wind/snow	1/27/1996	11,718	15.3	30,845	22	y
3	trees	1/23/1996	4,038	3.97	10,363		n
5	trees	4/24/1996	4,038	4.42	7,065		n
6	trees	2/22/1996	5,298	2.05	5,713		n
7	s. eqp	12/23/1996	850	10.17	4,992		n
8	trees	1/25/1996	4,038	7.03	4,713		n
9	trees	4/24/1996	5,289	2.08	3,855		n
10	car pole	3/12/1996	1,439	3.9	3,506		n

Significant Outage Events: **SPPCo. 1995**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hours)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	wind/snow	12/12/1995	31,374	24.38	120,596	21	y
2	trees	1/27/1995	4,038	12.62	29,019		n
3	s. arrestor	3/10/1995	14,325	1.53	21,960		n
4	trees	12/10/1995	4,038	6.3	7,978		n
5	s. animal	8/18/1995	7,850	0.9	7,065		n
6	trees	1/12/1995	5,298	2.7	6,770		n
7	s. switch	4/23/1995	5,298	1.27	6,712		n
8	trees	11/25/1995	2,548	7.17	6,408		n
9	car pole	5/28/1995	4,038	13.01	5,356		n
10	trees	1/10/1995	5,298	0.85	4,157		n

Significant Outage Events: **SPPCo. 1994**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	car pole	11/4/1994	7,700	8.18	36,190	n/a	n
2	s. relay	5/7/1994	5,000	10.52	12,477		n
3	s. reg.	6/30/1994	14,325	0.57	7,794		n
4	trees	11/1/1994	2,000	3.3	5,478		n
5	cable	8/8/1994	1,000	20.68	4,692		n
6	arrestor	6/27/1994	2,500	3.88	4,612		n
7	trees	7/20/1994	5,293	0.65	3,440		n
8	trees	5/23/1994	2,000	1.67	3,334		n
9	trees	11/9/1994	2,000	2.67	3,333		n
10	range fire	8/4/1994	2,476	1.75	3,192		n

Significant Outage Events: **SPPCo. 1993**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	wind/snow	1/21/1993	14,587	40.67	64,010	35	y
2	trees	11/22/1993	1,998	3.63	7,259		n
3	trees	11/22/1993	3,200	29.77	7,034		n
4	trees	5/3/1993	2,500	1.43	3,583		n
5	trees	12/13/1993	3,200	6.67	3,499		n
6	trees	1/22/1993	400	6.6	2,640		n
7	pole down	3/17/1993	1,450	11.25	2,565		n
8	trees	11/8/1993	2,652	30.5	1,476		n
9	trees	1/25/1993	1,500	0.8	1,033		n
10	trees	11/23/1993	114	8.87	1,010		n

Significant Outage Events: **SPPCo. 1992**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	wind/snow	12/28/1992	16,561	23.2	40,533	41	y
2	car pole	8/10/1992	17,000	1.17	18,289		n
3	wire down	1/1/1992	3,795	3.73	7,361		n
4	hardware	6/30/1992	3,795	1.58	5,101		n
5	splice	12/21/1992	2,060	6.58	3,907		n
6	trees	11/22/1992	2,500	3.25	3,733		n
7	trees	12/30/1992	750	4.75	2,687		n
8	ext. syst	5/27/1992	2,656	0.9	2,436		n
9	trees	3/6/1992	1,300	2.5	2,167		n
10	lightning	9/18/1992	1,710	2.25	1,616		n

Significant Outage Events: **SPPCo. 1991**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	wind/snow	3/4/1991	30,360	19.88	162,731	46	y
2	t. trimmers	7/12/1991	2,113	4.33	9,156		n
3	car pole	7/18/1991	1,400	6.55	5,050		n
4	car pole	8/4/1991	2,656	1.83	4,868		n
5	trees	11/20/1991	1,940	1.07	1,792		n
6	insulator	10/25/1991	1,940	0.8	1,552		n
7	elbow	3/15/1991	2,049	0.57	1,161		n
8	trees	10/25/1991	1,710	0.67	1,141		n
9	trees	10/23/1991	400	2.83	1,133		n
10	pole fire	5/30/1991	1,100	1.85	1,103		n

Significant Outage Events: **SPPCo. 1990**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	mud slide	2/16/1990	26,133	3.33	48,489		y
2	s. insul	7/15/1990	15,304	11.75	58,475		n
3	operations	8/3/1990	5,298	4.08	5,426		n
4	wire down	1/14/1990	3,360	2.53	5,367		n
5	lightning	8/8/1990	2,656	1.93	4,839		n
6	s insul	6/9/1990	2,656	1.78	4,736		n
7	cable	6/7/1990	2,200	2.65	4,649		n
8	t. trimmers	6/22/1990	2,100	12.17	3,200		n
9	cable	1/7/1990	496	9.58	2,306		n
10	cable	3/1/1990	410	16.97	1,939		n

Significant Outage Events: **SPPCo. 1989**

RANK	Description	Date	Number of Customers Affected	Longest Customer Interruption-(hrs)	C-hrs	Number of People used to restore Service	CPUC Major Event?
1	trees	11/26/1989	2,211	3.28	7,259	n/a	n
2	lightning	8/7/1989	2,370	8.42	4,540		n
3	trees	11/26/1989	2,255	7.55	3,435		n
4	insulator	2/3/1989	2,254	2.43	2,897		n
5	insulator	3/2/1989	1,100	1.85	2,035		n
6	lightning	8/8/1989	2,370	2.53	1,991		n
7	trees	2/1/1989	200	14.77	1,773		n
8	car pole	5/2/1989	5,300	0.37	1,765		n
9	car pole	5/12/1989	2,000	1.9	1,464		n
10	arrestor	3/25/1989	2,000	0.67	1,334		n

Significant Outage Events: Liberty 2013 (None)

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries ** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: Liberty 2012 (None)

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries ** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: Liberty 2011

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours	5/9/2011	NV Energy Outage	24550
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries ** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **NV Energy North 2010 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **NV Energy North 2009**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours	8/13/2009	Tree-Green	4503
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **NV Energy North 2008 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2007**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	6/24/2007	Range Fire	1246
1 to 5 hours	6/24/2007	Range Fire	2191
5 to 10 hours	6/24/2007	Range Fire	133
10 to 15 hours	6/24/2007	Range Fire	683
15 to 20 hours	6/24/2007	Range Fire	1036
20 to 24 hours			
1 to 2 days	6/24/2007	Range Fire	386
2 to 3 days	6/24/2007	Range Fire	192
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2006**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/2/2006	Snow Unloading/Storm	16000
1 to 5 hours	1/2/2006	Snow Unloading/Storm	16000
5 to 10 hours	1/2/2006	Snow Unloading/Storm	14500
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2006**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/3/2006	Tree-Green/Storm	8000
1 to 5 hours	1/3/2006	Tree-Green/Storm	8000
5 to 10 hours	1/3/2006	Tree-Green/Storm	8000
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2006**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/3/2006	Wire Slapping/Storm	6854
1 to 5 hours	1/3/2006	Wire Slapping/Storm	3654
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Structure Down/Storm	8005
1 to 5 hours	12/31/2005	Structure Down/Storm	8005
5 to 10 hours	12/31/2005	Structure Down/Storm	8005
10 to 15 hours	12/31/2005	Structure Down/Storm	8005
15 to 20 hours	12/31/2005	Structure Down/Storm	8005
20 to 24 hours	12/31/2005	Structure Down/Storm	8005
1 to 2 days	12/31/2005	Structure Down/Storm	8005
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Tree-Green/Storm	3587
1 to 5 hours	12/31/2005	Tree-Green/Storm	3587
5 to 10 hours	12/31/2005	Tree-Green/Storm	729
10 to 15 hours	12/31/2005	Tree-Green/Storm	729
15 to 20 hours	12/31/2005	Tree-Green/Storm	729
20 to 24 hours	12/31/2005	Tree-Green/Storm	729
1 to 2 days	12/31/2005	Tree-Green/Storm	529
2 to 3 days	12/31/2005	Tree-Green/Storm	479
3 to 4 days	12/31/2005	Tree-Green/Storm	287
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Tree-Green/Storm	3548
1 to 5 hours	12/31/2005	Tree-Green/Storm	3548
5 to 10 hours	12/31/2005	Tree-Green/Storm	3548
10 to 15 hours	12/31/2005	Tree-Green/Storm	3548
15 to 20 hours	12/31/2005	Tree-Green/Storm	173
20 to 24 hours	12/31/2005	Tree-Green/Storm	173
1 to 2 days	12/31/2005	Tree-Green/Storm	172
2 to 3 days	12/31/2005	Tree-Green/Storm	132
3 to 4 days	12/31/2005	Tree-Green/Storm	7
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Tree-Green/Storm	550
1 to 5 hours	12/31/2005	Tree-Green/Storm	550
5 to 10 hours	12/31/2005	Tree-Green/Storm	550
10 to 15 hours	12/31/2005	Tree-Green/Storm	550
15 to 20 hours	12/31/2005	Tree-Green/Storm	550
20 to 24 hours	12/31/2005	Tree-Green/Storm	550
1 to 2 days	12/31/2005	Tree-Green/Storm	550
2 to 3 days	12/31/2005	Tree-Green/Storm	550
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Tree-Green/Storm	290
1 to 5 hours	12/31/2005	Tree-Green/Storm	290
5 to 10 hours	12/31/2005	Tree-Green/Storm	290
10 to 15 hours	12/31/2005	Tree-Green/Storm	290
15 to 20 hours	12/31/2005	Tree-Green/Storm	290
20 to 24 hours	12/31/2005	Tree-Green/Storm	290
1 to 2 days	12/31/2005	Tree-Green/Storm	290
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Unknown/Storm	1967
1 to 5 hours	12/31/2005	Unknown/Storm	1967
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2005**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/31/2005	Tree-Green/Storm	70
1 to 5 hours	12/31/2005	Tree-Green/Storm	70
5 to 10 hours	12/31/2005	Tree-Green/Storm	70
10 to 15 hours	12/31/2005	Tree-Green/Storm	70
15 to 20 hours	12/31/2005	Tree-Green/Storm	70
20 to 24 hours	12/31/2005	Tree-Green/Storm	70
1 to 2 days	12/31/2005	Tree-Green/Storm	70
2 to 3 days	12/31/2005	Tree-Green/Storm	70
3 to 4 days	12/31/2005	Tree-Green/Storm	70
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2004**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	10/20/2004	Wire Down	8005
1 to 5 hours	10/20/2004	Wire Down	8005
5 to 10 hours	10/20/2004	Wire Down	8005
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2003**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	11/7-11/10/2003	Green/Trees/Storm	48011*
1 to 5 hours	11/7-11/10/2003	Green/Trees/Storm	14144
5 to 10 hours	11/7-11/10/2003	Green/Trees/Storm	3864
10 to 15 hours	11/7-11/10/2003	Green/Trees/Storm	1482
15 to 20 hours	11/7-11/10/2003	Green/Trees/Storm	717
20 to 24 hours	11/7-11/10/2003	Green/Trees/Storm	624
1 to 2 days	11/7-11/10/2003	Green/Trees/Storm	60
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			

Significant Outage Events: **SPPCo 2002 (2 of 2)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/14-12/20/2002	Green/Trees/Storm	102446*
1 to 5 hours	12/14-12/20/2002	Green/Trees/Storm	54289**
5 to 10 hours	12/14-12/20/2002	Green/Trees/Storm	37120
10 to 15 hours	12/14-12/20/2002	Green/Trees/Storm	29563
15 to 20 hours	12/14-12/20/2002	Green/Trees/Storm	16376
20 to 24 hours	12/14-12/20/2002	Green/Trees/Storm	20054
1 to 2 days	12/14-12/20/2002	Green/Trees/Storm	17154
2 to 3 days	12/14-12/20/2002	Green/Trees/Storm	11056
3 to 4 days	12/14-12/20/2002	Green/Trees/Storm	9979
4 to 5 days	12/14-12/20/2002	Green/Trees/Storm	337
5 to 6 days			
6 to 7 days			
> 7 days			
* = Customers effected exceeds population due to momentaries			
** = Customers effected exceeds population due to repetitive same line outages			

Significant Outage Events: **SPPCo 2001 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour			
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 2000 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	2/14/2000	Trees/Storm	30343
1 to 5 hours	2/14/2000	Trees/Storm	30343
5 to 10 hours	2/14/2000	Trees/Storm	11930
10 to 15 hours	2/14/2000	Trees/Storm	8818
15 to 20 hours	2/14/2000	Trees/Storm	2111
20 to 24 hours	2/14/2000	Trees/Storm	2111
1 to 2 days	2/14/2000	Trees/Storm	2111
2 to 3 days	2/14/2000	Trees/Storm	0
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1999 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour		n / a	
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1998 (NONE)**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour		n / a	
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1997**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/2/1997	wind/snow	21,042
1 to 5 hours			21,042
5 to 10 hours			4,038
10 to 15 hours			3,300
15 to 20 hours			2,000
20 to 24 hours			1,600
1 to 2 days			0
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1997**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/22/1997	wind/snow	17,059
1 to 5 hours			17,059
5 to 10 hours			3,910
10 to 15 hours			2,500
15 to 20 hours			758
20 to 24 hours			0
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1996**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	6/23/1996	forest fire	15,626
1 to 5 hours			15,626
5 to 10 hours			15,626
10 to 15 hours			14,260
15 to 20 hours			14,000
20 to 24 hours			8,500
1 to 2 days			0
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1996**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/27/1996	wind/snow	11,718
1 to 5 hours			11,718
5 to 10 hours			8,250
10 to 15 hours			3,300
15 to 20 hours			850
20 to 24 hours			0
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1995**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/12/1995	wind/snow	31,374
1 to 5 hours			31,374
5 to 10 hours			23,612
10 to 15 hours			17,300
15 to 20 hours			7,000
20 to 24 hours			2,500
1 to 2 days			200
2 to 3 days			0
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1994**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour		n / a	
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1993**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	1/21/1993	wind/snow	14,587
1 to 5 hours			14,587
5 to 10 hours			12,000
10 to 15 hours			7,500
15 to 20 hours			3,100
20 to 24 hours			850
1 to 2 days			400
2 to 3 days			0
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1992**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	12/28/1992	wind/snow	16,561
1 to 5 hours			16,561
5 to 10 hours			12,400
10 to 15 hours			7,500
15 to 20 hours			4,500
20 to 24 hours			400
1 to 2 days			0
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1991**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	3/4/1991	wind/snow	30,360
1 to 5 hours			30,360
5 to 10 hours			20,000
10 to 15 hours			15,000
15 to 20 hours			7,800
20 to 24 hours			0
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1990**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour	2/16/1990	mud slide-	26,133
1 to 5 hours		transmission	0
5 to 10 hours		lines down	
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

Significant Outage Events: **SPPCo 1989**

Outage Duration	Date of Outage	Description of Outage	Number of Customers Effected
0 to 1 hour		n / a	
1 to 5 hours			
5 to 10 hours			
10 to 15 hours			
15 to 20 hours			
20 to 24 hours			
1 to 2 days			
2 to 3 days			
3 to 4 days			
4 to 5 days			
5 to 6 days			
6 to 7 days			
> 7 days			

