

---

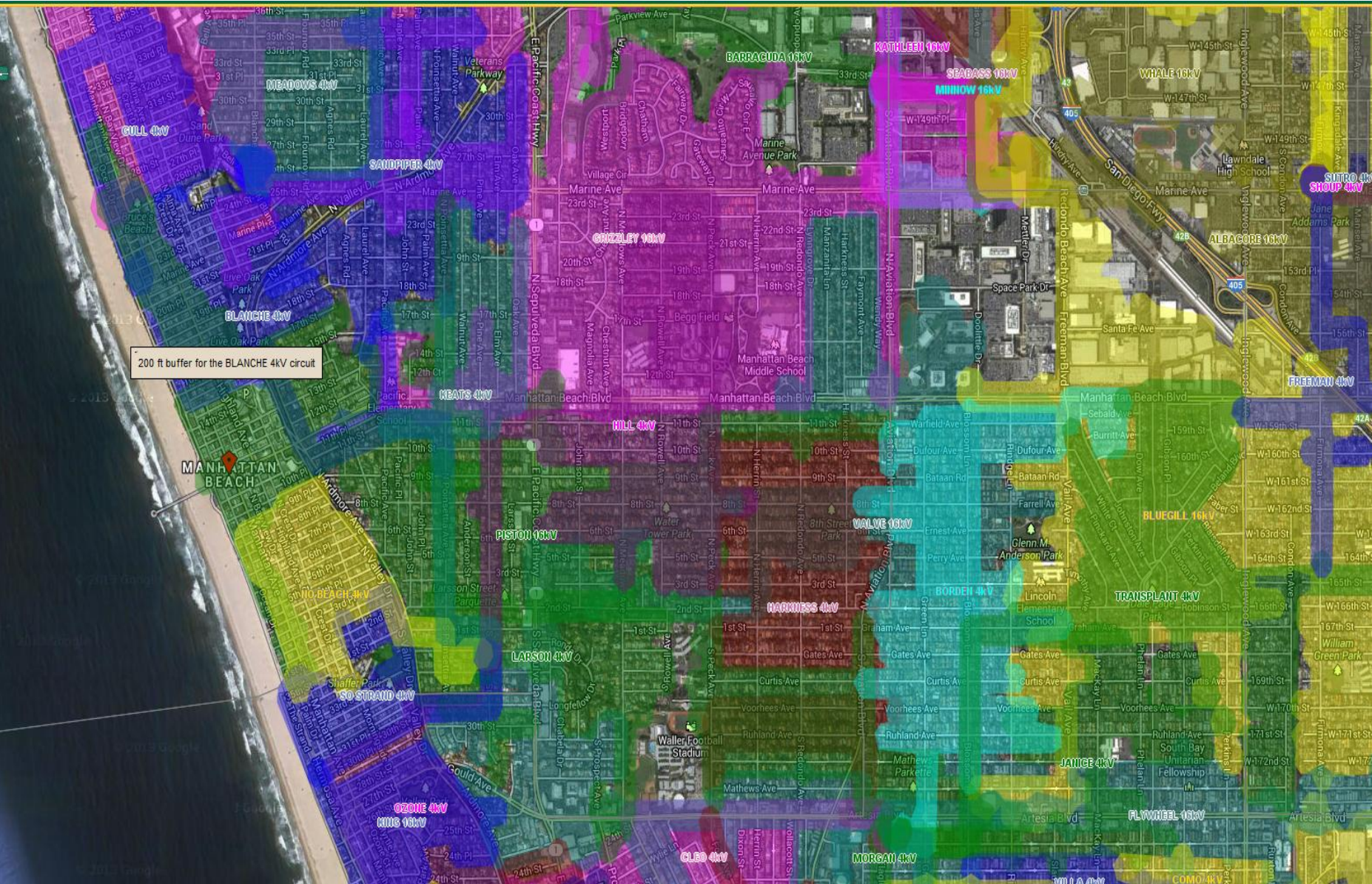
# Outage Response for City of Manhattan Beach

---

Helping keep your community safe.

Presented by:  
Scott Gobble  
SCE Local Public Affairs







# Southern California Edison

Cylinder 16kv

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12.20.11	Crew Repairs	649
6.28.12	Crew Trouble Shooting	13
6.29.12	Splice/Connector Failure	1379
11.14.12	Crew Repairs	36
12.5.12	Crew Repairs	194

Equipment Failure

## Piston 16kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
10.12.11	Transformer Failure	477
10.14.11	Crew Repair	56
11.9.11	Crew Repair	293
12.17.11	Substation / Animal	0.5
12.27.11	Crew Repairs	363
1.24.12	Transformer	854
2.13.12	Blown Fuse	478
5.14.12	Splice Failure	361
7.12.12	Crew Repair	401
1.14.13	Crew Repair	166
3.8.13	Transformer	305
5.1.13	Crew Repair	475
6.1.13	Cable Failure	711
6.27.13	Transformer	505

## Valve 16kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
8.19.11	Crew Repairs	305
10.1.11	Splice	549
11.30.11	Crew Repairs	343
1.20.13	Balloon	0.5
5.7.13	Crew Repairs	685
5.22.13	Crew Repairs	37

## Ditmar 16/4kV Substation:

Borden 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12.28.11	Blown Fuse	270
2.22.12	Crew Repair	214
2.29.12	Splice Failure	194
8.27.12	Transformer	227
9.8.12	Vegetation	433
6.22.13	Balloon	0.5

# Cleo 4Kv

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
8.21.11	Blown Fuse	199
11.4.11	Broken Crossarm	581
12.15.11	Blown Fuse	202
1.13.12	Balloon	458
3.18.12	Blown Fuse	1163
12.10.12	Balloon	0.5
4.8.13	Transformer	428

## Harkness 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
10.18.11	Crew Repairs	177
11.2.12	Crew Repairs	217

## Janice 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
3.17.12	Vegetation	0.5
3.12.12	Fire	303
3.18.12	Vegetation	26

## Morgan 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
8.26.11	Blown Fuse	162
11.22.11	Splice Failure	283
6.19.12	Balloon	0.5
11.4.12	Transformer	162
1.20.13	Balloon	0.5

## Pullman 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
3.21.13	Balloon	0.5
6.22.13	Animal	52



# Transplant 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12.2.11	Blown Fuse	403
2.12.12	Balloon	0.5
2.24.12	Crew Repairs	253
8.4.12	Transformer	222
1.12.13	Transformer	96
2.26.13	Splice Failure	201
2.28.13	Broken Crossarm	982
6.22.13	Balloon	0.5

## Manhattan 16/4kV Substation:

### Hill 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
9.1.11	Balloon	0.5
12.17.11	Lost Source Sub / Animal	7
7.28.12	Crew Repair	716

## Keats 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
11.30.11	Fuse	1442
12.4.11	Splice	221
12.17.11	Lost Substation / Animal	7

## Larson 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12.17.11	Lost Source Sub / Animal	7
2.16.12	Crew Repair	4
10.1.12	Transformer	182
10.8.12	Fuse	102

## No Beach 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12.17.11	Lost Source Sub / Animal	7
1.26.12	Splice Failure	554
2.13.12	Wind	66
3.18.12	Splice	1005
11.29.12	Fuse	476
4.1.13	Vegetation	0.5
4.3.13	Crew Repair	89

## Ozone 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
11.20.11	Vegetation	0.5
11.30.11	Unknown	0.5
12.17.11	Lost Source Sub / Animal	7
2.1.12	Unknown	0.5
5.25.12	Splice	90

## So Strand 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
9.12.11	Balloon	111
11.20.11	Vegetation	0.5
12.17.11	Lost Source Sub / Animal	7
1.21.12	Transformer	1211
2.17.12	Fuse	424
9.17.12	Splice	257
3.30.13	Transformer	395
4.30.13	Fuse	79

## El Porto 16/4kV Substation:

### Blanche 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
7/6/2011	Standard Operation-Area out for repairs	484
11/30/2011	Overhead equipment transformer failure-Area out	449
12/6/2011	Overhead equipment failure blown branch line fuse-Area out	277
12/16/2011	Overhead equipment transformer failure-Area out	90
12/16/2012	Overhead equipment conductor/wire failure-Area out	425



## Gull 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
7/3/2011	Overhead equipment failure due to Mylar balloon	0.5
11/30/2011	Unknown	0.5
1/3/2012	Overhead equipment transformer failure-Area out	209.0
2/19/2013	Unknown	0.5

## Meadows 4kV

Date of Interruption	Cause	Duration (Min)
10/15/2011	Overhead equipment transformer failure-Area out	216
12/1/2011	Overhead equipment conductor/wire failure due to vegetation	110
3/11/2013	Overhead equipment failure due to Mylar balloon	0.5
4/20/2012	Standard Operation-Area out for repairs	171
12/18/2012	Overhead equipment conductor/wire failure due to vegetation	44

## Sandpiper 4kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
8/22/2011	Overhead equipment failure due to Mylar balloon	1
11/28/2011	Overhead equipment failure due to Mylar balloon	109
12/16/2011	Standard Operation-Area out for repairs	130
3/18/2012	Overhead equipment failure blown branch line fuse-Area out	471
5/22/2012	Overhead equipment failure blown branch line fuse-Area out	292
12/2/2012	Overhead equipment conductor/wire failure	1084
4/30/2013	Standard Operation-Area out for repairs	382

## El Nido 66/16KV Substation:

### Barracuda 16kV

DATE OF INTERRUPTION	CAUSE	DURATION (MIN)
12/23/2011	Unknown	0.5
9/16/2012	Overhead equipment failure due to animal intrusion	384.0
4/10/2013	Overhead equipment failure due to blown splice/connector	981.0

### Grizzley 16kV

Date of Interruption	Cause	Duration (Min)
2/24/2012	Overhead equipment failure due to Mylar balloon	0.5
6/1/2012	Overhead equipment failure due to Mylar balloon	548.0
8/13/2012	Underground equipment cable failure-includes troubleshooting time	1364.0
12/31/2012	Standard Operation-Area out for repairs	1080.0
4/9/2013	Underground equipment transformer failure	1377.0
4/11/2013	Overhead equipment failure blown splice/connector	981.0
4/30/2013	Standard Operation-Area out for repairs	382.0
1/12/2013	Overhead equipment failure blown splice/connector	95.0

## Salmon 16kV

Date of Interruption	Cause	Duration (Min)
1/21/2012	Overhead equipment conductor/wire failure due to vegetation	0.5
3/31/2012	Standard Operation-Area out for repairs	155.0
4/20/2012	Standard Operation-Area out for repairs	171.0
5/9/2012	Overhead equipment failure blown splice/connector	461.0
12/18/2012	Overhead equipment conductor/wire failure due to vegetation	52.0
1/1/2013	Overhead equipment failure blown splice/connector	95.0
1/28/2013	Overhead equipment transformer failure-Area out	737.0
3/31/2013	Overhead equipment transformer failure-Area out	63.0
4/1/2013	Standard Operation-Area out for repairs	87.0



# Causes of Power Outage

- Crew Repairs- 20
  - Transformers- 19
  - Balloons- 16
  - Fuse- 14
  - Splice- 13
  - Vegetation- 10
  - Animals- 8
  - Other overhead- 6
  - Third Party- 6
- 
- Total of 23 Circuits serve all or in part of Manhattan Beach