



Southern California Edison Company (SCE) Pole Loading Study



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Agenda

Objective: Provide an overview of SCE's pole loading study as required by Ordering Paragraph 17 of Decision 12-11-051

- Pole Basics
- Rules and Regulations
- Study Results
- Next Steps





Pole Basics

- More Than 4 Million Poles in CA
 - Pacific Gas and Electric Company (PG&E): 2.4 Million
 - Southern California Edison Company (SCE): 1.4 Million
 - San Diego Gas & Electric Company (SDG&E): 200K
- Poles Can Support:
 - Electric
 - Phone
 - Cable
 - Antennas
 - Fire Alarm Circuits





Pole Basics: Overloading

Basic Overloading : Strength of Material < Applied Loads

Overloading For GO 95: $\frac{\text{Strength of Material}}{\text{Required Safety Factor}} < \text{Applied Loads}$

Potential Causes of Overloading:

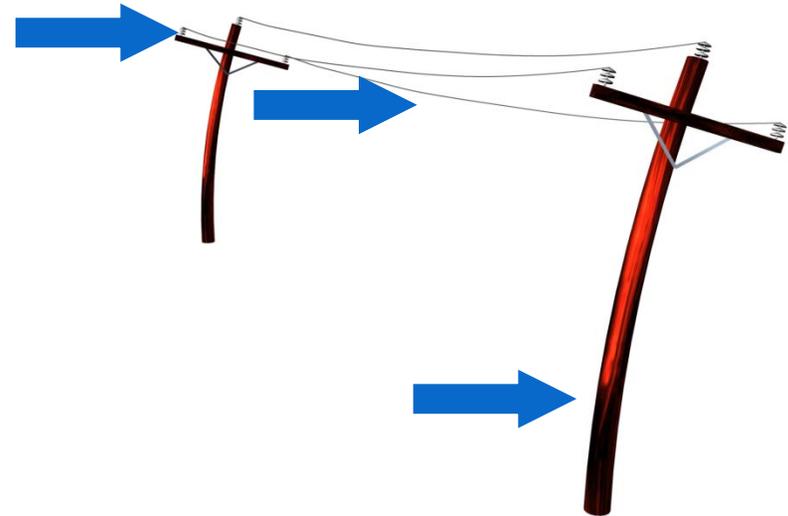
- Additional Facilities
- Poor Design
- Termites
- Root
- Woodpeckers
- Changes in Configuration





Rules and Regulations

- General Order 95 Rules:
 - Rule 43 - Temperature and Loading
 - Rule 44 - Safety Factors
 - Rule 48 - Strength of Materials
 - Rule 31.1 - Design, Construction and Maintenance





Ordering Paragraph 17 of Decision 12-11-051

- Required SCE to Perform Pole Study:
 - Random
 - Statistically Valid
 - Determine Level of Compliance
 - Submit results on July 31, 2013
- SCE:
 - Did a Strata Based Study
 - Eight “Groups”
 - Submitted Results to SED

High Fire Threat Areas

- GO 95 – Heavy Loading
- GO 95 – Light Loading
- SCE Higher Wind Area
- SCE Highest Wind Area

Non-High Fire Threat Areas

- GO 95 – Heavy Loading
- GO 95 – Light Loading
- SCE Higher Wind Area
- SCE Highest Wind Area





Results

High Fire Threat Areas

Sampled: 2085

Overload: 495

Percent: 23.7%

Non-High Fire Threat Areas

Sampled: 2921

Overload: 621

Percent: 21.3%

GO 95 –
Heavy
Loading
20.2%

GO 95 –
Light
Loading
19.8%

SCE
Higher
Wind
Area
29.6%

SCE
Highest
Wind
Area
50%

GO 95 –
Heavy
Loading
34.0%

GO 95 –
Light
Loading
17.0%

SCE
Higher
Wind
Area
23.0%

SCE
Highest
Wind
Area
51.9%





Safety and Enforcement Division Actions

- Reviewing Study
- Will Issue Recommendations
- Fire Safety OIR
- Malibu Settlements





Thank You!

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