



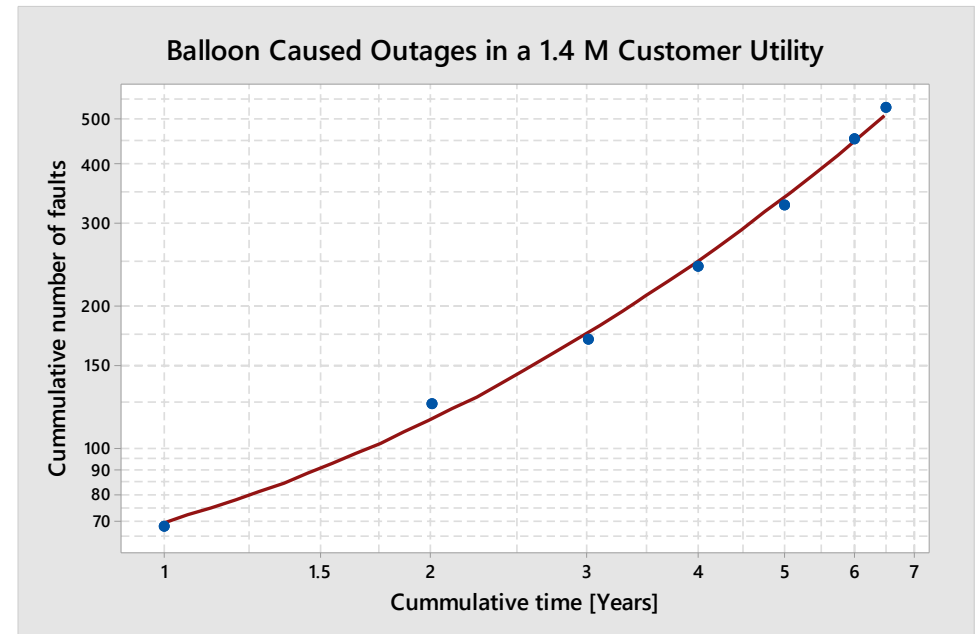
Distribution Reliability Working Group

BALLOON CAUSED OUTAGES

January 2019

Problem Statement

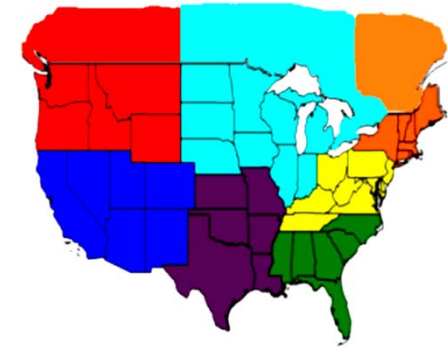
Some utilities have expressed concern about increasing numbers of metallic balloon caused outages



Last meeting (Portland, 2018) the group decided to launch a survey to capture the level of concern among DRWG members and to assess their support for the creation of a Task Force to explore this issue

Survey Results - Participants

Fourteen utilities participated in the survey:



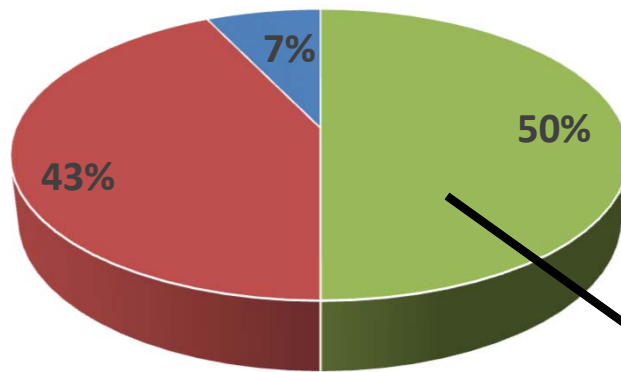
Span States	0
Northeast	0
Mid-Atlantic	1
Southeast	0
Midwest	6
Southwest	1
South	3
Northwest	3
Total (US and Canada)	14

Picture courtesy of google maps

Survey Results – Level of concern

Do you think balloon caused outages are a problem in your utility?

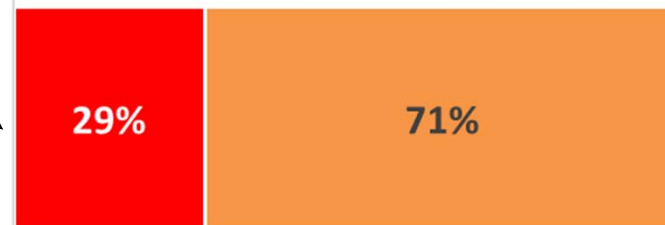
■ Yes ■ No ■ Unsure



Results based on 14 utility responses

What is your level of concern regarding this problem?

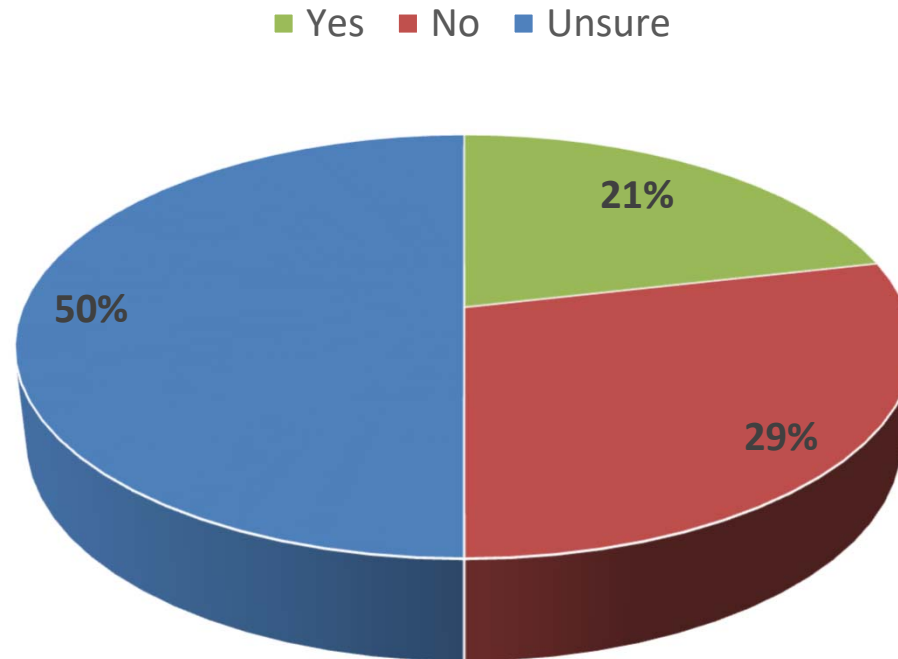
■ Highly concerned ■ Somewhat concerned



Results based on 7 utility responses

Survey Results – Severity of the problem

Do you think you have an increasing number of balloon caused outages?



Results based on 14 utility responses

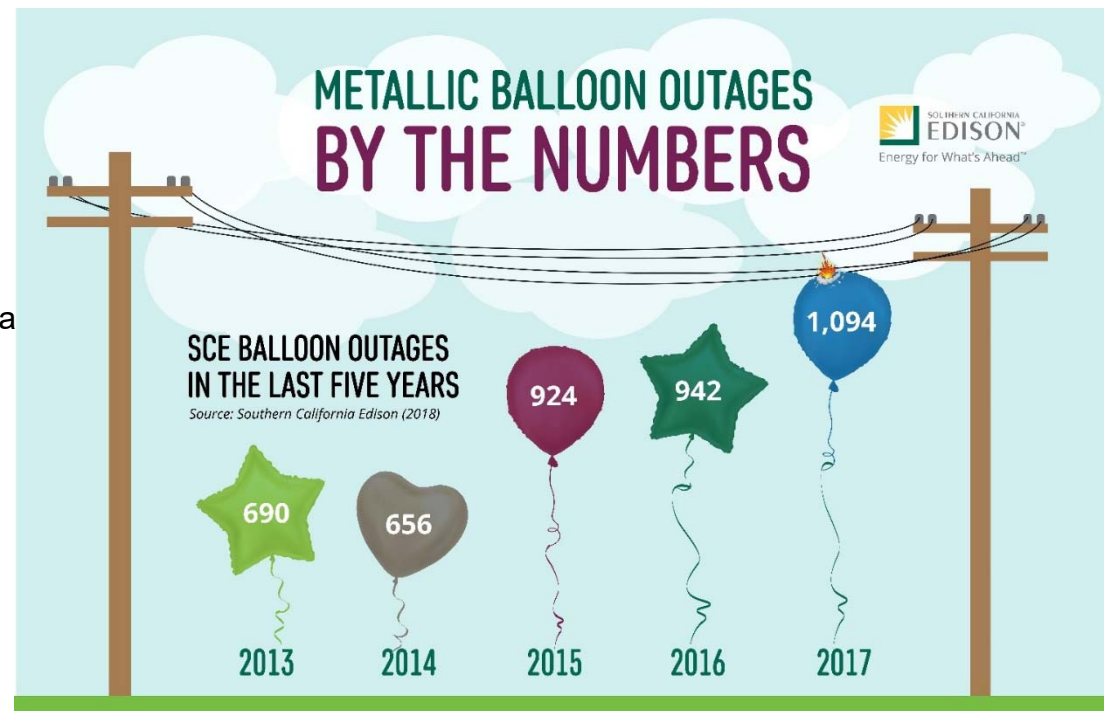
Background Information

A study in 2007 indicated that Pacific Gas & Electric, Southern California Edison, and Burbank Water and Power experienced hundreds of balloon related power outages that cost businesses \$120 million annually

https://en.wikipedia.org/wiki/California_Balloon_Law

Last year (2017), metallic balloons were the cause of 456 power outages across PG&E's service area, located in Northern and Central California, disrupting electric service to more than 371,000 homes and businesses

<https://www.sonomacountygazette.com/sonoma-county-news/mylar-balloons-create-power-outage-hazards>



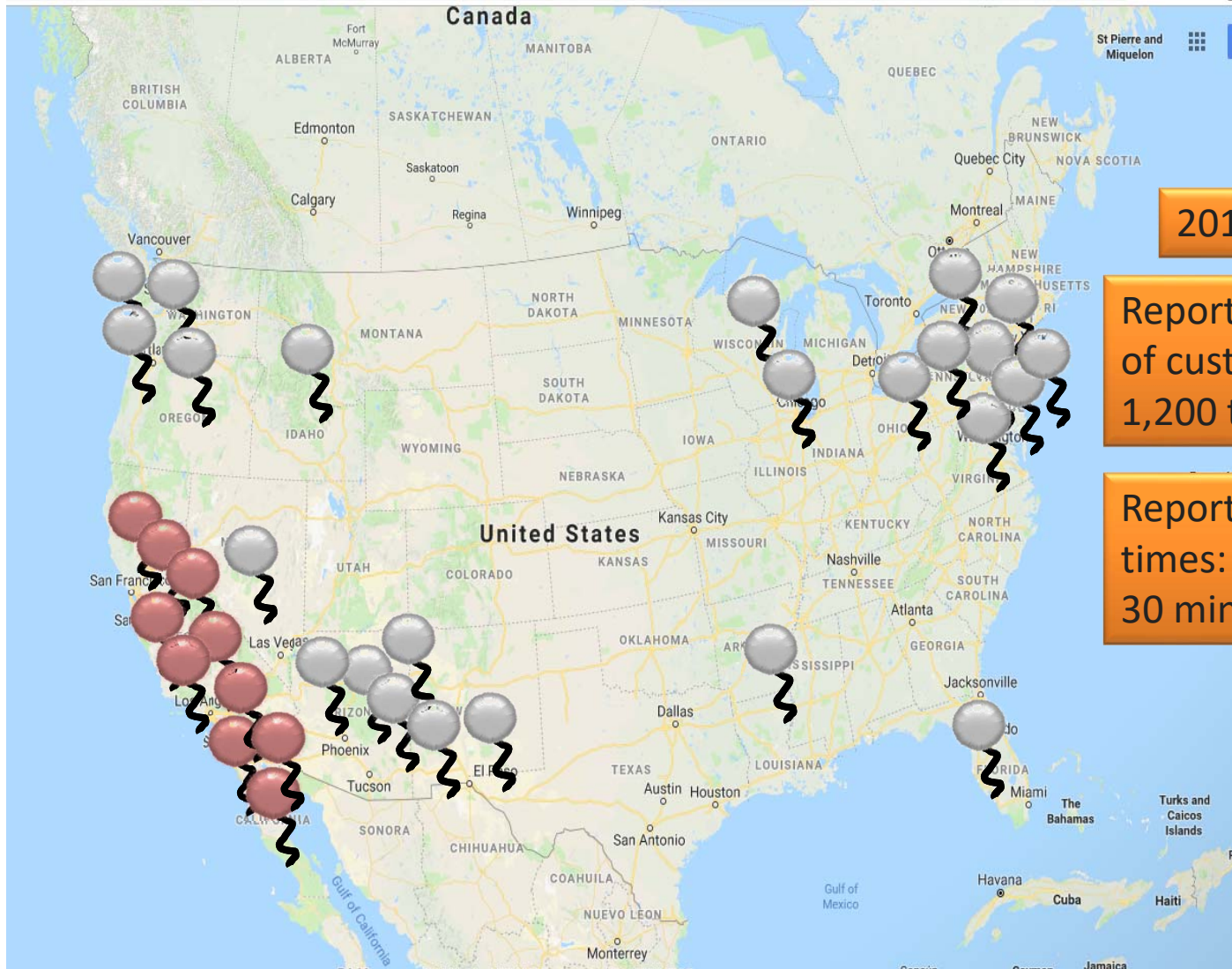
<https://energized.edison.com/stories/metallic-balloon-problem-worsens-sometimes-dangerously>

Background Information

*For illustrative purposes only (Not an exhaustive record)

Information from local news, compiled by California Municipal Utilities Association

Picture courtesy of google maps



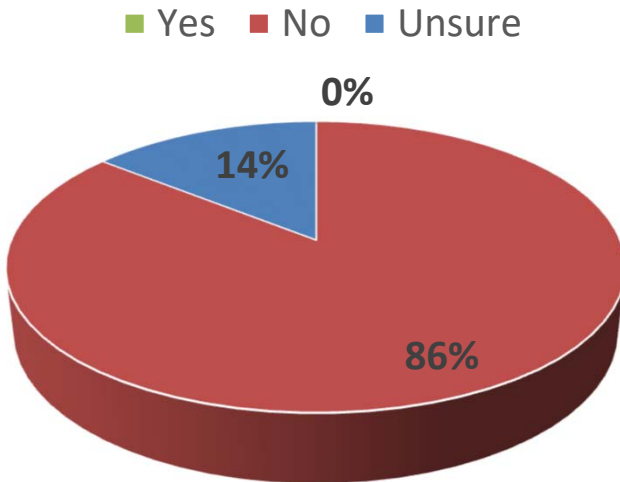
2012-Present

Reported number of customers:
1,200 to 12,000

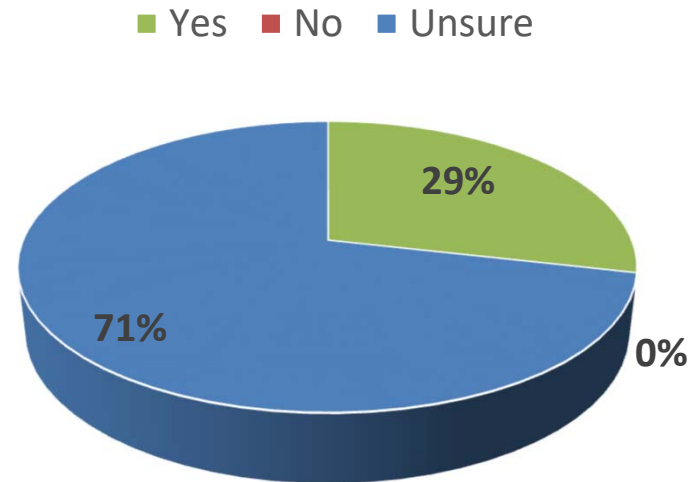
Reported outage times:
30 min to 4 hours

Survey Results – Legal framework

Are you aware of any restrictions/laws in place in any of your service territories that aim to prevent balloon caused outages?



Does (or would) your utility support legal efforts to ban or restrict the selling, distribution, and releasing of balloons that can cause outages?



Results based on 14 utility responses

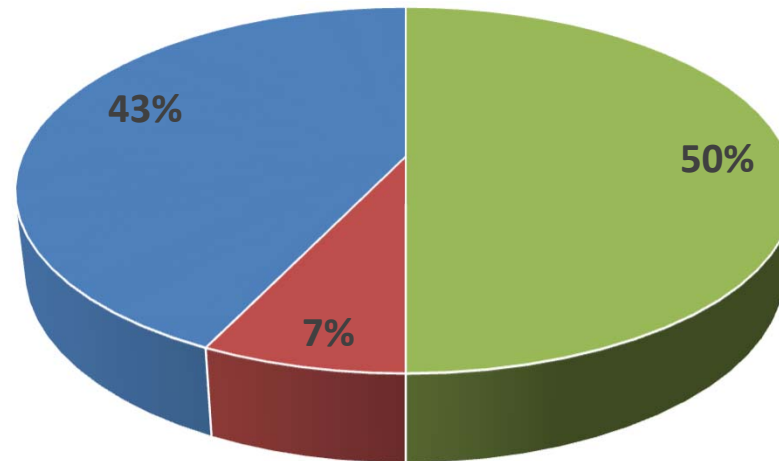
Proposed Solution

- Form Task Force to investigate the severity of balloon caused outages on distribution feeders
- If needed, investigate development of a Balloon Dielectric Test procedure to insure that balloons will not conduct electricity and cause distribution outages
- With this Test Procedure in place, utilities could promote balloons that will not cause outages on their system

Survey Results – TF Support

Would you support the creation of a Task Force within the IEEE Distribution Reliability Working Group to investigate this problem and to develop testing procedures related to balloons to insure they would not cause problems when contacting medium voltage distribution lines?

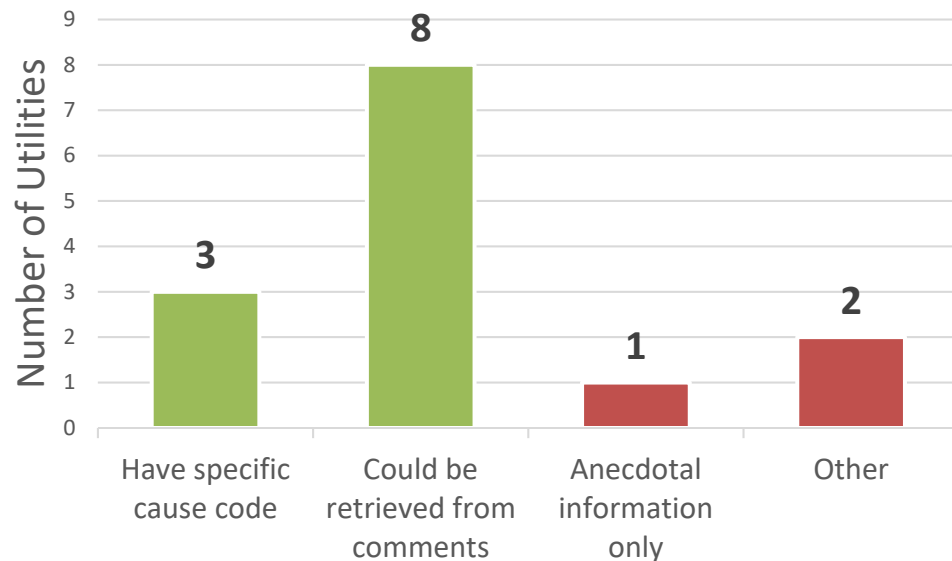
■ Yes ■ No ■ Maybe



Results based on 14 utility responses

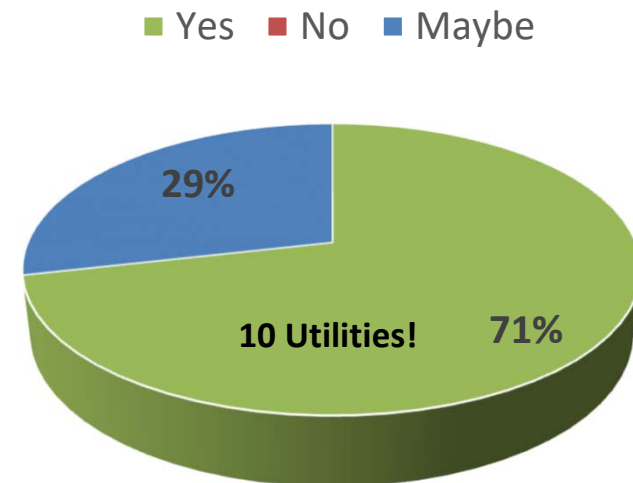
Survey Results – Data availability

Do you track balloon caused outages?



Results based on 14 utility responses

If this problem is further investigated, would you be willing to provide data on balloon caused outages?



[Video 1](#)

[Video 2](#)

DISCUSSION