



PROJECT PROFILE

Power Survey™ in Palmdale, California

Osmose Helps California City Identify Energized Streetlights Before Harm is Done

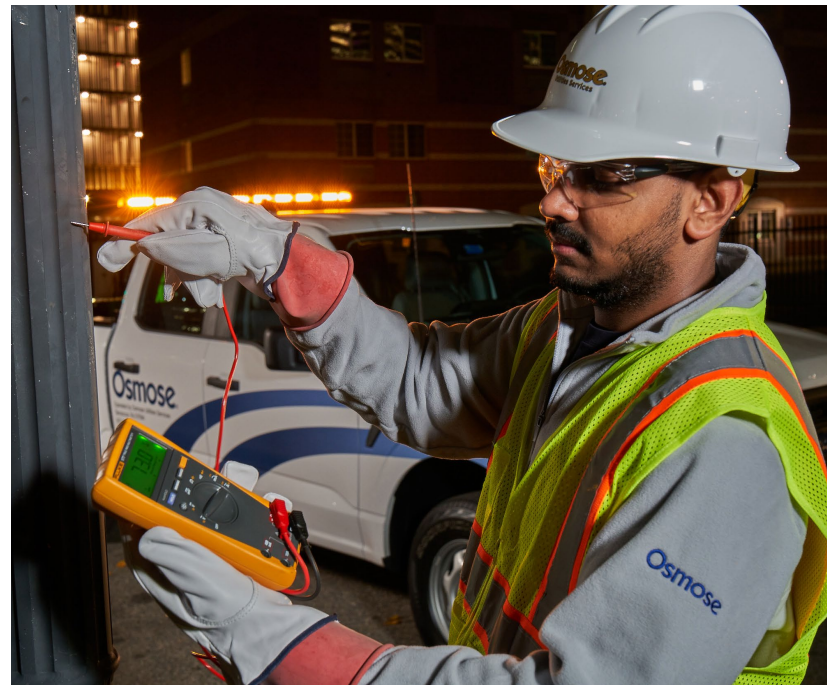
The Situation

In 2018, the city of Palmdale, California, purchased thousands of streetlights from Southern California Edison so the city could convert its system to long-lasting, energy efficient LED lighting. But just a year later, a resident reported a streetlight outage. When city crews responded they discovered a more dangerous situation than expected. Whatever caused the burnout also energized the streetlight, which could severely shock people and pets upon touch. Where else might this hidden hazard exist? The city now had a larger problem: how to expedite the inspection of 18,000 streetlights to protect its residents from possible harm.

The Solution

Palmdale immediately warned citizens to stay away from streetlight poles. While the city and its contractors worked together to inspect the streetlights, Palmdale engaged Osmose to deploy highly trained crews from its Power Survey™ service to scan the city for contact voltage.

Osmose's Power Survey mobile contact voltage detection technology is the most sensitive and accurate non-invasive testing method available to locate energized and hazardous public objects above and below ground. This technology is deployed using their Mobile Asset Assessment Vehicle or MAAV™ and is sensitive enough to



Whatever caused the burnout also energized the streetlight, which could severely shock people and pets upon touch. Where else might this hidden hazard exist?

detect objects energized by as little as one-volt AC while driving at speeds of up to 25 mph. During the five-week Power Survey process for Palmdale, Osmose covered 1,110 miles and detected 139 total contact voltage events. Many of those events were associated with the streetlight replacement project. This wasn't especially surprising to Osmose which regularly finds installation or manufacturing mistakes at fault for streetlight contact voltage. Contractors may inadvertently hook-up wires backwards or pinch wires connected to the light (the bulb as well), which can electrify the whole outside of the streetlight pole. In one West Coast municipality, Osmose identified another 19 streetlights that were energized at more than 100 volts.

The Osmose Power Survey scan of Palmdale infrastructure exposed other electric faults in the city beyond the streetlights – at hydrants, manhole covers, and electrical boxes – which could now be flagged for attention. IEEE 1695¹ recommends documenting all findings of one volt or greater.

Osmose recommends planning regular Power Survey scans, which can be a cost effective way to monitor the safety of any electrical system.



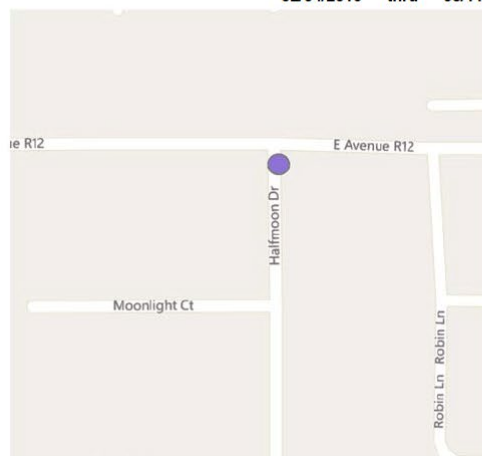
Osmose - Palmdale Detailed Report

Osmose

02/04/2019 thru 03/11/2019

00008

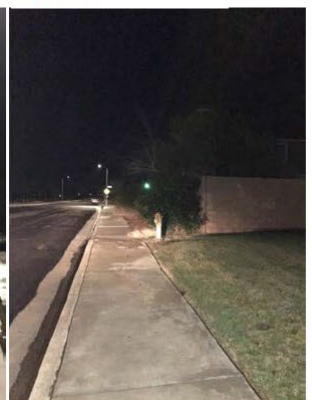
Open Date	2/15/2019 7:55:01 AM
Address	2300 E R 12 AVE
Cross Street	HALFMOON DR
Structure	STREET LIGHT
Structure Id	500470
Ground	HYDRANT
Voltage	121



STRUCTURE



GROUND



To learn more, contact your local Osmose professional, call 770.631.6995, or email underground@osmose.com.

1. "Contact voltage" defined by the new IEEE 1695 Guide to Understanding, Diagnosing and Mitigating Stray and Contact Voltage, is any fault voltage potential between two conductive surfaces on a publicly accessible object. IEEE 1695 recommends documenting all findings of 1 volt or greater.
 "Mobile Electrical Safety Testing for IEEE 1695 Contact Voltage Programs," T&D World.
 (<https://www.tdworld.com/substations/article/20966784/mobile-electrical-safety-testing-for-ieee-1695-contact-voltage-programs>)