

## Roger Lane

---

**To:** judith\_lee@dps.state.ny.us; 'Jaclyn\_brilling@dps.state.ny.us'  
**Subject:** "mitigate or prove safe" vs. broad assumption that all energized objects with low voltage readings are harmless

### "mitigate or prove safe" vs. broad assumption that all energized objects with low voltage readings [8vac] are harmless

Each year ConEd and the Jodie S. Lane Public Safety Foundation has a meeting of Experts to discuss and provide feedback on ConEd's actions to prevent, find & mitigate Stray Voltage. The Jodie S. Lane Public Safety Foundation has used the services of two Electrical Engineering experts.

**B. Don Russell Ph.D., P.E.**

Regents Professor  
Harry E. Bovay, Jr. Endowed Chair  
Dept. of Electrical and Computer Engineering  
Texas A&M University

**Sakis Meliopoulos, Ph.D.**

Georgia Power Distinguished Professor  
Professor *Systems and Controls, and Electrical Energy*  
The School of Electrical and Computer Engineering  
Georgia Institute of Technology  
Atlanta, GA 30332-0250

The upstate utilities have recommended that energized objects below 8vac not be mitigate. They based their recommendation on an assertion that below 8vac these objects were not dangerous. This assertion means that from a single measured voltage which is less than 8vac they can determine that only non lethal root causes created the energized objects.

I was skeptical about this assertion so I asked the two experts a question:

"If you know the measured voltage [with shunt] of an energized object and nothing else, can you determine [with certainty] which of the 4 causes are the root cause of the energized object i.e. if a service box is energized and has 4 volts [with shunt] can you know for sure which root cause [contact, NEV, Induced, Imbalance] created this issue?"

**B. Don Russell said "The short answer to your question is that no simple measured voltage test will definitively establish or distinguish the root cause"**

**Sakis Meliopoulos said "No. it is rather impossible without additional information."**

The upstate Utilities are saying that energized objects below 8vac are safe. According to two renowned experts in power distribution, the Utility cannot definitively establish or distinguish the root cause of the energized object based on a simple measured voltage. If you can't define the root cause you cannot determine safety.

The appropriate policy is to:

- identify all energized objects at 1vac and above
- provide detailed reporting on all energized objects at 1vac and above
- mitigate or prove safe with engineering analysis all energized objects at 1vac and above

THX  
R

---

Roger Lane  
512-257-7473  
512-496-8595 cell

This e-mail is confidential, intended only for the named recipient(s) and may contain information that is privileged, attorney work product or subject to an exemption from disclosure under applicable law. If you have received this message in error, or are not the named recipient(s), please immediately notify the sender at 512-257-7473 and delete this message from your computer. Thank you.