



# RESEARCH FOUNDATION

## RESEARCH FOR THE NFPA MISSION

### **ELECTRICAL DATA SUMMIT: IMPACT OF DATA IN THE ELECTRICAL WORLD**

Tuesday 19 November 2019 8:45 am ET - Wednesday 20 November 2019 12:00 pm ET

NFPA Headquarters, Quincy, MA

(Last Updated: 4 September 2019; *subject to updates*)

**Background:** Model codes and standards like the National Electrical Code® (NEC®), NFPA 70B, 70E, 72, 75, 76, 79, 99, 730, 731, and 855 are the backbone for the regulatory and safety infrastructure in numerous jurisdictions throughout the world. Ongoing enhancement to these documents requires clarification and confirmation based on reliable and relevant data.

In the past this data has been a challenge to collect and analyze, and today there is a gap of acceptable data to support certain NEC enhancements. Addressing regularly debated technical requirements would expressly benefit from reliable data (e.g., the design of feeder and branch circuits, surge protection, AFCIs or GFCIs protection, electric shock drowning, etc.). Further, recent years have witnessed emerging technologies and approaches that are enabling data-driven solutions to support on-going code revisions. Examples include:

- technologies where data is embedded into the product (e.g. Power Over the Ethernet);
- applying technologies to existing electrical systems to create “smart” systems providing performance insights (e.g., measuring existing equip. or circuits in new ways, or capturing data that always existed to inform decisions);
- enabling emerging technologies where data reporting is incorporated in initial designs (e.g. PV systems, ESS, etc.).

**Summit Goal and Objectives:** The goal of this Summit is to evaluate the impact that emerging technologies and data-driven solutions can have on model electrical codes and standards, and assess the value of universal data collection activities for the electrical safety infrastructure.

Objectives include:

- 1) Identify and clarify the data landscape, in terms of emerging technologies, impacted stakeholders, present and future trends, and other key influencing factors.
- 2) Identify and clarify knowledge gaps and related needs, based on emerging technologies and data-driven solutions.
- 3) Establish the elements for an actionable roadmap to address knowledge gaps and related needs.

**Who Should Attend:** Anyone interested in the model codes & standards (e.g., NEC), and emerging technologies and data-driven solutions impacting them. This includes but is not limited to: anyone seeking code updates and enhancements (i.e., those demanding change), anyone who has emerging technology and/or data (i.e., those who can empower change, and anyone with direct influence on the codes (i.e., those who can implement change, like CMP chairs/members).

**Registration:** Summit attendance is free. The cut-off date to register is 31/Oct/2019. Summit attendance is limited to the first 70 attendees.

Confirm your attendance at <https://www.surveymonkey.com/r/ElectricalDataSummit>.

Please contact [foundation@nfpa.org](mailto:foundation@nfpa.org) with any questions.

## SUMMIT PROGRAM

TIME	Tuesday, 19 November 2019		
8:45 – 9:00	<i>Call to Order, and Meeting Preliminaries: Summit Objectives &amp; Deliverables</i>	Casey Grant	15
9:00 – 9:30	<b>A) Presentation: Identifying and Clarifying the Electrical Data Landscape</b>	Joe Gochal, NFPA	30
9:30 – 10:00	<b>B) Presentation: FPRF Research Projects Overview &amp; ESRAC Update</b>	Casey Grant, FPRF	30
10:00 – 10:30	<i>Morning Break</i>		30
10:30 – 12:00	<b>C) Panel: Understanding Knowledge Gaps and Related Data Needs</b> Electrical Contractor Perspective - Mike Johnston (NECA) Fire Alarm Perspective - Wayne Moore (NFPA 72 PoE Task Group, Invited) NEMA Perspective - Tom Domitrovich (Eaton/NEMA) Equipment Approval Perspective - Ken Boyce (UL) Manufacturer Perspective - Alan Manche (Schneider)	Panel and All Attendees	90
12:00 – 1:00	<i>Networking Deli Lunch</i>		60
1:00 – 2:30	<b>D) Panel: Technologies that Enable Data</b> Energy Storage Systems - Roger Lin (NEC) PoE & Packet Energy Transfer - Randy Ivans (UL) Residential Voltage Monitoring - Bob Marshal (Whisker Labs) Micro Grids - Roger McDaniel (Georgia Power invited)	Panel and All Attendees	90
2:30 – 3:00	<i>Afternoon Break</i>		30
3:00 – 3:45	<b>E) Presentation: Smart Cities Data Collection Initiative</b>	Robert Solomon, IEC Work Group & NFPA	45
3:45 – 4:30	<b>F) Presentation: Smart Grid</b>	David Wollman, NIST	45
4:30 – 5:00	<i>Day 1 Plenary Discussion and Wrap-up</i>	All Attendees	30
TIME	Wednesday, 20 November 2019		
8:00 – 9:30	<b>G) Panel: Review of Case Study Applications Requiring Data &amp; Analytics</b> “Electrical Injury Data – Rich Campbell (NFPA) “Electrical Circuit Data Collection” – Troy Savage & Walt Vernon (Mazzetti) “Residential Electrical Data” – Victoria Hutchison (FPRF) “NEC Data Needs” – Larry Ayer (NEC TCC Chair)	Panel and All Attendees	90
9:30 – 10:00	<i>Morning Break</i>		30
10:00 – 11:30	<b>H) Panel: Define User Needs &amp; Applications for Intersection of Technology &amp; Problems</b> Enforcement Perspective - Donny Cook (IAEI) Facility Owner Perspective - Chad Beebe (ASHE) Global Perspective - Antonio Macias (NFPA - Mexico) Federal Government User Perspective - William Fries (DoD, invited)	Panel and All Attendees	90
11:30 – 12:00	<i>Plenary Review and Discussion: Vision, Future Direction, Next Steps and Closing Remarks</i>	All Attendees	30