



Electrical Safety Community of Practice

# 2024 ELECTRICAL SAFETY WORKSHOP



## YOU ARE INVITED

The Idaho National Laboratory is hosting the 2024 Energy Facility Contractor Operating Group (EFCOG) Electrical Safety Community of Practice workshop. The annual workshop will be held in Idaho Falls, Idaho July 22<sup>nd</sup> through 26<sup>th</sup>.

The workshop provides a forum for developing best practices and procedures to improve electrical safety programs within the DOE complex. We encourage safety professionals, electrical engineers, electricians, technicians, electrical inspectors, electrical trainers, and other personnel involved in electrical safety to join us for this exciting workshop.

**JULY 22-26, 2024**

**IDAHO NATIONAL LABORATORY, IDAHO FALLS, IDAHO**

## Meeting and Workshop Contacts:

**Kelden Boren**, (INL) – Electrical Safety Community of Practice Workshop Host  
(208) 521-5882 [Kelden.Boren@inl.gov](mailto:Kelden.Boren@inl.gov)

**Scot Wunningham**, (ORNL) EFCOG Electrical Safety Community of Practice Chair  
(865) 696-9113 [wunninghamrs@ornl.gov](mailto:wunninghamrs@ornl.gov)

## Registration Link

[Electrical Safety Workshop event website | EFCOG.org](https://efcog.org) **(CLOSED)**

Please contact **Kelden Boren** ([kelden.boren@inl.gov](mailto:kelden.boren@inl.gov)) for late registration.

## Visit Idaho National Lab Details:

<https://inl.gov/visitors/>

## Agenda

### 2024 Electrical Safety Workshop

**Monday, July 22nd**

7:00 – 8:00 a.m.	<b>Check-in (EIL Meeting Center - 775 MK Simpson Boulevard)</b>
8:00 – 8:10 a.m.	Welcome 2024 ESCoP Workshop – Kelden Boren (INL - Workshop Host)
8:10 – 8:40 a.m.	Welcome to INL: A Brief History and Mission Overview – Eric Papaioannou (ESH&Q Director)
8:40 – 8:50 a.m.	Workshop Opening Remarks – Scot Wunningham / Tommy Martinez
8:50 – 9:00 a.m.	James Parham - Defense Nuclear Facilities Safety Board (DNFSB)
9:00 – 9:45 a.m.	Electric Vehicle Safety and DOE – Andrew Olsen (ElecTrain)
9:45 – 10:00 a.m.	<i>Morning Break</i>
10:00 – 11:00 a.m.	Power Grid Cyber Security Research – Megan Egan (INL)
11:00 – 11:30 a.m.	Using Safety Analytics, Forecasting, and Evaluation Reporting (SAFER) to Track the Electrical Severity Index (ESI) for DOE – Autumn Engh / Morgan Luckey (DOE)
11:30 – 12:30 p.m.	<i>Lunch</i>
12:30 – 1:15 p.m.	Amping Up the Use of HPI – Brandy Young (INL)
1:15 – 2:00 p.m.	Case Study - Idaho Canal Electrocutation – Jeff Robbins (INL)
2:00 – 2:45 p.m.	Micro Grid Research– Porter Hill (INL)

2:45 – 3:30 p.m. Electrical Safety & Faulty Diagnostics – Tim Witting (Schneider Electric)  
3:30 – 3:45 p.m. *Afternoon Break*  
3:45 – 4:15 p.m. LOTO Significance Tool – Eric Johannsen / Mark McCain (LANL/LLNL)  
4:15 – 5:00 p.m. Introduction of Working Groups & Leads – Kelden Boren (Workshop Host)

1. Utility Standards Interface – Mike Rose, Eric Stromberg
2. Hazardous Energy Control – Eric Johannsen, Mark McCain, Keola Baclayon
3. Safety By Design – Tracy Roberts, Richard Waters
4. DC Electrical Hazards and Controls – Stephanie Collins, Lloyd Gordon, David Rosewater
5. Subcontractor Oversight – Jennifer Martin, Mark Muir

5:00 p.m. INL Tour Information – Kelden Boren (INL - Workshop Host)  
5:10 p.m. Adjourn for the day

### Tuesday, July 23rd

7:00 – 7:30 a.m. **Check-In / Badging for tours (EIL Meeting Center)**  
7:30 – 12:00 p.m. INL Tours  
12:00 – 1:00 p.m. *Lunch (adjusted as needed to complete tours)*  
1:00 – 5:00 p.m. Working Groups convene

### Wednesday, July 24th

7:00 – 8:00 a.m. **Check-In (EIL)**  
8:00 – 12:00 p.m. Working Groups continue  
12:00 – 1:00 p.m. *Lunch*  
1:00 – 5:00 p.m. Working Groups continue

### Thursday, July 25th

7:00 – 8:00 a.m. **Check-In (EIL)**  
8:00 – 12:00 p.m. Working Groups continue  
12:00 – 1:00 p.m. *Lunch*  
1:00 – 5:00 p.m. Working Groups Continue

### Friday, July 26th

8:00 – 10:00 a.m. *Working Groups Report Out*  
10:00 – 10:30 a.m. Closing remarks Scot Winningham / Tommy Martinez

## WORKING GROUP DESCRIPTIONS

- 1. Utility Standards Interface – Mike Rose/Eric Stromberg**
  - a. Intersection of NFPA 70E and IEEE-C2 (1910.331 vs. 1910.269)
  
- 2. Safety by Design – Tracy Roberts/Richard Waters**
  - a. Permanently installed absence of voltage test devices – Installation, labeling, inspection approval, and training
  - b. Practical safeguarding of electrical components and assemblies
  - c. Use of non-contact detectors for absence of voltage testing over 1000 V (TBD)
  - d. Alternative to GFCI monthly testing (TBD)
  - e. Zone interlocking for arc flash reduction (TBD)
  
- 3. Subcontractor Oversight – Jennifer Martin/Mark Muir**
  - a. Grading of Electrical Safety program for construction subcontractors
  
- 4. Hazardous Energy Control –Eric Johannsen/Mark McCain/Keola Baclayon**
  - a. Align Electrical Severity Measurement Tool with ORPS Reporting
  - b. Electrical Safety Month Materials
  - c. Event Trending
  
- 5. DC Working Group – Lloyd Gordon/David Rosewater/Stephanie Collins**
  - a. Review public inputs to the 2027 NFPA 70E for Chapter 3- Special Equipment
  - b. Discuss the new proposals for DC arc flash incident energy analysis
  - c. Work on any of three IEEE proposed electrical risk assessment standards
    - i. Electrical risk assessment for special equipment
    - ii. Electrical risk assessment for battery banks
    - iii. Risk assessment for electric vehicles