IEA EV TCP – Task49 "EV Fire Safety"

Online Workshop: "Fire safety aspects of electric buses and bus depots"

Date: 23 November 2026 from 15h00 until 17h00 (CET Time)

Introduction/Scope

You are invited to the **IEA EV TCP Task49 online workshop on "Fire safety aspects of electric buses and bus depots"** taking place on **23 November 2026 from 15:00 to 17:00 CET**.

This session will explore key fire safety challenges related to electric buses and bus depots. The rapid electrification of public transport is bringing new challenges for fire safety across the entire bus ecosystem. Electric buses incorporate high-energy battery systems that require dedicated fire prevention, detection, mitigation, and emergency response measures, both on-board the vehicle and within supporting infrastructure. At the bus depot level, the concentration of multiple vehicles, charging systems, maintenance activities, and energy infrastructure can increase the complexity and potential consequences of fire incidents. At the same time, vehicle manufacturers, operators, fire services, insurers, and regulators are seeking practical, evidence-based approaches to maintain high safety standards while supporting the transition to zero-emission transport.

This workshop will bring together international experts to share experiences, research findings, and best practices related to fire safety in electric buses and bus depots, with a particular focus on risk reduction, operational resilience, and future-proof safety strategies.





Presentations

Carlo Mol – Task Manager IEA EV TCP – Task49 "EV Fire Safety" (15')

Introduction to Task49 "EV Fire Safety" scope and future workshops

IEA EV TCP – Task49 – "EV Fire Safety" has been established to address concerns about the fire safety of electric vehicles (EVs). Despite growing interest in EVs among policymakers, companies, and end users, trust in their safety, particularly regarding fire risks, remains low. The initiative aims to gather and disseminate objective information about EV fire safety to enhance overall trust in electric vehicles. Task49 will collect objective information in its literature database and will organize online workshops on different EV Fire Safety related topics to share information and best practices

Peter Vicca – Multiobus (Belgium) (30')

Lessons Learned from a Major Bus Depot Fire: recommendations to enhance resilience against fire-related risks.

Following a major bus depot fire in October 2023, Belgian bus operator Multiobus faced the challenge of restoring operations while safeguarding service continuity. This presentation shares key lessons learned from the incident and outlines how the company transformed a crisis into an opportunity to rebuild a modern, resilient facility. Topics include crisis management, business continuity, stakeholder collaboration, and the implementation of advanced fire safety measures, providing practical insights for fleet operators and depot owners.

Randy Narine - Clean Core Research (Canada) (15')

From Incident to Readiness: Electric Bus Fire Response and Transit Safety Programs in Canada

Clean Core Research (CCR) will share practical lessons on electric bus battery fires from the first responder and transit operator perspective, drawing on its destructive testing, fire investigation and emergency response work in Canada. The presentation covers early warning signs of thermal runaway, suppression and containment considerations for bus depots, and how Ontario transit agencies are developing incident response procedures, training and readiness frameworks as they move to zero-emission fleets.

Marco Aimo-Boot - Iveco S.p.A. (20')

From Bus to Depot: A Holistic Approach to Electric Bus Fire Safety — On-board Prevention, Detection and Depot Mitigation Measures"

Battery-electric buses introduce new fire safety challenges that require a system-level approach extending beyond the vehicle boundaries. This presentation gives a vision on the integration of on-board fire safety measures, including battery thermal management, diagnostic and monitoring functions, early event detection, and mitigation strategies with depot-level fire prevention and protection concepts.

The presentation will examine how vehicle-generated information, operational procedures, charging activities, maintenance practices, and infrastructure protection systems can contribute to a coordinated fire safety framework. Particular attention will be given to the interfaces between vehicle safety functions and depot risk management, supporting early intervention, consequence reduction, and operational resilience.

By addressing fire safety from both the vehicle and infrastructure perspectives, the presentation proposes a holistic approach aimed at enhancing the safety of electric bus operations throughout the entire lifecycle, from daily service and charging activities to depot management and emergency response.

Andreas Anderson – RISE Sweden (30')

Lessons Learned from a Bus Fire in Sweden: Implications for Alternative Fuel Vehicle Safety

A bus fire incident in Sweden in 2025 has provided valuable insights into emergency response, risk assessment, and safety management for alternative fuel vehicles. This presentation summarizes the findings from the investigation, including the sequence of events, technical factors contributing to the fire, and the challenges encountered during firefighting and incident management.

Particular attention will be given to lessons relevant for stakeholders involved in the deployment and operation of alternative fuel technologies, including vehicle manufacturers, fleet operators, emergency services, and regulators. The presentation will discuss how the current regulations address certain failure modes and implications for vehicle design, safety systems, operational procedures, and future research needs.

The objective is to share practical experiences from a real-world incident and contribute to the ongoing development of safe and resilient alternative fuel transportation systems.