

## Webinar Talk on "DC Grids: Enabling Low-Cost Integration of Green Energy into the Last-Mile LV Infrastructure"

DATE : **14 JUNE 2025** TIME : **11.30AM - 1.30PM** PLATFO<u>RM : **ZOOM**</u>

SPEAKER : DI FRANK STEINBACHER

CPD HOURS : Applying CPD REF NO.: Applying

## SYNOPSIS

As cities accelerate their energy transitions, the last-mile infrastructure—the low-voltage (LV) network that delivers power to buildings, EV chargers, and appliances—has become a major bottleneck in integrating decentralized green energy sources. Traditional AC-based LV grids are increasingly strained by rising electrification demands and the mismatch between AC distribution and the DC nature of most modern end-use devices.

In this thought-provoking session, Mr. Frank Steinbacher, a leading figure in sustainable grid innovation and CEO of eLoaded GmbH, presents a compelling case for **Direct Current (DC) Grids** as the missing link in building scalable, cost-effective, and environmentally aligned energy infrastructure.

Drawing on two decades of engineering experience in energy systems, hydraulics, and power electronics, Frank will explain how DC grids:

- Reduce power conversion losses across renewable generation, storage, and consumption points.
- Lower infrastructure costs by simplifying system architecture and avoiding redundant AC/DC conversions.
- Enable modular and high-density deployment of EV charging, district cooling, data centers, and industrial automation systems—all of which increasingly operate on DC internally.
- **Support greater renewable penetration**, particularly from solar PV and battery energy storage systems (BESS), which naturally produce and store DC power.
- **Contribute to environmental goals** by reducing carbon footprint, energy waste, and system-level inefficiencies in the LV distribution layer.

Attendees will gain insights into:

- Real-world applications of DC grid technology across Europe and Asia.
- A technical and economic comparison between AC and DC LV infrastructures.
- How regulatory and engineering communities can collaborate to update standards, financing models, and project frameworks to adopt DC grids more widely.

This session is particularly relevant for engineers, planners, city officials, and energy entrepreneurs seeking scalable solutions to unlock sustainable electrification in buildings, transport, and industry.



## **SPEAKER PROFILE**

DI FRANK STEINBACHER



DI Friedrich Steinbach is the founder and principal of Friedrich Steinbach GmbH Investment and Development Group (FSID), an Austrian-based firm specializing in real estate development, construction services, and security system installations. With a background in civil engineering, he leads projects that integrate technical precision with strategic investment insight. FSID offers comprehensive services including sales, installation, and maintenance of security systems, reflecting Steinbach's commitment to innovation and quality. His leadership emphasizes long-term value creation and client-focused solutions, positioning FSID as a trusted partner in Austria's property and infrastructure sectors. Steinbach also actively shares updates on technological advancements in construction and analytics through his LinkedIn network.

## **REGISTRATION FEES**

| *Student Member | : FOC      |
|-----------------|------------|
| *IEM Member     | : RM 15.00 |
| *Non-Member     | : RM 70.00 |

