



**IEEE Vehicular Technology Society  
Philadelphia Chapter**



**May 18, 2023 Meeting Announcement**

**Topic: Grid Edge Solutions and Battery Electric Storage Systems**

**Sponsors:** IEEE Vehicular Technology Society (VTS) Philadelphia Chapter

**Speakers:** Jon Judson and John Glassmire, Grid Edge Solutions e-Mobility, Hitachi Energy

**Meeting date/time:** Thursday, May 18, 2023, 12:00 pm to 1:00 pm (Eastern Standard Time)

**Location:** *Virtual meeting* link posted on IEEE vTools prior to the meeting.

**Cost of meeting:** There is no charge for meeting attendance, only for PDH certificates.

**Reservations: Attendees are required to register at:** <https://events.vtools.ieee.org/m/360117>

A valid email address must be provided in order to receive the link for the meeting. If you have any questions, please contact Brandon Swartley at [brandon.swartley@ieee.org](mailto:brandon.swartley@ieee.org).

**Professional Development Hours:** Attendees may apply for 1.0 PDH provided through the IEEE Certificates Program, accepted in all states. Send \$5.00 (USD) payment to Brandon Swartley via Zelle at [brandon.swartley@ieee.org](mailto:brandon.swartley@ieee.org) and complete online evaluation at <https://r2.ieee.org/philadelphia-vts/forms/>

Evaluation form must be completed and payment received within one week to receive PDH certificate.

**Abstract:** Fleet electrification is a fast-growing trend both in the public and private transportation segments. By 2040, it is expected that more than 30% of the world's passenger vehicles fleet and more than 60% of the global bus fleet will be electric, generating an impressive need for electricity. Electric vehicle adoption is sponsored and subsidized to meet global carbon footprint reduction targets as well as improve air and people's life quality. Charging infrastructure development will have to follow closely, as almost 300 million charging points will be needed globally by 2040 across all segments: private, public and commercial. To prevent a potentially very messy system that is difficult to maintain and somewhat redundant, electric mobility hubs are recommended. These hubs – essentially “charging centers” – offer a more efficient approach to planning in urban and suburban areas, and will also aid the switchover to more digital forms of mobility-energy management. For cars, hubs could be installed in existing infrastructure like car parks, or car rental centers. For public transportation vehicles, depots and terminal stations provide ideal locations. And a system of hubs within and around cities can be planned for efficient energy-mobility integration. Electric mobility hubs are going to face challenges related to the energy transition common to all large electric energy prosumers, often described as the “energy trilemma.” Jon Judson and John Glassmire from Hitachi Energy will give a presentation on fleet electrification current trends and challenges.

**Speakers:** Jon Judson serves as Rail and Transit Lead for the US, responsible for the Hitachi Energy portfolio including grid edge, substation, transformer, and e-mobility systems. Jon has worked in the transportation industry for most of his career, focusing on renewable, zero-emission, and clean energy solutions. Jon is based in North Carolina near Hitachi Energy's main campus in Raleigh.

John Glassmire serves as Global Product Manager for e-mobility in Grid Edge Solutions at Hitachi Energy. John has extensive experience in the technical and economic benefits of integrating, managing, and optimizing Distributed Energy Resources (DER)—including electric vehicle chargers, energy storage, and solar PV—to enable an electrified, renewable future. His focus is the use of intelligent automation for DER to deliver reliable, affordable electricity to power fleets, depots, and other clusters of electric vehicles. John is an accomplished speaker and has facilitated hundreds of training workshops on unlocking the benefits of DER, renewable electricity, and microgrid technologies globally. John also serves as an affiliate instructor in distributed renewable power systems at the University of Washington. BSME (Rice), MSME (Northwestern).

**IEEE VTS Philadelphia Chapter Officers:**

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