

## PSMA Transportation Electrification Committee Meeting

### Attendance for 8/12/22 PSMA Committee Meeting

- 1) **Fred Weber**
- 2) Thomas Foulkes
- 3) **Fernando Salcedo**
- 4) Matthias Preindl
- 5) **Joe Horzepa**
- 6) **John Horsepa**
- 7) **Gyan Dutt**
- 8) Renee Yawger
- 9) Shajjad Chowdhury (ORNL)
- 10) Dinesh Kithany (WAWT – Wired and Wireless Technologies)

### Upcoming Meetings

- August on 23, at 11 AM CT

### Agenda – **NEED TO GET PRESENTATIONS UPLOADED!!**

- Fred Weber update about Virtual Electrification Workshop September 13 and 20
  - Need recorded copies of presentations by late August. Our team will review the recordings ahead of time to ensure that the recording will flow nicely.
  - Presenters just have to show up for the roundtable on the presentation dates
  - Need to schedule Dry-Run and discuss Q&A & Roundtable – Everyone will need to be on Video.
- What is our theme for the industry session of APEC 2023? Discussion of potential speakers and brainstorm additional names – Requesting your input on the following:

**“With New Government Focus On Electrification What Needs To Happen,**

**What Is In The Near Future?”**

### **Possible Subjects -**

- Charging
  - Different charging methods (wireless, cabled, etc.)
  - Grid infrastructure
  - Charging and grid impact – ITEC panel (how all of the charging technologies integrate to deliver value for the consumer and not cause)
  - Vehicle-to-grid
  - Topologies – bi-directional chargers
- PV renewables for charging = e-mobility engineering magazine (Joe suggested this)
- Off-road vehicles (large dump trucks and loaders and agriculture)
- Packaging Stateside – what is being done develop onshore packaging facilities

- Electric aircraft
  - Several startup companies
  - ORNL and NASA Glenn
  - Rolls-Royce and Airbus
- ORNL Charging Highway Discussion
- E-mobility city cars or e-scooters (Renee suggested this)
  - Battery swapping
  - Power Electronics
- Autonomous vehicles (Borg Warner and Aptiv could be topics, contact some professors)
  - Commercial vehicles
  - Status and challenges (what are the power electronics demands)
- Battery re-use opportunities
- Battery manufacturing
  - GM modular battery pack design and packaging (recent announcement)
- Electric ship/boats
- 5G demands and mobile computing demands
- Renee suggested that power electronics for lidar could be very good topic and had some initial ideas about companies from semiconductor space
- Factory vehicles – power electronics for these automated cart vehicles and electric forklifts
- Disney Imagineering speaker (APEC is in Orlando, FL next year)
- Hydrogen for semi-trucks and other vehicles as a fuel source (what will the infrastructure look like for this)
- Domestic production of chargers and expediting rollout, standardization, reduction of cost, mitigating impacts on the grid, corporate cooperation, better power density, modularity, efficiency

- Reflect on PTR Transportation Inverters chapter and identify path forward to the next PTR chapter and presentation (PSMA is looking for abstracts for future PTR presentations about 5-year forward looking trends)