

Transportation Learning Center

Battery Electric Bus (BEB) Session #3: BEB Charging Considerations

Circle the best answer (only one) for each question

- 1) Depot Charging is also commonly referred to as facility or shop charging.
 - a. True
 - b. False

- 2) With On-Route or Opportunity Charging, BEBs typically need more on-board energy storage capacity (batteries) to achieve the desired vehicle range.
 - a. True
 - b. False

- 3) Smart charging:
 - a. Limits grid power usage based on user inputs
 - b. Prioritizes the charging of specific buses
 - c. Both statements are correct
 - d. Neither statement is correct

- 4) DC-link capacitors can hold a charge after being disconnected from the grid and DC input load.
 - a. True
 - b. False

- 5) A Sheppard's Hook is used when servicing charging equipment to:
 - a. Safely disconnect the battery charger
 - b. Pull another worker safety from an electrical shock hazard
 - c. Safely unhook the battery charger cabinet door latches
 - d. Safely disconnect the plug-in connector after charging

- 6) Another term for an arc-flash hood is:
 - a. Hoodie
 - b. Safety hardhat
 - c. Face shield
 - d. Balaclava

- 7) It is safe policy to place leather gloves over rubber insulated gloves when servicing a charger.
 - a. True
 - b. False

- 8) Which tool/equipment listed below is not used to service a battery charger:
- a. Lock-out/tag-out equipment
 - b. Voltage torque regulator
 - c. Anti-static wrist strap
 - d. Appropriately rated digital multi-meter
- 9) Pantograph in-route charging can consist of:
- a. Roof-Mounted (bus up)
 - b. Inverted (bus down)
 - c. Only Roof-mounted
 - d. Both Roof-Mounted & Inverted
- 10) When servicing BEB chargers, digital multimeters and leads should be rated for a minimum of:
- a. 250 volts DC
 - b. 500 volts DC
 - c. 750 volts DC
 - d. 1000 Volts DC
- 11) The AC/DC terminals used in battery charging equipment are permanently tightened and secured at the factory and never need re-torquing.
- a. True
 - b. False
- 12) Unlike other users of electric vehicles, transit agencies do not need to consider peak demand periods when charging BEBs because the higher cost rates do not apply to them.
- a. True
 - b. False

BEB Course Link for all Three Sessions Including #2:

<https://www.transittraining.net/courseware/details/battery-electric-bus-familiarization>