Investing in Battery Bay Attendants

Objective

Improve the efficiency of the battery swapping process and improve the overall availability of chargers and cooling equipment.

Justification

Battery swapping is a time consuming, multi-step process for vehicle operators requiring them to drop the used pack, disembark their vehicle, secure the machine, swap the charging cables, swap the coolant lines, turn on the charger and cooling equipment, board the vehicle, tram to the new battery, engage the new battery to pick it up/install it.

Several issues with the chargers and cooling equipment can result in chargers prematurely shutting down and batteries not charging to the levels required, including operator error when connecting batteries, operators forgetting to turn on/check the cooling equipment and loose connections.

Attendants will act as a fail-safe to reduce intermittency issues with charging, while also improving the efficiency of the swapping procedure.

Implementation

Battery bay attendants are managed by the production department as part of the truck operator team. They also work with the Battery as a Service (BaaS) technicians to understand any ongoing issues with chargers and batteries.

One attendant manages multiple charging bays, responsible for managing the battery swap process, ensuring batteries charge properly and keeping the charging bays clean and tidy. The attendant regularly travels between charging bays, checking the status of all chargers and cooling equipment and coordinating with dispatch to swap batteries as the BEVs arrive.

Progress to Date

The morale of the operators improved as the battery swap process was significantly simplified. The attendants also led to a safer and more consistent process, reducing the number of times operators exit the cab during a shift.

The efficiency of the battery swap process improved, reducing the turnaround time from approx. 15 minutes to 5-7 minutes. The time saved on battery swapping equates to roughly 3-4 extra truckloads over an 11 hour shift in the best case scenario, improving productivity enough to justify the investment in the attendants.