LOCATION TRACKING FOR CIRCULAR EV BATTERY LOGISTICS

Cost efficient IoT solutions for increased visibility and operational efficiency

Transporting EV batteries – especially returned units – is a real challenge. EV batteries are classified as dangerous goods and subject to international and domestic regulations. Many safety measures are required for compliant transport, which can vary depending on the continent, country, region, and means of transportation.

With EV battery circular logistics poised to surge as first and second-generation EVs reach end of life, the automotive industry is struggling to efficiently manage the collection, return, and recycling process. Tracking hazardous assets is unfamiliar territory. Long lead times and replacement delays are not uncommon.

On top of it all, EV batteries are expensive. So, how do you ensure the safe and compliant transport of these highly valuable yet dangerous goods while tracking real-time movements to enable better operational planning?

The answer is our location tracking solution for EV battery circular logistics. We leverage the Internet of Things (IoT) to provide full location visibility and eliminate manual processes. And the best part? No infrastructure setup required.

Keep eyes on your EV battery circular logistics and see the benefits of DHL IoT-based monitoring solutions.

The 4 main roles of IOT in EV Logistics

Focus on IoT-based monitoring solutions

ASSET TRACKING

Increase transparency on your asset utilization to prevent loss and save on operation cost

- **Location Tracking**
- **Resource Optimization**
- **Loss Prevention**

SHIPMENT MONITORING

Know at any point where your shipment is and get notified of any relevant events that help you take control of your supply chain

- **Multimodal Shipment Tracking**
- **High Value Goods Monitoring**
- **Shipment Security**

CONDITION MONITORING

Ensure compliant and safe transport & delivery of critical and sensitive products

- **Lithium-Ion Batteries Monitoring**
- **Goods Quality Monitoring**

INVENTORY TRACKING

Be aware of inventory statues and worker safety inside your warehouses

- **Automatic Inventory**
- **Real-Time Localization System**
- **Equipment Monitoring**

EV Logistics - Solutions in practice

IoT elements 1/2

1 ASSET TRACKING

Range of solutions available to **track your assets** in real time

2 SHIPMENT TRACKING

Range of solutions available to **track shipments** and the conditions in real time

3 CONDITION MONITORING

Range of solutions available to **monitor the condition** such as **temperature**, **humidity**, and **off gas** in real time

EV Logistics – Solutions in practice

Additional warehouse elements 2/2

4 THERMAL EQUIPMENT

Thermal guns and **cameras** to monitor temperature at a distance or in real time

5 FIRE SAFETY BOX

To store **damaged batteries** which are susceptible to thermal runaway – mechanism to deplete oxygen to stop fire

6 FIRE SUPPRESSION SYSTEM

To be **activated** once potential events such as **temperature excursion or off gas detected** in the warehouse