

Smart Electric Urban Logistics (SEUL)

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@freight_tails

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As the FREVUE project has shown, electric vans and trucks are well suited for urban freight operations. As part of SEUL, highly innovative smart charging technology is being developed to support the wider transition of larger fleets to electric.

Following a positive initial experience with electric freight vehicles (EFVs), UPS now deploy 52 EFVs from their central London depot. Electric grid infrastructure constraints currently hinder the further electrification of this fleet.



20 fully electric
7.5t trucks to
be deployed in
central London,
replacing diesel
vehicles

Smart charging
technology will
allow all UPS
electric vehicles
to be charged
overnight without
the need for
further physical
infrastructure
upgrades

Scope of works

The 2-year Smart Electric Urban Logistics (SEUL) project aims at providing an innovative set of solutions that will support the future uptake of electric freight vehicles and make a vital contribution to cutting emissions in central London.

Outcomes

Together with project partners UK Power Networks and Cross River Partnership (CRP), UPS will:

- Extend the number of electric freight vehicles at the Kentish Town depot by 20 electric freight vehicles, bringing the number above the maximum that can theoretically be charged at any one time;
- Design and implement an innovative smart charging system at the UPS depot that, together with an energy storage system, will allow them to exceed the current maximum of 63 vehicles to be charged there;
- Design and implement a sophisticated network capacity assessment tool developed by UK Power Networks to take into account time of day variation in demand and yield efficiency benefits
- Develop a roadmap for how all of UPS's 170 central London vehicles could be electric
- Provide data and material to support other vehicle operators to convert to electric fleets

Lessons learnt

Upgrading the existing power supply to a building is costly, disruptive and requires the fleet operator to invest in a third-party's asset. Smart charging technology represents a much-needed alternative.

Between the smart charging system and the network capacity assessment tool, these two solutions should dramatically reduce the cost of power supply upgrades compared to the conventional approach of installing new hardware into the network.

Future of the project

All 20 vehicles are scheduled to be deployed by the end of March 2018 at which point the one-year trial of the smart charging system will commence.

Cross River Partnership look forward to working closely with UPS and UK Power Networks in replacing more diesel trucks by fully electric ones and facilitating their uptake by other fleet operators.

Key facts for front page:

- Well-established public-private partnership between UPS, UK Power Networks and Cross River Partnership
- SEUL has received £ 1.2 million in grant funding from the Office for Low Emission Vehicles (OLEV)
- SEUL is a 2-year project that commenced in April 2017

A positive trial would pave the way for all 170 UPS central London trucks to be electrified



The results will be highly transferable to other fleet operators in Europe



<https://crossriverpartnership.org/projects/smart-electric-urban-logistics/>