

Transitioning to an electric LCV fleet

Hitachi ZeroCarbon's service delivers LCV fleet electrification designed to meet your specific business needs

THE CHALLENGE FOR LCV FLEET MANAGERS

Fleet electrification is the No.1 challenge for LCV fleet managers today (*Fleet News*, 02.02.21). Soon it will no longer be possible to buy new ICE vehicles and Low Emission Zone charges will make it increasingly costly to run them. The pressure is on to transition to electric vehicles soon and yet there are real challenges to overcome. Fleet Managers have real concerns about investment costs, vehicle choice, specialist vehicle availability, charging infrastructure, electricity grid load, vehicle range limits, and operational impact.



New models of electric LCVs are regularly being launched, complicating the choice of what to replace when. Electric LCVs are typically more expensive to buy than ICE models and there will be additional costs for charging infrastructure, whether at the depot and/or at employee homes. Some depots may need to be reconfigured to free up space to charge multiple vehicles overnight and the local electricity grid network may need to be reinforced to provide sufficient electricity supply. For fleets with thousands of LCVs, the up-front costs will be £millions, with the wrong choice of investment likely to be a costly one for the business.

When migration to electric vehicles does get underway, the Fleet Manager has the difficult task of managing a hybrid fleet – a mix of older or retained specialist ICE vehicles and new electric ones. Having already optimised the ICE fleet, the fleet manager will now have the task of minimising the cost of the new electric fleet. This requires the analysis of a new and more complex set of data for the new vehicles. Fleet Managers will need to determine how best to use that data to overcome potential issues and maximise the potential benefits. They may also benefit from integrating this with existing ICE data and company systems to gain a complete management view of the entire fleet operation.

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LCV fleet operators are experts in managing and optimising their existing fleet. However the role of the Fleet Manager is changing, and they need to develop new skills in electric vehicles, charging infrastructure, power grid connection, integration of telemetry data and project management to enable a successful transition. Unleashing the full value of fleet electrification is challenging. As the pressure to decarbonise LCV fleets increases, finding an organisation with the required blend of experience, skills, and capability that can help support the planning and executing of the migration is key.

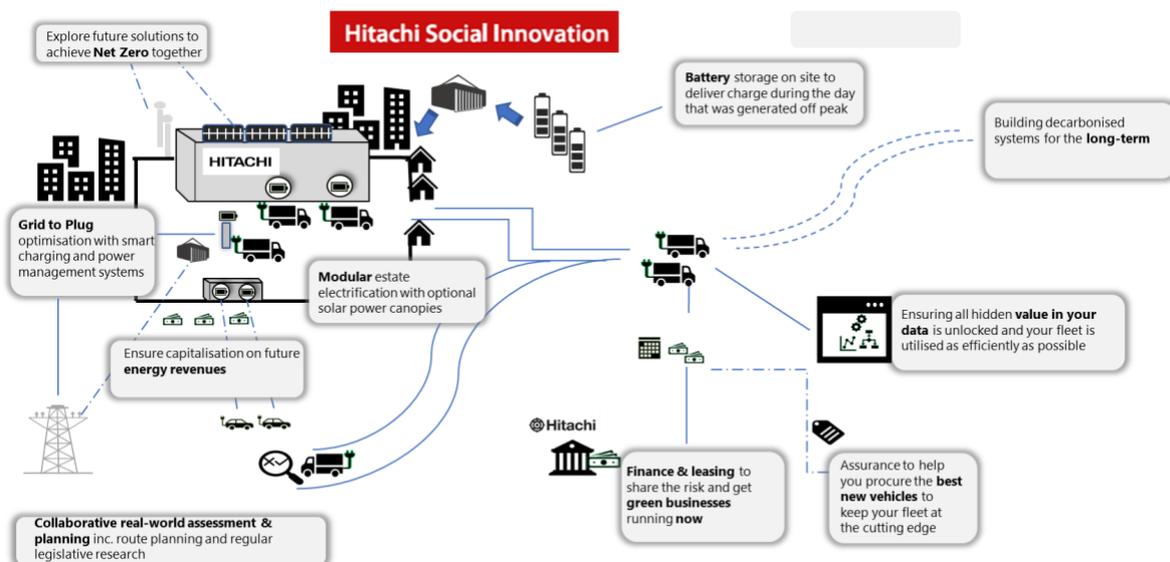
TAKING A HOLISTIC APPROACH TO LCV FLEET DECARBONISATION

When Hitachi looked at the issues that Fleet Managers were grappling with, they realised that they were perfectly positioned to support fleet owners through the journey to minimise emissions. Hitachi has over a 100 years' knowledge of the automotive industry, 25 years of fleet management experience, over 50 years in IT solution development and systems integration, and is a pioneering technology leader in grid to plug infrastructure, V2G and smart charging technologies. Hitachi decided to combine this knowledge and experience to create an offer called Hitachi ZeroCarbon.

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Hitachi ZeroCarbon's service is designed to de-risk and de-mystify the fleet electrification process by working with you to create a Total Cost of Ownership (TCO) model for the entire electrification project. This TCO model uses existing fleet information to prioritise which vehicles to replace first, suggest appropriate replacement electric models and advise on the required charging infrastructure. The TCO model also generates a business case, calculating when a return on investment can be realised, which will help gain senior management buy-in to your electrification plans. We will also work with you to achieve quick wins in line with your sustainability goals, delivering early value to the business and supporting further investment decisions for the remainder of the transition. At all times we will make sure that you can take full advantage of any government subsidies or incentives for electric vehicle purchase, charge point installations and any others that are introduced.

Hitachi has the capability and experience to design, deliver and finance the entire LCV fleet electrification transition project, including advising on prioritisation and vehicle choice, sourcing and procuring the vehicles, designing and installing charging infrastructure, managing and optimising charging, delivering the IT management system that will provide a dashboard to optimise your entire fleet of ICE and EVs, constantly horizon scanning to keep abreast of new technologies as they emerge, and financing the entire project to minimise the need for up front capital expenditure. The entire service is customisable so you can choose the elements you require, and we will work collaboratively with you to develop the solution that is right for your business.



Hitachi has negotiated partnering agreements with OEM LCV manufacturers to provide fleet managers with the most extensive range of efficient electric LCVs. Through Hitachi Capital we have a market leading financial proposition for vehicle financing, and we are confident that we can deliver the best priced deals in the market through our long-term partnering model.

Hitachi will provide an experienced single point of contact Project Manager for delivery of all required depot works including any required construction work, optimal siting of charging infrastructure components, any required grid reinforcements or changes to supply agreements, and utilising our excellent working relationships with Distributed Network Operators (DNOs) to enable you to benefit from the best tariffs available. We offer a complete range of AC and DC charging solutions for depot and home charging which we will design to meet your specific business needs, as well as providing any electrical and civil works required to install them.

Hitachi has made a substantial investment in GridServe to deliver ultra-fast charge Electric Forecourts that use sustainable energy for charging vehicles on route. We can provide charge cards for drivers to allow fleet operators to pay for on route charging as well as install charging points at drivers' homes if that is the best charging option for some or all vans. We can also provide consolidated billing across these charging options.

Hitachi will combine the telemetry available across ICE and electric vehicles to form a complete dashboard to put the Fleet Manager in complete control of the entire LCV fleet. The battery charge level and remaining driving range of each vehicle will be accessible to all drivers and operational management. The location of local charging stations will also be displayed to address 'range anxiety' and avoid stranded vehicles. Fleet Managers will also have immediate access to information to avoid unplanned downtime, maximise vehicle utilisation, and monitor driving behaviour to optimise battery performance.



Hitachi can help drive LCV fleet decarbonisation and efficient fleet operations by delivering an "As a Service" end-to-end solution covering the physical assets (vehicle, charging infrastructure), operational and maintenance services enabled by digital solutions, to meet client sustainability goals. To allow Fleet Managers to focus on vehicle utilisation, we offer the option of a complete LCV fleet service with payment per vehicle/month/mile for the vehicles and infrastructure against the following outcomes:

- Availability of vehicles on the road i.e. not off-road, under maintenance or inoperable
- Service ready and optimised fleet with sufficient battery charge for the required van route
- Charger availability at the depot to ensure that the vehicles receive the required charge
- Single payment approach with clear, consistent, and well-presented utilisation billing
- Simple payment approach to all charging in and out of depot, including access to other chargers.



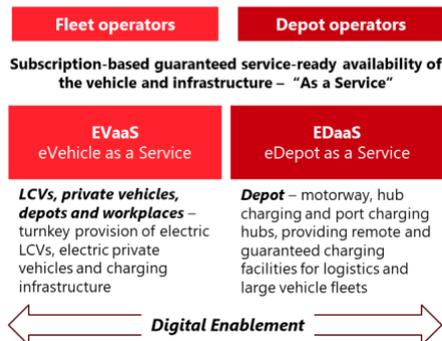
This approach provides the LCV fleet manager with successful electric fleet transition, on-going quality of service, and certainty of invoicing.

In addition, Hitachi will pursue a set of revenue generating opportunities for LCV fleet operators. For example, surplus energy generated can be sold back to the national grid, green energy generation can be considered at depot locations, and there may be a retail opportunity of allowing local businesses to use the charging infrastructure while vans are out on their routes. These new opportunities transform the LCV depot into a revenue generator rather than just a cost centre.

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CONCLUSION

Our Solutions



Hitachi ZeroCarbon's partnership approach is central to our wider corporate strategy. Social Innovation is all about delivering economic, environmental, and social value and the environment is a central pillar of our focus as an organisation. Delivering real value to society through our solutions is key – improving societies through better solutions that deliver greater quality of life. We do this by leveraging Hitachi capabilities across finance, mobility, infrastructure and digital to build new opportunities for cost savings, CAPEX reduction and new revenue generation through new services and solutions.

We recognise that fleet managers are under pressure to help deliver company sustainability targets that demonstrate corporate responsibility and enhance business reputation. At the same time, government pressure and incentives are increasing to drive down carbon emissions to meet global environmental commitments. Drivers also tend to support a change to electric vehicles for environmental reasons and improved driving experience. This is a 'perfect storm' of reasons to start migrating to an electric van fleet sooner rather than later.

The road to full LCV fleet electrification is however not straightforward and requires new skills and understanding. Finding a suitable long-term partner with the appropriate broad experience and financial strength, to support LCV fleet operators through the transition process from strategic planning to realisable saving is vital. With its unparalleled experience of vehicle fleet management, charging infrastructure, IT business solutions, capital financing and long term, risk sharing partnerships, Hitachi is the partner of choice for fleet managers to plan, manage and share the risk on the path to net zero.

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NEXT STEPS

To find out more about how Hitachi ZeroCarbon can help your LCV fleet operation make a successful transition to decarbonised operation, please contact:

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