

# Electric bus fleet transition

Working in partnership to achieve net zero in Limburg, Netherlands

## What was Arriva's challenge?

**Public transport is already the greener option, but cities and towns are being shaped by a need for more sustainable transport, especially in the Netherlands, where the Government has stated a goal to be net zero in transportation by 2030.**

The Passenger Transport Authority (PTA) representing the Province of Limburg asked Arriva to deliver a zero emission bus operation across the whole region. This formed part of Arriva's bid to win the largest transport contract in the Netherlands, valued at over €2 billion.



## Innovating in partnership

In 2016/2017 Arriva developed an 'on-the-go' solution for electric bus charging, which was piloted over the course of the following year. The goal was to achieve fully emission-free public transport in Maastricht by early 2019, with the entire province of Limburg carbon-neutral by 2025.



Having developed a fast load charging system (meaning buses can charge while they are on the go, at bus stops for example), Arriva then had to decide where to locate the charge systems within the city's infrastructure. This required careful consideration, long-term planning and co-ordination with local residents and stakeholders.



Arriva has now built fast-charging stations at Miradorplein, Maastricht and Venlo, as well as one in Kaldenkirchen, Germany. A bus can be fully charged in just 30 minutes. Bus depots are also equipped with slow charge units for overnight charging.

In a further example of innovation, Arriva worked together with vehicle manufacturer VDL to develop a new, smaller 10m electric bus specifically for Venlo, tailored to local demand and in support of the road infrastructure, which is too small for the normal 12m buses. Arriva got these on the road within 12 months of winning the contract.

## Developing solutions for clients

More VDL electric vehicles were added to the fleet in 2019 until 95 electric buses were in operation. In 2021 the remainder of the Limburg fleet, about 120 buses, switched to HVO fuel (Hydrotreated Vegetable Oil). This is a more sustainable fuel which will be used as an interim measure up until 2026, when all buses in the region will be electric.



## What is being achieved now and in the future?

Arriva will eventually operate a fleet of 250 electric buses in Limburg, introduced in phases throughout the length of the contract.



A fleet of 46 trains are also operated by Arriva across the Limburg province, including cross-border services to Germany and Belgium. A further eight trains will enter service by the beginning of 2024 bringing the total to 54. Over 70 per cent of the fleet operates with green electricity which comes from wind turbines or solar panels.

By 2026, all buses and trains will be emission-free as part of Arriva's environmental commitment. This is great for passengers who increasingly want to see more sustainable transport solutions. Arriva is also helping its clients succeed in their sustainability ambitions.