



## Geofencing: Ford introduces automatic electric mode on Commercial Vehicles

**Dunton, 06 July 2020** – Awareness of how air quality can affect our health is driving cities, companies and individuals to find ways to reduce emissions and take responsibility for their environmental impact.

Technology being introduced by Ford aims to promote cleaner air where it is needed most by ensuring its new breed of plug-in hybrid commercial vehicles operate in zero-emission electric-only drive mode in sensitive areas.

Using live location data, the Transit Custom Plug-In Hybrid electric (PHEV) vans will automatically switch to electric drive mode whenever they enter predefined areas such as congestion and low-emission zones, helping to keep air clean on city streets. \*

However, this geofencing tech doesn't only apply to city centres: vehicle operators can also create custom "green zones" to encourage low-emission driving around locations such as schools, playgrounds and warehouses.

And, when the vehicle leaves a controlled zone, it can automatically switch to the most appropriate drive mode to complete the next leg of the journey – for example, engaging the onboard EcoBoost petrol engine to generate electric power and extend the vehicle's range.

### Improving urban air quality

[Low-emission zones are increasingly common across Europe](#) as a way for cities to better manage the environmental impact of vehicles in urban areas. In the first six months of the London Ultra Low Emission Zone (ULEZ), levels of nitrogen dioxide (NO<sub>2</sub>) – one of the most harmful pollutants from vehicles – were found to have been [reduced by almost 30 per cent](#).

A recent study by Ford concluded that [hybrid-electric vehicles could help improve urban air quality](#): 75 per cent of miles driven in Central London by study participants – which included operators Addison Lee Group, British Gas, the Metropolitan Police and Transport for London – were completed in the Transits' zero-emission electric-only mode. Similar studies are now taking place in [Cologne, Germany](#) and Valencia, Spain.

The Geofence module in the Transit PHEV records information about electric-only operation within geofenced areas. The encrypted data could then be securely shared with local authorities to confirm

### Glossary

**PHEV** – a Plug-In Hybrid Electric Vehicle in which the battery can be charged by an external power supply and from an onboard engine

**GPS** – Global Positioning System uses a network of satellites to determine the precise location of a receiver; commonly used by satnavs, smartphones – and vehicles

**Geofence** – a virtual fence or perimeter around a physical location

**LEZ** – in a Low Emission Zone the most polluting vehicles are discouraged or restricted with the aim of improving air quality. Some cities, also have a ULEZ – an Ultra-Low Emission Zone

compliance with low-emission zone regulations and vehicle charging schemes.

## Hybrid electric drive

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The Transit Custom Plug-In Hybrid van and Tourneo Custom Plug-In Hybrid people mover are the first vehicles in their class to offer a plug-in hybrid option. A 13.6 kWh battery helps to deliver a zero-emission NEDC driving range of up to 56 km (35 miles) NEDC for the Transit Custom PHEV, and up to 53 km (33 miles) NEDC in the Tourneo Custom PHEV. In both vehicles the onboard 1.0-litre EcoBoost petrol engine can charge the battery on-demand to extend their range to more than 500 km (310 miles) NEDC. \*\*

Both vehicles can be fully recharged in under four-and-a-half hours from a standard domestic mains supply, or in under three hours using commercial charging point. \*\*\* Further electrical energy is captured through regenerative braking when the vehicle decelerates or brakes. Ford Transit Custom Plug-In Hybrid and Tourneo Custom Plug-In Hybrid entered volume production in late 2019.

[Trials by Ford across Europe](#) have shown how PHEVs offer a practical every-day solution for van owners and businesses working in the city, enabling them to complete longer journeys when required. As the vehicles aren't reliant on charging infrastructure there is no range or charge anxiety, meaning they can deliver the best of both worlds: zero-emission driving capability with no compromise on getting the job done. There is no reduction in payload or load volume compared with a conventional diesel model.

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## Footnotes

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\* *Geofencing module introduced from autumn 2020 and will be available from autumn to retrofit to vehicles produced earlier. The vehicle will engage its electric drive mode when entering a geofence zone only if there is sufficient charge in the battery.*

\*\* *Transit Custom Plug-In Hybrid CO<sub>2</sub> emissions from 60 g/km and fuel efficiency from 2.7 l/100 km NEDC (70 g/km and fuel efficiency from 3.08 l/100 km WLTP); Tourneo Custom Plug-In Hybrid CO<sub>2</sub> emissions from 70 g/km and fuel efficiency from 3.1 l/100 km NEDC (81 g/km and fuel efficiency from 3.57 l/100 km WLTP).*

\*\*\* *Fully charged from a standard 240-volt 10-amp mains supply in 4 hours 20 minutes, or in 2 hours 45 minutes using a commercial type-2 16-amp AC charger.*

*The declared fuel/energy consumptions, CO<sub>2</sub> emissions and electric range are determined according to the technical requirements and specifications of the European Regulations (EC) 715/2007 and (EU) 2017/1151 as last amended. Light Duty Vehicle type-approved using the World Harmonised Light Vehicle Test Procedure (WLTP) will have fuel/energy consumption and CO<sub>2</sub>-emission information for New European Drive Cycle (NEDC) and WLTP. WLTP will fully replace the NEDC latest by the end of the year 2020. The applied standard test procedures enable comparison between different vehicle types and different manufacturers. During NEDC phase-out, WLTP fuel consumption and CO<sub>2</sub> emissions are being correlated back to NEDC. There will be some variance to the previous fuel economy and emissions as some elements of the tests have altered, so the same car might have different fuel consumption and CO<sub>2</sub> emissions.*

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**About Ford Motor Company**

*Ford Motor Company is a global company based in Dearborn, Michigan. The company designs, manufactures, markets and services a full line of Ford cars, trucks, SUVs, electrified vehicles and Lincoln luxury vehicles, provides financial services through Ford Motor Credit Company and is pursuing leadership positions in electrification; mobility solutions, including self-driving services; and connected services. Ford employs approximately 188,000 people worldwide. For more information regarding Ford, its products and Ford Motor Credit Company, please visit [www.corporate.ford.com](http://www.corporate.ford.com).*

***Ford of Europe** is responsible for producing, selling and servicing Ford brand vehicles in 50 individual markets and employs approximately 46,000 employees at its wholly owned facilities and consolidated joint ventures and approximately 61,000 people when unconsolidated businesses are included. In addition to Ford Motor Credit Company, Ford Europe operations include Ford Customer Service Division and 19 manufacturing facilities (12 wholly owned facilities and seven unconsolidated joint venture facilities). The first Ford cars were shipped to Europe in 1903 – the same year Ford Motor Company was founded. European production started in 1911.*

**Ford in Belgium & Luxemburg**

*Ford Belgium distributes Ford vehicles and Ford original parts in Belgium & Luxemburg, since 1922. Ford Lommel Proving Ground is the lead test facility for validation of all Ford models in Europe, with approximately 390 employees.*

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