Energy Use Halved at Ford’s New Diesel Engine Production Line; Annual Water Savings Could Fill Seven Olympic-Size Pools

- New production line for all-new Ford EcoBlue diesel engine expected to cut energy and water use by 50 per cent for each engine built at Ford’s Dagenham Diesel Centre, U.K.

- Annual savings could fill seven Olympic-size swimming pools, power 350,000 homes for a week. New EcoBlue engine final assembly building powered entirely by three wind turbines.

- Ford globally targets 30 per cent greenhouse gas reduction per vehicle between 2010 and 2025; achieved 30 per cent global water use reduction between 2009 and 2015.

COLOGNE, Germany, Aug. 4, 2016 – Ford has installed at its Dagenham Diesel Centre – the company’s largest diesel engine production facility globally – a state-of-the-art production line for the all-new 2.0-litre Ford EcoBlue engine that is expected to reduce water and energy consumption per engine produced by over 50 per cent compared with the previous 1.8-litre TDCi diesel engine production line.

At initial capacity of 350,000 engines per year, water use per engine will be among the lowest at any Ford manufacturing facility worldwide, delivering an anticipated annual saving of 17.5 million litres of water compared to 2011 – enough to fill seven Olympic-size swimming pools.

Minimum quantity lubrication (MQL) machining tools – which replace high volumes of coolant with fine mists of oil to cool, lubricate and clean during the metal working process – use 99.8 per cent less water than the machining tools they replace, and alone are expected to account for an annual water saving of almost 16 million litres.

The reduction in the volume of coolant pumped around the facility also helps to significantly reduce energy usage. Three smaller coolant systems require around 70 per cent less energy, and contribute to reducing energy use per engine from 188 kWh in 2011 to 92 kWh in 2016 – the energy saved roughly enough to power an average house for a week.

A new LED lighting installation meets the latest Ford standards and will further help reduce energy consumption by almost 750,000 kWh per year – roughly enough to power 7,500 houses for a week.

“Ever since Henry Ford first introduced the moving assembly line Ford has been at the forefront of manufacturing innovation, and our new Dagenham, U.K., facility is no exception,” said Linda Cash, vice president, Manufacturing, Ford of Europe. “Ford is using the latest technologies to ensure our all-new EcoBlue diesel engine production meets the highest standards for sustainability and makes a significant contribution to our global environmental targets.”

Globally Ford is targeting a 30 per cent reduction in greenhouse gas (GHG) per vehicle produced between 2010 and 2025, and looks to further reduce the amount of water used per vehicle, having achieved its goal of a 30 per cent reduction between 2009 and 2015.
The new Ford EcoBlue production line in Dagenham makes a significant contribution to achieving Ford’s global targets and is helping to shape future objectives through its example.

Further energy and resource saving initiatives at Ford’s Dagenham Diesel Centre include:

- Zero waste sent to landfill through innovations such as recovering oil and forming reusable metallic briquettes from grinding sludge
- New cold testing technology that allows completed engines to be tested without being started – saving 50,000 litres of diesel per year
- Advanced tooling, including computerised milling machines capable of reducing rejection rates for some components to almost 0 per cent
- Three wind turbines that provide enough clean energy to power the final assembly building

The all-new 2.0-litre Ford EcoBlue diesel engine debuts in the new Ford Transit and Transit Custom commercial vehicles, delivering an unrivalled package of fuel efficiency, performance and refinement. The engine’s clean-sheet design features friction-reducing innovations that contribute to a 13 per cent improvement in fuel efficiency.

Dagenham engine production capacity will initially be up to 350,000 units per year – one engine produced every 30 seconds. The second phase of engine production is scheduled to start in 2017, with the first installation in Ford cars planned for 2018. The added capacity of up to 150,000 units for this phase brings the total annual capacity for the all-new engine range to up to half a million units.

Ford also recently announced that all 12 of its European manufacturing plants, including Dagenham, now send zero waste to landfill.