

Written Evidence Submitted by JCB

(HNZ0083)

JCB is the UK's leading manufacturer of construction equipment with a wide range of products including excavators, wheeled loading shovels, backhoe loaders, and telescopic handlers. The vast majority of products manufactured in JCB's UK factories are currently powered by diesel engines.

In recent years, as part of JCB's commitment to reducing the carbon footprint of its products, JCB has introduced a range of electric machines, powered by battery technology. These innovations have been limited to the smaller and lighter end of JCB's machine range (<5 tonne weight segment) due to the technological and commercial limitations of battery technology on larger, heavier equipment.

However, JCB has been exploring the opportunities that other fuel options / propulsion technologies can offer to help JCB reduce the carbon footprint of larger equipment. Hydrogen offers JCB, and other construction equipment manufacturers many possibilities. These need to be better understood by key stakeholders in Westminster and in the devolved Governments in order to ensure opportunities are not squandered.

In general terms, JCB welcomes the Prime Minister's 10-point plan for a green industrial revolution, and in particular the emphasis given to the potential role of hydrogen in a green recovery. The UK Government must do everything possible to expedite the formulation of a UK hydrogen strategy to inject confidence into the private sector to stimulate further investment in hydrogen and hydrogen technology. This will help develop the infrastructure required to support the production and distribution of hydrogen to potential users in the UK, such as e.g. hydrogen car owners, operators of future hydrogen-powered construction equipment and so on.

JCB has already successfully developed a prototype 22 tonne tracked excavator powered by a hydrogen fuel cell. Further work is ongoing to understand the opportunities and challenges associated with hydrogen fuel cell technology in the construction equipment sector. JCB also believes that hydrogen could have a key role to play in combustion engines, potentially displacing the need for fossil fuels in engines and thereby reducing the corresponding carbon footprint. JCB is concerned that the internal combustion engine could be banned, possibly inadvertently, by the UK Government before this opportunity can be fully explored, validated and commercialised at scale by engine manufacturers. JCB firmly believes that fossil fuels are the enemy, not the internal combustion engine.

JCB believes that green hydrogen should be at the heart of the Government's hydrogen strategy and offshore wind power should be optimised to deliver as much green hydrogen as possible. JCB is concerned that the RTFO (Renewable Transport Fuel Obligation) will act as an obstacle to unlocking private investment in hydrogen, by not allowing existing wind farms on land to generate hydrogen in the meantime.

A truly green recovery is possible if industry is given the chance to prove its worth in various applications and end uses. There is no question that reaching net zero by 2050 is possible but only if hydrogen is part of the energy mix.

Investment in hydrogen production and distribution infrastructure, particularly for green hydrogen, will be critical to ensuring early and sustained adoption across the UK .

The Government must act now to ensure that the UK can capitalise on its current advantage in the hydrogen economy to reach net zero.

(January 2021)