

event report

HyTEC Fuel Cell Taxi Handover
City Hall, London, UK – 20 July 2012

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HyTEC Project Coordinator Diana Raine hands Deputy Mayor Kit Malthouse the keys to the first fuel cell taxi

Just over two years ago a consortium of British partners including the Technology Strategy Board, Intelligent Energy, Lotus Engineering and LTI revealed a hydrogen fuel cell powered version of London's iconic Hackney carriage black cab. Since that time the taxi has teased the interest of the public and ministers alike across many high profile demonstrations in the UK. In every instance test drivers were impressed with the vehicle's ease of use, responsive handling and quiet operation – "[it] looks and performs just like a conventional taxi, even over longer distances", Chris Huhne, the UK Secretary of State for Energy and Climate Change, said when he drove the vehicle at Intelligent Energy's Loughborough headquarters last March. The lingering question over the past two years has been 'When will we see these taxis on London roads?'

2012 is an iconic year for London. Hosting the Olympic Games is drawing the eyes of the world onto the UK capital. As well as the most spectacular show on earth, London promised that this year's Games would leave a lasting cultural legacy and that it would be the most sustainable Olympiad ever. It is only appropriate then that the first five of a planned fifteen zero emission fuel cell black cabs are launching with the Olympics. The keys to the first fuel cell taxi were handed to Deputy Mayor of London for Business and Enterprise Kit Malthouse at an event at City Hall on Friday 20th July.

The taxis have been organised under the HyTEC project – a partnership between London and Copenhagen, two promising early city demonstrators for fuel cells and hydrogen. Consisting of sixteen members from five EU countries, it aims to deploy up to thirty hydrogen fuel cell vehicles in fleets across three classes – passenger vehicles, taxis and scooters – as part of a two year demonstration. Copenhagen will be receiving ten fuel cell electric vehicles (FCEV); London will receive up to fifteen taxis and up to five fuel cell scooters.

Speaking to the audience at the event Mr Malthouse, who is Chair of the London Hydrogen Partnership, declared his firm belief that hydrogen and fuel cells represent the only long-term solution to mobility and bringing cleaner air to London. Battery technologies have failed to make a significant impact on London, especially in the commercial transit sector where operating hours and

range are demanding and outstrip the capabilities of battery electric vehicles. Londoners can see the damage gasoline transit is causing their city in pollution and are keen for an alternative; the new taxis are important in demonstrating fuel cell and hydrogen technologies to the masses – “they have to be able to kick the tyres and see that it is similar to the technologies they’re used to.”

This public interaction is a key goal of HyTEC. As project coordinator Diana Raine (BM Hydrogen Energy Systems, Europe at Air Products) explained, the project is moving away from demonstration and putting the technology into the hands of users such as drivers of the London Taxi Company and the Metropolitan Police, who will be trialling up to five Suzuki Bergmann fuel cell scooters starting later this year. The taxis will be used to take VIPs between the Olympic Park in Stratford, home to Air Products’ existing London hydrogen station, and Heathrow, where Air Products have built a new hydrogen station to support the taxis. Importantly, hydrogen infrastructure deployed under HyTEC will be publicly accessible, allowing automotive OEMs and early adopters to bring their hydrogen vehicles to the cities, again putting the technology into the hands of users. Mr Malthouse hopes to see at least six hydrogen stations in London in the coming years, including in locations more central than the existing ones.

Praise for the taxis was effusive from London Taxi Company CEO John Russell and two of the taxi drivers who will be operating the vehicles. Having tested the vehicles Russell believes hydrogen “is the only way to go”, and that “if hydrogen can work in our taxi vehicle cycle, it can work in any vehicle fleet in the world.” For the drivers, handling and manoeuvrability of the cabs was similar to that of their conventional counterparts but with the additional benefit of low-end torque offered by the electric motor. More important though are the health benefits. A taxi driver spends his entire working week inside his vehicle with continuous exposure to its exhaust fumes; a fuel cell taxi has no exhaust other than water and the quiet and still operation provides additional health benefits for hearing and the back – vibration from traditional taxis has been known to cause back problems amongst cabbies.

The taxis are by chassis typical black cabs, looking no different to a passer-by than any other taxi, and this is indicative of the wider project goal: to prove that fuel cell and hydrogen technologies can seamlessly integrate into our existing lifestyles. The taxis join a fleet of fuel cell buses that have been servicing the scenic Thames riverside RV1 bus route since early last year and have accumulated more than 100,000 miles of service. As Dennis Hayter of Intelligent Energy, the fuel cell supplier for the taxis and scooters, aptly stated: the technologies “are here, are now, are safe” and Londoners are now beginning to experience them as part of their day-to-day lives. Next time you hail a cab in London, keep an eye out for a distinctive zero on the bonnet.

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