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Ben Garner, Head of Logistics Development at Tarmac

# PLANET

## CLIMATE ACTION

### Showcasing the Future of Lower Carbon Construction at Tilbury

Industry leaders came together at Tarmac’s Tilbury Depot for a Fleet Demonstration Day hosted by Sustain Alliance, the joint venture between Tarmac and Holcim UK created to accelerate lower carbon innovation across construction materials and logistics. The event offered a hands-on look at the technologies that will support major national infrastructure projects, including the Lower Thames Crossing, with a focus on battery-electric plant, alternative fleet configurations and efficient transport solutions designed to reduce emissions at scale.

Sustain Alliance is working in partnership with Balfour Beatty to deliver Roads North for the Lower Thames Crossing, a proposed new tunnel and road under the River Thames designed to tackle congestion by almost doubling road capacity east of London. As a pathfinder project, the Lower Thames Crossing is exploring lower carbon construction methods that can be replicated across the wider industry, making the Demonstration Day an important opportunity to showcase practical progress.

#### A Live Demonstration of Next-Generation Technology

The day was built around three interactive zones, each highlighting a different aspect of the industry’s transition to net-zero construction logistics.



In the Electric Quarry, guests saw fully operational heavy battery-electric plant, including a 23-tonne Volvo EC230 excavator and a 20-tonne Volvo L120 front-end loader. Their performance demonstrated the readiness of electric machinery for demanding quarry and construction environments.

The Efficient Logistics zone showcased a range of innovative vehicle and trailer options, including articulated trucks fitted with ejector trailers designed specifically for asphalt delivery. These configurations help improve pavement durability and ride quality while also reducing vehicle movements. Visitors were also invited to experience ride-alongs in electric trucks, gaining first-hand insight into their capabilities and operational feel.

Meanwhile, the Electric Road Zone highlighted the rapid development of zero-emission road-laying equipment through demonstrations of a battery-electric paver and roller, providing a view of how road construction can be delivered with significantly reduced carbon emissions.

Throughout the day, experts from Tarmac, Sustain Alliance, Holcim UK and supply chain partners discussed the challenges and opportunities associated with transitioning to electric plant and fleet. Conversations focused on the benefits of larger vehicle configurations, the integration of electric trucks into construction logistics, and the evolution of electric plant technology.



### Insights From the Team

Ben Garner, Head of Logistics Development at Tarmac, emphasised the meaningful carbon savings already achievable through smarter logistics choices:

“We showed how we can reduce carbon emissions by a third and vehicle movements by more than 40% by using bigger articulated trucks, with a wide range of trailer options suited to different project needs from tipping to walking floors to ejectors. We also demonstrated how much of our yellow plant can already be electrified, with second-generation technology available and new, larger models emerging all the time.

Electric trucks can do the job, particularly when charging networks are planned effectively to maximise operational efficiency. Yes, challenges remain, but together with our partners, we’re tackling them one by one.”

He added that seeing the Tilbury team getting hands-on with the electric plant was a standout moment, reinforcing the enthusiasm and momentum behind the transition.

For the Lower Thames Crossing team, the event demonstrated the scale of opportunity ahead.

**“The Lower Thames Crossing will be a pathfinder project for carbon-neutral construction, which means we are on a mission to take the carbon out of construction. It is inspiring to be here today and see the innovation first hand – things we once thought impossible are becoming possible and we are finding a path that will lead the industry towards net zero.”**

Natalie Bonnick, Head of Supply Chain Development

### Looking Ahead

The Fleet Demonstration Day highlighted that the transition to lower carbon construction logistics is already underway. With electric plant, alternative fleet solutions and efficient haulage configurations now commercially viable, the foundations are in place for major projects to deliver meaningful emissions reductions today.

By bringing together clients, contractors and supply chain partners, Sustain Alliance is helping to accelerate the adoption of technologies and approaches that will shape the industry’s journey to net-zero construction. The progress demonstrated at Tilbury shows what can be achieved through collaboration, innovation and a shared commitment to lower-carbon delivery.

