

Addressing the challenge of sustainable train washing on the London Thames Valley Route

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Gareth Storton, Fleet Manager at Great Western Railway (GWR), discusses the challenges he faces in finding a sustainable and low-carbon train washing solution for his fleet on the London Thames Valley Route, and how innovation partners are required to bring solutions to the market.

Background



Gareth Storton,

Great Western Railway (GWR)'s operation in the London & Thames Valley area serves the Thames Valley branch lines, including Gatwick and Basingstoke, services to Banbury via Oxford and along the Great Western Mainline as far as Cardiff and including to Bedwyn and Heathrow.

The London & Thames Valley fleet is a mixed fleet of Class 165 and Class 387s, with the Class 165s being replaced with the Class 769s and the Class 230 battery train. We currently have around 300 vehicles in this fleet.

At GWR our objective is to deliver a sustainable railway; this is front and centre of everything we do and forms part of our core values.

We have replaced the majority of our diesel fleet on the Thames Valley Route with more environmentally-friendly electric trains. While this is great news from a sustainability perspective, an unintended consequence of this is that these new trains stay away from the maintenance depot for longer as they don't need to return for fuel. This is helping us reduce our carbon footprint in wasted miles operated by our trains travelling back to the depot. However, it also means that our trains are not able to return to the depot to be washed.

At GWR exterior cleanliness is very important to us. It is the first thing our customers see, and we believe first impressions are hugely important. As fleets and depots are modernised and more advanced methods for train maintenance are achieved, scheduling the washing of trains is becoming increasingly challenging.

The challenge for us in the London & Thames Valley operation has become so great that special movements of trains are being arranged specifically so they can be washed, adding complexity to the train schedule and taking them away from service, instead of maximising the work our rolling stock does like we should be.

The search for innovation partners

To ensure that we continue to put sustainability at the forefront of our operations, at GWR we have been working to identify more environmentally friendly and sustainable solutions.

Our current commitment is to seek innovative ways to make traditional 'depot activities' such as washing trains more sustainable and efficient. A carriage wash machine must not be a limiting factor in us delivering our values. Therefore, we are striving to find a way of upscaling a more environmentally-friendly means of washing the exterior of trains to meet our responsibilities to the communities we serve and our neighbours.

A strong track record of project delivery

At GWR our Project Delivery Team has a track record of delivering major rolling stock and depot projects with innovative solutions to solve service delivery challenges and deliver value for money and lasting improvements. The team was involved in the rolling stock cascades which have led to the Thames Valley Diesel Fleets being replaced by the modern Electrostar EMU.

Other sizable infrastructure projects have included two new train maintenance depots at Penzance and Exeter and a new underfloor wheel lathe and dedicated building at Reading Train Care depot, as well as multiple smaller infrastructure projects.

GWR is currently working in a joint partnership with Network Rail to deliver three 9-car IET sidings in Penzance and is leading the delivery on behalf of Network Rail of seven major CP6 depot infrastructure renewals for Network Rail which include renewal of Carriage Washing Machines, Fuel Storage and Depot Protection systems.

Challenges and opportunities

Our Engineering Projects team has also been working with the Reading Depot Team to look at how to solve the Train Washing Challenge and is keen to understand innovative solutions in the market for Train Washing.

We recognise innovation is needed from our supply chain partners to solve this issue and we welcome enquires from potential partners which are forward-thinking and sustainably led. We also believe this is a great opportunity for partners in the industry to work together to create a better exterior cleaning solution for our rolling stock.