

# Network Rail completely rebuild power substation in Sunderland

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Network Rail engineers have completely rebuilt a power substation in Pallion, Sunderland. Its completion means Metro passengers can once again travel between Park Lane and South Hylton.

The entire facility needed to be rebuilt after it was significantly damaged by flooding when heavy rainfall hit the North East in the middle of November 2022. The mix of water and electricity sparked a fire and meant that the substation – which takes energy from the National Grid and transforms it into lower voltage power for the overhead electric wires – was no longer safe to use.

Since then, Network Rail engineers have been working to remove the damaged equipment and completely rebuild Pallion substation. This involved a major rewiring of the equipment that critically monitors the train-powering electric wires, as well as a rigorous programme of testing.

Martin Errington, Infrastructure Maintenance Engineer for Network Rail, who has been leading the repairs said: “This hasn’t been an easy task – the water damage was so significant that the team needed to completely rebuild the facility before trains could run normally again. We’ve been working alongside industry specialists to restore power quickly and safely, and I’m really pleased that passengers can use

this section of the Metro line again.

“We’re grateful to passengers, businesses and the community for bearing with us over the last few months. The new substation will help to offer a more reliable Metro service for many years to come, so that people can continue to enjoy the great connections it provides.”

Until Friday 13 January, Nexus (which operates the Tyne and Wear Metro) had been unable to run services between South Hylton and Park Lane stations which rely on the substation for power, instead offering bus replacements to keep passengers moving.

Metro Operations Director, John Alexander, said: “We are pleased to resume services on the line between Park Lane and South Hylton, and are grateful to our customers for their patience while Network Rail have undertaken the repairs.

“There was significant water damage to the substation at Pallion, which has been completely rebuilt on schedule by Network Rail in what was a complex project.

“The restoration of the power supply at Pallion substation will also enable us to resume a 12 minute Metro service frequency on the entire Sunderland line.”

Overhead electric wires can carry up to 25,000 volts and are always on. They can cause life-changing or fatal injuries. Find out how to stay safe around the railway at [Home – You vs. Train \(youvstrain.co.uk\)](https://youvstrain.co.uk).

*Photo credit: Nexus*