





W INTRODUCTION

On the 27/03/2024 at 8am, RJ Power Networks were called out to address a failure on the 11kV/433v 2500kVA Cast Resin Transformer at 1 Silk Street, London. Our Senior Authorised Person (SAP) arrived onsite at 10am, with **MEMS Power Generation** attending at the same time to set up a temporary generator to supply the building.

W TIMESCALES

Issues

A new transformer was ordered from **Tesar**, Italy, but - due to build times - this would not be available until mid-September.

Solution

Due to the urgency to remove the generator because of disruptive noise levels to the neighbours (the public and the Barbican), as well as environmental issues, it was agreed that RJ Power Networks would procure a 'second-hand' transformer from suppliers **Slaters Electricals Ltd** in Newcastle, to bridge the timing gap. All RAMS were written and issued to the client for the works on 9th May for review and sign-off.





W CHALLENGES & SOLUTIONS

UKPN attended site on 16th May to isolate and earth the incoming feeder. On the 4th June, an RJ Power Networks SAP attended site to take control and ownership of the HV room. The team engaged with **Spargens Power Solutions** to complete the modifications to the copper busbar, while lifting solution provider **Radius** completed the lift and shift of the 'second-hand' transformer.

After an initial site visit with RJ Power Networks and Radius, it became evident that the transformer would not fit though the only access from the loading bay to the basement. As a result, Radius took some measurements and liaised with Slaters to make some modifications to reduce the height and width of the transformer. Radius attended Slaters on the 11th June to complete a trial to ensure the new dimensions of the transformer did not affect the ability of it being skated into the HV room. The trial was successful and, as such, the transformer was delivered by Slaters to Radius on the 14th June.

Due to the size and weight of the transformer, as well as the restricted space, a normal A-frame could not be used. Radius were therefore tasked with designing and building a bespoke seven-tonne steel lifting frame with relevant calculations, to be turned around within three weeks. On 28th June, the steelwork was delivered to site and set up with the appropriate testing. Meanwhile, over the weekend of the 29th and 30th, the transformer was delivered to site and lowered from the loading bay to the basement. It was skated into the HV room a day later and installed within its housing over the 2nd and 3rd of July. RJ Power attended site on 4th July to complete initial tests and install the new tail leads, while Spargens took the measurement for the busbar modifications. The following day, Spargens fitted the new copperwork, with RJ Power Networks attending site to commission into service and MEMS removing the generator cables. By close of business, the transformer was in service and the HV room handed back to independent engineering company **NG Bailey**, who loaded the transformer with supplies that weekend for it to be fully functional and ready for offices to open by the morning of Monday, 8th July.

W TESTIMONIAL

66 On behalf of Linklaters, I wanted to pass on my sincere thanks for all your efforts in helping to resolve our transformer issue. At the outset, I don't think any of us realised how complex this was going to be - or just how tight some of the clearances were! It was certainly a steep learning curve for me, and we had our fair share of challenges, frustrations and stress, but with great teamwork, we got there in the end.

Everything was working as planned this morning and our staff are very grateful to be working in comfortable conditions again. I'm sure our neighbours in the Barbican are equally pleased not to have the generators running anymore. ••

- Jonathan Lace, Global Head of Premises, Linklaters LLP







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