



## DVLA

### Background

As part of its responsibilities the Driver & Vehicle Licensing Agency (DVLA) maintains a number of enormous databases holding records of all those licensed to drive vehicles (39 million at present) as well as a register of all vehicles that are permitted to drive on public roads (32 million at present). This data is vital in the DVLA's mission to improve road safety and reduce crime and is stored at the DVLA headquarters in Swansea.

### Case Summary

**Site:** DVLA, Swansea

**Application:** Data centre

**Chloride capabilities displayed:**

- Expert design
- Management of complex delivery & installation

**Chloride products used:**

- Chloride 90-NET 500 kVA UPS units
- 2.5 MVA diesel generator set
- Chloride LIFE.net
- Batteries

### Results

As a result of the ever increasing size of these databases the DVLA has recently built two new data centres. WSP Consulting Engineers and M&E contractor Lorne Stewart selected Chloride to supply the critical backup power in the form of several Chloride 90-NET 500 kVA UPS units and a 2.5 MVA diesel generator set because it recognised the co-ordination and integration advantages for combining these two product types together as a package.

Amongst the key factors determining the success of this project was the need to accommodate the diesel generator in a specially designed container that could then be lifted and placed in position. Whilst the space available was too small for a standard container our projects team worked closely with our long-term partners to design a customised generator and container solution to meet this requirement. This included raised air inlet fan heights and bespoke BUSBAR arrangements to enable a large number of cables (five 630mm single core HOFR Trailing Flexible 638TQ H07BN4-F cables) to enter the generator ACB cubicle. These measures enabled the whole generator solution to be housed in a finished enclosure less than 12 metres in length.

DVLA chooses Chloride for its  
power protection

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Working closely with WSP and Lorne Stewart, Chloride's project managers took the project through the successive stages of integrated power system design, installation, commissioning and testing; taking personal responsibility for the success of the project and completing all risk assessments, quality and methods statements required for the project.

With the projects team overseeing every aspect of the design and build of the finished generator it meant that all potential problems were resolved at an early stage, minimising delays and ensuring that the end result would be a fully tested and working solution.

### Delivery and installation

Once the engine and bespoke container had been assembled the Chloride project manager arranged for an overnight delivery to the Swansea site. The awkward position and large radius of the lift required a 500 tonne crane to be used to install first the 24,000 litre capacity, bulk fuel tank and then the 41 tonne, 2.5 MVA prime rated diesel generator.

As the generator was lowered into place the tight squeeze became evident and the high accuracy of Chloride's initial site survey and subsequent design became all important.



Generator overnight delivery



Chloride 90-NET 500 kVA UPS installation

Meanwhile, inside the data centre three 500 kVA Chloride 90-NET UPS units plus battery builds with bespoke BCB mounting frames were installed - under the supervision of the same central project manager. This integrated approach set Chloride business apart from the start and was a key factor in ensuring the co-ordinated delivery of the whole package. Once the UPS and genset had both been installed they were tested and all documentation handed over to the Facilities Manager.

### Future expansion

To allow for future expansion, steps have been taken to cater for a second generator to be paralleled to the first and for a further two 500 kVA Chloride 90-NET units to be added to the UPS system.

### Remote monitoring and diagnostics

The DVLA has had a service contract with Chloride Services on other data centres since 2005 and has now added the UPS and generator in the new build to its service contract. Both the UPS and the generator are to be monitored using our unique remote monitoring and diagnostics system, Chloride LIFE.net, maximising uptime and ensuring that the DVLA's databases are always accessible to fulfil the DVLA mission to improve road safety and reduce crime.

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