CASE STUDY:

Pretoria, South Africa

Bells Power were asked to assist with designing, supplying, and installing a turnkey back power system for an Embassy based in Pretoria, South Africa.

We were given the size of a bare piece of ground on the property, the location of the mains incoming transformer and details of the existing electrical boards. Using this information were able to design a backup system which included 2 x 275kVA generators with the setup allowing a N+1 (one main standby generator and a backup to the standby). The switching operation between the mains and both generators are fully automated by using two automatic change over panels. We also supplied a 5000-litre bulk diesel tank, which is connected to both generators to allow an extended run time on the generators in the event of a mains failure.

Once the design had been finalised and all the technical submissions and drawings were approved by the client, we swung into action to get the project rolling.

Whilst the generators were being built in the FG Wilson factory, Bells arranged a local contractor to carry out the civil and builders works. This included a new concrete plinth for the generators to sit on, trenches for the cables, cavities for cable entry into the building, a new palisade fence and lighting around the generator compound. After testing the generators in our Erith depot, we organised all the shipping from our yard to the site in Pretoria, where we arranged the lorries to offload the equipment into their final positions. All equipment, including cables, containment, in line fused switches and tooling was sent in the container, so that no items had to be sourced locally.

Once the generators, ATI panels, fused switches, and bulk fuel tank where on site, we enlisted our install team to carry out a full mechanical and electrical install, leave the client with a completed, working, fully automatic and reliable back up system.

The generator package is comprised of 2 x FFG Wilson P275-5 generators, 2 x FG Wilson ATI 630A, 2 x 630A switch fuse panels and a 5000 litre bunded diesel tank.