

## CASE STUDY

## CRITICAL SUBSTATION FAILURE

## Rapid Response Done Right:

When a leading pharmaceutical company suffered a catastrophic power failure Sheridan Electric was trusted to respond with urgency and expertise to safely restore power.

Our mission is to continuously deliver world-class care, total support, and expert led solutions - this is how Sheridan Electric has built and maintained relationships since 1967.

On the morning of Aug 14th, we responded to a large GTA Pharmaceutical customer who had completely lost power to their facility due to a catastrophic failure of the bus-duct that connects the main transformer and the 3000A main switchboard. For this company that develops and manufactures affordable prescription medications at their production facility in the GTA, a prolonged power failure would mean extremely steep production and business losses.



Upon receiving the call, the service team sprung into action to evaluate the situation, make it safe, and start preparing the switchboard for back-up power by disconnecting the damaged incoming bus-duct. Meanwhile, work began to source and deliver a large 1750KW, 600/347 emergency

generator and ensure fuel delivery. Within 3 hours a generator had arrived onsite, and the team worked through the evening to restore power.

With power restored, attention shifted to diagnosing the damaged bus-duct, switch-board, and substation. Each day the generator was consuming 5,400 litres of fuel so things needed to move quickly! Internally, we arranged oil and gas testing for the damaged substation to check its health, while the engineering team helped design a new 3000A cable bus system to replace the damaged duct.

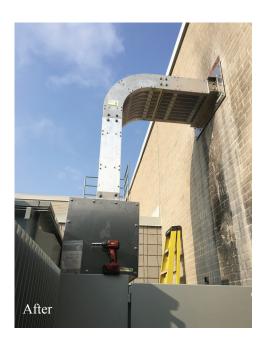
The test results confirmed the worst fear that the transformer had suffered from a critical secondary bus-duct short, and an immediate replacement was required. Thankfully, with help from our partners, we were able to source a new in-stock 44KV replacement transformer.

Once the expedited ESA plans approval process was complete the old transformer was removed and the new one was put in its place. The new transformer had a lower impedance than the original, so we had to conduct a full site coordination study to ensure the correct breaker settings were in place.

Our field teams worked in multiple shifts to install the new secondary cable bus system as fast as possible. As soon as the cable bus was complete and inspected by ESA we coordinated with Alectra Utilities for restoring power and removing the generator.

On Sunday August 26th at 1:15pm – 12 days later – the new system was energized, and generator power removed. To accom-

plish everything in such a short period of time wouldn't have been possible without a complete team effort and a dedication to our purpose: to provide world class care and total support 24/7. In a perfect world break downs wouldn't happen but until then we remain committed to being at our strongest when you need us most.



## **CUSTOMER QUOTE**

"Throughout this critical emergency, Sheridan Electric understood the sense of urgency and was completely dedicated and focused on restoring power quickly and safely."