

# Case Study | Chemika

Chemika utilizes the Switch Platform to avoid costly system upgrades and runs mission-critical operations



## The Customer

An independently owned chemical analysis laboratory providing chemical testing services.

**Size:** One laboratory

**Industry:** Healthcare

**Geography:** Australia

The Chemika laboratory provides chemical testing services to manufacturers of human therapeutics, medical devices, veterinary and agricultural products.

## The Opportunity

### Doubling the ampage of the laboratory's power supply

The Chemika team transformed a former industrial building, once utilized as a mechanical workshop, into their current state-of-the-art facility.

During construction, the consulting engineers discovered that the power supply to the building would be insufficient to supply the operational needs of the business when running at full capacity. They deemed the existing 100 Amp 3-phase connection would need to be upgraded to 200 Amp per phase to service the facility and avoid unwanted shutoff which could damage sensitive electronic

equipment and interrupt their critical business operations.

The engineers presented two solutions to rectify the situation, either build a new sub-station to increase supply or install load management equipment. After extensive research, the client determined that building a new sub-station would be too expensive and timely; and the load shedding option wouldn't provide ample warnings for any impending circuit shutdowns and wouldn't provide historical data for analytics or planning purposes.

## The Solution

### Managing power limits with Switch

The Chemika team turned to Switch to attain the visibility necessary to inform proactive decisions about how to manage power usage and avoid exceeding maximum current limits at a comparable price to conventional load shedding equipment.

## The Results

### Building a better lab without interruptions to service

The Switch solution allowed Chemika to continue running their operations whilst avoiding the significant cost of upgrading supply. With precise visibility into the power usage data, the Chemika team:

- ▲ Has the ability to regulate air conditioning throughout the facility from the Switch Platform, cycling down non-essential zones at times of high demand and giving Chemika the control over what loads were cut and when.
- ▲ Identified excess capacity on individual phases, to accommodate business expansion without any additional capital expenditure on energy infrastructure.
- ▲ Quickly identified a facility imbalance of current over the three phases and was thus able to balance some of this load more evenly. This normally would have required an electrician to monitor Chemika operations over several days or weeks to log activity under a range of business and external conditions at significant cost, and would only have been relevant at the point in time of measurement.
- ▲ Is considering adding a renewable energy system on the roof to augment power consumption, performance of which can also be monitored through the Switch Platform.
- ▲ Had sufficient data to carry out a cost-benefit analysis on insulation and subsequently decided to insulate the building, to alleviate the air conditioning energy consumption on warmer days.

Working closely with the client, Switch was able to understand the specific nature of their problem and provide the most cost-effective solution that gave the greatest visibility, and provided the tools to best understand and manage this unique facility.

// It was fantastic to be able to improve our lab facilities for the team without having to compromise the extremely involved chemical testing services we offer to our clients. Switch helped us to identify a number of game-changers surrounding electricity, air conditioning and insulation that have completely changed what this lab is capable of. //

Lab Technician,  
Chemika