



NobleLight®

Better energy balance for buildings with smart UV technology

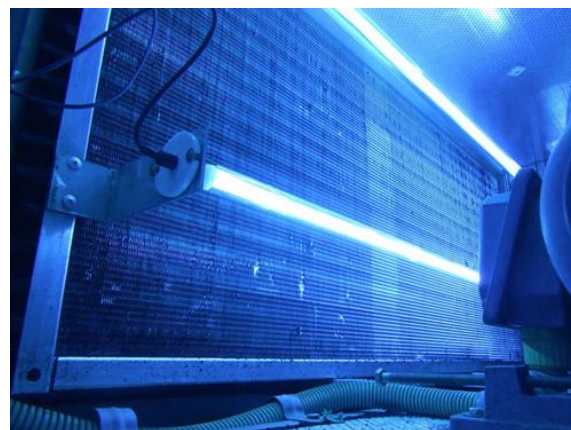
Beyond Energy Solutions (BES), an Australian provider of sustainable energy solutions, applied innovative Noblelight UV technology from Excelitas to significantly improve the energy performance of a large commercial building.

Beyond Energy Solutions' client operates a large commercial facility that is open to the public 24 hours a day, 365 days a year. BES needed to reduce the building's energy consumption and emissions profile while simultaneously increasing the effectiveness of the HVAC (Heating, Ventilation, and Air Conditioning) system. With Excelitas, they found a reliable partner to develop a suitable UV solution.

Development of a new UV-based solution

UVC is effective at destroying biofilm and restoring an HVAC system to near-original performance levels. Excelitas developed Cold Air Disinfection (CAD) lamps that deliver a high UVC dosage while operating in cold airstreams (4–7 °C). After a successful trial, BES installed UVC systems in all 46 of the building's HVAC air-handling units.

After just three months of operation, the CAD units delivered at least a 20% improvement in airflow, heat transfer, and energy savings. Indoor air quality also improved significantly, eliminating the need for manual duct and coil cleaning. The CAD lamps provide very high UVC output and require no maintenance. Beyond Energy Solutions delivered an innovative UV solution with a short return on investment and multiple benefits for their client.



FEATURES

- Significant reduction in the building's energy and emissions profile
- Improved indoor air quality
- Extended HVAC lifespan
- Reduced maintenance costs
- Reduced compressor operating times (through improved heat transfer)
- Reduced fan operation and speed (through increased airflow through the coils)
- Increased entering chilled water temperature (to achieve heat transfer)
- Reduced chiller and compressor operation (through faster achievement of temperature and humidity parameters)

TECHNICAL DATA

- CAD lamps
- Low-pressure lamps

OUR PARTNER

