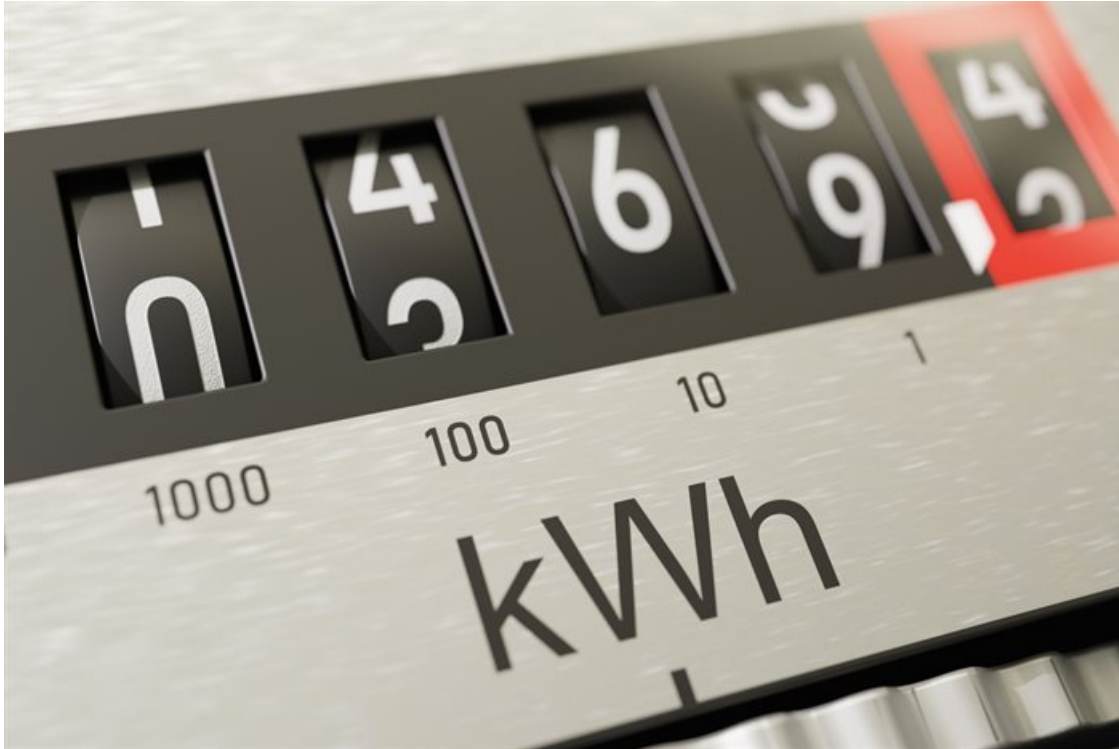


# Shift to clean air tech can reduce energy costs by up to 25%

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As commercial property owners and managers look for every available competitive edge to attract and retain good tenants, great indoor air quality (IAQ) has become more than just a compelling sales point. UV-C disinfection systems are not only delivering cleaner, healthier air, but can reduce energy costs by up to 25%.



“South African commercial property is struggling to regain Covid losses and owners and managers are facing an almost catch-22 situation. With weak demand and oversupply, finding compelling differentiation, such as a healthier work environment, must be weighed up against the investment required to install or upgrade indoor air quality systems. However, when that investment shows itself to lower operating costs with a rapid ROI, the decision to move to UV-C is a simple one,” says Edward Hector, MD of the SFI Group.

## **Nature’s solution delivers powerful results**

We are all familiar with the harmful effects of sunlight’s UV-A and UV-B radiation which can result in painful sunburns. But the UV-C wavelength has more than twice their energy and it is easily absorbed by organic substances, rapidly destroying molecular bonds.

This means UV-C can be used to safely eliminate and prevent the build up of organic material on coils, drain pans, and interior air-handling surfaces. It improves airflow and can maintain and even return heat-transfer levels to ‘as-built’ capacity, delivering solid improvements on HVAC system efficiencies.

Clean systems reduce odours, as well as allergens or pathogens in airstreams. Clean systems also help sustain design temperatures and airflow, ensuring buildings meet all required IAQ codes and standards. The green technology can also eliminate chemical and mechanical (water) cleaning required for the regular cleaning of coils, helping to reduce waste disposal issues.

“This cleaner environment means less energy is needed to provide the necessary amount of cooling and airflow to maintain system energy efficiency. We have found that UV-C installed, even in older systems, reduces energy use by 10-25% on average. What’s more, efficient air-handling units not only save energy, they reduce carbon footprints which has a big impact when it comes to accreditation and environmental reporting ,” says Hector.

### **Quantifiable results investors will love**

The move towards more efficient and environmentally responsible commercial spaces is gaining momentum with property shareholders looking to maximise returns.

Green technologies, such as UV-C, have quickly demonstrated their business worth and the MSCI South Africa Green Annual Property Index [shows](#) that for 2021, green-certified offices showed a total return of 2.2% – 170bps above the non-certified offices’ return of 0.5%. What’s more, since the index’s inception six years ago, green certified offices outperformed the non-certified sample by 19.1%. The report also shows the clear link between green-certified buildings and investment performance as well as lower vacancy rates, lower operating costs, and higher net operating income.

“When it comes to UV-C’s benefits, one way of measuring the effectiveness of UVC is based on various case studies using what is called the U-value. We use U-values to measure a cooling coil’s thermal performance. The higher the value, the more efficient the operation. In a recent case study of an office block, we saw annual chilled water volume reduced from 28,849 to 18,507 tonnes – a reduction of 35.85%. Our client saw an annual savings of R10,000 for a single coil,” Hector shares.

### **Futureproofing investments in an uncertain world**

More than just the hard cost savings, UV-C also offers compelling health benefits which can greatly add to a building’s competitive offering.

According to the World Health Organization (WHO), approximately 30% of all commercial buildings have significant IAQ problems. In particular, ventilation systems have been implicated in the spread of infections and pollutants. In addition WHO analysis finds zoonotic outbreaks on the African continent have increased by 63% from 2012 to 2022 compared to the previous decade.

“Offering companies the highest grade of protection from highly transmissible influenzas, tuberculosis and other airborne diseases is a winning sales point in an environment where employers are trying to coax workers back to the office. Employers have enormous choice right now and so decisions can turn on features like air quality and other health benefits. We are all more sensitive to what we put in our bodies and the air we breathe has the biggest impact. Disinfectant technologies, like UV-C, deliver great unique selling points as well as real cost savings, making the immediate return on investment genuinely compelling,” Hector advises.

### **About SFI Group**

[SFI Group](#) was established in 2004 as a provider of air-conditioning and related maintenance services, and is a leader in the field of HVAC maintenance. Since launching, SFI has grown its original Cape Town based business to a national footprint with operations in Johannesburg and Durban. SFI is a trusted partner to some of the largest commercial and industrial property owners and management companies in South Africa. Its proven track record in the provision of technical services supports building and facilities managers in enhancing the performance of their assets.