

## Green BELLE Case Study: Bakers Waste Services Ltd



**Above: LED lighting installed at Bakers Waste Services Ltd**

Bakers Waste Services is a waste management provider, offering an extensive range of waste management solutions to over 5,000 companies based in Leicestershire and the wider East Midlands.

Bakers Waste Services applied to Green BELLE to enquire about the possibility of improving the energy efficiency of their business and reduce their carbon emissions.

A site visit was arranged, which found that the lighting was inefficient and could be improved to reduce energy usage of the business.

The lighting project consisted of replacing 131 two-foot T8 fluorescent light fittings with LED panels, and 79 halogen spotlights with LED spotlights. It is predicted that a reduction in electricity usage of around 27,000 kWh per year, which will equate to a saving of around 40% per year. This will lead to a reduction of carbon dioxide emissions of around 11 tonnes per year. The same as annual emissions from three homes.

“Working with the Green BELLE grant scheme was quick and seamless and allowed us to make improvements to our building, which forms part of our objectives to reduce environmental impact on site. In addition, we will see the cost savings benefit from improved energy performance”

– Hayley Chilton, QSHE Officer, Bakers Waste Services Ltd

A Green BELLE grant of £10,000 was awarded to install the new energy efficient lighting.

Through the Green BELLE grant, Bakers Waste Services improved their working environment and increased their energy efficiency which in turn is reducing their energy usage, energy costs and CO<sub>2</sub> emissions.

Green BELLE was part-funded by the European Regional Development Fund and was administered by Leicester City Council with support from Leicestershire County Council. The scheme provided grant funding to eligible SMEs to install energy efficiency measures from 2017 to May 2023.

For more information, visit [www.greenbelle.org.uk](http://www.greenbelle.org.uk) and [www.leicester.gov.uk/your-council/policies-plans-and-strategies/energy-efficiency/](http://www.leicester.gov.uk/your-council/policies-plans-and-strategies/energy-efficiency/)

## Green BELLE Case Study: Cleartherm Glass Sealed Units Ltd



**Drone photo of the new solar panels on the warehouse roof  
- Photograph © Cleartherm Glass Sealed Units Ltd**

Cleartherm Glass Sealed Units Ltd is a family-run business established in 1988 producing over 4,000 units of glass per week from their 15,000 square-foot unit.

The building is a big, old warehouse built in the 1970s on an industrial estate in Leicester.

Cleartherm Glass Sealed Units Ltd were looking to invest in generating electricity on site, due to their increased energy usage, by installing solar photovoltaic (PV) panels on their roof.

Cleartherm Glass Sealed Units Ltd applied for a grant from Green BELLE to help fund the installation of a 925 kW-peak system, consisting of 208, 340-watt solar PV panels.

After reviewing the application, Green BELLE provided a grant of £7,000, which was the maximum grant to cover part of the overall cost of this project.

As a result of the grant awarded by Green BELLE, Cleartherm Glass Sealed Units Ltd will reduce its carbon footprint by saving the equivalent of 18.8 tonnes of CO2 per year. That's the same as the annual emissions from six homes.

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## Green BELLE Case Study: Fashion UK



### Before (left) and after (right) the new windows were installed at Fashion UK

Fashion UK is a Leicester based fashion merchandiser for organisations nationally and internationally, situated on St George's Way, Leicester. Fashion UK contacted the Green BELLE team about the possibility of improving the energy efficiency of their business and reducing their carbon footprint.

A site visit was arranged, which found that the old single glazed windows were causing the office area to be cold and draughty. The staff used individual fan heaters to keep warm as well as having air conditioning and the central heating system.

Fashion UK was successfully awarded a £10,000 grant towards the supply and installation of double-glazed windows. 'A' rated double-glazed windows are much more effective at reducing heat loss from the property, thus reducing the heating bill.

"Fashion UK are committed to reducing our carbon footprint. The grant from Green BELLE has allowed us to reduce our emissions and save money through a reduction in our heating costs. This is good for the environment, good for our staff and good for business!"

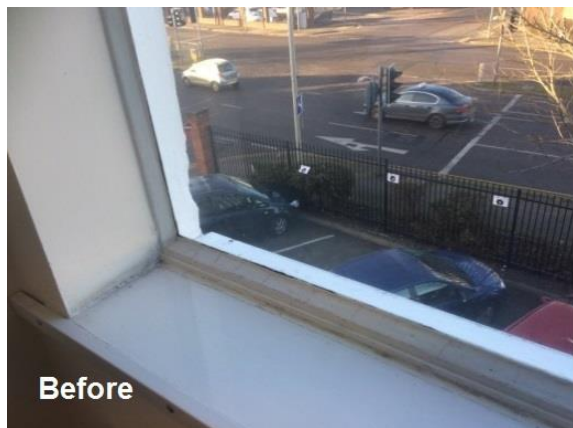
- Paul Desborough, Chief of Operations, Fashion UK

After installation, Fashion UK contacted the Green BELLE team to express just how much of an impact the windows have had. So far, Fashion UK has been able to remove all the individual fan heaters, 26 in total, as the heat retention has improved so staff had requested that they were removed.

It is estimated that Fashion UK will save around 37,000 kWh in electricity and gas consumption annually, leading to a carbon saving equivalent to around 7.7 tonnes of CO<sub>2</sub>, annually. That's the same as the annual emissions from 2 homes.

There has also been a noticeable reduction in the noise pollution from outside, which has drastically improved the staff's comfort in the office. It has also been noted that the office is now a lot lighter, therefore lights are being turned off, thus reducing energy usage further. On top of this, the air conditioning has not been turned on to heat or cool the property.

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**Inside view of the windows before (left) and after (right) the double glazing was installed at Fashion UK**

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## Green BELLE Case Study: Lakshmi & Son's Limited t/a Cofresh Snack Foods



**Before (left) and after (right) replacing the lighting with energy-efficient LEDs**

Lakshmi & Son's Limited, trading as Cofresh Snack Foods, is a Leicester-based company known throughout the UK for its range of Indian snack foods.

In 2018, Cofresh expanded into a warehouse close to their existing factory in Menzies Road. They soon realised they'd be able to make substantial savings on their electricity bills by replacing the old metal-halide lighting in the warehouse with modern, energy-efficient LEDs.

Cofresh contacted Leicester City Council's Green BELLE project to see if they could provide a grant towards the high upfront cost of replacing this lighting. After assessing Cofresh's application, and the potential energy savings, Green BELLE was able to award the maximum grant amount of £10,000 towards the new lighting. The Green BELLE grant covered nearly a third of the cost of purchasing and installing the energy-efficient lighting.

The 130 existing 400-Watt metal-halide high-bay lights were replaced with 150-Watt LED equivalents. Replacing the lighting is predicted to reduce greenhouse gas emissions by the equivalent of 43 tonnes of carbon dioxide in the first 12 months. That's equivalent to the annual emissions from 13 homes!

The lighting should continue to provide similar carbon savings for many years to come and will reduce electricity bills for Cofresh by around £20,000 per year, based on a typical electricity tariff. That's a 67 per cent reduction in the cost of lighting the warehouse.

The new LED lighting should also require less maintenance, as the expected life of an LED fitting is much longer than that of a metal-halide lamp. This is of particular benefit for high-bay light fittings that are generally harder to access when lamps need changing.

Quotation from Cofresh:

“The £10,000 Green BELLE grant made a big difference to the cost of installing the LED lighting. Cofresh is very pleased with the transformation that the lighting has brought to the warehouse, and we're delighted to have reduced our carbon footprint, with the help of Green BELLE.”

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## Green BELLE Case Study: Lestercast Limited



**Left: Lighting before Green BELLE LED installation at Lestercast Limited**  
**Right: LED lighting installed at Lestercast Limited**

Lestercast Limited is a precision investment casting manufacturer and offers bespoke components in a range of metals and specialist alloys for industrial and commercial applications.

Lestercast Limited has been working on increasing their energy efficiency and reducing their carbon emissions. These improvements include: installing double glazed windows; installing LED lighting panels in some workshop areas; using a water based binder instead of an ethyl silicate binder and ammonia; and using metals that can be melted down and reused.

Most of the lighting at Lestercast Limited was fluorescent lighting that was installed over 10 years ago. Improving the lighting became the next energy efficiency project for Lestercast Limited and this is when they contacted Green BELLE.

Lestercast Limited applied to Green BELLE to replace all of their non-LED lighting with LED lighting and were awarded the maximum Green BELLE grant amount of £10,000.

The lighting project included replacing their existing 1200mm x 600mm fluorescent tube light panels with 217 600mm x 600mm LED panels. Other LED lighting installed included LED battens and LED floodlights.

The LED lighting is predicted to reduce Lestercast Limited's electricity usage by 77% and their carbon emissions by the equivalent of 52.8 tonnes of CO<sub>2</sub> in the first 12 months alone. That's equivalent to the annual emissions from 16 homes!

As Lestercast Limited is a precision investment casting manufacturer, the new LED lighting has also improved the light quality, reducing shadowing, and therefore improved the working environment for employees.

“Lestercast are very pleased and delighted with the transformation LED lighting has brought to all areas of our production facility. This change has been long overdue, and with the help and guidance from Green BELLE, Lestercast were able to secure a £10,000 grant towards achieving this. Our aim is to reduce our carbon footprint, and with the changes and continued improvements made over the last few years, we are certainly heading in the right direction.”

– Lestercast Limited

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## Green BELLE Case Study: NPDD Engineering Limited t/a Nisan Engineering



### NPDD Engineering Limited's new air compressor, HVAC system and LED lighting

#### Photographs © NPDD Engineering Limited T/A Nisan Engineering

NPDD Engineering Limited (trading as Nisan Engineering) manufactures components for a variety of industries including gas and oil and the medical field.

The business is based in a two-storey brick-built factory built around the 1950s. The factory is on the ground floor, with the administration offices based on the second floor.

NPDD Engineering Limited has been working on increasing their energy efficiency and reducing their carbon emissions. They had already carried out some improvements by installing LED panels in the office area.

The factory had old fluorescent lighting throughout, but offices, inspection and breakroom areas were already benefitting from LED lighting. The heating was an old industrial gas blower in the factory. They also ran an old Hydrovaine Air Compressor throughout the day. The office breakroom and washrooms were heated by an old inefficient gas boiler.

The business was looking to replace the gas boiler, an air compressor, and fluorescent lighting in the factory, as fitting more energy efficient versions would have a great impact on their energy bills and carbon emissions.

After reviewing the application, Green BELLE provided a grant of £7,687.95 to cover 50% of the total cost of the energy efficiency improvements.

NPDD Engineering Limited was really happy with the outcome of their application and grateful for the help received.

By replacing the boiler, LED Lighting and air compressor, NPDD Engineering Limited saved the equivalent of 9.6 tons of CO2 per year. That's the same as the annual emissions from three homes. The business has saved energy, will benefit from lower energy bills, and has provided their employees with a warmer environment for years to come.

Quote from Dinesh Prajapati (Director): NPDD Engineering Limited to Nisan Engineering:

“We are thankful for the funding received from Green BELLE, enabling Nisan to complete the investment in upgrading lighting, heating and the air compressor required for manufacturing. Long term environmental and cost savings will benefit Nisan, our employees and doing our bit for the planet.”

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## Green BELLE Case Study: Who's Who Limited



**Before installation**

**After installation of new windows**

### Photograph © Who's Who Limited

Who's Who Limited is a knitwear and Jersey manufacturing business based in Leicester. The building is a 1950's brick-built commercial factory consisting of ground and first-floor offices with an internal floor area of 385 square meters.

The factory and offices had wooden, single-glazed windows that needed upgrading due to the age of the property, and the openings for the windows were poor. These windows and doors were installed when the building was first built. The premises was cold and draughty and was struggling with heat retention. The factory also has high ceilings making it difficult for the building to retain heat. The business operates 24 hours a day Monday to Friday.

The business had already carried out some improvements by installing LED lighting panels in the premises.

In order to further improve the energy efficiency of their premises, Who's Who Limited applied for a grant from Green BELLE for help with the installation of new double-glazed windows and a new front door.

The total cost of the work was £57,700 and, after careful consideration, Green BELLE provided a maximum grant of £10,000 to complete the installation.

The business was really pleased with the outcome of the grant application, with the new windows and doors improving the quality of the working environment for all their employees at the premises.

Thanks to the energy efficient improvements, Who's Who Limited will benefit from cheaper bills, a much better working environment and, at the same time, has reduced its carbon footprint by the equivalent of around 16 tonnes of carbon dioxide per year. That's the same as the annual emissions from five homes.

Michael Kler, Director Said:

“Really pleased with the result. The building looks fantastic. Thank you for your support in the project.”

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