



Coolnomix Case Study

The Greyhound Inn

Report compiled by Shaun Nugent, Director, Emissis.

reducing carbon emissions locally and globally



Client

The Greyhound Inn is a bar and restaurant located in Colton, Staffordshire.

Coolnomix Model

2 x AR-01 for refrigeration
+
1 x MID smart meters with GPS capability for remote monitoring

Direct Annual Savings



kWh

4,380 kWh



1,248.3kg CO2



Saving of £291.24 per device
57% energy saving
21 months ROI

Coolnomix®

Reduce the energy consumption of your air-conditioning and refrigeration without affecting the output you need. Our technology is maintenance free and can be easily installed by our qualified engineers with no disruption to your operation. You can expect up to 40% energy saving on your air-conditioning and up to 30% on your refrigeration.

We keep your people, equipment and produce cool, and your energy budget from overheating

Client

The Greyhound Inn is a well-established gastro pub located in the picturesque village of Colton. It prides itself in its food and real ales. It has generous indoor and outdoor spaces that can seat up to 100 customers. The Greyhound Inn has a considerable energy footprint. The large cellar has two refrigeration units running 24/7 to maintain the environment for the specialist beers and ales.

Overview

The purpose of the trial was 'proof of concept' and to identify the potential for reducing both carbon emissions and direct energy consumption with the installation of COOLNOMIX - a unique patented intelligent thermostat.

Emissis carried out a 29-day trial in the cellar.

Trial

2 x AR-01 COOLNOMIX units were installed and connected to 2 x Dakin Refrigeration units (serial no. 205991501-00271 and JEHS-0200-B2-M-1) located in the cellar. To measure the energy consumed by the cooling, an MID smart meter with remote connectivity was connected to the external condenser (DET 14011747) during the trial.

Data recording commenced on the 28/04/2020. COOLNOMIX (ON) was operational until 13/05/2020 (15 days) at which time it was turned off on 13/05/2020. COOLNOMIX was bypassed (OFF) and the cooling systems operated as 'normal' for 14 days from 13/05/2020 until 27/05/2020.

During the 29-day trial, the metered half-hourly and 4-hourly data was collected and analysed.

Results

Daily

COOLNOMIX active (ON) reduced daily energy consumption by 57%, providing an average daily reduction of 12kWh.

This saving is based on using 132kWh over 15 days with COOLNOMIX active (ON) and 292kWh over 14 days with COOLNOMIX inactive (OFF).

Daily energy consumption (kWh) and saving with COOLNOMIX

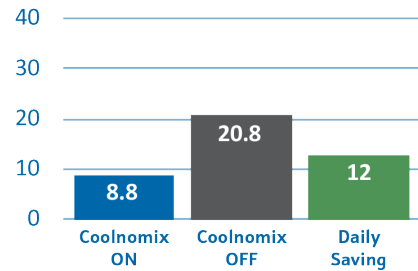


Figure 1: Daily energy consumption and saving

Annual energy consumption (kWh) and annual saving with COOLNOMIX

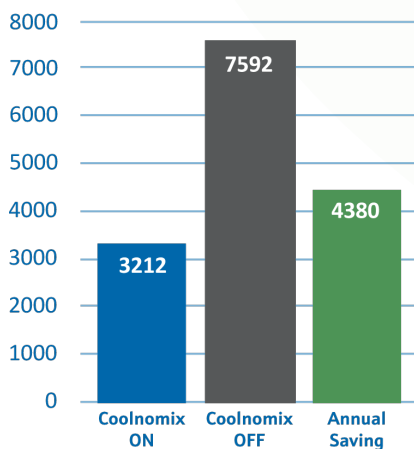


Figure 2: Annual energy consumption and savings

Annual

The measured 12kWh daily saving for two COOLNOMIX devices equates to an annual combined saving of both refrigerators of 4,380kWh which is equivalent to an annual carbon emissions reduction of 1,248.3kg CO₂.

The annual savings were calculated on an average daily consumption showing:

COOLNOMIX (ON) consumption averages 8.8kWh

COOLNOMIX (OFF) consumption averages 20.8kWh

COOLNOMIX will reduce your carbon emissions by 1,248.3kg of CO₂ per annum

Summary

COOLNOMIX was installed and the data proved the technology's worth against the two refrigeration units in the cellar. The savings we achieved surpassed all expectations, offering a 57% energy saving and a monthly saving of £24.27 per COOLNOMIX device.

Over 10 years The Greyhound Inn would achieve:

CO₂ reduction **12,483kg** Electricity reduction **43,800kWh**

Rental Option

Off balance sheet - zero deposit

Monthly figures:

Saving £24.27 per device
Rental from £10 per device
Net benefit £14.27 per device





We're ahead of the game

We deliver a powerful suite of solutions that reduce your carbon emissions, save you money with lower energy bills and generate revenue from being a more flexible energy user with the help of today's leading technology.

See our COOLNOMIX brochure and videos

See our other solutions

COOLNOMIX

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