



TUTUM
ENERGY

Coolnomix Report

Moto Trowell - Costa Coffee

Report compiled by David Groves

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About:

Moto Trowell Service station is located off the M1, north of Junction 25, near the city of Nottingham. Inside the service station is a branch of Costa Coffee

Annual Savings:



1222.75kWh
representing a
reduction of 26% per
year in energy
consumption



343.59kg or 0.34 tonnes



Financial Saving of £427.96

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

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

Overview

Tutum Energy and Moto Hospitality, along with Costa Coffee agreed to carry out a 28 day trial on a split air conditioning unit at the Trowell service station's branch of Costa Coffee

Trial

A Coolnomix unit was installed and connected to an air conditioning unit at the Costa Coffee inside Trowell service station. In order to correctly measure the kWh consumption of the unit, a smart meter was connected to the external condenser for the air conditioning

The unit was installed and activated on 15th June 2022. The unit was set to run in weekly cycles with Coolnomix OFF - Coolnomix ON - Coolnomix OFF - Cool-nomix ON mode for 4 weeks or 28 days in total.

During the pilot the metered half hourly and 4 hourly data has been downloaded and analysed. This data is available to the engineering team at Costa Coffee

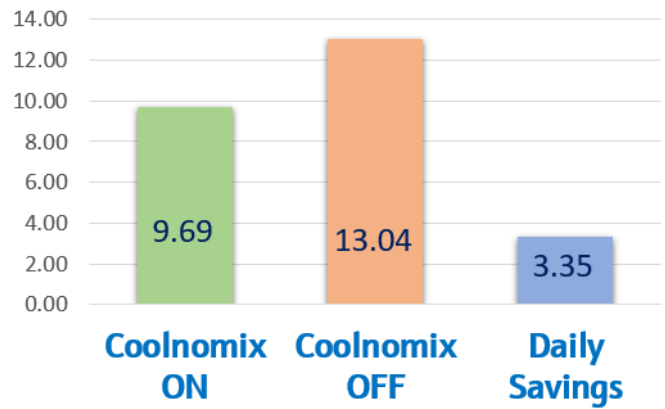
Results

Daily

Coolnomix active (ON) reduced daily energy consumption by 26% reducing the kWh consumption across the pilot AC unit by 3.35 kWh per day.

This saving is based on average daily consumption of electricity with Coolnomix ON and Coolnomix OFF over the 28 days of the trial

Daily energy consumption (kWh) and saving with COOLNOMIX



Consumption by air conditioning unit per day (kWh)

	Average Daily Consumption			
	Week 1	Week 2	Week 3	Week 4
Moto Trowell - Costa	13.51	9.17	10.21	12.57

Energy Reduction & Savings Forecast (1 Air conditioning unit)

	kWh	Financial savings	CO2 (kg)
Daily	3.35	£1.17	0.94
Weekly	23.45	£8.21	6.59
Monthly	93.80	£32.83	26.36
Annually	1222.75	£427.96	343.59

Conclusions

The pilot accurately confirms energy savings for kWh and CO2 reductions using just one Coolnomix unit attached to an Air conditioning unit. The financial savings have been based on a trial site electricity supply cost of 0.35p per kWh. With average electricity prices set to rise beyond 0.40p per kWh over the next few months and with further inflation forecast over the coming years the savings model and Coolnomix payback period will only improve.

Spread over an estimated Air conditioning estate across Costa Coffee branches, consisting of 100 suitable units the annual benefits of installing Coolnomix, based on the pilot results will be as follows:-

Energy Reduction & Savings Forecast (based on 100 Coolnomix units installations)

Year 1

kWh (based on 3.35 kWh per day) = 122,275kWh per year
CO2 saving = 34,359kg or 34.36 tonnes
Financial savings = £42,796.25

After 5 years

kWh = potentially 600,000+ kWh saved
CO2 = 170+ tonnes saved
Financial savings = £200,000+ saved

After 10 years

kWh = potentially over 1.2 million kWh saved
CO2 = 340+ tonnes saved
Financial savings = £400,000+ saved

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

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