



CASE STUDY

MOTO TROWELL, COSTA COFFEE

Coolnomix® Report,

Report compiled by David Groves 22/07/2022

tutumenergy.es





Annual Savings for Costa Coffee from this pilot:



kWh

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



CO₂

343.59 kg or 0.34 tonnes



Financial Savings

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.

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.



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

Moto & Costa Coffee, England

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®			
Site	Daily consumption (kWh)		Daily savings (kWh)
	OFF	ON	
Costa Coffee	13.04	9.69	3.35

CONSUMPTION BY AIR CONDITIONING UNITS PER DAY (KWH)				
Site	Average Daily consumption (kWh)			
	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	1,222.75	£427.96	343.59



CONCLUSION

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 = 122,275 kWh per year
CO2 savings = 34,359 kg or 34.36 tonnes
Financial savings = £42,796.25

(based on the average of 3.35 kWh per day)

After 5 years

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

After 10 years

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

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](#)



✉ info@tutumenergy.es
🌐 www.tutumenergy.es
☎ +34 951 378 042
📞 +34 651 094 089

