



**TUTUM**  
ENERGY

# Coolnomix Report

## Snap Fitness

Report compiled by David Groves

Date: 4th September 2022

# snap 24/7 fitness

## Annual Savings:



**23,572.92kWh**  
representing a  
reduction of 74%  
per year in energy  
consumption



**6,623.99kg or 6.62 tonnes**



**Financial Saving of  
£7,071.88**

## 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

Snap Fitness is a privately owned and operated health and fitness club founded in 2003, their headquarters are based in Chanhassen, Minnesota, USA

## Overview

Tutum Energy and Snap Fitness agreed to carry out a 4 week trial on two air conditioning units in their Gym and Studio in their Ilkeston branch.

## Trial

Coolnomix units were installed and connected to two air conditioning units. In order to correctly measure the kWh consumption of these units, smart meters were connected to each of the external condensers for both the air conditioning units and refrigeration unit.

The units were installed and activated on 11<sup>th</sup> August 2022. The units were 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 daily data has been downloaded and analysed. This data is available to the engineering team at Snap Fitness

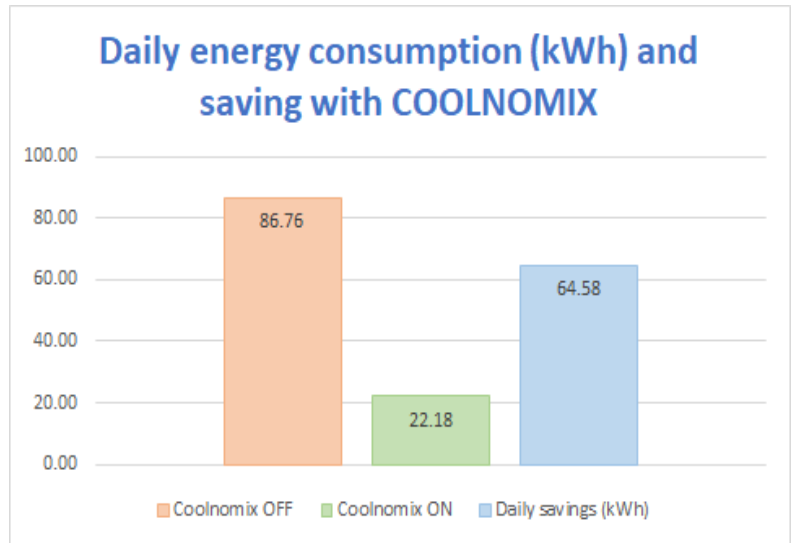


# Results

## Daily

Coolnomix active (ON) reduced daily energy consumption by 74% reducing kWh consumption across the 2 pilot AC units by 64.58 kWh per day.

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



## Consumption by AC units per day (kWh)

Site	Daily consumption (kWh)		Daily savings (kWh)	Daily savings (%)
	Coolnomix OFF	Coolnomix ON		
Snap Fitness Studio AC	47.52	16.55	30.97	65%
Snap Fitness Gym AC	39.24	5.63	33.62	86%
<b>Total</b>	<b>86.76</b>	<b>22.18</b>	<b>64.58</b>	<b>74%</b>

## Annual Energy Reduction & Savings Forecast (2 AC units)

	kWh	Financial savings	CO2 (kg)
Daily	64.58	£ 19.38	18.15
Weekly	452.08	£ 135.63	127.04
Monthly	1,964.41	£ 589.32	552.00
Annually	23,572.92	£ 7,071.88	6,623.99



## Conclusions

The pilot accurately confirms energy savings for kWh and CO2 reductions across the 2 AC units. The financial savings have been based on a trial site electricity supply cost of 0.30p 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 AC estate across Snap Fitness clubs 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 32.29 kWh per day) = 1,178,646kWh per year

CO2 saving = 331,200kg or 331.2 tonnes

Financial savings = £353,594

#### After 5 years

kWh = potentially 5.8 million+ kWh hours saved

CO2 = 1.6 million+ tonnes saved

Financial savings = £1.7 million+ saved

#### After 10 years

kWh = potentially over 11.7 million+ kWh saved

CO2 = 3.3 million+ tonnes saved

Financial savings = £3.5 million+ 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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