

# EndoTherm



**Kent Housing Group**  
The Voice of Housing in Kent



**ENDO  
ENTERPRISES**



**EndoTherm Product Overview  
& Residential Sector Update  
September 2022**



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# What is **EndoTherm**?

**EndoTherm** is a unique multi-award-winning **energy saving additive** for wet heating systems that is independently proven to save up to 15% on energy consumption & heating costs in addition to delivering significant reduction of carbon emissions



Installed in over 150,000 buildings worldwide:



CORPORATE



SCHOOLS



LEISURE



HOTELS



OFFICES



CARE HOMES



MUSEUMS



HEALTHCARE

Scalable to work in all wet heating systems – commercial, industrial & domestic



# Why **EndoTherm**?



Reduce energy consumption & heating bills by up to 15%



Typical return on investment in circa 1 year



Substantial reduction of carbon emissions – hit 'net zero' targets



1 day CO<sub>2</sub> pay back – low carbon footprint



100% organic substance & environmentally friendly



Independent laboratory & third party testing & verification



Compatible with leading boiler & inhibitor brands when dosed



Non-corrosive, non-hazardous & no discharge requirements



Easy installation with zero disturbance or system downtime

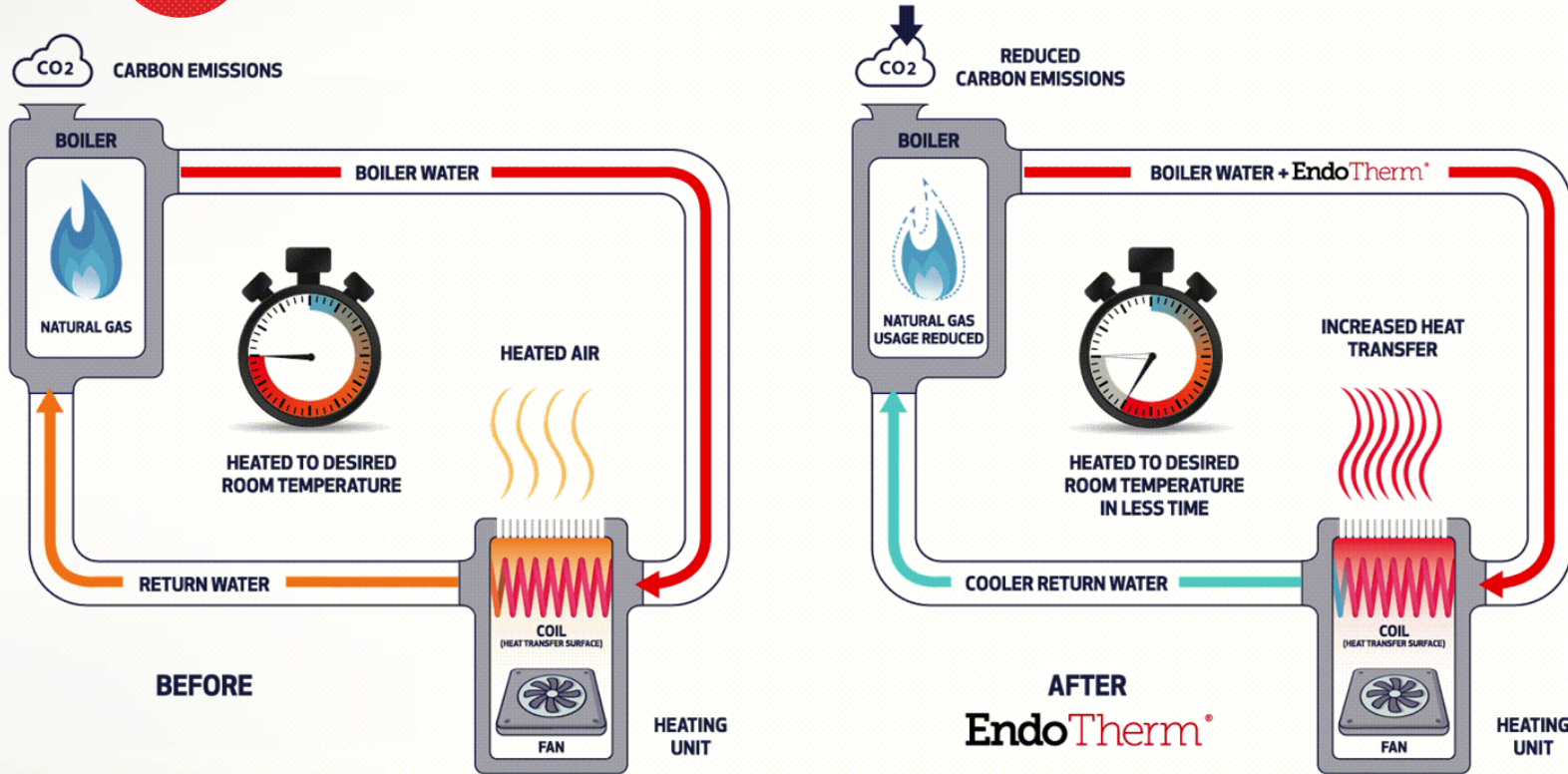


Multi-award-winning technology with industry recognition





# The EndoTherm Effect



## How does it work?

EndoTherm improves the thermal properties of water to increase heating system efficiency.



Systems Heat Up Quicker...



Improved Heat Transfer...



Using Less Energy!

Dosed at 1% of system volume, **EndoTherm** changes the physical & thermal properties of water – resulting in multiple effects across the whole of the heating system & its components





# EndoTherm for Domestic

EndoTherm is an ideal energy saving measure for the residential sector

## Domestic Impact



Average UK household gas consumption per annum:

**13,600 kWh**



Average UK household gas costs per annum:

**£952**



Representative 15% energy saving per annum:

**2,040 kWh**



Calculated financial savings per annum:

**£142.80**



Energy savings measured in kWh converted to carbon emissions:

**1 kWh = 0.216Kg CO<sub>2</sub>e**



Calculated reduction in carbon emissions per annum:

**441Kg CO<sub>2</sub>e**

Data sources: UK Government reporting on energy usage and costs, BEIS, Ofgem, Enertek International, EPA Greenhouse gas equivalence calculations



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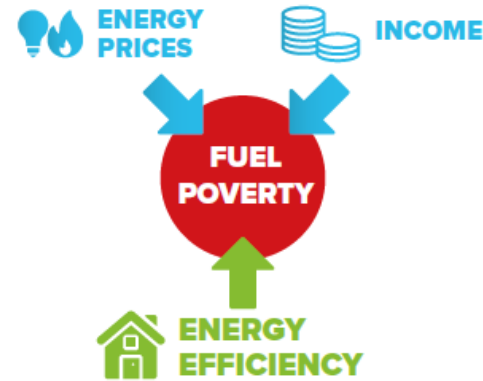




# EndoTherm Tackling Fuel Poverty

EndoTherm is an ideal energy saving measure for the social housing sector

There is a strong correlation between household income, energy requirements & efficiency, energy prices & fuel poverty



Installing EndoTherm could significantly reduce the fuel poverty gap & considerably help low-income fuel poor households

With your help we can reduce UK fuel poverty.....





# EndoTherm Reducing Carbon Emissions

- UK government committed to increase energy efficiency & reduce carbon emissions in the transition to 'net zero'
- For every kWh of energy **EndoTherm** saves 0.216kg of CO<sub>2</sub> is also saved = a reduction of 441kg of CO<sub>2</sub> per average 1,000 sqft UK home p/a
- Meets criteria set for targets to be recognised by the SBTi in reducing carbon emissions
- ACT NOW – include in 'net zero' carbon strategy & hit sustainability targets
- EuGeos: the carbon footprint of EndoTherm is approximately 0.58kg CO<sub>2</sub>e per 500ml bottle



**EndoTherm** becomes carbon neutral in under a day of use – low carbon footprint

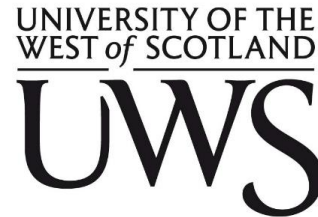


SCIENCE  
BASED  
TARGETS



# **EndoTherm** Testing & Industry Recognition

## Independent Testing



## Industry Recognition



## Awards







# EndoTherm Domestic Customers

## Housing Associations



## Councils





# EndoTherm Case Studies – Commercial

\* Pilot periods differ – all carbon savings calculated to 12-month totals for ease of comparison

**Middlesbrough Council  
Civic Centre  
Middlesbrough**



**20.56**  
%

ENERGY SAVING

CARBON SAVING  
63,269 kg CO<sub>2</sub>e

**Wakefield Council  
Town Hall  
Wakefield**



**22.96**  
%

ENERGY SAVING

CARBON SAVING  
31,432 kg CO<sub>2</sub>e

**United Utilities  
Lingley Mere HQ  
Warrington**



**15.53**  
%

ENERGY SAVING

CARBON SAVING  
194,942 kg CO<sub>2</sub>e

**Wellcome Trust,  
Gibbs Building  
London**



**9.46**  
%

ENERGY SAVING

CARBON SAVING  
62,395 kg CO<sub>2</sub>e

**Forest of Dean District  
Council Offices  
Gloucestershire**



**17.8**  
%

ENERGY SAVING

CARBON SAVING  
18,980 kg CO<sub>2</sub>e

**Cardiff Council  
Bute Park Nurseries  
Cardiff**



**17.45**  
%

ENERGY SAVING

CARBON SAVING  
72,848 kg CO<sub>2</sub>e

**Rotherham NHS Trust  
Park Rehab Centre  
Rotherham**



**13.54**  
%

ENERGY SAVING

CARBON SAVING  
16,000 kg CO<sub>2</sub>e

**Needspace? Earlsfield  
Business Centre  
London**



**13.39**  
%

ENERGY SAVING

CARBON SAVING  
3,659 kg CO<sub>2</sub>e

**Coleg Gwent  
Multi-Campus Rollout  
Wales**



**13.6**  
%

ENERGY SAVING

CARBON SAVING  
25,910 kg CO<sub>2</sub>e

**University of Northampton  
Newton Building  
Northampton**



**17.31**  
%

ENERGY SAVING

CARBON SAVING  
33,168 kg CO<sub>2</sub>e

**NATS  
Prestwick Centre  
Ayrshire**



**16.36**  
%

ENERGY SAVING

CARBON SAVING  
55,644 kg CO<sub>2</sub>e

**Heathrow Airport,  
Engineering Building  
London**



**20.10**  
%

ENERGY SAVING

CARBON SAVING  
46,446 kg CO<sub>2</sub>e







# EndoTherm Case Studies – Domestic

EndoTherm has been installed into tens of thousands of residential properties & has been proven to be both a viable & effective solution; including individual heating systems in houses / bungalows / maisonettes / flats / apartments & park homes  
communal heating systems in flats / apartment buildings / sheltered housing schemes / care homes & retirement housing

Deermead Court  
Anchor Hanover Group



**19.53**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£800.83

CO<sub>2</sub> SAVING

8,420 kg

Reginald Sorensen House  
Anchor Hanover Group



**10.1**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£442.50

CO<sub>2</sub> SAVING

4,652 kg

Friar Court  
Onward (Hyndburn) Homes



**12.5**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£1532.52

CO<sub>2</sub> SAVING

5,185 kg

Parklands Intermediate Care  
Middlesbrough Council



**13.52**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£355.21

CO<sub>2</sub> SAVING

2,884 kg

Bryn Y Cae Care Home  
Bridgend CB Council



**12.29**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£572.59

CO<sub>2</sub> SAVING

3,531 kg

Fenwick House  
Wrexham CB Council



**16.2**  
%

TOTAL SAVINGS

FINANCIAL SAVING

£165

CO<sub>2</sub> SAVING

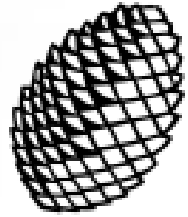
1,216 kg







# EndoTherm Residential Pilots



**mhs**  
homes group

Rapport  
HOUSING & CARE



Poole Housing Partnership Ltd



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# EndoTherm Residential Pilots

Organisation	Site	Energy Savings	Financial Savings	CO <sub>2</sub> e Savings	ROI
	<b>Broadside Office</b>	14.38%	£771.22	6,618 kg	6.2 months
	<b>Edward Moore House Watling Court Connors House Oakwood Avenue</b>	energy consumption data currently being analysed – results pending & update to follow			
	<b>Beech House</b>	14.08%	£141.87	1,226 kg	6.8 months
	<b>Ralph Jessop Court</b>	15.72%	£346.65	2,995 kg	13.4 months
	<b>Keats House</b>	13.79%	£266.04	1,798 kg	8.6 months

Based on positive pilot results, landlords are in the process of developing business cases to move to rollout – including specifying **EndoTherm** on specific communal heating projects, contract work & maintenance programmes





# EndoTherm Projected Savings



<b>15%</b>	representative EndoTherm saving (Enertek International)
<b>13,600 kWh</b>	average UK household gas consumption per annum (UK Gov / BEIS)
<b>952 £</b>	average UK household gas costs per annum (UK Gov / BEIS)
<b>0.216 kg CO<sub>2</sub>e</b>	reduction of carbon emissions (1 kWh = 0.216 kg CO <sub>2</sub> e) (EPA)

## EndoTherm Energy Savings Projections

AVERAGE 3 BEDROOM SEMI-DETACHED HOME (NO. OF PROPERTIES)	ENERGY SAVINGS (kWh) (1 YEAR)	ENERGY SAVINGS (kWh) (5 YEARS)	ENERGY SAVINGS (kWh) (10 YEARS)
1	2,040	10,200	20,400
10	20,400	102,000	204,000
100	204,000	1,020,000	2,040,000
1,000	2,040,000	10,200,000	20,400,000
10,000	20,400,000	102,000,000	204,000,000

## EndoTherm Financial Savings Projections

AVERAGE 3 BEDROOM SEMI-DETACHED HOME (NO. OF PROPERTIES)	FINANCIAL SAVINGS (£) (1 YEAR)	FINANCIAL SAVINGS (£) (5 YEARS)	FINANCIAL SAVINGS (£) (10 YEARS)
1	143	715	1,430
10	1,430	7,150	14,300
100	14,300	71,500	143,000
1,000	143,000	715,000	1,430,000
10,000	1,430,000	7,150,000	14,300,000

## EndoTherm Carbon Reduction Projections

AVERAGE 3 BEDROOM SEMI-DETACHED HOME (NO. OF PROPERTIES)	CARBON REDUCTION (kg CO <sub>2</sub> e) (1 YEAR)	CARBON REDUCTION (kg CO <sub>2</sub> e) (5 YEARS)	CARBON REDUCTION (kg CO <sub>2</sub> e) (10 YEARS)
1	441	2,203	4,406
10	4,406	22,032	44,064
100	44,064	220,320	440,640
1,000	440,640	2,203,200	4,406,400
10,000	4,406,400	22,032,000	44,064,000

# ACT NOW!!

Are you interested in rolling out EndoTherm to your property estate? Are you interested in our Winter Ready Programme? Please get in touch to see how we can help you to save on energy consumption, energy costs & reduce your carbon emissions. Exclusive 10% discount on qualifying EndoTherm rollout orders received before end of Sept 2022 – quote "WINTER READY"



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