

Recommendation to Purchase a Thermal Imaging Camera

Background

In 2021 Faversham Town Council declared an Environmental, Climate Change and Biodiversity Emergency and committed to being carbon neutral by 2030.

Wholesale energy prices increased rapidly from the second half of 2021 onwards. Many consumers were protected, at least initially, by the energy price cap. It was increased by 12% in October 2021 but rising wholesale prices led to a much larger increase of 54% in April 2022. Continued increases in wholesale prices led Ofgem to announce a further planned increase of 80% on 1 October 2022.¹

How a Thermal Imaging Camera Works

The thermal imaging camera shows up 'hot spots' where warmth is leaking from a building, usually through the roof, walls, floors, doors, and windows. Seeing this visually helps to identify areas that need attention either by adding insulation, draft-proof strips, replacement of failed double-glazing units, adding secondary glazing or repairs to masonry work or even simple low-cost solutions such as installing thermal blinds and curtains or draft proof strips around doors, windows, and letter boxes.

The best time for taking thermal images is on a cold, dry and dull day when the heating has been on for a few hours – so typically between November and April each year. The greater the temperature difference between the inside and outside of the house the better the images. Rain and sun can give distorted readings so ideally on or at the end of a cold cloudy day is ideal.

Models of Thermal Imaging Cameras available



FLIR C-Series

£562.80 inc VAT available on Amazon

- Compact 3 in 1 tool including thermal camera, visual inspection camera and LED floodlight
- True thermal 128 x 96 imager (12,288 pixels) Patented MSX embosses visual details on the thermal image to create sharper, easier to understand picture
- FLIR cloud connectivity with automatic transfer, storage, backup, share functionality that dramatically reduces time and effort
- Designed for professional use – rugged and reliable

¹ [Domestic energy prices - House of Commons Library \(parliament.uk\)](https://www.parliament.uk/library/research-briefings/briefing-content/domestic-energy-prices)



Seek Thermal RevealPRO

£645 inc VAT available on Amazon

- Ruggedized, high resolution thermal camera with a 320 x 240 thermal sensor to help find and fix problems faster on the jobsite or at home.
- Includes a 300 lumen LED flashlight, long-lasting rechargeable battery, large colour display, and durable rubberised casing.

• Specs: 320 x 240 thermal sensor, 32 field of view, 9 Hz frame, fixed-focus lens, -40F to 626 f detection range, captures photos, spot temperature, 9 colour palettes, auto & span/level control, 4 emissivity presets



Flir One Gen 3

£226.80 inc VAT available on Amazon

- Plugs into a smartphone and works with a free app that can be downloaded

Source: [The best thermal-imaging cameras in 2022 | Digital Camera World](#)

The FLIR C-Series was deemed to be the best Thermal Imaging Camera overall.

Deploying the Technology

From a sample of Council websites, it seems that some Councils are loaning equipment directly to residents whilst others have taken the approach of recruiting volunteers to carry out surveys once they have received some basic training.

FTC could use Eventbrite or similar online booking system to take bookings for the Thermal Imaging Cameras.

Training could be sought from an online provider such as [Introduction to Thermal Imaging \(E-Learning\) | iRed®](#) who offer a basic introduction course for approximately £100.

Follow up

Once hot spots and areas leaking heat have been identified, a qualified heating and insulation specialist can be consulted about suitable solutions. The Energy Saving Trust website: <https://energysavingtrust.org.uk/> or free phone number 0800 444 202 can also be contacted for some tips, solutions, ideas and links to further support and possible funding.

Recommendations

1. Recruit "Climate Champions" on a voluntary basis to undertake some basic training to operate and interpret the results from Thermal Imaging Cameras
2. Invest in two FLIR C-Series Thermal Imaging Cameras
3. Offer the use of one of the Thermal Imaging Cameras to other Parish Councils in the locality for a small fee

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