

# Bath Green Homes

## Georgian mid-terrace with simple low cost improvements making a big difference to warmth and energy bills



- Condensing gas boiler
- Thermally lined curtains and floor coverings
- Low energy appliances
- Wattson meter, humidity sensor and regular monitoring using iMeasure
- LED and low energy lighting
- Water butts and DIY grey water recycling

### Introduction

As an active local green campaigner and Green Party candidate for Larkhall, living lightly on the planet is a key motivator for Lin Patterson in her Georgina mid-terrace home. But there were other drivers too.

“As I’m getting older and finding myself on a lower income, saving money is becoming more important. But one of the main drivers for doing what I’ve done was that I was cold! I got fed up with it – especially knowing the cots of energy was only going to go up. I didn’t want to be an old person wrapped up in blankets living in one room. With my daughter we made lists of things to do, and gradually ticked them off.”

Lin has now significantly reduced her energy bills and finds that she hardly uses her gas heating at all.

### Features

#### Wood stove

Lin installed a Clear View wood burner several years ago and is delighted with it. An integral part of its success is the Eco-Fan, which sits on top and converts the heat of the stove into mechanical rotation of a fan. “I really rate it; I wouldn’t live without my eco-fan!” says Lin. “As the stove gets really hot, the eco fan kicks in, and it directs heat through the open plan downstairs, and up the stairs – so that’s how I’ve got away with not turning on the gas this winter!”

### Overview

**Age/period:** 1824  
**Type:** Georgian mid-terrace, Grade II Listed  
**Years in residence:** 30+  
**No. bedrooms:** 2  
**Wall type:** Solid stone wall  
**Area:** Larkhall

### Key Features

- Wood-burning stove, with eco-fan to help distribute heat within living zone
- Sheep wool loft insulation
- Draught proofing of sash windows and doors
- Secondary glazing of sash windows

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## Sheep wool loft insulation

A few years ago, Lin received a grant to top up her loft insulation with mineral wool. But the installers left in place the old 'vermiculite' insulation granules, which had become damp and ineffective, and Lin did not notice an improvement in warmth. After seeing sheep wool insulation in action at a Bath Green Homes event, and liking it, Lin decided to include it with some general roof improvement work. She asked the contractor to remove everything and install 250mm sheep's wool instead. Lin rates the contractor – Chris Pritchard, who she found through the Council's Buy With Confidence scheme.

"Now I feel much warmer, and I also noticed it made a big difference to the sound quality upstairs – it seemed to make it quieter."

## Windows and doors

The property has sash windows throughout and Lin used a local company 'Traditional Timber Windows' to come and install professional draught proofing, which cost just over a thousand pounds. This made a big difference.

In addition she used a Bristol firm, to install secondary glazing. "I was very, very happy with them", says Lin. "Secondary glazing has also made a big difference in terms of noise."

Doors have been draught proofed and polycarbonate secondary glazing fitted on the rear door by Hawker Joinery from Batheaston, who Lin also rates highly. This has magnetic strips so it can be removed in summer, although Lin tends to leave it on all year. Even the cat-flap has been cleverly converted and draught proofed!

Both front and back doors have curtains with thermal backing. "I use these all the time."

## Lighting and appliances

An Eco Max Vaillant condensing gas boiler was installed in 2001. Lin uses an annual service contractor for this, and so far has had no problems with the boiler.

Electrical appliances are highly efficient, including a Liebherr fridge-freezer and Indesit EcoSense washing machine which has an 'eco-wash' function which Lin always uses. A Sheila maid above the stairs helps dry clothes internally.

Lighting is all LED or compact fluorescent; "I am moving over to LED, including dimmable LED spotlights in the

kitchen. I chose 'daylight' which I like to cook by, but have a 'warm white' bulb on my desk for late evening work."

## Water efficiency

Two water butts are linked in the garden to supply the raised beds. In the bathroom Lin uses a small bowl in the sink to collect water from handwashing for use again, and a large bucket below for grey water which can be used for flushing.

## Monitoring and display meters

There are a number of metering and monitoring devices on display which Lin actively uses to help her manage energy use and indoor comfort.

The Wattson meter uses a clever combination of numbers and colours to give real time information about electricity use. "It's a continual reminder – people say don't you start ignoring after a while, and no I don't. I find it inspires me to turn things off sooner than I otherwise might." Data can also be stored and downloaded to a computer if desired.

An indoor humidity/temperature monitor helps Lin keep track of indoor humidity. "Particularly when it is rainy outside, the house can get very humid and feel damp", says Lin. A dehumidifier is useful when drying clothes, and a Ventaxia 'continuous extract fan' in the bathroom allows 'trickle extract' to continually and gently refresh the air in the house, with a boost function for when taking a shower.

Finally Lin religiously uploads her weekly gas and electricity meter readings onto the web-based 'iMeasure' platform which enables her to track her annual consumption and savings. "You can really see the difference between this winter and last, before I installed the wood stove."

## Contacts:

**Chris Pritchard** - Roofing contractor (and sheep wool installation) - B&NES Council 'Buy With Confidence' scheme: 01225 427354

**Hawker Joinery in Batheaston** - [www.hawker-joinery.co.uk](http://www.hawker-joinery.co.uk)

**iMeasure** - [www.imeasure.org.uk](http://www.imeasure.org.uk)