



**A South Seeds guide**

# **Energy audits**

**A step-by-step manual that explains all you need to know to safely conduct a comprehensive home energy audit**



# Save your clients money and cut their energy use

SOUTH SEEDS' energy officers have conducted more than 700 free home energy audits since the Glasgow charity was established in 2011.

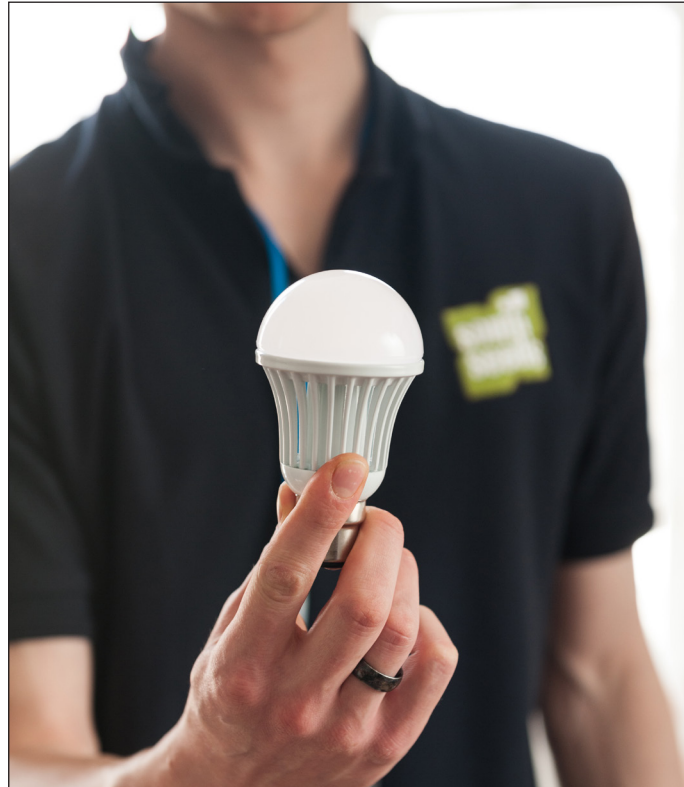
We also offer a range of money-saving and environmentally beneficial initiatives including a handyman service to install energy-efficient property improvements.

Our energy officers help residents to navigate the complex energy-supply system in Scotland, including registering with a supplier, switching tariffs and suppliers, and providing support to clear or manage debt.

South Seeds energy audits improve people's living conditions, save them money, and cut their carbon emissions – and over the years we have refined our service, learning how best to conduct, and follow up on, an effective home energy audit.

This manual provides the key stages for a successful audit, from the initial engagement to post-audit support, and everything in between, including how to prioritise the safety of you and your clients, with details of how to assess and minimise potential risks.

Every client's situation is different and sometimes questions or issues occur that may not be specifically covered in this publication. If you are unsure of an issue or are unable to answer a question, sources of further information and support can be found inside.



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## Community engagement generates audit opportunities

**1 THE BEST WAY TO GET FOLK INTERESTED IS TO BE INVOLVED IN YOUR COMMUNITY**  
Take an active part in community events by doing a stall or workshop • Ask local groups, businesses and organisations if you can run a drop-in session in their space • If you have a base or office, display street signage to promote your service • Promote seasonal grants and funding to generate further interest and awareness of your service – eg Warm Home Discount promotion during the autumn/winter months • Produce

leaflets and posters that can be distributed around your local area • Encourage other organisations to make referrals to your organisation • Use social media to promote your service • Word of mouth is one of the best routes to wider engagement – encourage clients who've engaged with your organisation to spread the word • Where possible book in the audits at the time of the initial engagement and be prepared to be flexible when you visit. People's lives are complex and a 9-5 approach doesn't always work.



# The best way to successfully deliver a home energy audit

## 2 BE READY TO DEMONSTRATE WAYS TO SAVE ENERGY

- Stock a bag of relevant, portable items you can show during the visit, such as
- LED bulbs
  - Draughtproofing for doors and windows
  - Section of a door brush
  - Chimney balloon
  - Secondary glazing sample
  - Glazing film
  - Letterbox cover
  - Sample of a radiator panel
  - Sample of thermal lining for curtain
  - Laser measurer (useful for underfloor voids and lofts)
  - Leaflets for your organisation/service
- Arrive at the property at the arranged date and time
  - What to do when you arrive at the property:
    - Always wear an ID badge
    - State your name clearly
    - Ask if you should take off your shoes before going in or take shoe covers with you
    - Before you begin the walk-round, sit down with the householder to discuss the details of the people living there

## Conduct a walk-round of their home and tick off checks as you make them ✓

- THE PROPERTY** – are there any energy issues with the property they are aware of? • Can they make any changes they want to their home – are they owner occupiers, privately renting, or social housing tenants? • Is it a house, flat or bungalow? • If it's a flat, which floor is it on? • How many bedrooms does it have? • What council tax band is it? • Is it a listed building or in a conservation area?

and the way they use their energy. Information that is useful to record includes:

- CHECK HOUSEHOLD DETAILS** – how long have they lived there? • How many people live there? • How old are the residents? • What is the weekly schedule of the household? • Is anyone in receipt of any benefits? • Are there any vulnerabilities in the home (young children, pensioners, disabilities etc)? • Do they have any questions about the audit or other energy issues?

- ASK ABOUT ACCOUNTS & BILLING** – who is their energy provider(s)? • Are they registered with their provider? • Do they have any debt with their provider?
  - Do they have any energy bills handy?
  - What tariff are they on?
  - Do they provide regular meter readings?
  - If there are vulnerabilities in the home, are they on the Priority Services Register?

- METERS** – do they have a prepayment meter(s) or credit meter(s)? • Take meter readings • If they have a prepayment meter, are they aware of the standing charge? • Is there any debt on the prepayment meter? If so, is it their debt or the previous occupant's? • Is their meter a one/two/three-rate meter? • Is it the right type of meter for their property? • Do they have a smart meter? • Could an electricity monitor be fitted?

- HEATING SYSTEM** – what heating system is installed and how do they use it? Is it mains gas, electric, oil, LPG, renewable or other? • If it's gas, what type and model of boiler do they have? • How old is the boiler? • Do they get it serviced annually? • What heating controls are present? Programmer, room thermostat, TRVs etc • Do they know how to use their heating controls? • If they have a room thermostat, what temperature do they set it at? • Where are the radiators? • If they have a water cylinder, is it insulated?
  - Are their pipes insulated?
  - Do they use any secondary heating source?

- LIGHTING** – do they have CFL, LED, incandescent or halogen bulbs? • How many of each bulb do they have?

- WALLS** – what type of walls do they have (solid, cavity etc)? • Are they insulated? • Are there any signs of damp or disrepair, either internal or external?

- WINDOWS** – are they single, secondary or double-glazed? • What condition are they in? • Do they feel any draughts from the frames? • Are they draughtproofed? • How many windows are there? • What colour are they? • Do they have curtains or blinds? • If so, are they thermally lined?

- CHIMNEYS** – do they use their chimney(s)? • How many are there? • Are the chimneys blocked or unblocked? • Are they considering installing a fireplace or stove?

- ACCESS TO A FLOOR/LOFT** – if they are on a ground floor or top floor, or if they live in a house, are the loft and floor insulated? • Is there easy access to the loft



- space or underfloor space? • How much room is there to work in each space? • Are there any gaps in the floorboards or skirting?

- EXTERNAL DOORS** – is the front door draughtproofed? Look for draughtproofing strips, a door brush and letterbox cover • How many doors are there? • What is the door(s) made of?

- HOT WATER** – is their water heated by gas or electricity? • What temperature do they have it set at? • If it's electric, do they have their water heater set to a timer or is it on 24/7? • Do they have an electric shower?

- CONDENSATION** – do they have issues with condensation or damp? • Are there extractor fans and do they use them?
  - Is there any other source of ventilation and is it blocked?
  - How do they dry their clothes?

- ELECTRONIC DEVICES AND OTHER ENERGY-SAPPING APPLIANCES** – what electronics do they have in their property?
  - Are they left on standby?
  - What temperature do they do their washing at and how long is the cycle?
  - What energy rating are their white goods?



WHEN YOU have finished your walk-round, sit down with the client again to discuss your findings and ask any further questions that may have come to mind when doing the audit:

- Explain what you think they can do to reduce their energy use and keep the heat in
- Show them any examples of energy-efficient materials that are relevant to their property
- Explain the benefits of monitoring your energy use, either with an electricity monitor or smart meter, or by taking regular meter readings
- If you think they may qualify for any government support schemes you should ask if they would like you to support them to make this application while you are there
- If they have debt on their energy account you may wish to offer them support to set up a payment plan, apply to the energy



trusts or hardship fund, or signpost them to other organisations which can do this

- If you think you will be supporting them with their account in future, it can be helpful at this stage to get a signed mandate giving you authorisation to deal with their account.

- Explain what happens next – the report, follow-up and handyman service (if you have one).

## Write your report

**3** Describe all the actions you think the householder should take to reduce their gas and electricity consumption. The more personal it is, the more engaged they will be.

- Be succinct but give all the information they require to implement

the actions recommended in their report – a checklist at the beginning of the report is helpful.

- Provide links to any relevant products, grants or other funding. If you have any additional guides or information on the actions outlined then include these with the report.

## Act on your findings

**4** After a few weeks, follow up the report with a phone call to see how they are getting on

- Ask if they have completed any of the actions on their checklist
- If you have a handyman service and they would like to use it, provide a quote for the work

they'd like done. Once they agree to the quote, you can then arrange a date and time for the work to be carried out.

- It is always good to reflect on the work you have done by producing case studies that help to bring your service to life.

## Useful organisations

**5**

If a client is in financial difficulty and has debt with their energy supplier you may want to support them to apply to the energy trusts or hardship fund, such as:

- [www.britishgasenergytrust.org.uk](http://www.britishgasenergytrust.org.uk)  
Tel: 01733 421060
- [www.npowerenergyfund.com](http://www.npowerenergyfund.com)  
Tel: 01733 421060
- [www.edfenergytrust.org.uk](http://www.edfenergytrust.org.uk)  
Tel: 01733 421060
- [www.eonenergyfund.com](http://www.eonenergyfund.com)  
Tel: 03303 80 10 90
- [www.sedhardship.fund](http://www.sedhardship.fund)  
Tel: 0808 800 0128

Before applying to the energy trusts or hardship fund, it is important to show that they have received debt advice. You need to include a reference number from a debt advice agency such as the National Debtline or Step Change in the application.

- [www.nationaldebtline.org](http://www.nationaldebtline.org)  
Tel: 0808 808 4000
- [www.stepchange.org](http://www.stepchange.org)  
Tel: 0800 138 1111
- Home Energy Scotland – provides energy advice and benefit entitlement checks, and makes referrals to the Scottish Government's energy grants and schemes  
[www.greenerscotland.org/home-energy-scotland](http://www.greenerscotland.org/home-energy-scotland) Tel: 0808 808 2282
- Money Matters (Glasgow only) – provides debt advice, benefit entitlement checks, and can support applications to the energy trusts [www.moneymattersweb.co.uk](http://www.moneymattersweb.co.uk)  
Tel: 0141 445 5221
- Energy Action Scotland – provides



energy-efficiency training and support for people from a broad range of disciplines and various levels of expertise  
[www.eas.org.uk](http://www.eas.org.uk)  
Tel: 0141 226 3064

- One of the simplest ways to help residents save money on their gas and electricity is by switching supplier. The energy regulator, Ofgem, estimates that households can save as much as £300 a year just by switching their supplier or tariff.

To find out what your clients can save, visit an independent switching platform such as:

- [www.uswitch.com](http://www.uswitch.com)  
Tel: 0800 6888 557
- [switch.which.co.uk](http://switch.which.co.uk)  
Tel: 0800 410 1149



# Safety first: risk-assessment checks

AS WITH any contact between a service provider and a client, being aware of any potential hazards – and how to prepare for and deal with them – makes sure everything goes to plan, and keeps everyone safe. The following

table outlines a number of the most common things to look out for when you visit a client's home – from the condition of the close to the height of the electricity meter, and a range other potential issues to be aware of.

No.	Hazards and potential consequences	Persons at risk	Current risk rating	Control Measures	Residual Risk Rating
1	Glass, needles and other objects in closes	Energy officers	Medium	Give energy officers safety shoes	Low
2	Taking meter readings from high up meters	Energy officers	Low	Where possible use a step ladder	Low
3	Dealing with potentially dangerous clients	Energy officers	Medium	Make sure staff members know what address you're going to. Also have 'incident' alarm handy.	Low
4	Person presenting themselves as your organisation but not being	Clients	Low	Give all energy officers photographic identification	Low
5	Bed bugs	Energy officers	Medium	Give all energy officers safety boots and a bed bug spray	Low
6	Tampered meters	Energy officers/clients	Medium	Arrange training for energy officers on how to identify tampered meters	Low
7	Building disrepair – broken stairs, banisters, things falling off walls	Energy officers	Low	Energy officers need to be vigilant and treat each property individually	Low
8	Wet floors etc in close	Energy officers	Low	Energy officers need to be vigilant and treat each property individually	Low
9	Potential encounters with people doing drugs etc in closes or homes	Energy officers	Medium	Energy officers need to be vigilant and treat each property individually	Low
10	Dangerous electrical installations	Energy officers	Medium	Energy officers need to be vigilant and treat each property individually	Low

## Can you measure audit success?

YOU CAN calculate the savings on a client's bill by switching to LED bulbs. But how do you measure the success of your energy audit service? Is it through press coverage, such as when Glasgow Evening Times columnist Catriona Stewart highlighted a South Seeds' audit-linked double-glazing scheme, saying: "This project is helping change lives in Govanhill – and could set standards for energy policy." Sounds like a measure of success.

Or how about when Govanhill Housing Association said: "The educational aspect of South Seeds' work is vital for tenants and residents to

be able to manage their energy usage, avoid high energy tariffs and help them become energy conscious." Happy with that too.

But perhaps best of all is hearing from clients after their audit, such as this message we got from Josephine.

"My new gas heating is WONDERFUL and has been cheap so far as well," she said. "Casey's help was invaluable and I wouldn't have had the courage to go ahead with the gas conversion without the tips and encouragement he gave me. All the best to you all there!"

That, perhaps, is the best way of all to measure how successful audits can be.

We introduce some South Seeds clients whose lives have been transformed by a free audit and follow-up support

# The power of positive change

## No draughts = a warm home

PATRICIA HOLMES got in touch with South Seeds after hearing from her neighbour about our free home energy audit service. She lives in a privately rented, draughty tenement flat with single-glazed windows.

Due to ill health, Patricia is unable to work and so she spends quite a lot of time in her flat. This means she was acutely aware of the draughts that came in around her windows and front door. When South Seeds' energy officer, Casey Dickson, visited her home, she highlighted these as particular issues with her property.

Once Patricia had her energy audit and received her report, our operations officer Lisa Peebles followed up with her to see if she would like support with any of the actions listed.

Patricia told us that she would like to have the South Seeds handyman install draughtproofing around her windows and door.

Since the draughtproofing was installed, Patricia's flat feels a lot better. "You could feel the draught coming in through a split in the wood [of a window], but you can't feel it now," she says, adding that the draughts at her front door have also been sorted. Her friends and family are saying they'd like draughtproofing installed too.

**'You could feel the draught coming in the window ... but not any more'**



- Patricia benefited from**
- A free home energy audit
  - A report and solutions checklist
  - Support to assess improvements
  - Draughtproofing installed by the South Seeds handyman



## Secondary glazing pays off

CHRISTINE MORRISON lives in a large, draughty flat in an East Pollokshields conservation area, which means that she can't change the external aesthetics of her property. This can be prohibitive when it comes to installing energy-efficiency measures, such as double glazing. Christine would have had to buy expensive slimline double glazing approved by the local authority for conservation areas.

One of the recommendations in Christine's action plan was polycarbonate secondary glazing, which is much cheaper than slimline double glazing, but it insulates windows to a similar, or in some cases, better standard. With the information in her energy action plan, Christine could measure up and order the materials for her secondary glazing. She then contacted South Seeds' handyman to fit it, and is delighted with the results.



A thermal image of heat-retaining polycarbonate glazing

- Christine benefited from
- A free home energy audit
  - A solutions action plan
  - Help to navigate planning laws
  - Polycarbonate secondary glazing installed by the South Seeds handyman

## Cosy from the floor up

KATE McKEAN contacted South Seeds for a home energy audit after hearing of our energy-efficiency handyman service. She lives in a ground-floor tenement flat with original wood flooring and a large void underneath.

Over winter, Kate often felt a draught from between the floorboards and knew that this would be a major source of heat loss in her home.

The energy audit found there was good access to the basement and plenty of room to work, meaning our handyman could fit underfloor installation.

The audit also recommended energy-efficiency improvements such as a chimney balloon, LED lights and secondary glazing. Since having the insulation installed Kate says her home is far less draughty and is much better at retaining heat. Her flat is now warmer and she has lower utility bills.



'Underfloor insulation was among a range of recommendations'

- Kate benefited from
- A free home energy audit
  - A report and solutions checklist
  - Support to assess improvements
  - Underfloor insulation installed by the South Seeds handyman

## Hardship fund success

KATERINA KRIŠTOFÍK'S most recent engagement with South Seeds was through a referral from the Slovakian community worker at the local housing association.

Unable to work but having had her benefits withdrawn, Katerina was in a very poor financial situation. At this time she also received her quarterly bill covering the coldest winter period.

Katerina couldn't afford to pay her bill. Worried, she came to South

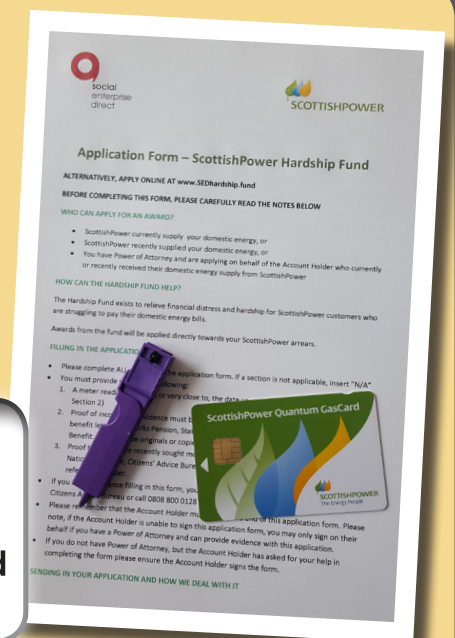
Seeds wanting to arrange some way of paying for the energy she'd used. Katerina was in such bad financial shape, however, that she could not afford even the lowest repayment plan ScottishPower could offer.

Energy officer Casey Dickson suggested that they make an application to the ScottishPower Hardship Fund to have Katerina's debt cleared. With the help of the local Slovakian community worker Casey submitted all the necessary

information to the hardship fund. Three weeks later Katerina was awarded £269.64 credit on her energy account which cleared her debt, allowing her to use what little money she had for food and other necessities.

'Unable to work, Katerina had also had her benefits withdrawn'

- Katerina benefited from
- Extensive support and advice
  - Help to apply for hardship funding
  - Having debt cleared by an emergency funding award
  - Being able to buy food and other essentials





# Home energy audits deliver

Help for residents to manage their energy debt

Support for households to switch energy supplier

Households registering with their supplier

Warmer, more energy-efficient homes

Referrals to Home Energy Scotland for information on grants and funding, as well as benefit entitlement checks

Referrals to HEEPS Warmer Homes Scotland scheme for new central heating systems and other energy-efficiency improvements through WarmWorks

More accurate billing and resolution of billing errors

Installation of LED bulbs that lock in savings from the point of first use

Better use of heating controls in the home

Help to set up payment plans for ongoing energy use

Support to access the HEEPS Equity Loan scheme for energy-efficient home improvements

Signposting to other local support and services that residents may benefit from

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