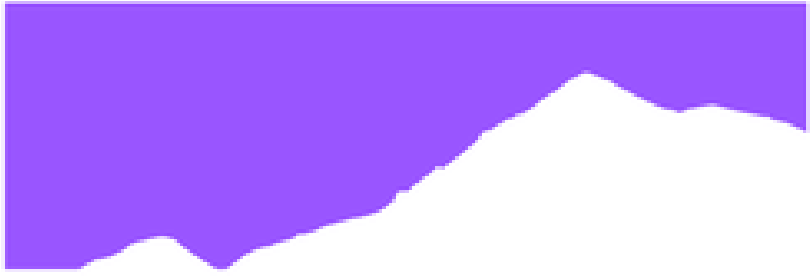


Introducing the HeatHack programme



- Volunteer group
- Explores heating and energy efficiency in (mostly) churches, with links to universities





THE Surefoot Effect

- Community Interest Company
- Designs and runs workshops and training for sustainability and resilience





New programme

- Funded by Royal Academy of Engineering until July 2023
- Help community building operators plan for what a net zero future means for them

How does it work?



Group of 6 from the community holds 4 structured sessions using our materials, with some fact-finding between



Then they hold a community engagement event about what they found



Intended to end in an actionable plan that is right for the building and community



Documented process to create a profile to pass to professionals

Every group needs some kind of engineer

- **Not** to give you professional advice – just to aid your thinking!
 - Easily able to understand the concepts we need to convey
 - Practical problem-solvers who are used to thinking about time and budgets
 - Highly numerate
- Please look for an engineer – in your pews, work colleagues, parents who pick up children from your halls, ...



If you can't find an engineer



UK

ENGINEERS

WITHOUT BORDERS

General call for Scottish engineers going out next week

OR



seeks a volunteer to help a community group plan for net zero as part of our structured programme

**MARYHILL PARISH CHURCH
NORTHWEST GLASGOW**

Vibrant and welcoming church supporting the community

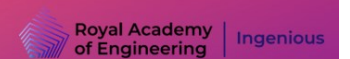
Parent and toddler groups ~ Dance classes for seniors ~ Addiction support



"...we are always looking for new ways to welcome and serve the community. We are conscious of our duty to care for the environment, so we are looking to discover how to make our buildings as eco-friendly as possible"

- Iona Craig, Community Outreach Worker

Are you a qualified engineer with around 40 hours to spare in the coming months? Find out more at heathack.org



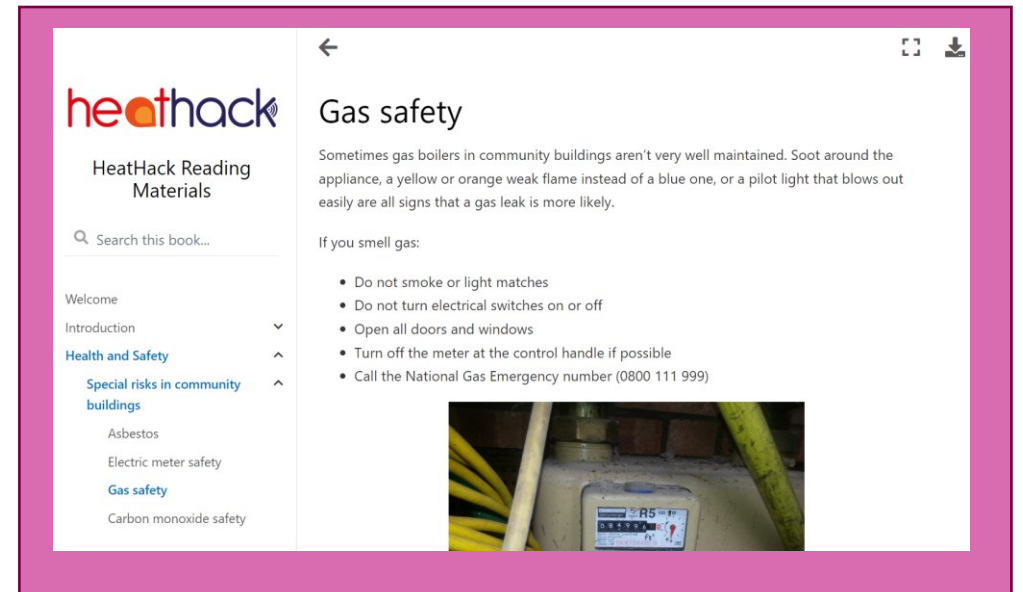


What are the sessions like?

- Not very technical – these are mixed groups!
- Convey basic concepts like how thermal comfort isn't just about air temperature, major areas of heat loss, space heating versus localised heating
- How the building should be used in the future to serve your community is very important
- Activities to understand the building and your future plans, to create a profile to pass to professionals – photographic survey of heating and ventilation features, any available documentation
- One week is partly about checking whether you can improve your heating efficiency with little or no spending

Simple reading to back up the concepts

- Strategy – just the basics
- Point to good resources elsewhere for the details (Historic Environment Scotland, Centre for Sustainable Energy, ...)
- Include methods for technical assessments in case the engineer wants that, e.g.
 - How to know if you have enough radiators
 - How Energy Performance Certificate assessments are done



Thermal monitoring

- Cheap device to log temperature and relative humidity
- Use wifi to get the readings to the web or pick them up with a smartphone/tablet every week or two
- Engineer can help find obvious inefficiencies – examples:
 - When to turn the heating on
 - Whether it's running at night and you don't know it
 - Whether thermostat is effective
- Useful for demonstrating problems, as professionals can't always find them





We aren't at the sessions – but there's backup

- The engineers want to help each other - some of them retrofit traditional buildings for a living
- HeatHack “office hours” – opportunity to ask questions and deal with any problems
- Andrew MacOwan is our Energy Adviser, actively involved in the project for when we don't know.
- Historic Environment Scotland, General Trustees of the Church of Scotland involved in early discussions and can give us light advice
- A few university departments interested in research on any thorny problems

Programme will not be perfect!

- We will learn and improve our support as we go
- The engineers (and some of their companies) want to help us improve the programme
- End goal is to release better materials openly so anyone can use them
- We hope what we can offer will help make change faster
- Even if you know a lot, the opportunity to focus could be a bonus



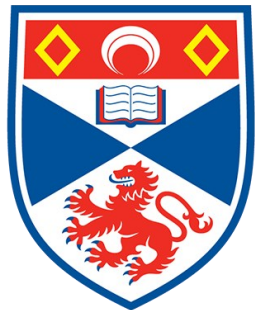
More information

- www.heathack.org
- join@heathack.org

heathack thanks



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St Andrews



THE
Surefoot Effect



Royal Academy
of Engineering

| **Ingenious**