

The Challenges of Rural Electrification

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The Challenges for Rural Electrification
project sought to understand barriers and enablers to rural electrification by focusing and engaging with sector experts and rural communities based in Gloucestershire

 **NICRE**
National Innovation Centre
Rural Enterprise

 **RURAL
ENGLAND**
NETWORKING / RESEARCH / LEARNING

Methodology

A synergistic approach combining idiographic methods allowed for a deeper dive into participants' attitudes and behaviour

- 16 semi-structured interviews
- Two in-person focus groups
- Sector expert and community contributions



Part one findings from the sector expert group explored both barriers and enablers to adoption

Thematic analysis interpreted the following key themes:

1. Disparate landscape
2. (Hidden) retrofit costs
3. Capacity & supply
4. Rural nuance
5. Trust & negative noise



Disparate landscape; **“a complicated picture”**

- Highlighted systemic issues
- Participants spoke of multiple, differing and conflicting priorities
- Lack of guidance across all levels
- Some suggested prioritisation of urban over rural down to lack of investment and need for “low hanging fruit”
- Given above, or in spite of, the group spoke of pockets of activity
- Dependent on location and individuals leading them



(Hidden) retrofit costs; **“why bother”**

- Grant funding does not cover **all** costs attributed to retrofitting rural homes
- Size and age of housing stock
- Fabric first considerations
- Perceived cultural cost

“She's got panels on her roof, but she's got oil central heating, and she's never taken the leap to heat pumps because they'd have to rip the floors up, the radiators out, and it's just too much for her to cope with, even though the oil prices are really high and, you know, she doesn't like relying on it” (P2)



Trust & negative noise; **“is it just easier not to think about it?”**

- Lack of trust in both the green technology and its installation
- Lots of (the wrong) noise from a disparate landscape
- Perception that this impacts adoption



“you've got lots of people shouting: my technology, my technology and that actually results in people being sort of slightly bunny in the headlight. Frozen and say, ‘well, you know, maybe it won't. Oh, I'll give it- I'll wait a year and see what happens’” (P6)

Capacity & supply; **“it won’t happen without us”**

- Interdependencies between the key actors
- Skills shortage and a ‘boom and bust’ mentality
- An element of relying on the slow adoption within communities



“... things like heat pumps and EV is going to need such a drastic overhaul of the electricity network. They don't understand the barriers we're up against. And just having that conversation with local residents, or community energy organisations, you start to see each other's viewpoints... Oh, okay... so these are the restrictions we're working within, but this is what is possible” (P12)

Rural nuance; **“it’s a cultural thing”**

Acknowledging the differences presented by rurality:

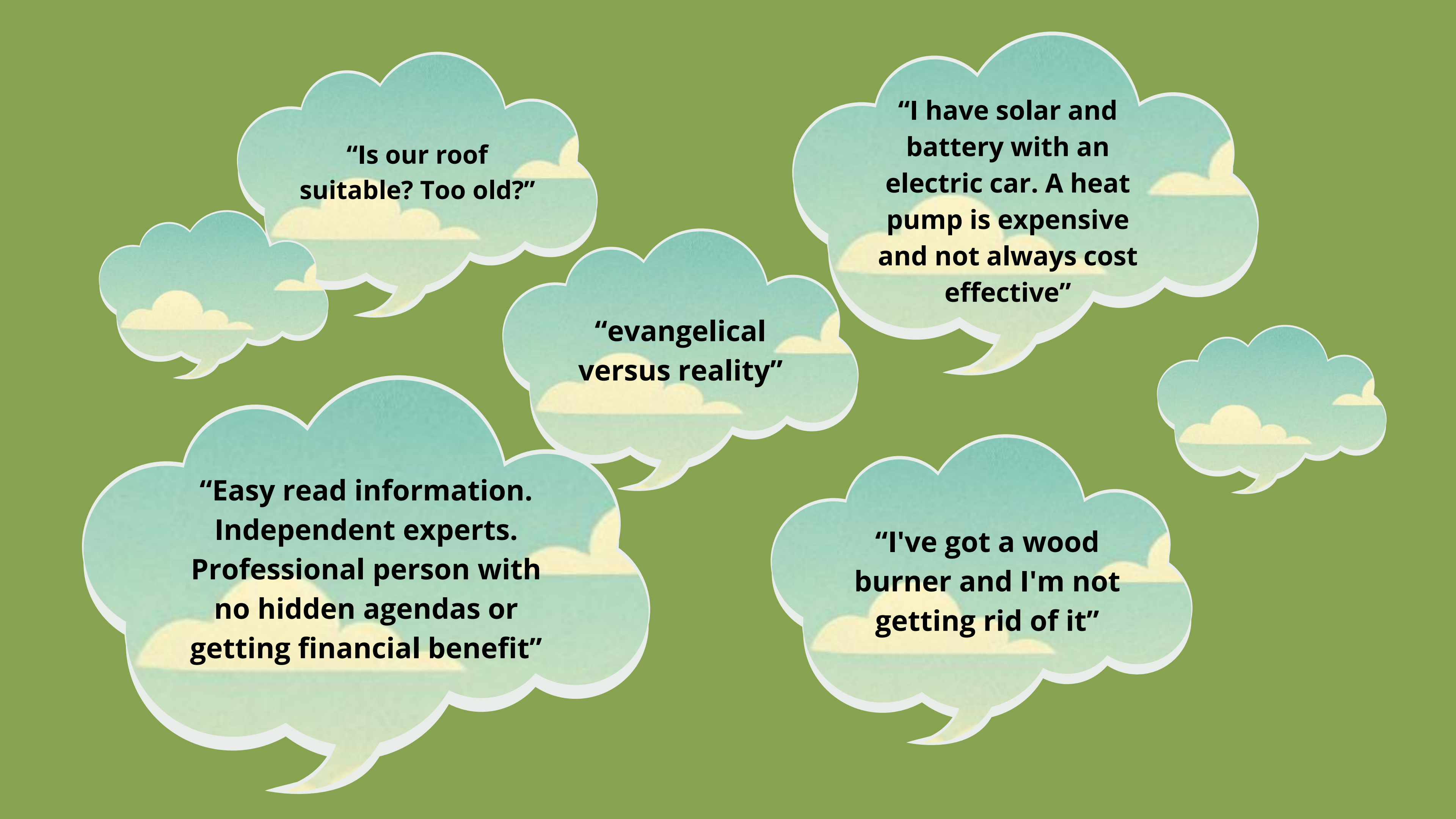
“Some realise that it makes more sense to do it because you're already off gas grid... and by investing in your own heat and electric generation, you're kind of solving a problem, moving away from expensive oil” (P2)

- Geographic area type
- Age and type of housing stock
- Ageing populations
- Rural identity and perceptions of living closer to nature



Part two findings - the rural community group - were interwoven...

	Barrier	Enabler
Cost	Upfront investment and running costs Recovering spend Prioritising other lifestyle changes	Grants Subsidies Local electricity market
Trust	Unfamiliar with technology Lack of local expertise Questions who to get good advice from	More consistent messages Recommended list of 'local' installers
Rural nuance	Lack of broadband impacts associated green tech software "Cultural commitments to comforts"	Mindset change More options Person- and home-centred approach



**"Is our roof
suitable? Too old?"**

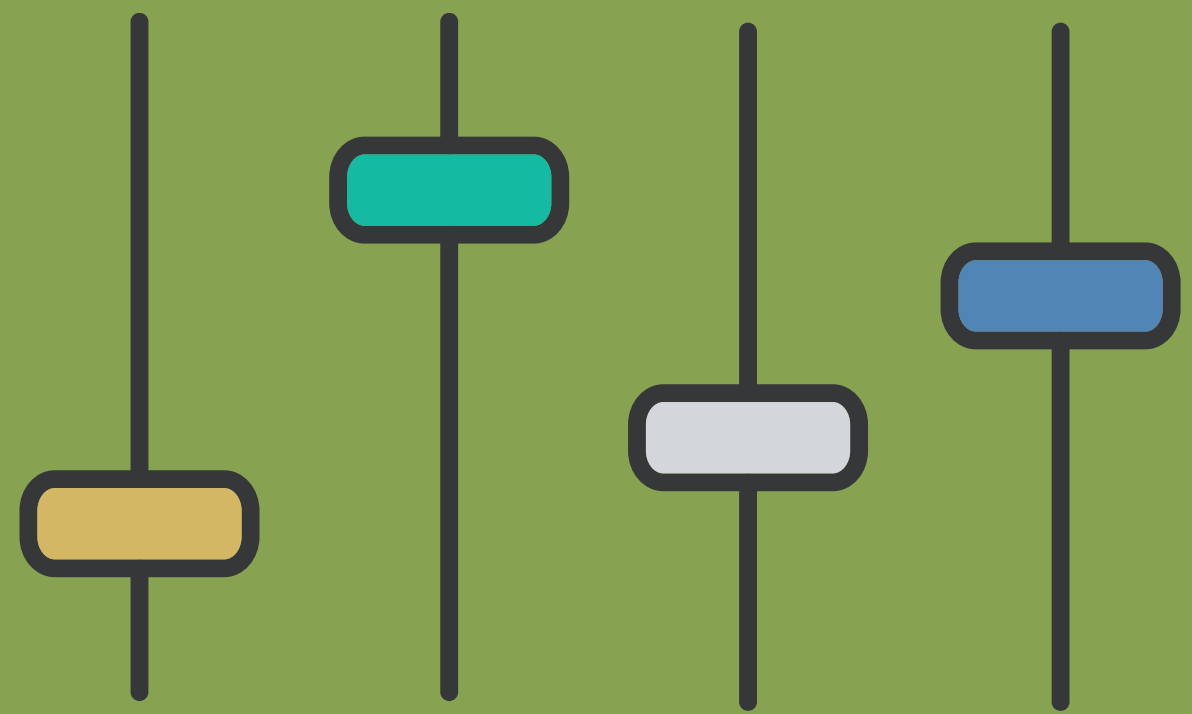
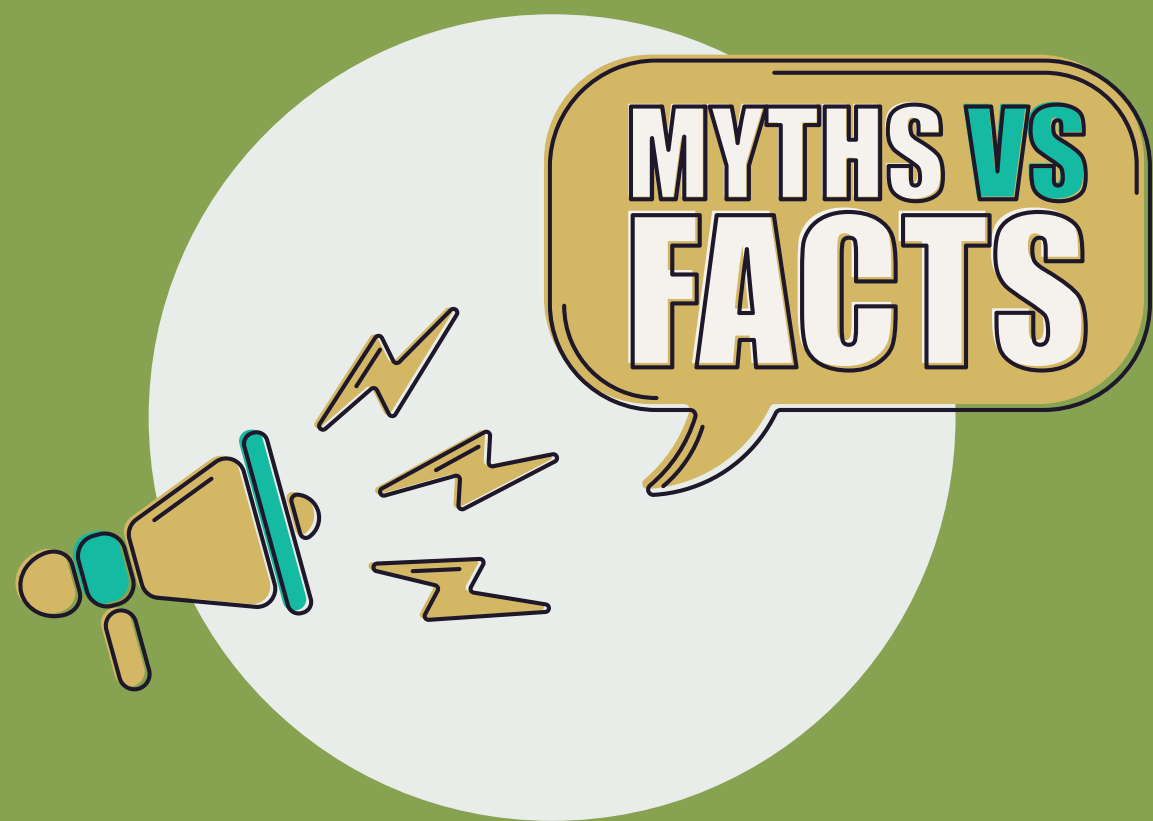
**"I have solar and
battery with an
electric car. A heat
pump is expensive
and not always cost
effective"**

**"evangelical
versus reality"**

**"Easy read information.
Independent experts.
Professional person with
no hidden agendas or
getting financial benefit"**

**"I've got a wood
burner and I'm not
getting rid of it"**

Interventions proposed by both groups



Implications

**Learning from previous
technology rollouts**

Change the narrative

Even greater disparity

**What was not
spoken about**



Recommendations

Build trust

Learn together

Harness the enthusiasts

Authentic intermediaries

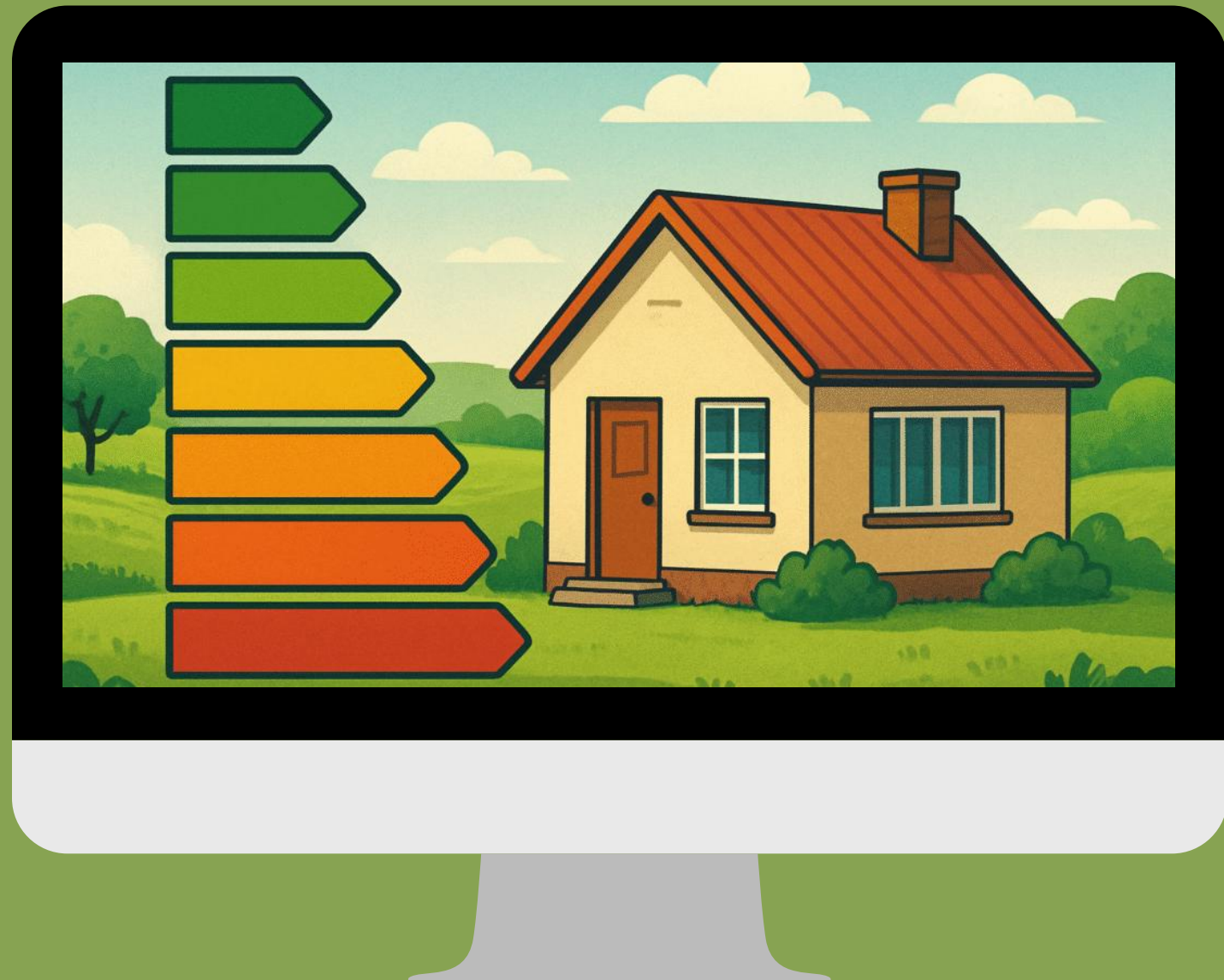
- Need to stand out against the noise
- 'Warts and all' accounts can be highly persuasive
- Need to be supported to tell their story to peers
- Acknowledge alternative solutions

Utilise communities

- Move focus from individual households to collective solutions
- Spaces of experimentation and development
- Greater resilience appealing to rural communities

Explore green financing

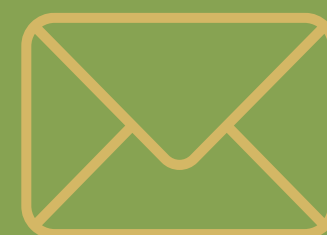




- Direct RSN circulation: c. 16,900+ bulletin recipients plus RMTG/RVSG networks
- Partner & academic networks: University of Gloucestershire, NICRE, and Rural England CIC platforms
- Sector publications: Sustainable Business Magazine, Sustainable Construction Now, and C2S Growth
- Media coverage: **BBC Radio 4 Farming Today**
- Social media reach: c. 516 direct engagements across RSN channels
- Political circulation: APPG members, Labour Coast & Country, NESO and related policy forums



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