



Buckinghamshire Council's Domestic Resource Efficiency Service (‘Energy Doctor scheme’)

APSE Big Energy Summit ‘24

Alexander Beckett



Agenda

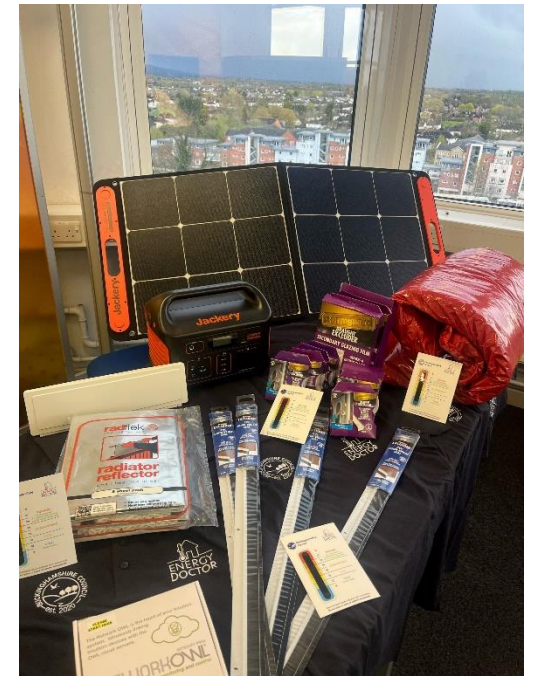
1. Establishing the model
2. Contracts with the best (staff and suppliers)
3. Savings achieved, and the launch of a new grant scheme!



Domestic Resource Efficiency Service



- 'Energy Doctors' (Domestic Resource Efficiency Officers) visit eligible households to:
 - Identify whether households are paying too much for their energy and/or water;
 - Provide advice on support available (including funding and grants) to assist with the implementation of resource efficiency measures;
 - Suggest appropriate behavioural and control changes that can help reduce resource consumption; and
 - Implement suitable low cost easy retrofit resource efficiency (LCERRE) measures



Domestic Resource Efficiency Service

- £1,957,841 (includes 4% management fee) allocated from the Council's allocation of the Government's UK Shared Prosperity Fund (UKSPF) to support the scheme until the end of March 2025 (under the theme of 'Community measures to reduce the cost of living').

Key Objectives:

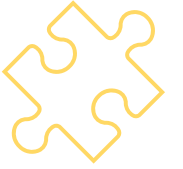
- Over 1200 properties visited by 31st March 2025 (DLUHC requires 400 visits)
- 300 tonnes of CO2 saved p.a. (from all visits)
- Approved by Buckinghamshire Council [Cabinet on 5th January 2023](#)



Funded by
UK Government



Establishing the model



- Business case
 - Helps deliver the council's Climate Change and Air Quality Strategy:

'53. Promote opportunities for residents to improve their homes to help them mitigate and/or adapt to climate change and poor air quality.'
 - Compliments existing programmes [e.g. Energy Company Obligation (ECO); Home Upgrade Grant (HUG)]
 - Helps overcome the challenge of reducing energy and water consumption, costs and carbon emissions for those living in private rented accommodation.

Establishing the model

- Knowledge of Islington Council's 'Energy Doctor in the Home' visiting service provided the foundation:



SHINE

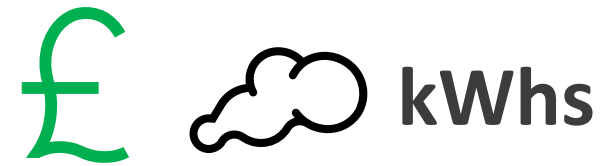
Our Seasonal Health Intervention Network (SHINE) is a one-stop referral system for the NHS and third sector helping them provide affordable warmth and seasonal health interventions to residents in Islington



- ~2 visits per day per Energy Doctor
- Average intervention rate for resource efficiency measures per household (no. of LED bulbs, reflective radiator panels etc.)
- Energy, cost and carbon saving calculations achieved per measure
- Liaison with Better Housing Better Health service (provided by the National Energy Foundation) to raise awareness of the proposed scheme so that a single point of support is maintained to help Buckinghamshire residents improve the energy efficiency of their homes



Establishing the model



- Defined LCERRE measure scope and savings taking into account:
 - Additions of other measures (e.g. heated blankets, portable solar generators)
 - Current energy efficiency measure savings figures from the Energy Saving Trust
 - Current energy price cap from Ofgem; and GHG conversion factors from DESNZ
- Financial modelling took account of:
 - Retail values of LCERRE measures
 - Mileage costs
 - I.T., uniform, staff training, and tool costs (e.g. screwdrivers, hacksaws, work surfaces, ladders, gloves, tool boxes, heat guns)
 - Staffing costs (proportion capitalised against time spent to implement LCERRE measures)

LCERRE Measures

Electricity Saving

Draught Proofing

Heating Saving

Funded by UK Government

The illuminated square indicates room temperature
Do not place in areas of extreme temperature

27	TOO HOT	Turn heating down.
24		1°C reduction saves energy & up to 5% at your heating costs.
21	COMFORTABLE	
18		
15	COOL	
12	COLD	Increase heating
9		

Buckinghamshire Council ENERGY DOCTOR LEVELLING UP

Hot Water Saving

Water Saving

LCERRE Measures

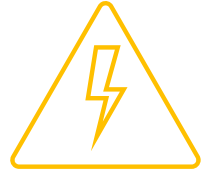
Measure	Measures per visit	Cost saving to client per measure (energy)	Cost saving to client per measure (water)	CO2 (t) saving from measure per visit (Scope 1 and 2)	Total energy saving (kWh) from measure per visit (Scope 1 and 2)	Total water saving (l) from measure per visit	CO2 (t) saving from measure per visit (Scope 3 - water)
RAD PANELS (RADLFEK)	3.00	£4.18		0.0088776	41.81038949		
LED BULBS	8.00	£7.79		0.004651565	22.9175		
DOOR DRAUGHTS	0.70	£6.75		0.014332275	67.5		
LETTER DRAUGHTS	0.14	£1.13		0.002388713	11.25		
Window draft proofing	0.40	£3.38		0.007166138	33.75		
HOT WATER JKTS*	0.01	£145.00		0.3078785	1450		
THERMOCARDS	1.00	£45.90		0.09745947	459		
ELEC MONITORS*	0.04	£98.60		0.0588613	290		
SEC GLAZ FILMS	0.30	£3.38		0.007166138	33.75		
AERATING SHOWERHEADS	0.25	£25.55	£24.33	0.054250315	255.5	8760	0.003311305
Save a flush	0.25		£13.15			4735	0.001789843
Shower Timer	0.50	£38.33	£36.50	0.081375473	383.25	13140	0.004966957
Chimney balloons	0.03	£65.00		0.1380145	650		
Solar Generator	0.25	£20.76		0.012391319	61.05		
Electric Blankets (net saving)	0.50	£18.27		0.112660412	524.316		

Annual savings

Managing Risks

Health and Safety Risk Mitigation

- Asbestos, manual handling, COSHH and working at height (external) training provided
- Processes established and maintained to ensure dangerous situations are avoided
- Training provided on the implementation of LCERRE measures
- Personal protective equipment provided



Legal Risk Mitigation

- Disclaimer form introduced for service users to sign. Helps avoid legal challenges regarding: consent to implement measures; claims that measures caused an accident etc.
- Ensuring tools and LCERRE measure materials meet quality and product safety criteria

Achieving Targets

- Phased approach to: expanding the eligibility criteria; and targeted marketing

Reputational Risks

- Customer service training provided
- Customer Relationship Management System (spreadsheet!) helps track 'cases'
- Short feedback questionnaire provided (N.B. 98% respondents 'very happy')



Contracts with best

LCERRE Measure Materials

- Savings highlights from invitation to quote processes:
 - Reflective radiator panels - £5,234.38 per year saving with Technical Converters Ltd (a manufacturer and supplier based in Bristol) for annual orders of 375 eight sheet Radflek packs
 - LED lightbulbs - £3,972.90 per year saving with Lighting and Mains Power Solutions Ltd (aka LAMPS, a Buckinghamshire based supplier) for annual orders of 7790 LED lightbulbs
 - Portable solar generators - £20,860 saving with Flex Technologies Limited for 90 units.



Staffing

- New job summaries produced for the Domestic Resource Efficiency Service (DRES) Team Leader, Domestic Resource Efficiency Officer (DREO), DRES Administrator, and DRES Funding Officer positions. These plus a robust recruitment process has ensured we have highly skilled and customer friendly staff.



Other

- Rental agreements in place for the storage of LCERRE materials (N.B. transitioned over from other council services). Helped provide initial insurance cover while changes were made to the council's insurance cover.



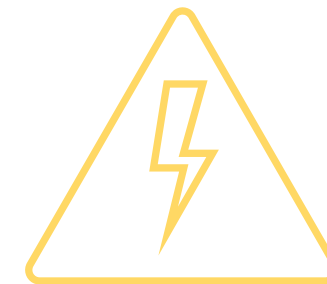
Savings (as at 16th February)

Visits

369 Energy Doctor visits completed (30% of 1200 target, 92% of DLUHC target)

Energy related savings

- 497,182.32 kWhs saved per annum
- 106.12 tonnes CO₂e saved per annum (35% of 300 target)
- £47138.44 per annum (average of £128* per household)]



Water savings

- 1,825,865 litres saved per annum
- 0.60 tonnes CO₂e saved per annum
- £5071.70 per annum (average of £13.80* per household)]



Domestic Building Envelope Energy Efficiency Grant

Rationale

- Use the revenue and capital underspend for a grant scheme that compliments existing support to improve the energy performance of eligible homes in Buckinghamshire.

Progress

- Domestic Resource Efficiency Service Funding Officer recruited
- Grant forms under development (N.B. Data Protection Impact Assessment completed)

Criteria

- Similar household eligibility criteria as for the Energy Doctor scheme
- Supports external wall, loft, and roof insulation; and window and door replacement projects (up to £20k) that reduce heat loss; with payment made directly to the supplier (rather than the applicant)

Eligibility Criteria

‘To qualify for a visit your home must meet all of the following criteria:

- you rent the property through a private rental agreement, or own and live in the property
- your household has an income of £30,000 or less (before tax), is in receipt of means tested benefits such as Universal Credit and Council Tax Support, or a member of your household is disabled
- the domestic property you live in has an energy performance certificate (EPC) rating of D, E, F or G, or does not legally require an EPC

We will prioritise visits for those who meet these eligibility criteria and live in Opportunity Bucks areas.