

Switching to Low Carbon Heat

LOCAL
ENERGY
SCOTLAND

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0808 808 2288
FUNDED BY THE SCOTTISH GOVERNMENT

CARES

 Greener
Scotland
Scottish
Government

Low carbon heating

1. Portfolio analysis
2. ASHP guide
3. Funding



About us

LOCAL
ENERGY
SCOTLAND

THE SCOTTISH
GOVERNMENT'S



COMMUNITY AND
RENEWABLE
ENERGY SCHEME
(CARES)



IS DELIVERED BY:
LOCAL ENERGY
SCOTLAND

This consortium is between



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Home Analytics and PEAT



- **EST Home Analytics**
 - A Scottish Government funded housing stock model
 - Provides users (at address level or higher) with actual or modelled EPC data for every domestic property in Scotland.
- **Portfolio Energy Analysis Tool (PEAT)**
 - A property modelling and SAP calculation engine
 - Uses Home Analytics/HA data as an input.
 - Is fully customizable with the ability to set a target SAP.
 - Supports area based energy efficiency schemes – up to 500 properties.
 - Allows scenario modelling of the costs and benefits of various ‘bundles’ of measure
 - to understand the impact that investment would have on fuel bills, fuel poverty and CO₂ emissions.
 - edit the package of measures and /or increase the scenario’s budget.

Portfolio Energy Analysis Tool (PEAT):

Here you can see the results for each property in this scenario. Hover over the "edit package" link to see a list of the current measures selected for that property. Clicking on this link will allow you to modify the selected measures for that property.

UPRN	Full postal address	Edit package	Results scaled to HA inputs	Starting SAP score	End SAP score	SAP target met?	Outcome is EESSH compliant	Saving kWh pa
118063148	43 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	66	75	No Target	Compliant	6,852.36 kWh
118063159	45 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	43	65	No Target	Risk of non-compliance	15,123.25 kWh
118118914	47 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	79	82	No Target	Compliant	3,234.07 kWh
118121137	49 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	58	75	No Target	Compliant	13,215.73 kWh
118121248	51 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	58	75	No Target	Compliant	13,215.73 kWh
118121358	53 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	54	73	No Target	Compliant	10,698.57 kWh
118121460	75 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	58	75	No Target	Compliant	13,215.73 kWh
118121537	77 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	66	75	No Target	Compliant	6,852.36 kWh
118121589	79 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	59	75	No Target	Compliant	12,131.30 kWh
118121697	81 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	66	75	No Target	Compliant	6,852.36 kWh
118121788	83 Dunalastair Drive, Glasgow, G33 6LY	Edit package	No	58	75	No Target	Compliant	13,215.73 kWh
118122714	1 Dunlop Gardens, Glasgow, G33 6GY	Edit package	No	67	68	No Target	Compliant	79.54 kWh

Selected measures:

- Replacement of remaining incandescent lightbulbs with low energy lightbulbs £20,
- Loft insulation top-up £264,
- Hard to treat cavity wall insulation £442,
- Suspended wooden floor insulation £1,489,
- Mains gas condensing boiler £2,039,
- Thermostatic radiator valves £358,
- A-rated glazing (uPVC) £4,173,
- New insulated uPVC external doors £814

1 2 3 4 5 20 items per page

1 - 20 of 99 items

EST Data analysis support



1. Energy Saving Trust resources that are free for Scottish housing associations and local authorities.
2. PEAT can use HAs stock data and model bundles of packages to achieve a target SAP for nominated budget.
3. Contact David Campbell - david.campbell@est.org.uk



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Guide to install ASHPs

- Help uptake of ASHPs in social housing
- RSLs are leading the way; 40% of RHI accredited heat pumps.
- Focus on initial steps due to importance of 'design stage accuracy'
- Cost effective for properties not on mains gas.
- www.localenergy.scot/rsl



Impact - end terrace house

Impact		From - to
SAP	Improvement with ASHP and practical energy efficiency measures	34 – 68
Tenant savings	Heating cost reduction from storage heater to ASHP	£968 - £565
Cost effectiveness	Property owner RHI income for 7 years RHI income. £6k installation	RHI income £846.61. Payback c7 years

Search Tool - Suitable ASHP Properties



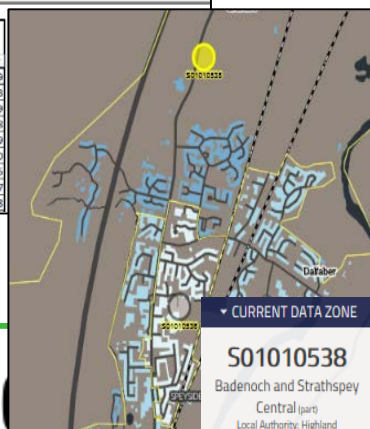
Key	Click the relevant region:
0	Central Belt
1 - 25	Dumfries and Galloway
25 - 50	Scottish Borders
50 - 75	Aberdeenshire
75 - 100	West Coast
100+	Northern Isles

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Totals	
Total suitable	17,515
of which HA	598
of which LA	1,457

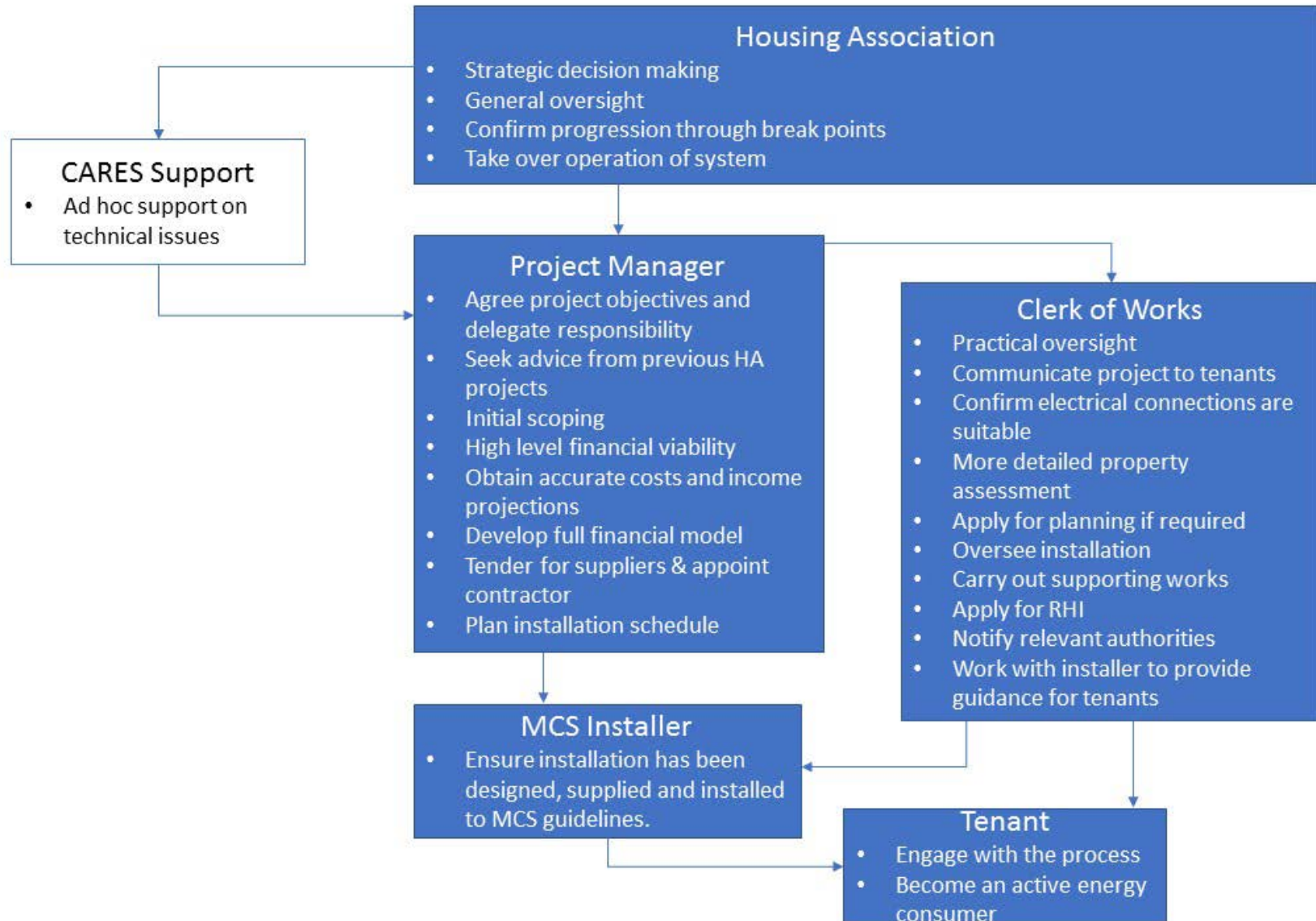
Filtering

Data zone code	Local authority	Suitable Housing Association Properties	Suitable Local Authority properties	Number of suitable Properties (total)
501010504	Highland	0	5	59
501010505	Highland	16	2	93
501010506	Highland	0	19	79
501010507	Highland	3	6	28
501010508	Highland	4	21	109
501010509	Highland	3	3	120
501010510	Highland	10	9	95
501010511	Highland	11	30	97
501010512	Highland	11	20	108



- Aviemore
 - 60 suitable HA properties
- Analysis does 4 checks on whether a property is likely to be suitable for a heat pump
 - minimum saving for tenants of 5% is considered viable.
 - property is one which a heat pump can be installed in.
 - Tenure.
 - Technical check. Feasible to install an air source heat pump using standard radiators operating at a peak flow temperature of 45°C.

Building a project team



Workflow



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Renewable Heat Incentive (RHI)

- RHI accessed through Ofgem and supports heat producing renewables, such as heat pumps and solar thermal panels.
- RHI split into two streams:
 - Domestic- 7 years of quarterly payments (single properties)
 - Non-domestic- 20 years of quarterly payments (serving non-domestic or multiple domestic homes from once source).
- Degression in funding rates.
- Funded for new applicants to the end of March 2021.

Warm Homes Fund (WHF)

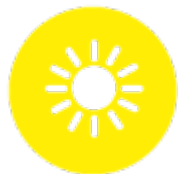
- £150 million scheme operated by National Grid and Community Interest Company, Affordable Warmth Solution.
- Bid tranches up to 2020 (incl. 28th Sep 2018 and Feb 2019).
- Gas and low running cost heating installations
- Three priorities:
 - Urban homes and communities— new gas heating systems and heat networks for domestic heating and hot water.
 - Rural homes and communities— focus on ‘non-gas’ solutions which may include air source heat pumps, oil and LPG.
 - Specific energy efficient/health related solutions.

ECO3 proposals

- At least 15% of savings target to be delivered in rural areas.
- Most of the scheme directed to private sector housing.
- Social housing eligibility to be EPC E, F and G as is the case for the case for the current HHCRO sub-obligation:
 - Insulation
 - first time central heating measures
 - Replacement of storage heating that is broken or has a responsiveness rating of less than 0.2.
- Innovation measures in social housing with EPC D, E,F or G.
 - Panel will look at innovative measure

CARES Support

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Our Team



Local Development Officers
Specialist support
Partners



Resources



**CARES Toolkit, Mentoring
Framework suppliers
Case studies &
Good practice principles**



Funding



Enablement Grants
Development Loans
Innovation Grant

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Example CARES project



- Last of FiT
 - Prices for PV panel dropping
 - Large roof area and high onsite demand (Farms/sheltered housing?)
 - 30 kW systems estimated 7-8yr payback.
- GHA
 - Large scale ASHP (700kW) heating to 350 flats in Glasgow.
 - Development investment model for largescale subsidy free deployment of PV and storage.
- Fyne homes
 - 6.9MW 3 turbine wind farm.

Further info...



- www.localenergy.scot
- 0808 808 2288
- info@localenergy.scot



Tell me more



energy saving trust

Energy Saving Trust and Local Energy Scotland can send you more information about the services we offer. You can change your mind at any time.

Please send me information about:
☐ Energy Saving Trust data services

By email: Yes ☐ No ☐

Name:

Organisation:

Email address:

Postal address:

By post: Yes ☐ No ☐

☐ Air source heat pump installation
☐ Low carbon funding

By telephone: Yes ☐ No ☐

Phone number:

Postcode:

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