

## Community Action Plan (CAP) – Home Energy Efficiency and Improvements

In the Spring 2024 edition of the Eagle, we included an article about Ballater’s Community Action Plan (CAP), “owned” by the BCCC but worked on by volunteers from other organisations such as Ballater CAN and BRD, which is also the funding charity where applicable. The article summarised a snapshot of where a home consumes its energy and ideas and links to resources how to save money on energy costs with little or no investment.

In this follow up article, we summarise some key points about energy efficiency and how, with some investment, (for which funding support is often available) your home can be less costly to keep warm and/or heat, as well as the option of making a switch to renewable energy.

An **Energy Improvements Pack** has been developed to provide the Ballater and Crathie community with ideas and information on the relative benefit of a range of home energy efficiency, cost saving and home environment improvements as part of the 2023 Community Action Plan Theme no 4: Environment\*. There are several sources of government and commercial advice on how to improve your home energy efficiency and get financial support to implement them. A number of these sources have helped develop our Energy Improvement Pack. Below is a table from our **Pack** with a summary of home energy use reduction measures and their respective characteristics.

Measure	Summary Description	Benefits/Energy use reduction	Disadvantages /Conditions
Window and door gap filling	Rubber or foam sealing strips readily available online or hardware stores.	Low cost and can self-install	Only relevant if have gaps in window frames or under/around external doors  Should be considered a short-term solution. If significant draft, replacing window probably better.
Loft Insulation	Installing loft wool type insulation at ceiling level between and over joists	Can self-install if easy access to roof space, with professional guidance.	Often difficult to get access, hence need professional support
Cavity wall Insulation	Professionally installed insulation with a SWIGA (ref Appx 1) approved material	Moderate insulation improvement potential but should be in conjunction with loft insulation	Can be disruptive if need to remove/replace inner plaster board on outer walls. Expensive unless qualify for ECO4. If poorly installed, can have damp creep.
Floor Insulation	Professionally installed insulation under floorboards if applicable	Moderate insulation improvement potential and Moderate to High cost depending on existing insulation and area.	Can be disruptive and costly and may require rerouting of pipework and cables. Effective if achieve air tightness.
Solar Thermal	Uses solar radiation to generate heat for domestic hot water.	Reduces use of electric heating element for appx 6 months of the year	Need to have a hot water tank with dual coils.
Solar Electric	Professional installation of solar panels and Inverter to convert DC to AC	High in summer, Low in winter	Need preferably south facing sloping roofs, but can also be applied to east facing depending on natural shading.
House Battery	DC Lithium batteries connected to house system and grid with an inverter to enable charging during times of either self-solar generation or low grid prices	Can reduce energy import to zero on sunny summer days. In winter, energy cost savings possible if move to a cheap night tariff (e.g. Octopus GO , 9p/kwh).	Capital cost is significant e.g. £4K for 6.5kwh capacity plus inverter if not already included with Solar Electric.

ASHP	Air Source Heat Pump, with a compressor located outside with significant pipework and controller to direct the closed loops for use for both heating and hot water	Generates free renewable (i.e. free) energy from energy in the ambient outside temperature.	Works best with low temperature heat delivery, which may require new radiators or a floor heating system. Renewable energy generation in winter is poor to zero when ambient T below appx 2 deg C
GSHP	Ground Source Heat Pump. Same as for an ASHP but the energy is obtained from a <u>consistent</u> water temperature (eg 4 degrees) from a closed loop into a horizontal ground source if applicable, but more typically (in Ballater) a well to be drilled.	Consistent renewable (i.e. free) energy from the ground temperature.  More reliable and efficient than ASHP. Quiet and positioned inside the home	More costly (e.g. + £10K) than ASHP but longer-term payback due to higher efficiency/renewable energy. Need Utility room space.

This 2<sup>nd</sup> Pack is now available to residents on the BCCC website:

<http://www.ballaterandcrathiecommunitycouncil.com/energy-efficiency-at-home>

An important element of this project is a **Drop in Event** at Ballater's Victoria Halls for people to receive expert input on home energy saving and renewable energy improvements. We have arranged this for **Wednesday 26th June from 10.00 to 16.00**.

*Home Energy Scotland (HES)* as a Scottish government sponsored independent technical experts will attend the event. HES are offering Ballater residents free home visits to make assessments and specific recommendations for improvements (to be implemented by others) as well as advise on access to funding support. HES will also provide information on energy saving tips that cost little or nothing.

In addition, the following three reputable organisations will attend to provide their information and offer to implement the recommendations by HES and/or their own suggestions: *Green Home Systems, NESFIT and Sugplumb*.

Please note, you don't have to wait until the **Drop in Event** to make contact with the referenced organisations. We encourage you as a first step you contact *Home Energy Scotland* at <https://www.homeenergyscotland.org/contact-advice-support-funding/> where you can pre order home visits to assess the best combination of improvements for your home.

Like any project, it's important to record and assess its impact and measure its success. To that end, we ask that, if as a result of this communication and/or the **Drop in event**, any member of the community that:

- 1) makes contact with one or more of the referenced technical or funding support organisation or
- 2) implements any measure of energy conservation or renewable energy generation facility, they inform Scott Peacock at [scottpea58@gmail.com](mailto:scottpea58@gmail.com) or Tom Flynn at [tomflyn59@btinternet.com](mailto:tomflyn59@btinternet.com) accordingly so we can keep a record.

We will of course respect your privacy and not reveal any personal details.

Finally, if you are interested in getting involved in this, or any other CAP Theme projects\*, please contact [:BCCCsecretary@outlook.com](mailto:BCCCsecretary@outlook.com)

\*See a summary of all 9 CAP themes at: <https://visitballater.com/communityactionplan/>