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ENERGY ASSESSMENT FOR MEMBERS

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Section 1. Introduction and Notes

What is the E-Pack?
The TECs Energy Assessment pack (**E-Pack**) puts you in charge of reducing your energy consumption and your Green House Gas (**GHG**) emissions. Only you know your circumstances, so you are best placed to decide what action to take.

The E-Pack is a way of helping you understand the different options available to solve your level of GHG emission reductions. Instead of listing lots of measures which could help, The E-Pack describes steps you can take to work out what measures are most effective and appropriate for you.

Is this for me?
Anyone can use the E-Pack. You decide how much you want to do and why you are doing it.

TECs' vision is to raise our awareness of Energy use and its GHG impact, so we become as familiar with it as we are with money. This means you need to be prepared to know as much about your Energy as you do about your money. Knowing where our money comes from and how we spend it is second nature to most people.

The E-Pack has a number of apps and tools to help you on this journey of learning. How much you learn is entirely your choice. Like everything, the more effort you put into learning something, the more informed your decisions can be. The E-Pack learning programme is suitable for anyone from beginner to Energy/Climate Expert, but it is not an exam as there are no right/wrong actions.

Who can do it?
Whether you live in a house, flat or run a business/organisation, you will be able to use most of the notes and devices as a DIY pack. The E-Pack works best when everyone living/working in the place buy into the process and are motivated. Most of the assessments only need basic practical skills. Some assessments will need more knowledge and are more effective if introduced by someone with experience.

Although most of the E-Pack material, apps, tools and support are free to TECs members, we are happy to share elements of this with non-members. If you are interested please contact us.

As a starting point to find out where you stand and where you need to get to in terms of Climate Change, we have made the TECs' Carbon Footprint Tracker app available to everyone. This app has been designed to provide meaningful information yet be as simple to use as possible. It is particularly useful for anyone who wants to find out more about their Energy use and associated GHG emissions. It is, however, only the start of the journey which we hope will raise questions about what to do next. Questions the rest of the E-Pack should help answer.

How is this different to other programmes?
The main differences between this assessment and most others offered commercially or free on the web are:

- it is completely personalised measuring your specific Energy use. **You will also be able to set your own targets for what you want to achieve**.
- it provides you with measurements to determine the effectiveness of possible actions.
- it is comprehensive covering every aspect of your energy consumption and GHG emissions.

The process, tools, apps and support are there to help you achieve the best assessment of your Energy use for the level of input and skill you want to put into it. The assessment is not intended to compete with or replace those carried out by certified professionals as it does not carry any certificates or guarantees. Its effectiveness is largely dependent on the person carrying it out, their approach, motivation and to a lesser degree, experience.

How does it work?
We'll give you simple methods to measure your energy consumption (and associated GHG emissions). Once you know your personal usage, you can compare this with national averages or other comparable statistics to set **realistic objectives**. By identifying where you use the most Energy and emit the most GHG, you can decide where you would be most effective in reducing these and by how much.

The E-Pack covers the following areas of energy use:

Electricity, **Heating**, **Water**, **Transport** (Private & Public), **Food**, **Stuff** (Goods & Services), **Offsetting**

Let's get started
We recommend that you first try TECs' Carbon Footprint Tracker if you are looking to reduce your Carbon emissions. This will provide you with a quick way to get an overview of you Carbon emissions in each of the areas covered by the E-Pack.

The Carbon Footprint Tracker should help you identify the areas you want to focus on. Before you move on to the more detailed E-Pack assessment, here are some important points to consider:

- Decide what you want to achieve and why this is important to you. In other words what motivates you to understand your energy consumption better?
- Ensure that everyone living/working in the place is aware of the process and is involved to some degree.
- **Be realistic, do one area at a time**. Set achievable targets and move on only when you feel happy you have met or adjusted these to suit changing circumstances. This is not a race, but a long journey.

You are not alone! Someone from TECs will contact you and discuss how the E-Pack can work for you. This may lead to a visit to your home/building to explain the step-by-step guide, running through an example in the area you may be interested in. Most people start with electricity. We will then leave the pack with you for a month.

Certain elements of the process are time of day/week/year and weather dependent, so it is worth doing some parts of the assessment more than once at different times/conditions or with greater detail. This is very much an ongoing process as it is easy to slip back into old habits, or if circumstances change.

What will I need?
As a TECs member, most of the devices you will need can be loaned for a month or so from TECs. We are happy to provide information on where you can buy some of these.

- General (clip-on) Electricity Monitor, or use smart meter if already fitted
- Accurate Electricity (plug-in) monitor to measure low currents of individual equipment
- Indoor Thermometer Humidity Meter / Datalogger (THDL)
- Indoor Thermometer / Datalogger (TDL)
- Draught Detector (candle, smoke-stick), please be mindful of fire hazards when using these
- Thermal Imaging Camera (TIC), this comes with a smartphone
- Infrared Thermometer (IRT)
- Various cables: USB charging; THDL/TDL downloading; mains extension
- Reference books
- We can e-mail you all E-Pack information: Notes (this document); Checklist; Examples; Using the monitoring tools

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We kindly ask you to:

- Look after the equipment you borrowed and return it within 4 weeks
- Contact us as soon as you have any problems or questions
- Let us have your comments on how you got on with the pack, we want to improve it
- On returning the pack, let us have your estimate of how much you hope to save (in kWh or kg of GHG emissions) in a year
- A year later, tell us what you actually achieved and how, we'll send you a reminder if you like
- Respect the copyright arrangements referenced at the footer of this document

Acknowledgement

The work involved in compiling this Energy Assessment Pack was carried out by volunteers from HaRE CIC, TNA CIC and most recently TECs. The equipment was purchased from funds provided by Haccombe with Coombe PC, HaRE CIC and TECs. In particular the author is grateful for input from Joddy Chapman, David Suckley, Jules Stringer, Tony Oldroyd and Helen Chessum.

The E-Pack builds on material and references from a number of sources including:

- Kingsteignton Transition Together (**KTT**) which takes a group of individuals through a journey to explore how they can reduce their household energy consumption. KTT was a project initiated by the Energy group of Transition Newton Abbot CIC (**TNA**).
- The course and materials on Whole House Retrofit organised by Regen in 2018, this is part of a 3 year EU funded programme called Zero Building Catalyst (**ZEBCat**).
- Many of the tables and data used are available from building regulations/standards, manufacturers' literature or data available on the internet. Where relevant references have been provided, to the best of TECs' knowledge, none of these have associated copyright requirements.

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