NOTES AND FEEDBACK FROM

ENERGY USE BEHAVIOUR CHANGE: MY ELECTRICITY

JOINT ACT/TDC OUTREACH PROJECT

Section 1. Post Session Material

We hope you found the session with your facilitator useful and thought provoking.

Here you'll find notes to remind you of the process you went through as well as useful information/links to further material.

The last two pages are for you to feedback within 1-2 weeks. The first is to help you record your data if you do not want to use the tool or spreadsheet template, you can share this with us if you like.

The second feedback form has more general questions. You can do this:

1. on-line here;
2. put the text electronically into this document and e-mail it back; or
3. write your feedback on a printed version.

e-mail: CC@actionclimateteignbridge.org

post: Deer Park Farm, Haccombe, Newton Abbot, TQ12 4SJ

1.1 Understanding your electricity usage

The electricity you consume from the grid and any renewable generation you have directly connected to your home (for example, roof-top solar PV) will be used in a variety of ways. Knowing what this is will help you manage your electricity consumption better, reducing your bills and your carbon footprint.

To do this you'll first need to know your total annual energy usage. You then need to list the things that use most of this and how much they use.

Electrical energy is measured in units of electricity (kWh). The following guide is a reminder of what you did during the session with your facilitator. You can record your measurements against the list of questions on the form/spreadsheet provided or enter it into the My Electricity tool.

1.2 How ACT volunteers can help

Remember, you can contact your facilitator or the TDC Climate Hub if you have any questions or need some help.

1.3 Using your main electricity meter and monitoring plug

Use your bills, regular meter readings, smart meter portal or a wireless electricity monitor for recording your total electricity consumption throughout the year (in kWh). It works best if you do this monthly. You can go one step further by downloading detailed half hourly readings from your energy supplier app if you have a smart meter. Quarterly readings, as in electricity bills, are ok, provided they are actual readings and not estimates.

You should also measure your baseload, that is the electricity you are consuming 24/7 when no one is using electricity in the building (e.g. overnight or when away). Depending on what type of meter you have, the facilitator has demonstrated the appropriate way to measure your baseload. See the appropriate link above which will explain how to do this for your meter.

The monitoring plug provided and demonstrated by the facilitator gives a measure of both the instantaneous standby/active **Power** consumption as well as the **Energy** used over a period (e.g. a day or a washing cycle).

You can work out the consumption of 'wired in' appliances (e.g. cooker, central heating pumps) by estimating these based on typical examples provided, finding this in the user manual (or online) or specification labels on the devices themselves. Alternatively, you can use your smart meter or a Wireless Energy Monitor as demonstrated by the facilitator.

1.4 Your results

It's not very useful to compare total electricity consumption with the average UK home because each home will use electricity very differently. The largest consumption areas, if powered by electricity, are likely to be Heating/Ventilation, Electric Vehicle, cooking and refrigeration. For these and many of the other devices powered by electricity you will need to enter their annual consumption in the form (or tool) provided. You can also use the template spreadsheet.

You don't need to measure everything. Concentrate on those items that consume most energy in your household. By comparing these to the list of best/worst items, you make a judgement about what action you may want to take.

1.5 Next Steps

There are lots of urban myths about Energy Saving (and Renewable Energy generation). So, it is worth having the numbers and information before making a decision. If you have used the Carbon Footprint Tracker, you'll have seen information on possible actions and their cost, both financial and greenhouse gas (**ghg**) emissions.

Some actions you decide on will cost money, but it costs nothing to turn things off when you no longer need them. If you decide to replace inefficient appliances, make sure you calculate their Pay Back Period (search for "payback"). There is little benefit in replacing an old-style bulb you rarely switch on. On the other hand, a single 11W energy saving bulb left on all the time is consuming nearly 100 kWh p.a., so replacing it with a 5.5W LED would halve that consumption.

1.6 Further information and support

You can of course generate your own electricity, typically using solar PV. These can still break even financially even without the Feed-in Tariff subsidy. Much depends on the size/location of these and your electricity consumption volume/patterns. You can ask your facilitator for more information on this. Also see our guide for using solar PV systems with a residential battery system, as well as other useful guides.

If you generate your own electricity from renewables and use/store it without exporting it to the grid, this will replace the grid electricity you would otherwise have imported. Any electricity exported to the grid is not calculated as your own reduction in ghg emissions. However, this is calculated to contribute to a reduction in the overall UK grid Carbon Intensity. You can find out more about this subject Greenwash in the Electricity Market especially if you cannot have your own generation and storage.

1.7 Page 1 (your electricity use)

Please complete as much as you can, use extra paper if you are using the printed form to record more if there is no room.

1. Give your name and contact details if you would like to be considered for a case study:

2. Record your total monthly, quarterly or annual electricity consumption (in kWh), use E for estimates:

3. Record your baseload and how you measured this (in W or kW):

4. Make a list of the electrical items and an estimate of their annual electricity consumption (in kWh):
   (example items include: fridge/freezer; clothes dryer; cooking devices; washing machine; dishwasher; electric shower; kettle; microwave; TV; computer equipment; hoover; iron;; etc.)

5. Add the annual electricity consumption of all the items in #4. How close they are they to your total annual electricity consumption in #2? How much were you able to identify?:

6. What actions have you been able to take to avoid unnecessary electricity consumption? How much are you able to save (in kWh)?

1.8 Page 2 (your feedback & about you)

Please give written feedback and rate your answers 1-5, **1= low ; 5=high** where appropriate.

1. How useful did you find the introduction session (state video/zoom/in-person)?

2. How useful did you find the accompanying notes?

3. How did you get on with reading the various meters, was it easy?

4. How close did you get to measuring 80% of your total electricity consumption?

5. How did you decide on what actions to tackle first?

6. Was the guidance on what actions to take useful?

7. Did you contact the scheme coordinator for additional advice, was that helpful?

8. Describe the size and type of your home/business.

9. How many people live/work in your building, did you involve them?

10. Do you think this scheme could work without a facilitated in-person session?

11. Any other feedback you'd like to share?