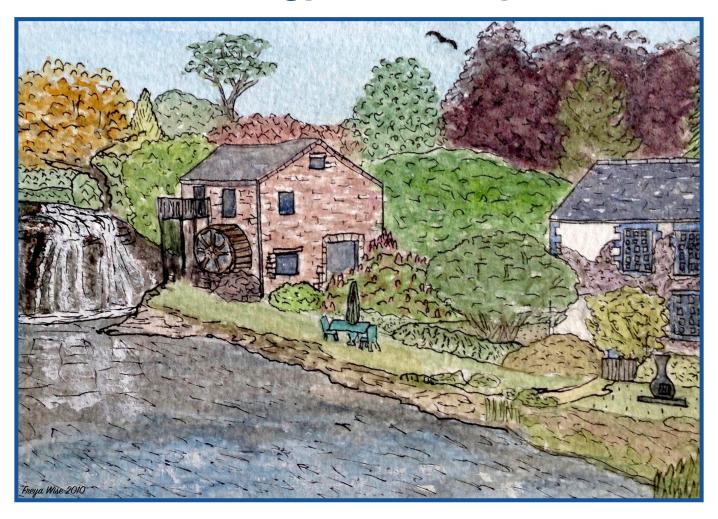
Energy Use Diary



Part Two: Summer





Energy Use Diary Summer



Hello!

Thank you for agreeing to fill out this energy diary! It will really help us to understand how people use energy in heritage buildings. We would like you to fill this diary out twice a day (morning and evening) for five days. If you've already filled in the winter diary for us, that's great, thank you! If not we'll ask you to fill in another very similar diary around October. If possible we'd like you to fill the diary in from Thursday to Monday, or Friday to Tuesday. This is so it covers a couple of weekdays and a weekend because people often do different things at weekends compared to weekdays.

As part of the diary we will, if you agree, provide you with two digital thermometers. We will ask you to place one of these outside your building and one in your main living space and then ask you to check them once per day and note down their recordings.

This diary is designed to be filled in by one person for the household but different people can fill in different bits if necessary. It would be great if you can fill in this dairy during a fairly 'normal' week for you, so not when you are going away for seven days or if you have guests to stay (unless that is an every-week occurrence for you of course!). Although we do appreciate that 'normal' at the moment may be rather different to precoronavirus normal.

We hope that its fairly self explanatory but we would encourage you to have a look through the diary and get in touch if you have any questions on elements you might not be clear on: freya.wise@open.ac.uk We will now ask for some initial information from you before you start the diary (we do need this again please even if you have already completed an energy diary as the heating settings and windows are likely to be different!).

Initial information

At the start of the diary there are a couple details that we will ask you to fill in now so that you don't have to enter them each day.

| What is your name? |
|--|
| Could you tell us roughly how old everyone in your household is? To the nearest decade is fine, EG two under tens, one 30-40 year old, one 40-50 year old. |
| How many people are currently living in your household? |
| If you have central heating can you tell us: When and how long it is on for each day if at all? (Eg: twice a day 6am-8am and 5pm-9pm) |
| |

| What temperature the main thermostat is set to? | | | |
|--|--|--|--|
| • | ature zoning) could you tell us what the bedrooms in use are set to? | | |
| Kitchen: | Bedroom 1: | | |
| Bedroom 3: | Bedroom 4: | | |
| If you don't have central heating but have some other form of heating system that is used to a regular pattern could you briefly describe it? If your only heating system is used intermittently then we'll just ask you to mention its use each on each day that you make recordings. | | | |
| g room, used for a co | uple of hours each evening. | | |
| | vindows your property has? If you er for this. | | |
| = | nany of these windows are open? ory) | | |
| Open a c | rack? | | |
| Wide ope | n? | | |
| form of mechanical | ventilation and if so what it is and | | |
| in each of the two ba | athrooms. | | |
| | bother form of temperals, the kitchen and the Kitchen: Bedroom 3: but have some other y describe it? ed intermittently then recordings. groom, used for a contact of the | | |

Thank you very much for this initial information! As part of the diary we will just ask you to note if any of these things change rather than getting you to repeat it in great detail!

When you are ready please turn over and start your energy diary!



| Day one! Please add the date: Morning: (When you get up till 11am) | | | |
|--|---|--|--|
| Approximately what time did you get up? | | | |
| Good Morning! Please could you tell us what the many of the below as are applicable and briefly des | • | | |
| Windy Eg, windy and cloudy today but dry and | Stormy | | |
| Rainy | Cold | | |
| Sunny | Mild | | |
| Snowy | Humid | | |
| Frosty | Hot \\\\ | | |
| | | | |
| Could you check your inside and outside therm Please note the time you checked them? | ometer? | | |
| For the outside thermometer: Curent temperature: | For the inside thermometer: Current temperature: | | |
| Maximum temperature: | Maximum temperature: | | |
| Minimum temperature: | Minimum temperature: | | |
| Press reset! Done! | Press reset! Done! | | |
| How many people were in the house over this p | eriod? If it varied go with highest number | | |
| Did you use any auxiliary heating this morning? If yes please briefly describe what and for how long, otherwise leave blank. | | | |
| Eg. Put the log burner on for a few hours | | | |
| Did you open or close any windows/external do please briefly describe otherwise leave blank | pors or use any extractor fans? If so | | |
| Eg. Opened kitchen window a bit while cooking to | hen closed half an hour later. | | |
| Did you have any lights on this morning? If so h 5 mins!). 0 1-2 3-5 | ow roughly how many? (For more than 6-10 11-15 More | | |

What were you doing and where did you do it? We just want a general idea of what you did and roughly when and where. It doesn't need to be accurate to the minute! There is some information about the different sections below.

Activities: Just a rough guide is great although it is helpful to distinguish some activities such as cooked or cold meals which use different amounts of energy. Here are some examples we thought up but they are by no means exclusive.

Had a showerPut on dishwasherRead booksHad a bath (how long?)Put on washing machine.Watched TVHad a cooked mealVacuumedUsed computer

Had a cold meal Went out Did DIY (power-tools Y/N)

Location: What part of the house were you in? Living room, bedroom, kitchen, study etc and a rough percentage or time of how long for.

Clothing: It is really helpful to know what level of clothing you had on at different times. We've defined the levels of clothing as below. It would also be helpful to know if you are wearing any slippers or shoes and if you're using any other 'personal insulation' such as lap rugs, throws etc.

Light clothing (ie shirtsleeves/t-shirt)

Medium Clothing (ie shirt and jumper)

Heavy clothing (ie shirt, jumper and body-warmer/coat)

Morning -11am (if there are two of you in the household you could divide the boxes in two, fill them in for both of you and ignore the 'others box' at the bottom

| What activities did you do? | Eg: got up at 7am, had a cooked breakfast. Read books for 2 hours then went out. 10am-3pm |
|--|---|
| What rooms were you in and for roughly how long? | Bedroom 10%, Kitchen 20%, Living room 70% |
| What level of clothing were you wearing? | Medium clothing, plus slippers. |
| What did others do and where? | Person 3, worked in office all morning, 8am-11am. Person 4 got up, had cold breakfast, went to school 9am |

Day one! Midday/afternoon (11.00am-4.00pm) If everyone is out please tick, then skip this section and go straight to the evening. How many people were in the house over this period? If it varied go with highest number Did you use any auxiliary heating this afternoon? Did you open or close any windows/doors or use any extractor fans this afternoon? Did you have any lights on this afternoon? 0 1-2 3-5 More Midday/Afternoon 11am -4pm What activities did you do? What rooms were you in and for roughly how long? What level of clothing were you wearing? What did others do and where?

Day One!!

Evening (4.00pm-bedtime)

How many people were in the house over this period? If it varied go with the highest number

| Did you use any auxiliary heating this evening? | | | | |
|---|---|--|--|--|
| | | | | |
| | | | | |
| Did you open o | r close any windows/doors or use any extractor fans this evening? | | | |
| | | | | |
| | | | | |
| Evening 4pm -B | edtime | | | |
| What activities | | | | |
| did you do? | | | | |
| What rooms were you in | | | | |
| and for roughly how long? | | | | |
| What level of clothing were | | | | |
| you wearing? | | | | |
| What did others do and | | | | |
| where? | | | | |

| Any changes to the central heating settings today? If yes please briefly describe otherwise leave blank. |
|---|
| Eg, heating on for an extra two hours this morning 9am-11am because it was a bit cold! |
| If you spent the evening at home could you hazard a guess at how many lights were on for any length of time? So not just five minutes for the bathroom light. |
| 0 1-2 3-5 6-10 11-15 More |
| If you are taking meter readings have you remembered to check it today? Please pop the readings on the page at the back of the book! |
| I checked the meters! |
| Paradaharahat tima didaman na ta bado |
| Roughly what time did you go to bed? |
| Anything else that you think might have used a significant amount of energy over the day? |
| Anything else that you think might have used a significant amount of energy over |
| Anything else that you think might have used a significant amount of energy over the day? |
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If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

Thank you for filling in day one of your energy diary! (only four days to go!)



| Morning: (When you get up till 11am) | |
|--|--|
| Approximately what time did you get up? | |
| Good Morning! Please could you tell us what the many of the below as are applicable and briefly de | _ |
| Windy | Stormy |
| Rainy | Cold |
| Sunny | Mild |
| Snowy | Humid |
| Frosty | Hot |
| ****** | |
| | |
| Could you check your inside and outside therm Please note the time you checked them? | ometer? |
| For the outside thermometer: Curent temperature: | For the inside thermometer: Current temperature: |
| Maximum temperature: | Maximum temperature: |
| Minimum temperature: | Minimum temperature: |
| Press reset! Done! | Press reset! Done! |
| How many people were in the house over this p | period? If it varied go with highest number |
| Did you use any auxiliary heating this morning? for how long, otherwise leave blank. | If yes please briefly describe what and |
| | |
| Did you open or close any windows/doors or u briefly describe otherwise leave blank | se any extractor fans? If so please |
| Did you have any lights on this morning? | 1.2 3.5 More |
| Did you have any lights on this morning? 0 | 1-2 3-5 More |

| Morning -11am | | | | | |
|--|--|-----------------|------------------|--------------|------|
| What activities did you do? | | | | | |
| What rooms were you in and for roughly how long? | | | | | |
| What level of clothing were you wearing? | | | | | |
| What did others do and where? | | | | | |
| | n (11.00am-4.00pm) blease tick, then skip thi | s section and (| go straight to | the evenir | ng. |
| How many people number | e were in the house over | er this period? | ? If it varied g | go with higi | hest |
| Did you use any a | uxiliary heating this af | ternoon? | | | |
| Did you open or c | lose any windows or u | ıse any extrac | tor fans this | s afternoo | n? |
| | | | | | |
| Did you have any | lights on this afternoo | n? 0 | 1-2 | 3-5 | More |

| Midday/Afternoo | n 11am -4pm | | |
|---|---|--|--|
| What activities did you do? | | | |
| What rooms were you in and for roughly how long? | | | |
| What level of clothing were you wearing? | | | |
| What did others do and where? | | | |
| Day two! Evening (4.00pm-bedtime) How many people were in the house over this period? If it varied go with the highest number | | | |
| Did you use any a | nuxiliary heating this evening? | | |
| | | | |
| Did you open or o | close any windows or use any extractor fans this evening? | | |
| | | | |

| Evening 4pm -Be | edtime |
|--|--|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Any changes to otherwise leave b | the central heating settings today? If yes please briefly describe lank. |
| | |
| | |
| | evening at home could you hazard a guess at how many lights were n of time? So not just five minutes for the bathroom light. |
| 0 1-2 | 3-5 6-10 11-15 More |
| | meter readings have you remembered to check it today? Please on the page at the back of the book! |

I checked the meters!

| the day? |
|--|
| Eg: Computer, Radio/TV, Baking, Electric blanket, Nightlight, Security lights, fans etc. |
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If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

Thank you for filling in day two of your energy diary! (only three days to go!)



| Day three! Please add the date: Morning: (When you get up till 11am) | |
|---|--|
| Approximately what time did you get up? | |
| Good Morning! Please could you tell us what the many of the below as are applicable and briefly des | |
| Windy | Stormy |
| Rainy | Cold |
| Sunny | Mild |
| Snowy | Humid |
| Frosty | Hot |
| | |
| Could you check your inside and outside therm Please note the time you checked them? | ometer? |
| For the outside thermometer: | For the inside thermometer: |
| Curent temperature: | Current temperature: |
| Maximum temperature: | Maximum temperature: |
| Minimum temperature: | Minimum temperature: |
| Press reset! Done! | Press reset! Done! |
| How many people were in the house over this p | eriod? If it varied go with highest number |
| Did you use any auxiliary heating this morning? for how long, otherwise leave blank. | If yes please briefly describe what and |
| | |
| Did you open or close any windows or use any describe otherwise leave blank | extractor fans? If so please briefly |
| | |
| Did you have any lights on this morning? 0 | 1-2 3-5 More |

| Morning -11am | | |
|--|--|-----|
| What activities did you do? | | |
| What rooms were you in and for roughly how long? | | |
| What level of clothing were you wearing? | | |
| What did others do and where? | | |
| | lease tick, then skip this section and go straight to the evening. | |
| How many people number | were in the house over this period? If it varied go with highest | |
| Did you use any au | uxiliary heating this afternoon? | |
| | | |
| Did you open or cl | lose any windows or use any extractor fans this afternoon? | |
| | | |
| Did you have any | lights on this afternoon? 0 1-2 3-5 M | ore |

| Midday/Afternoon 1 | 1am -4pm |
|--|--|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Day three! Evening (4.00pm-bed How many people with number | dtime) ere in the house over this period? If it varied go with the highest |
| Did you use any aux | iliary heating this evening? |
| | |
| Did you open or clos | se any windows or use any extractor fans this evening? |
| | |

| Evening 4pm - | 3edtime |
|--|---|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Any changes to otherwise leave | the central heating settings today? If yes please briefly describe blank. |
| | |
| | e evening at home could you hazard a guess at how many lights were th of time? So not just five minutes for the bathroom light. |
| 0 1-2 | 2 3-5 6-10 11-15 More |
| | g meter readings have you remembered to check it today? Please s on the page at the back of the book! |
| | |

| the day? |
|--|
| Eg: Computer, Radio/TV, Baking, Electric blanket, Nightlight, Security lights, fans etc. |
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If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

Thank you for filling in day three of your energy diary! (only two days to go, you're over halfway!)



| Day four! Please add the date: Morning: (When you get up till 11am) | |
|---|---|
| Approximately what time did you get up? | |
| Good Morning! Please could you tell us what the many of the below as are applicable and briefly des | <u> </u> |
| Windy | Stormy |
| Rainy | Cold |
| Sunny | Mild |
| Snowy | Humid |
| Frosty | Hot |
| | |
| | |
| Could you check your inside and outside therm Please note the time you checked them? | ometer? |
| For the outside thermometer: Curent temperature: | For the inside thermometer: Current temperature: |
| Maximum temperature: | Maximum temperature: |
| Minimum temperature: | Minimum temperature: |
| Press reset! Done! | Press reset! Done! |
| How many people were in the house over this p | eriod? If it varied go with highest number |
| Did you use any auxiliary heating this morning? for how long, otherwise leave blank. | If yes please briefly describe what and |
| | |
| Did you open or close any windows or use any describe otherwise leave blank | extractor fans? If so please briefly |
| | |
| Did you have any lights on this morning? 0 | 1-2 3-5 More |

| Morning -11am | | | | |
|--|---|--------------------------|----------------|---|
| What activities did you do? | | | | |
| What rooms were you in and for roughly how long? | | | | |
| What level of clothing were you wearing? | | | | |
| What did others do and where? | | | | |
| | on (11.00am-4.00pm) It please tick, then skip this sect | tion and go straight to | the evening. | |
| How many peop | ple were in the house over this | s period? If it varied g | o with highest | |
| Did you use any | y auxiliary heating this afterno | on? | | |
| | | | | |
| Did you open o | r close any windows or use a | ny extractor fans this | s afternoon? | |
| | | | | |
| Did you have ar | ny lights on this afternoon? 0 | 1-2 | 3-5 Mor | e |

| Midday/Aftern | oon 11am -4pm |
|--|---|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Day four! Evening (4.00p) How many peo number | m-bedtime) pple were in the house over this period? If it varied go with the highest |
| Did you use an | y auxiliary heating this evening? |
| | |
| Did you open o | or close any windows or use any extractor fans this evening? |
| | |

| Evening 4pm -Bed | time |
|--|--|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Any changes to the otherwise leave bla | e central heating settings today? If yes please briefly describe |
| | |
| | ening at home could you hazard a guess at how many lights were of time? So not just five minutes for the bathroom light. |
| 0 1-2 | 3-5 6-10 11-15 More |
| If you are taking m | neter readings have you remembered to check it today? Please |

If you are taking meter readings have you remembered to check it today? Please pop the readings on the page at the back of the book!

I checked the meters!

| the day? |
|--|
| Eg: Computer, Radio/TV, Baking, Electric blanket, Nightlight, Security lights, fans etc. |
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If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

Thank you for filling in day four of your energy diary! (only one day left, nearly there!)



| Day five! Please add the date: Morning: (When you get up till 11am) | |
|---|--|
| Approximately what time did you get up? | |
| Good Morning! Please could you tell us what the many of the below as are applicable and briefly des | - |
| Windy | Stormy |
| Rainy | Cold |
| Sunny | Mild |
| Snowy | Humid |
| Frosty | Hot |
| 火光大火 | |
| | |
| Could you check your inside and outside therm Please note the time you checked them? | ometer? |
| For the outside thermometer: | For the inside thermometer: |
| Curent temperature: | Current temperature: |
| Maximum temperature: | Maximum temperature: |
| Minimum temperature: | Minimum temperature: |
| Press reset! Done! | Press reset! Done! |
| How many people were in the house over this p | eriod? If it varied go with highest number |
| Did you use any auxiliary heating this morning? for how long, otherwise leave blank. | If yes please briefly describe what and |
| | |
| Did you open or close any windows or use any describe otherwise leave blank | extractor fans? If so please briefly |
| | |
| | |
| | |
| Did you have any lights on this morning? 0 | 1-2 3-5 More |

| Morning -11am | |
|--|---|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| | on (11.00am-4.00pm) please tick, then skip this section and go straight to the evening. |
| How many peop | le were in the house over this period? If it varied go with highest |
| Did you use any | auxiliary heating this afternoon? |
| | |
| Did you open or | close any windows or use any extractor fans this afternoon? |
| | |
| Did you have any | lights on this afternoon? 0 1-2 3-5 More |

| Midday/Afterno | on 11am -4pm |
|---|--|
| What activities did you do? | |
| What rooms were you in and for roughly how long? | |
| What level of clothing were you wearing? | |
| What did others do and where? | |
| Day five! Evening (4.00pm How many peop number | n-bedtime) ble were in the house over this period? If it varied go with the highest |
| Did you use any | auxiliary heating this evening? |
| | |
| Did you open or | close any windows or use any extractor fans this evening? |
| | |

| Evening 4pm -Bedtime | | | | | | |
|---|--|--|--|--|--|--|
| What activities did you do? | | | | | | |
| What rooms were you in and for roughly how long? | | | | | | |
| What level of clothing were you wearing? | | | | | | |
| What did others do and where? | | | | | | |
| Any changes to the central heating settings today? If yes please briefly describe otherwise leave blank. | | | | | | |
| | | | | | | |
| If you spent the evening at home could you hazard a guess at how many lights were | | | | | | |
| If you spent the evening at home could you hazard a guess at how many lights were on for any length of time? So not just five minutes for the bathroom light. | | | | | | |
| 0 1-2 3-5 6-10 11-15 More | | | | | | |
| If you are taking meter readings have you remembered to check it today? Please pop the readings on the page at the back of the book! | | | | | | |
| I checked the meters! | | | | | | |

Eg: Computer, Radio/TV, Baking, Electric blanket, Nightlight, Security lights, fans etc.

If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

Thank you for filling in the final day of your energy diary!

Well done, you made it all the way to the end!

Thank you very much for your help with this research! Your efforts and answers will be really useful!



Meter readings: if possible it would be great if you could take meter readings of your electricity use and gas use (if applicable), so we can compare energy usage with energy behaviours. We appreciate that some people's meters may not be in accessible places so if you don't feel that it is possible or can't get it as it's at the back of a packed garage that's fine! If it was possible though, it would be very helpful! It's not vital, but it would also be helpful if you could try to check the meter at roughly the same time each day and please note the time you checked it!

If you use other types of fuel and have a way of recording this easily that would also be great!

| Fuel type | Electricity: This should be in kWh. (but if not please list the units, which should be shown on your meter) | Gas: Depends on the meter, might be in kWh but could be in other units please say which (should be shown on your meter) | Other fuel types. Please use appropriate units and say what it is. I.E five logs or three briquettes or 1 x 10kg bag of wood pellets |
|----------------------------|---|---|---|
| Day 1: Time checked: | | | |
| Day 2: Time checked: | | | |
| Day 3: Time checked: | | | |
| Day 4: Time checked: | | | |
| Day 5: Time checked: | | | |

Comments on Coronavirus and the impacts of social distancing.

We appreciate that coronavirus may have effected your daily routine during the time you have spent filling out the diary. If you wouldn't mind it would be really helpful if you could indicate how different this period has been compared with your usual activities.

If you could just note any significant changes to do with occupancy patterns, heating behaviours or energy use that would be great and will help us to understand how what you have recorded may differ from your normal activities.

For example:

- Are there more of you in the house than normal?
- Have you changed your heating behaviours because you're at home more?
- Would you usually be out walking on the fells for most of each day or away every weekend?
- Are you working from home and have a lot more electronic equipment in the house than usual?



If you have any other comments on the experience of filling in the energy diary, other things you would like to have mentioned but didn't have space for, or any other comments that you'd like to share with us please pop them down here.

Thank you again for your time and efforts in filling in this diary! If, when you're finished, you could drop us an email that would be great and we'll arrange to come and pick up the diary and thermometers.

| Any other comme herefore this wasr | ents: For exampl o't picked up the | e do you alwa diary because | ys do your was of the days yo | shing on a We ou did it? | ednesday and |
|---------------------------------------|---------------------------------------|--------------------------------|----------------------------------|-----------------------------|--------------|
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This diary is a piece of research for the project: Reducing carbon emissions from Cumbrian residential heritage buildings while retaining their heritage values.

