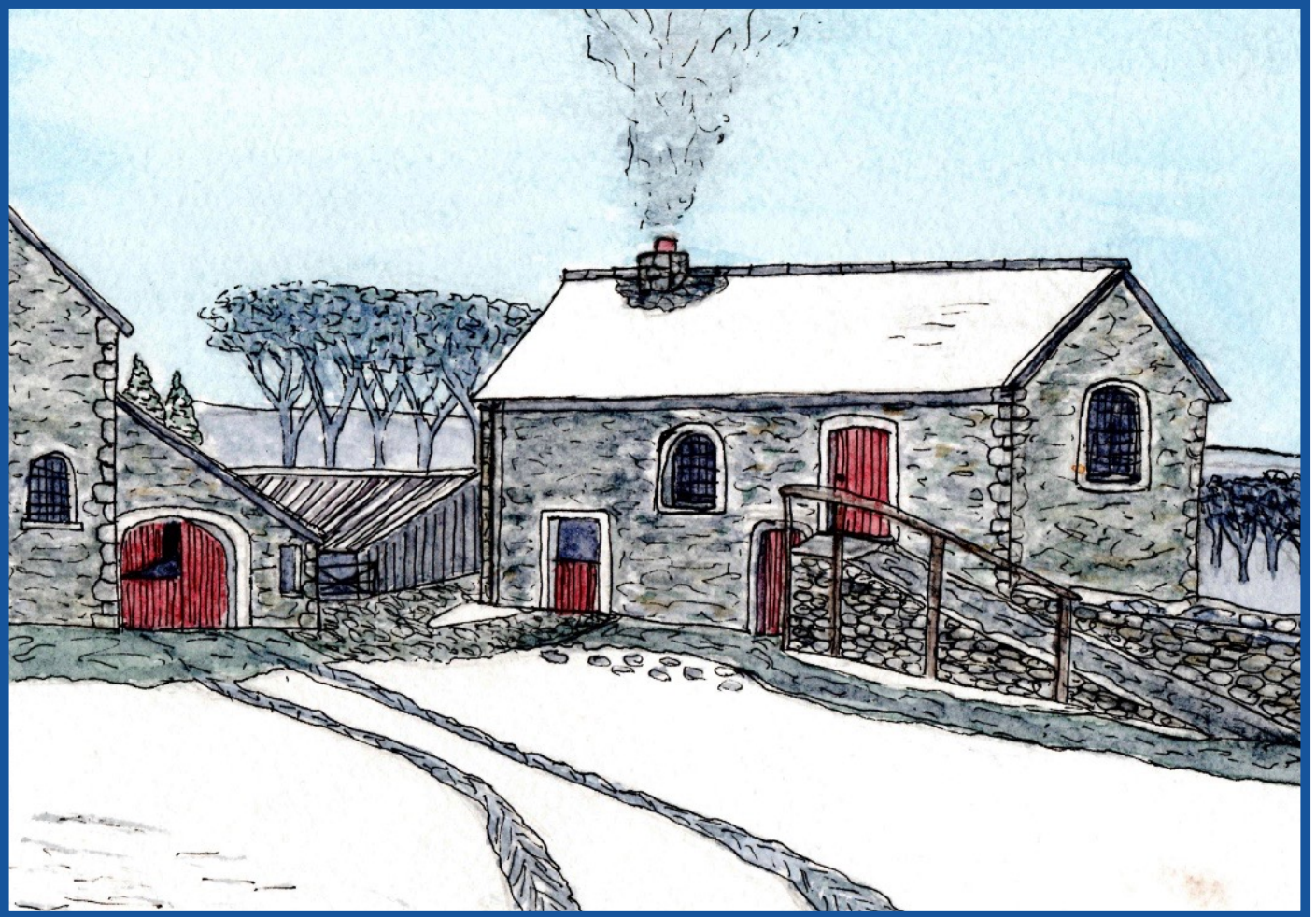


Energy Use Diary



Part One: Winter/Spring



Energy Use Diary

Winter



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. We will then ask you to fill out a very similar diary later in the year so that we can compare the results of energy use in winter/heating season and in the summer/non heating season.

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. If you're really keen you can do a whole week but five days is fine!

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 every household member could fill one in if they wanted to, just have a word with the researcher who visits you. It would be great if you can fill in this diary 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!).

We hope that its fairly self explanatory but we would encourage you to have a look through the diary now so that you can ask the researcher that visits you any questions on elements you might not be clear on. We will now ask for some initial information from you before you start the diary.

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.*

Are you filling this in for your whole household or just for yourself?

For my household

☐

For myself

☐

If you have central heating can you tell us:

When and how long it is on for each day? (*Eg: twice a day 6am-8am and 5pm-9pm*)

What temperature the main thermostat is set to? _____

If you have radiator controls (or other form of temperature zoning) could you tell us what the radiators in the main living space, the kitchen and the bedrooms in use are set to?

Main living space: _____ Kitchen: _____ Bedroom 1: _____

Bedroom 2: _____ 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 you 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.

Eg, wood burning stove in living room, used for a couple of hours each evening.

Could you tell us approximately how many openable windows your property has? If you have a conservatory please provide a separate number for this.

At the start of the diary period could you tell us how many of these windows are again providing a separate number for any conservatory:

Completely closed? _____ Open a crack? _____

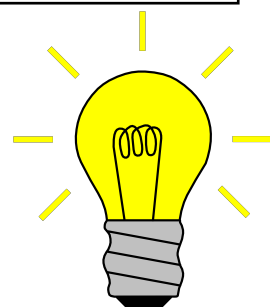
Open a bit? _____ Wide open? _____

Could you tell us if you have any form of mechanical ventilation and if so what it is and which room it's in?

Eg, 1 Extractor fan in kitchen, 1 in each of the two bathrooms.

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 weather is like today? Please circle as many of the below as are applicable and briefly describe.

Windy

Rainy

Sunny

Snowy

Frosty



Eg, windy and cloudy today but dry and not too cold

Stormy

Cold

Mild

Humid

Hot



Could you check your inside and outside thermometer?

Please note the time you checked them? _____

For the outside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐



For the inside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐

How many people were in the house over this period? 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 or use any extractor fans? If so please briefly describe otherwise leave blank

Eg. Opened kitchen window a bit while cooking then closed half an hour later.

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 shower	Put on dishwasher	Read books
Had a bath (how long?)	Put on washing machine.	Watched TV
Had a cooked meal	Vacuumed	Used 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 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 slipper or shoes and if you're using any other 'personal insulation' such as lap rug, throws etc.

Light clothing (ie shirtsleeves/t-shirt)	Heavy clothing (ie shirt, jumper and body-warmer/coat)
Medium Clothing (ie shirt and jumper)	

Morning -11am

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

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 or use any extractor fans this afternoon?

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 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?	

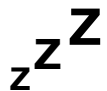
Any changes to the central heating settings today? If yes please briefly describe otherwise leave blank.

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.

1-2	<input type="checkbox"/>	11-15	<input type="checkbox"/>
3-5	<input type="checkbox"/>	16-20	<input type="checkbox"/>
6-10	<input type="checkbox"/>	More	<input type="checkbox"/>

Roughly what time did you go to bed?

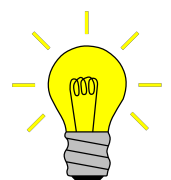


Anything else that you think might have used a significant amount of energy over the day?

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

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!)



Day two! 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 weather is like today? Please circle as many of the below as are applicable and briefly describe.

Windy

Rainy

Sunny

Snowy

Frosty



Stormy

Cold

Mild

Humid

Hot



Could you check your inside and outside thermometer?

Please note the time you checked them? _____

For the outside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐



For the inside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐

How many people were in the house over this period? 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.

Did you open or close any windows or use any extractor fans? If so please briefly describe otherwise leave blank

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?	

Day two!

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 or use any extractor fans this afternoon?

--

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 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 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 on for any length of time? *So not just five minutes for the bathroom light.*

1-2	<input type="checkbox"/>	11-15	<input type="checkbox"/>
3-5	<input type="checkbox"/>	16-20	<input type="checkbox"/>
6-10	<input type="checkbox"/>	More	<input type="checkbox"/>

Roughly what time did you go to bed?

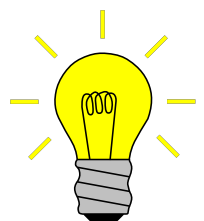
z z Z

Anything else that you think might have used a significant amount of energy over the day?

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

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 weather is like today? Please circle as many of the below as are applicable and briefly describe.

Windy

Rainy

Sunny

Snowy

Frosty



Stormy

Cold

Mild

Humid

Hot



Could you check your inside and outside thermometer?

Please note the time you checked them? _____

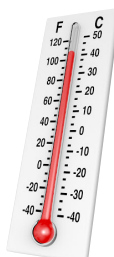
For the outside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐



For the inside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐

How many people were in the house over this period? 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.



Did you open or close any windows or use any extractor fans? If so please briefly describe otherwise leave blank

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?	

Day three!

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 or use any extractor fans this afternoon?

--

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 three!

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 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 on for any length of time? *So not just five minutes for the bathroom light.*

1-2	<input type="checkbox"/>	11-15	<input type="checkbox"/>
3-5	<input type="checkbox"/>	16-20	<input type="checkbox"/>
6-10	<input type="checkbox"/>	More	<input type="checkbox"/>

Roughly what time did you go to bed?

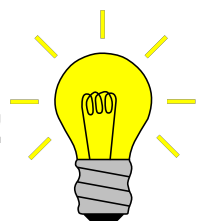
z z Z

Anything else that you think might have used a significant amount of energy over the day?

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

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 weather is like today? Please circle as many of the below as are applicable and briefly describe.

Windy

Rainy

Sunny

Snowy

Frosty



Stormy

Cold

Mild

Humid

Hot



Could you check your inside and outside thermometer?

Please note the time you checked them? _____

For the outside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐



For the inside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐

How many people were in the house over this period? 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.



Did you open or close any windows or use any extractor fans? If so please briefly describe otherwise leave blank

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?	

Day four!

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 or use any extractor fans this afternoon?

--

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 four!

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 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 on for any length of time? *So not just five minutes for the bathroom light.*

1-2	<input type="checkbox"/>	11-15	<input type="checkbox"/>
3-5	<input type="checkbox"/>	16-20	<input type="checkbox"/>
6-10	<input type="checkbox"/>	More	<input type="checkbox"/>

Roughly what time did you go to bed?

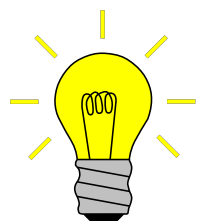
z z Z

Anything else that you think might have used a significant amount of energy over the day?

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

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 weather is like today? Please circle as many of the below as are applicable and briefly describe.

Windy

Rainy

Sunny

Snowy

Frosty



Stormy

Cold

Mild

Humid

Hot



Could you check your inside and outside thermometer?

Please note the time you checked them? _____

For the outside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐



For the inside thermometer:

Current temperature: _____

Maximum temperature: _____

Minimum temperature: _____

Press reset! Done! ☐

How many people were in the house over this period? 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.

Did you open or close any windows or use any extractor fans? If so please briefly describe otherwise leave blank

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?	

Day five!

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 or use any extractor fans this afternoon?

--

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 five!

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 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 on for any length of time? *So not just five minutes for the bathroom light.*

1-2	<input type="checkbox"/>	11-15	<input type="checkbox"/>
3-5	<input type="checkbox"/>	16-20	<input type="checkbox"/>
6-10	<input type="checkbox"/>	More	<input type="checkbox"/>

Roughly what time did you go to bed?

z z Z

Anything else that you think might have used a significant amount of energy over the day?

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

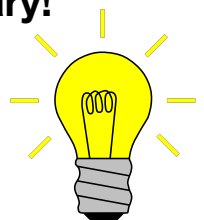
If you have any questions or challenges with the diary please contact: freya.wise@open.ac.uk

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!

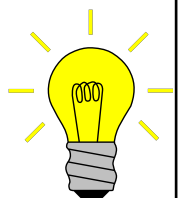
Your efforts and answers will be really useful!



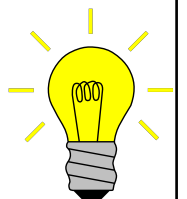
If you have any other comments on the experience of filling in the energy diary, other things you'd like to have mentioned but didn't have space for, or any other comments that you'd like to share with us please pop them down here.

Thank you again for your time and efforts in filling in this diary! One of the research team will be in contact to arrange a time to collect the diary and thermometers from you so we can start to analyse the data.

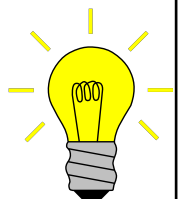
Any other comments:



Notes:



Notes:





**This diary is a piece of research for the project:
Reducing carbon emissions from Cumbrian
residential heritage buildings while retaining their
heritage values.**



**The Open
University**