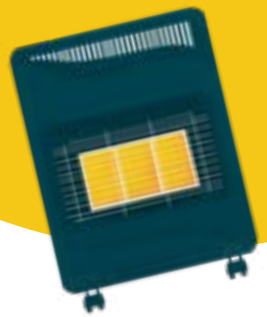









TOOLKIT

INTRODUCTION

The 'Save Your Energy' project works with young people from different backgrounds to educate and train them to engage with energy - issues, provide understanding, tools, personal support and resources that they need to make better - informed choices and decisions around energy saving and use.

This Toolkit has been created to help specialist youth workers to integrate energy advice into their work with young people from across Wales. The Toolkit is full of engaging sessions and activities to educate the participants around energy issues in the home.

This toolkit has been funded by Energy Saving Trust (EST) who conducts The Energy Redress scheme, which aims achieve two things:

1. Support energy consumers in vulnerable situations.
2. Deliver benefits to the types of consumers that were negatively impacted by the specific issues that triggered the redress payment.

CREATING A GROUP CULTURE

A group culture is the basis of a working group, its sets agreed behaviour from all participants and ensures that everyone is on the same page from the start. The purpose of a group culture is to create an open and respectful environment in which the group can work together creatively, support individuals to feel safe, share their ideas and explore opinions. It is important that the group creates this with the tutor as it gives them control and ensures they understand what is required of the group instead of being "told the rules." There are many ways to introduce a group culture and this is just one of them. Alternatively, /or in addition too, participants could write their own rules and put them on post it notes, to stick on the flip chart. This would make it more open and anonymous.

CREATING A GROUP CULTURE

AIM

For the group including the tutor to agree on behaviours, attitudes, communication, time and sensitive issues explored within session.

RESOURCES

- Flip chart paper
- Markers
- Blue/white tack.

METHOD

1. Discuss what behaviours a participant / young person expects from a tutor and others within the session. I.e. use of mobile phones or language

2. Explore basic structure of session including if there are any breaks or any adaptations to session.

3. Explain to the group that they may be talking about sensitive issues and that the group should agree to set some actions to stick to that they will agree to follow throughout the session.

4. Have the group culture on a flip chart where all participants /young people and tutor can easily see, ensuring that all actions are readable. Ask all of the participants if they understand all points or if they need further explanation. This could be an open forum for further discussion if time permits and may allow for participants / young people to answer the question themselves.

5. Once completed put the group culture where everyone can see them throughout the session using blue/white tack to secure to surface if necessary.

6. The group culture can be added to if something unexpected comes up – however, this must be agreed by the group.

7. When someone breaks the group, culture refer them to the group flip chart, some young people may feel this is authorities and therefore there are two further actions:

    - Refer the group to the group culture and remind all participants / young people of the purpose of the session and its group culture.

    - Have the group to be responsible for group culture and only act if the disruption is taking up too much time.

CREATING A GROUP CULTURE

Keep the group culture you have created and re-visit at the beginning of each session

EXAMPLE OF A GROUP CULTURE:

Be respectful of other's views

If you feel triggered and leave the room or just need the toilet - please give a thumbs up or down so we know if you need help!

Don't judge others - you don't know the whole story

What is said in the group, stays in the group

Every 20 minutes we will have a break

Click here for

RESOURCES

CONTENTS

INTRODUCTION TO ENERGY

Ice Breaker - Energy Bingo

AIM

- To Introduce participants / young person to the theme of energy
- Learn basic terms and situations that they can relate to.
- To break the ice with participants

METHOD

1. Print out one Energy Bingo card for each participant / young person.

2. Ask the participants / young person to move around and find people in the group who fit the boxes, when they have found someone, they should write their name and other requirements in the box.

3. The first person who fills all the boxes with participants / young person names shouts “Bingo!” and wins the game.

RESOURCES

- Energy Bingo Cards (in resource pack)

INTRODUCTION TO ENERGY

Ice Breaker - Energy Bingo

ANSWERS FOR FACILITATOR

1. Knows how to read a meter.
2. Has seen a wind turbine.
3. Can name a fossil fuel.
4. Has a boiler in their home
5. Knows what causes mould in the home.
6. Uses a hand-operated can opener.
7. Has seen a solar panel.
8. Can name a way to save energy in the home.
9. Recycles aluminium cans.
10. Knows which fuel gives energy to a car.
11. Can name a renewable energy source.
12. Owns a smart meter.

1. Name:	2. Name: Where do you see one?	3. Name: Coal, petroleum, natural gas, propane	4. Name:
5. Name: Condensation	6. Name:	7. Name: Where did they see one?	8. Name: Turn off lights, save water, insulation, etc.
9. Name:	10. Name: Petrol/Diesel	11. Name: Hydropower, solar, geothermal, wind, biomass	12. Name:

Information about

ENERGY

This section is for facilitator use and can be shared with participant / young people. To make this section more interactive, questions could be posed to the participants / young person and discussed as a brainstorm.

AIM:

To give participants / Young person specific information around the basics of energy.

WHAT IS ENERGY?

There are many different types of energy, the main forms are light energy, heat energy, chemical energy, and electrical energy. Energy can be changed from one kind to another, however energy cannot be made from scratch or destroyed.

WHAT IS ENERGY CONSUMPTION?

"Consumption" comes from the word consume. To calculate how much energy, we consume is to calculate how much energy we use. could we be using less?

WHAT IS ENERGY CONSERVATION?

"Conservation comes from the word "conserve". When we conserve energy, we use less energy, or sometimes none.

HOW CAN WE MEASURE OUR ENERGY CONSUMPTION?

The measurement used is the kilowatt hour, on energy bills you are charged per unit of kWh, so the less kWh you have used, the cheaper your bills will be!

WHAT IS ENERGY EFFICIENCY?

Could we be consuming less energy? Energy efficiency is when you can get as much power out of a product as possible, without wasting lots of energy. for example, one fridge may be more energy efficient than another. It will use less energy but will still cool your food and save money in the long run.

WHY IS ENERGY EFFICIENCY IMPORTANT?

Becoming energy efficient is important for 3 reasons:

1. The Environment- We need to cut down on the use of fossil fuels. They took millions of years to form and they are running out. Burning them produces carbon dioxide and is giving rise to climate change which is having impacts in many parts of the world- floods, droughts, hurricanes, etc.

2. The Economy- As resources like oil and gas become harder to get, the price will go higher meaning that more people in the world will find themselves in fuel poverty.

3. To Save Money- it makes sense to be energy efficient so that you can save money on your energy bills and not pay any more than you have to be every day necessities such as hot water and heating your home.

HOW DOES ELECTRICITY GET TO OUR HOMES?

Activity 1

AIM

- Participants will have basic understanding of where energy is made.
- Participants will have a basic understanding about how electricity gets to the home.

METHOD

1. Split the participants into 2 groups.

2. Cut out the handout cards and give a pack of cards to each group.

3. Ask participants to put the cards in order, mapping out the journey that the electricity takes to get into the home.

4. The group that finishes the activity first with the correct order, wins!

5. When a group has won, go through the answers and discuss the electricity journey.

RESOURCES

- Session 1, Activity 1 handout.
- Scissors

HOW DOES ELECTRICITY GET TO OUR HOMES?

Activity 1

ANSWERS FOR FACILITATOR

1. Electricity is made at a generating station by huge generators. Generating stations can use wind, coal, natural gas, or water.

2. The current is sent through transformers to increase the voltage. This helps to push the power long distances.

3. The electrical charge goes through high-voltage transmission lines that stretch across the country.

4. The electrical charge reaches a substation, where the voltage is lowered so it can be sent on smaller power lines.

5. The electrical charge travels through distribution lines to your neighbourhood. Smaller transformers reduce the voltage again to make the power safe to use in our homes.

6. The electrical charge connects to your house and passes through a meter that measures how much you use.

7. The electricity travels through wires inside the walls to the outlets and switches all over your house.

Information about

HEATING AND WATER SYSTEMS

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

AIM:

To give participants more specific information around Heating and Water Systems.

IN YOUR HOME, IT IS IMPORTANT THAT THE FOLLOWING TEMPERATURES SHOULD BE ACHIEVED:

- Living room and bathroom - 21 c
- Rest of the house - 18 c

HOW IS HEAT EMITTED?

- **RADIATION** - radiates in straight lines/like it does from the sun!
- **CONVECTION** - Rises upwards
- **CONDUCTION** - Travels along a material e.g. a metal bar.

ENERGY CROSSWORD

Activity 2

30 min

AIM

- Participants will learn about some of the terminology that we use when we talk about heating and water systems

METHOD

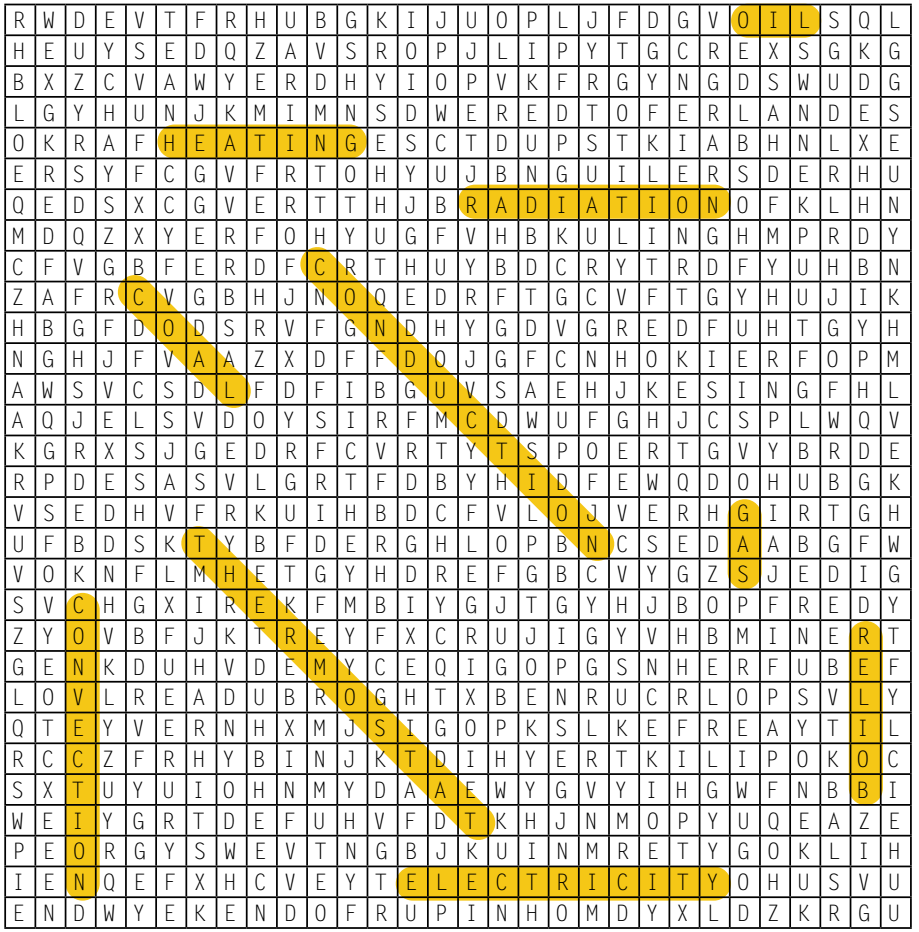
1. Young people can work on the crossword on their own or in pairs.

2. They must find all of the words in the crossword.

RESOURCES

- Session 1, Activity 2 handout. (1 per person or in twos)

ANSWERS FOR FACILITATOR



Information about

HEATING AND WATER SYSTEMS

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm – Mind maps work great for this!

AIM:

To give participants more specific information around Heating and Water Systems.

To identify your heating system, you need to look at the appliance that is heating your room. This appliance could be an individual room heater, or part of a central heating system.

Radiators - Means you have a wet central heating system (boiler in the home). This will heat your home and heat your water. Hot water is pushed around to heat the radiators which then heat the rooms. A thermostatic radiator valve controls the temperature of the room. A boiler thermostat controls temperature of the whole house (all radiators), on the boiler there will also be a water heating control and a pressure gauge.

Grilles in the walls or floors - If you have grilles in the walls or floors, you will have a warm air central heating system. (a central heating unit in the home) which will send warm air out through the grilles. Has a thermostat on the unit and /or timer.

Thermostat - Simply the controls used to regulate temperature in a heating system. You can set a preferred temperature, and the thermostat works to keep your room or boiler at this desired level. If the home starts to drop in temperature, the thermostat switches the heating on to warm back up.

WHAT ARE INDIVIDUAL HEATERS?

Blow heater - has a thermostat. When the room reaches a warm temperature, it turns off to save energy.

Convector - Heat rises upwards, quite portable and has a thermostat.

Storage heater - Input and output dials. (electricity is cheaper at certain times in the night- so you turn the input dial up overnight and it stores the cheap energy- then when you need to use the heat, you turn the output dial on and it releases energy into the room) has no plug.

Oil filled radiator - Oil heats up and travels around it. It is on wheels, very heavy, you can control the levels of energy.
Open fire- Radiant heat and convect heat. The convected heat gets lost up the chimney.

Closed fire - Solid fuel is inside and has a thermostat.

Electric fire - Each bar is a KW of heat – Heats up quickly.

Infra - red room heater - Radiant heat, each bar is a KW of heat. – Heats up quickly.

Information about

HEATING AND WATER SYSTEMS

Wall heater or panel heater - Use convection heat and great for instant heat!

Bottle gas heater - Very expensive to run and can cause condensation in the home.

DID YOU KNOW?

You may also have a room thermostat which controls the temperature of the house overall. It should not be in a room with direct sunlight, above a radiator, in a warmer room or a colder room:

Ask participants why they think this is?

You may have something called a mechanical programmer which allows you to programme your heating around your day. For example, if nobody is in the house between certain times in the day, you can plan ahead so that you aren't wasting money on heating and hot water.

See more about how to set a mechanical programmer in the extra resources section at the back of this toolkit.

Landlords are legally responsible for the safety of their tenants, and must have a safety check carried out every 12 months by a Gas Safe Registered Engineers.

MATCH UP

Activity 3

AIM

- Participants are able to identify the different types of heating and water systems in their homes.

METHOD

1. Cut out the resource cards and split participants into groups.

2. Ask participants to walk around and match the image of the heating system with the name and the features of the heating system.
3. This can also be done as a table activity in groups.

RESOURCES

- Session 1, Activity 3 resource cards.

END OF SESSION 1

AFFORDING YOUR BILLS

Ice Breaker - Energy Name Game

10 – 15 min

AIM

Participants will develop thinking and understanding around energy related terminology.

METHOD

1. If you have many participants in the group, separate them into smaller groups.

2. Ask the participants to stand or sit in a circle facing inward.

3. Tell the participants that they will be choosing new last names. Their new last names should begin with the same letter as their first names and be energy-related—a source of energy, an energy consuming device, or energy term. For example: Rachel Radiator, Wenna Wind Turbine, Gina Generator, etc. Tell the participants /Young people that no last name can be said twice.

4. If anyone in the group are having a problem thinking of an energy last name, have the group brainstorm several last names for them.

5. The group leader begins by saying, "Hi, my name is…" and then their first name, followed by their new energy last name. The person to the left of the leader says the first person's first and last name, and then their own new energy name. The third person continues by giving the first two names, then their own energy name. This continues until the final person, sitting to the right of the group leader, gives everyone's name and then their own name.

6. If, during the game, someone in the group has a problem remembering a person's first or last name, have members of the group give that person a hint. For example: If the person's name is Tim Toaster, someone in the group could say, "You put your bread in it in the morning." If the person's name is Pedro Petroleum, a group member could say, "You make gasoline from it."

WANTS VS NEEDS

Activity 1

20 min

AIM

- Participants / young people will start thinking about what they spend their money on day to day.
- Participants / young people will be able to identify what they classify as something they "want" and something they "need".

METHOD

1. Split Participants / young people into smaller groups. Ask them to map out two sections on their flip-chart paper- "WANT" vs "NEED".

2. Ask Participants / young people to think individually about 3 things that they spend a lot of money on frequently and write them on individual post it notes. Encourage them to try their best not to write the same as their other group members.

3. After they have their 3 post it notes, ask them to come together in their small groups and take it in turns to pick out some of the items and discuss as a group whether this is a "want" or a "need".

4. Make sure the group agreement has been looked at beforehand, as there could be disagreements among participants / young people, so it is important they listen to each other and respect the opinions of others.

RESOURCES

- Flip chart paper
- Pens,
- Post it notes

EXAMPLES FOR FACILITATOR

- Takeaways
- Gas bill
- Mobile phone bill
- New clothes
- Baby food
- Cigarettes
- Rent
- Bus fare

Information about

BUDGETING FOR BILLS

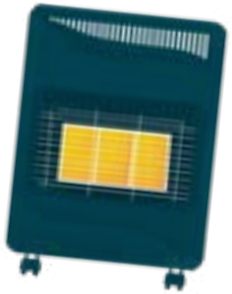
This section is for facilitator use and can be shared with participants / young people to make this section more interactive, questions could be posed to the participants / young people and discussed as a brainstorm.

WHAT BILLS DO WE NEED TO PAY IN THE HOME?

1. Rent/Mortgage
2. Gas and Electricity
3. Water
4. Council Tax
5. Internet
6. TV license
7. Personal bills, e.g. mobile phone bill, subscriptions, credit card bill, gym membership, car insurance, etc.

Setting up a budget means you are:

- Less likely to end up in debt
- Less likely to get caught out by unexpected costs
- More likely to have a good credit rating
- More likely to be accepted for a mortgage or loan
- Able to spot areas where you can make savings
- In a great position to save up for a holiday, a new car, or another treat



GAS AND ELECTRICITY BILLS

Your gas and electric bill will cover the cost of powering your home and keeping it warm. Most energy companies will offer several payment options and you can choose to pay either quarterly, monthly, or annually.

It is very important that you keep an eye on how much your energy bill is costing you. When you are viewing properties, they'll each have an energy performance certificate. This will help you see how energy-efficient the building is and give an indication of how much your bills might be. There are steps you can take to save money on your energy bill which will be covered later on in the toolkit in the sections **Keep It Green and Make The Right Choice.**

SOME TOOLS THAT CAN HELP YOU:

These online budgeting tools will help you manage your income and outgoings, you will need to find some bank statements, pay slips and other information to fill these out which your youth worker can help you with.

Citizens Advice

The Money Advice Service

THE JOURNEY OF OUR ENERGY BILL

Activity 2

20 min

AIM

- Participants / young people will learn about how energy is measured, and how we pay for our energy.

METHOD

1. Split the Participants / young people into smaller groups.

2. Cut out the handout cards and give a pack of cards to each group.

3. Ask Participants / young people to put the cards in order, mapping out the correct order of the cards, firstly for the average meter, secondly for the prepayment meter.
4. The group that finishes the activity first with the correct order, wins!

5. When a group has won, go through the answers and discuss the journey of our energy bill, whether we have an average meter or a prepayment meter.

RESOURCES

- Session 2 activity 2 handouts.

THE JOURNEY OF OUR ENERGY BILL

Activity 2

ANSWERS FOR FACILITATOR

1. Energy comes to our home.
2. We consume energy through the use of electricity and gas.
3. The Energy we consume is measured in kWh. The amount of kWh you use are displayed on your meter.
4. Your energy tariff will calculate the cost per kWh. Your energy tariff can be a standard variable rate which means the cost changes depending on the market, or it can be a fixed rate which means that you are guaranteed a set price for the year. There will also be a standing charge on your tariff which is an added daily cost you have to cover. This cost will have to be covered regardless of whether you use energy that day or not.
5. Your energy supplier will come to the house to take a meter reading, request an email reading, or sometimes they will do an estimated reading.
6. You will pay for the amount of energy you have consumed through your preferred method and you will receive a statement

PREPAYMENT METER

1. Energy comes to our home.
2. You take your prepayment card/key to the local Payzone/Post Office, or online to top it up with credit.
3. Your meter will show you how much energy you use when your card/key is inserted, and your remaining credit and balance.
4. You continue to top up the card/key when you run out of credit. Some suppliers will give you emergency credit when you run out, but this will be repaid and come out of your next top up payment.
5. If you don't top up your card/key, then you risk losing power to your home.
6. If you lose your card/key, you should contact your supplier immediately for a replacement.

TYPES OF PAYMENT

Activity 3

20 min

AIM

- Participants / young people will understand the different ways of paying their energy bill. And the advantages and disadvantages of each payment method.

METHOD

1. Split the group into twos or threes and hand one scenario to each Participants / young people Make sure they're different within their groups.

2. Give a types of payment sheet to each group and explain that Participants / young people will take it in turns to each be the payment advisor.

3. In turns the Participants / young people will have conversations as if it was a real-life scenario, they should use the scenarios on payment sheets to prompt them.

4. The aim is for each Participants / young people to choose the appropriate payment type for their client. Encourage them to talk each other through the different options and why they have made this choice.

RESOURCES

- Session two activity three handout

TYPES OF PAYMENT

Activity 3

ANSWERS FOR FACILITATOR

1. You live alone and are on a fixed energy tariff, meaning that you are paying the same amount every single month for your energy. You also have a Smart Meter and check it often to make sure you don't go above your energy consumption. You work full time and get paid monthly. You would like to know more about which way is best to pay for your energy.

   ANSWER: STANDING ORDER OR DIRECT DEBIT

2. You are in a bit of debt from your previous energy bills. You also receive Universal Credit. You need to be able to pay your energy bill, but also pay off a small amount of debt to your energy provider each month. Which payment method is best for you?

   ANSWER: FUEL DIRECT

3. You do not have a secure income or a bank account. You are always changing jobs and not sure when your money will be coming in next. You live very close to the centre of town so could travel if you needed to. Which is the best way to pay for your energy bill?

   ANSWER: ENERGY CARD

4. You are a single parent with a regular income. You have a variable energy tariff, meaning that you pay only for the energy that you consume. You want to know the best way to pay for your energy bill.

   ANSWER: DIRECT DEBIT

Information about

FUEL BILLS

This section is for facilitator use and can be shared with Participants / young people. To make this section more interactive, questions could be posed to the Participants / young people and discussed as a brainstorm.

HOW IS ENERGY/THE AMOUNT OF ENERGY YOU USE MEASURED?

It is measured in Kilowatt Hours (kWh). When you consume energy, you will be paying a certain amount of money per kWh that is used.

WHAT IS A 'TARIFF'?

An energy tariff is how an energy provider charges a customer for their gas and electricity use. The two main types of tariff are a fixed rate tariff, and a standard variable tariff.

STANDARD VARIABLE TARIFF:

Goes up and down with the market, energy can be very cheap at certain times but also very expensive at times.

FIXED RATE TARIFF:

Guarantees the fixed price of your energy per month for around 12-18 months. After that you can switch to a different tariff but there may be an exit fee.

WHAT IS A 'STANDING CHARGE'?

A standing charge is a daily fee, which you will incur everyday regardless of whether you use energy or not on that day. The standing charge covers the cost of connecting your home to the energy network, staff conducting meter readings, and servicing your account.

WHAT IS A METER READING?

You will often have somebody from your energy provider, come to your house to read your meter. (Your meter tells them how much energy you have used so they know what to charge you). Sometimes, your energy provider which just calculate an estimated meter reading rather than coming to do it. It is within your rights to ask your energy provider to come and conduct an in-person meter reading if you feel that the estimated reading is inaccurate, and they have overcharged you for your energy consumption.

UNDERSTANDING YOUR ENERGY BILL

Activity 4

30 min

AIM

- Participants / young people will be able to identify and label different parts of the energy bill
- Participants will have a better understanding of energy bills.

METHOD

1. Split the group into pairs and give them each a handout.

2. Participants to label the energy bill and then answer the questions below.

RESOURCES

- Session 2 activity 4 handout

ANSWERS FOR FACILITATOR

About your tariff

This information will help you compare your current tariff with others available.

What's an exit fee?

Some tariffs have an exit fee which may be charged if you choose to switch supplier before the agreed end date.

How we worked out your energy costs

If you have any questions, get in touch with our Customer Service Team.

Wearethebest.com/custservice

0800 1234 1234

Electricity Meter Number	K75L127DRS
METER READINGS	
24 October 2019 - our reading	43238
28 October 2020 - estimated reading	44091
TOTAL KWH USED	853
853kWh at 18.020p per kWh	£153.71
Standing charge 187 days at 24.523p	£45.87
VAT **@ 5.00%**	£9.98
TOTAL ELECTRICITY COST	£209.56

Your Electricity Tariff

TARIFF NAME	Standard Variable
HOW YOU PAY	Monthly Direct Debit
Tariff Ends	No end date
Early Exit Fee	None
ESTIMATED USAGE OVER 12 MONTHS	1.555 kWh

Questions:

What is the difference between a Standard variable tariff and a Fixed Rate tariff?

With a Fixed Rate Tariff, you are guaranteed the same price each month regardless of how much or how little energy you use. With a Standard Variable Tariff, the price will change in line with the market.

It was very warm in April and the meter reading seems higher than it should have been. What is the reason for this?

They did an estimated reading.

How much is my standing charge per day?

24.523 p

Information about the

PROBLEMS AND PITFALLS OF ENERGY SUPPLIERS

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

There can be many issues we come across when pay for our fuel bills. It is important to note the problems and pitfalls of energy suppliers so that we can do our best to avoid them.

ENERGY RATES

If your energy rate begins to creep up after a couple of years, and you are on a fixed rate, then make sure to contact your energy supplier and ask to go on the cheapest tariff. Your supplier may take advantage of the fact that you haven't contacted them in a while and try to get away with charging you more money without you noticing.

ESTIMATED READINGS

In 2017, USwitch found that 1.3 million customers were overcharged due to supplier's mistakes. It is important to take photos of your meter readings, save them and date them so they are there as evidence against an estimated bill.

AFFORDING YOUR ENERGY

If you are unable to afford your energy bill, you need to get in touch with you supplier. The energy supplier must give you advice and be able to work out a payment plan for you.

MAKING A COMPLAINT

If you want to make a complaint you need to ring your energy provider and make a note of who you spoke to and what their advice was for future reference. If there are other issues getting through or with the customer service, then you can contact the Citizens Advice Bureau near you – www.citizensadvice.org.uk

CONTACTING THE OMBUDSMAN

If your energy supplier can't resolve the issues, ask them to provide you with a letter of deadlock that you can take to the ombudsman. This letter will state that they are unable to solve the problem. You should then contact the ombudsman. https://www.ombudsman-services.org

ENERGY MIS-SELLING

If a supplier pressures or misleads you into agreeing a contract, you may have been mis-sold an energy deal. Well known energy supplier, SSE was recently fined a record £10m for mis-selling contracts between 2009 and 2011.

If you think you have been mis-sold an energy contract, you should get in touch with your supplier. If they are unable to handle your complaint, then refer to the section above about contacting the ombudsman.

END OF SESSION 2

KEEP IT GREEN

Ice Breaker - Energy Savers

AIM

Participants will start to think about ways they can save energy in the home and become more "green".

METHOD

1. Split the flip chart paper into two sides - "WASTE" and "SAVE".
2. Hand out one post it notes of each colour to each participant in the group.

3. Ask them to write a way they can waste energy in the home on one colour, and a way they can save energy in the home on the other colour.

4. Participants can then put the post it notes under the appropriate heading on the flip chart.

5. As the facilitator you can then go through some of the suggestions that have been contributed and start discussions.

6. Leave the flip chart up throughout the session and participants can add to it if they think of any more contributions.

RESOURCES

- Flip char paper
- Pens
- Post it notes

ENERGY GAME

Activity 1

30 – 40 min

AIM

- The participants will engage and learn about ways they can save energy
- The participants will learn about energy efficiency tips.

RESOURCES

- Energy board game (resources pack)
- Energy cards (resources pack)
- Energy counters and dice (resources pack)
- Scissors
- Glue
- (Alternatively, you could provide your own dice)

METHOD

1. Split the participants into groups of 3 and provide each group with the energy board game, energy counters, and dice so that they can prepare to play the game.

2. Cut out the red and green energy cards and put them in 2 piles facing down.

3. The aim of the game is for participants to try and be the first to get to the end of the board to win and be the "most energy efficient". Along the way they may land on a red/ green square which will require them to choose a card and guide them along the board.

4. Allow the participants to play the game more than once if they are engaging with it, so that they can go through most of the cards.

Information about the

ENERGY EFFICIENT ELECTRICAL APPLIANCES

This section is for facilitator use and can be shared with young people. To make this section more interactive, questions could be posed to the young people and discussed as a brainstorm.

Appliance Type	Considerations
Cookers	We recommend choosing an oven with an energy rating of A+. A pyrolytic function can also be an energy intensive means of cleaning which can contribute to higher running costs. The energy label is now found on both electric and gas ovens, enabling consumers to make the most efficient choice for either fuel.
Microwave Ovens	Microwaves often provide a much more energy efficient way of cooking food than in the oven. Unlike ovens, microwaves only heat your food and not the airspace inside.
Dishwashers	Dishwashers can take up a significant chunk of your electricity bill, typically costing between £37 and £48 a year to run. Slimline dishwashers typically cost between £23 and £37 a year to run. The most efficient dishwashers on the market have an A+++ rating, they cost around £7 less to run than the lowest rated dishwashers that you can buy of the same size, and they use less water.
Fridges, freezers, and fridge-freezers	These are switched on 24 hours a day, 7 days a week, so it's worth finding models that are energy efficient. Typically choosing an A+++ fridge freezer over an A+ unit will save you about £190 in energy bills over the 17-year lifetime of the product. However, as the energy rating is categorised by size, choosing a smaller fridge will use less energy than a larger fridge with the same energy rating. You can compare the total energy consumption of appliances by looking for their yearly energy consumption in kWh / annum - it's displayed on the bottom right of the energy label.

Information about the

ENERGY EFFICIENT ELECTRICAL APPLIANCES

Appliance Type	Considerations
Kettles	Kettles are one of the most commonly used appliances in the kitchen. ECO kettles that only boil the amount of water required can use 20 per cent less energy than a conventional electric kettle. The average UK household boils the kettle 1,500 times a year.
Tumble dryers	Microwaves often provide a much more energy efficient way of cooking food than in the oven. Unlike ovens, microwaves only heat your food and not the airs Drying clothes outdoors on a washing line costs nothing and uses no energy, so it is the ideal way to dry your clothes. Indoors on a rack can also be a no-cost, no-energy solution, although you should be mindful of the increase in moisture levels. Keep the room ventilated so that moisture doesn't turn into damp. If you need a tumble dryer, choosing one with an A+++ energy label over an A-rated one could save you around £370 over its 13-year lifetime. Some have sensors that tell you when your clothes are dry enough, preventing you from wasting energy by over drying your laundry. Electric heat pump tumble dryers are more efficient as they recycle the heat from the ventilation tube back into the dryer after removing the water vapour from the air. There are also gas tumble dryers. This type of dryer can be slightly more expensive to install, as it needs a gas connection. pace inside.

Information about the

ENERGY EFFICIENT ELECTRICAL APPLIANCES

Appliance Type	Considerations
Washing machines	An energy efficient machine will save you money on your electricity bill and, if you have a meter, your water bill too. Choosing an A+++ washing machine over an A+ one could save you around £65 over its 11-year lifetime. Try to wash only once you've enough laundry for a full load, and at low temperatures, to maximise your savings.
Desktop, Laptop PCs and Tablets	Laptops typically use 85 per cent less electricity over a year than desktop PCs. Choosing a laptop over a desktop and reducing standby could save up to £17 per year. Tablets have even lower energy usage - on average, tablets use 70 per cent less power than laptops.
Smart speakers and DAB Radios	Smart speakers generally cost around £5 per year to run. Usually these appliances are left on standby, so it is worth considering whether you do need them on 24-hours a day. Digital radios are a popular electronic product. They don't tend to use much energy but consider switching them off when you leave the room and not leaving them on standby.

Information about the

ENERGY EFFICIENT ELECTRICAL APPLIANCES

Appliance Type	Considerations
Televisions	Televisions can be the most power-hungry of all entertainment equipment, particularly the largest ones. The larger a television screen, the more energy it will consume, regardless of its energy rating. For instance, Running costs per year 32" TV 40" TV 60" TV A £12 £18 £39 A+ £9 £15 £29 A++ £6 £10 £19 In our cost comparison table, even the most efficient 60" television is still more expensive to run per year against the lowest rated 32" television. By choosing a smaller television, you are generally saving more energy. LED screens are the most common form of flat-screen TV on the market. LED TVs use an LCD (liquid crystal display) and LEDs provide the back-lighting to create the picture.

Information about the

ENERGY EFFICIENT ELECTRICAL APPLIANCES

Appliance Type	Considerations
Televisions (continued)	OLED and QLEDs are similar to LED screens in that they both use an LCD display. The difference with OLED and QLED is that you don't require back lighting, each pixel lights itself. Both types boast very high performance in picture quality; however, currently these do come at a premium. Power consumption is mostly dependent on level of brightness and hours of use. After selecting the smallest TV still suitable, the best ways to save energy are to reduce brightness settings to your lowest acceptable limit and remember to switch off your TV when not in use. Many TVs incorporate features to do this automatically, such as light sensors to detect the room's brightness and adjust the screen accordingly, and sleep timers to switch off the TV after a number of hours of no interaction. Plasma TV production ended in 2015. And since 2014, lamp lit LCDs (as opposed to LED lit) are in very limited production. Both of these TVs use more power than the LEDs discussed above.

How do

ENERGY LABELS WORK?

In general, energy ratings are categorised by the product's size. This means that two differently sized appliances with the same energy rating might use different amounts of electricity. For instance, an A rated 180-litre fridge freezer could cost only £43 a year to run, whereas a larger 525-litre fridge freezer with a better A+ rating could cost £57 a year to run.

It is best to check energy labels on products and look for the product with the best energy rating for the size you require.

Energy Saving Trust:
https://energysavingtrust.org.uk/home-energy-efficiency/home-appliances

For some great tips on keeping it green in the home- visit:
https://energysavingtrust.org.uk/blog/category/energy-and-water-efficiency-home

END OF SESSION 3

MAKE THE RIGHT CHOICE

Ice Breaker - Energy Saving tips

15 – 20 min

AIM

- Participants will be able to reflect on the previous session
- Participants will be able to identify ways they can save their energy in the home

RESOURCES

- Flip chart paper/normal paper
- Pens

METHOD

1. Split participants into smaller groups / Team – They could name it!

2. Ask the participants / young people to think about energy saving that they could do in their home, you could ask them to shout out some examples.

3. Give the groups / teams a set amount of time and ask them to create a poster that they can display encouraging other people in their community to save energy in the home.

4. This can be adapted to incorporate digital work – ie through mobile phones.

    - They should include why we need to save energy, some energy saving tips, and images.

5. After the time is up participants have the option to present their poster in their groups, talking through why they chose certain images/tips.

Information about

SWITCHING ENERGY SUPPLIER

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

STEPS TO TAKE WHEN CHOOSING/SWITCHING ENERGY SUPPLIER:

- Get onto an energy comparison site, preferably try to get hold of a previous bill. (This will help when you are putting in your information. If you don't have a bill, then you should still go ahead.)

- Make sure the comparison site you are on is letting you see all the tariffs available. If it asks you a question like "would you only like to see the tariffs we can switch to?" Make sure you disagree and ask to see all tariffs.

- If you are already with a company you like and you don't want to switch, you should ring up your energy supplier yearly and ask them to go on the cheapest tariff. If you are on a fixed tariff, these are normally only fixed for a year, so the prices will rise after that time unless you contact your provider.

THINGS TO NOTE WHEN SWITCHING ENERGY SUPPLIER:

- When you do a whole market comparison, the cheapest tariffs will always appear to be energy providers you have never heard of. It is worth looking into these companies reviews or scroll slightly further down. If you do want to go with one of these smaller energy companies, then do not worry about the company going bust, as if it were to then OFGEM will switch you onto a different provider.

- If you are in credit when you switch provider then you should get that money back in a lump sum.

- It is important to look at the customer service reviews for companies when switching, some smaller companies are so cheap that lots of people will sign up, meaning they are unable to handle the customer service requests.

- If you are renting you will not be able to switch meter type (e.g. from a prepayment meter to another meter), however you are able to switch company and find the cheapest rates.

If you don't have access to the internet, the majority of comparison sites have phone numbers- so you can contact via phone for the best rates.

TRUMP MY ENERGY SCORE

Activity 1

20 min

AIM

- Participants will interact with choosing energy scores.
- Participants will start to get an idea for what they look for when choosing an energy supplier.

RESOURCES

- Trump my energy score cards (resources)
- Scissors

METHOD

1. Split participants into pairs for this fun activity.

2. Cut out Trump my energy cards from resource pack and hand out to each pair.

3. In this game, participants should shuffle the cards and split into 2 piles. They then take it in turns to pick a card from the top of each deck and look at the categories.

4. There are 4 categories on each card, the participant should choose the category that they feel they will win with, either with the highest customer service review points, or the lowest cost per kWh, standing charge, or annual cost.

5. Once they have chosen a category, both players read out the number on their card from that category. The player with either the highest (in customer service reviews) or lowest (in costs), takes the opponents card and adds to the bottom of their pile.

6. The player who collects all ten cards first wins.

7. Encourage participants to replay the game if they want to.

Information about

RENEWABLE ENERGY SUPPLIERS

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

In the current climate, it is important to consider the option of choosing green energy suppliers. If you are able to look on comparison sites, you will find that some of the cheapest energy suppliers are green energy companies, and it's not difficult to find a supplier which offers 100% green energy and electricity.

WHAT IS RENEWABLE ENERGY?

Green energy is generated from renewable sources instead of fossil fuels. 'Green Gas' refers to Biomethane which is a naturally occurring gas produced from the breakdown of organic materials and landfill gas.

Green electricity is produced from renewable sources such as:

- Wind power
- Wave power
- Tidal power
- Solar power
- Hydroelectric power

WHY CHOOSE RENEWABLE ENERGY?

In 2015, Wales released theWell-being of Future Generations Act". This act includes seven well-being goals, one of these being our aim to become a globally responsible Wales.

A globally responsible Wales- ensures that we are playing our part for the environment, using resources efficiently, and making sustainable choices.

WHAT TO CONSIDER WHEN CHOOSING A RENEWABLE ENERGY SUPPLIER

- You should consider a fixed price tariff so your costs don't change.
- Request a smart meter so that you can keep an eye on your energy usage.
- Check the suppliers fuel mix to see if they can guarantee that you are getting green electricity.

MAKE THE RIGHT CHOICE

Activity 2

30 – 40 min

AIM

- Participants will be able to research energy companies
- Participants will be able to identify which energy supplier and tariff is best for them

RESOURCES

- Laptops or phones and internet access
- Recent bill (optional)

METHOD

1. Participants will be able to work individually to research and do their own energy comparison, as if they were going to switch supplier. If they have a recent bill with them, this will help with their search. This could also be done as a 1-2-1 activity.

2. Read out the list of 11 Ofgem accredited price comparison websites for participants to research.

3. The websites will get them to put in their address and some other information so that it can do the comparison. If they are not sure on some of this information, then they can make it up. It is still valuable to see what the comparison site looks like and what factors go in to switching supplier.

4. Encourage the participants to use more than one site to make sure they are getting the best deal.

COMPARISON SITES AND HELPLINES

It is important to use one of the Ofgem accredited price comparison websites:

Energy Helpline

WEBSITE

Money Supermarket

WEBSITE

Simply Switch

WEBSITE

Energylinx

WEBSITE

My Utility Genius

WEBSITE

Switch Gas and Electric

WEBSITE

The Energy Shop

WEBSITE

Runpath

WEBSITE

Quote Zone

WEBSITE

Unravelit

WEBSITE

Uswitch

WEBSITE

Please note these are Ofgem accredited at the time of writing this resource- August 2020. For an updated version of the Ofgem accredited sites visit: https://www.ofgem.gov.uk

END OF SESSION 4

MY HOUSE IS COLD

Ice Breaker - Reflection

15 – 20 min

AIM

- Participants reflect on their learning so far from the sessions
- Participants can identify gaps in their learning and find solutions

RESOURCES

- Flip chart paper
- Post it notes
- Pens

METHOD

1. Split participants into groups or allow them to do the task as one big group.

2. Hand out post it notes and flip chart paper to the groups.

3. Ask them to write down all the things they have learnt so far from the sessions, what has helped them, and any actions they have taken/are going to take since being involved in the sessions. They should write these points on post it notes and populate the flip chart.

4. Ask the participants to discuss what they have written as a group and maybe come up with some things they would like to know more about.

5. As the facilitator you can then support the participants by maybe signposting them on using our signposting resource or help them to research different things they would like to learn about.

Information about

HEATING YOUR HOME

This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

If you find that your house is always cold, it is due to heat loss and lack of heating in the home.

HEAT LOSS

Heat is lost from a property in several ways:

- Fabric heat loss: where heat escapes through the building materials.
- Ventilation heat loss: where heat escapes as air blows through gaps in the building materials.
- Water heat loss: where heat is lost as hot water goes down the plughole or sink.
- Flue heat loss: where heat is lost up chimneys and through flues of fuel burning appliances, which affects the efficiency of the appliance.

Information about

HEATING YOUR HOME

HOW CAN WE INSULATE OUR HOMES?

Insulating walls:

Outside walls lose a lot of heat both by fabric and ventilation heat loss and this can only be achieved by insulating the walls which can be expensive. It is possible to get internal or external wall insulation.

There are some grants in Wales where you are able to apply for free wall insulation: https://www.freecavitywallinsulationwales.co.uk/do-i-qualify-for-free-cavity-wall-insulation

Windows lose heat through fabric heat loss and ventilation heat loss so both should be addressed to improve efficiency.

VENTILATION HEAT LOSS AROUND WINDOWS

This ventilation loss can be tackled in two ways:

- by ensuring the doors and windows are not left open
- by applying draughtproofing

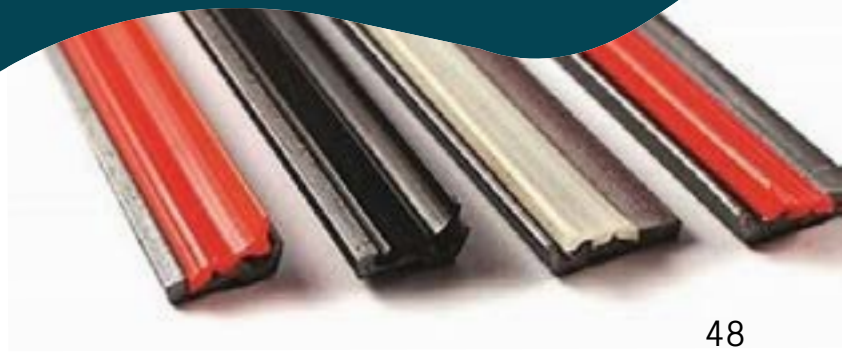
DRAUGHT PROOFING WINDOWS AND DOORS

Gaps and cracks around the windows and doors vary in size and width. Materials are available to fit to the inside and outside of windows and doors. Durable, high quality materials are quite inexpensive and should be chosen over poorer quality materials which may need to be replaced more frequently.

There are three main types of draught proofing materials.

LOW FRICTION OR WIPER SEALS

The draught proofing material rubs against the closing edge of the window or door forming a tight seal.

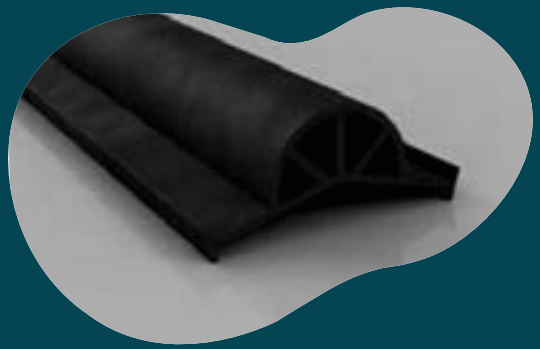


Information about

HEATING YOUR HOME

COMPRESSION SEALS

The door or window is pushed directly onto the draught strip itself as it is closed forming a firm seal over the gap.



GUN APPLIED SEALANTS

Silicone or polyethylene sealants are sold in tubes and are used for filling gaps which are very small or irregular or in places where other draught proofing materials would be ineffective.

POINTS TO REMEMBER

- A supply of fresh air fuel burning appliances is very important, so air vents or grilles that provide air for them should not be blocked.
- Adequate ventilation is important to minimise dampness or condensation problems.
- Ventilation should be adjustable, to allow background ventilation but also be capable of providing higher levels of ventilation if needed, to maintain air quality in a home.

INSULATING WINDOWS

There are a number of ways of reducing the amount of heat that is lost through windows. The principle is the same with all methods: a sheet of material is placed in front of the pane of glass, creating a layer of motionless air between two surfaces to provide a good insulating barrier.

CURTAINS, BLINDS AND SHUTTERS

If there isn't a radiator or other heat source underneath the window, curtains should be slightly longer than floor length. This will trap the cooler air behind the curtains and help stop draughts coming into the room. If radiators or other heat sources are present beneath the window, curtains should be placed behind them to allow the heat to stay in the room. Blinds and shutters provide another way of reducing heat loss through windows, but it's important to ensure they fit tightly around the window area to prevent the cold air from circulating through them.

Information about

HEATING YOUR HOME

DOUBLE GLAZING

There are a number of ways of applying secondary glazing to an existing window. Some systems are inexpensive which almost anyone can install. Others are more costly and have to be installed by a contractor. All types of secondary glazing will have the same insulating effect provided they are well fitted.

The cheapest and simplest way to secondary glaze a window is to attach some form of plastic sheeting or film over it. Kits can be bought from DIY shops.

ROOF INSULATION

As heat rises, a lot of heat is lost through the roof area of your house. Depending on your roof, you can either have flat roof insulation, or pitched roof insulation installed.

There are some grants in Wales where you are able to apply for free roof insulation: www.government-grants.co.uk

FLOOR INSULATION

You can have floor insulation installed, however it can be complicated and very expensive. It is usually worthwhile trying to remedy the problem of a cold floor in another way first. Examples of this could be covering up with rugs, carpet, or laminate flooring.

It is worth considering and investment into these home heating measures, as you will save so much money on your fuel bill per year. You will make the money you spent back on your savings.

CASE STUDIES

Activity 1

AIM

- Participants will be able to identify ways to heat the home

RESOURCES

- Case studies (resource pack)

METHOD

1. Split participants into pairs (or can work individually)
2. Cut out the 3 case studies and hand out to each pair, they should work together to answer the questions
3. Go over the answers with them afterwards.

CASE STUDIES

Activity 1

What is the highest area of heat loss in this property, if the loft has been insulated?

ANSWER: WALLS

What measures could be installed to reduce heat loss throughout the home?

ANSWER: EXTERNAL / INTERNAL WALL INSULATION

This block of flats does not have any insulation measures fitted. What are the highest areas of heat loss for the building?

ANSWER: WINDOWS, WALLS, ROOF

What measures would you recommend to reduce heat loss?

ANSWER: SECONDARY GLAZING / DOUBLE GLAZING, EXTERNAL WALL INSULATION, FLAT ROOF

ANSWERS FOR FACILITATOR

A student lives in this flat, they say it gets extremely cold even though the gas radiant fire is new and works efficiently.

What are the main areas of heat loss?

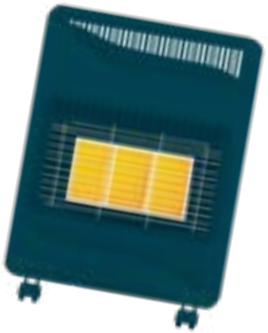
ANSWER: WINDOWS, ROOF, WALL

They are on a limited budget, what measures would you recommend?

ANSWER: LOFT INSULATION, THERMAL SEAL FOR WINDOWS, DRAUGHTPROOFING

Information about

CONDENSATION AND MOULD



This section is for facilitator use and can be shared with participants. To make this section more interactive, questions could be posed to the participants and discussed as a brainstorm.

WHAT IS CONDENSATION?

All air contains a certain amount of 'invisible' water vapour. The higher the temperature of the air the more water vapour it can hold. Condensation frequently occurs when warm air carrying water vapour comes into contact with a cold surface and becomes cooler. At this new low temperature, it is unable to hold as much moisture and so deposits the water vapour as droplets on the cold surface.

This process can occur anywhere in the home: for instance, moisture-laden air from the kitchen may travel through the house and condense on a cold bedroom wall. in this case it may not be visible as water droplets since it can often soak into the wall, but overtime a patch of black mould can develop.

WHERE DO YOU FIND CONDENSATION?

The following areas are particularly prone to condensation:

- Cold surfaces such as mirrors, single glazed windows and metal window frames.
- Kitchens and bathrooms.
- Walls of unheated rooms.
- Cold corners of rooms where two outside walls meet.
- Wardrobes, cupboards (particularly built-in cupboards) and behind furniture that is placed against an outside wall.

CONDENSATION DAMPNESS IS USUALLY CAUSED BY A COMBINATION OF FOUR FACTORS.

H - Inadequate heating
I - Inadequate insulation
V - Inadequate ventilation
E - Excessive moisture production

Information about

CONDENSATION AND MOULD

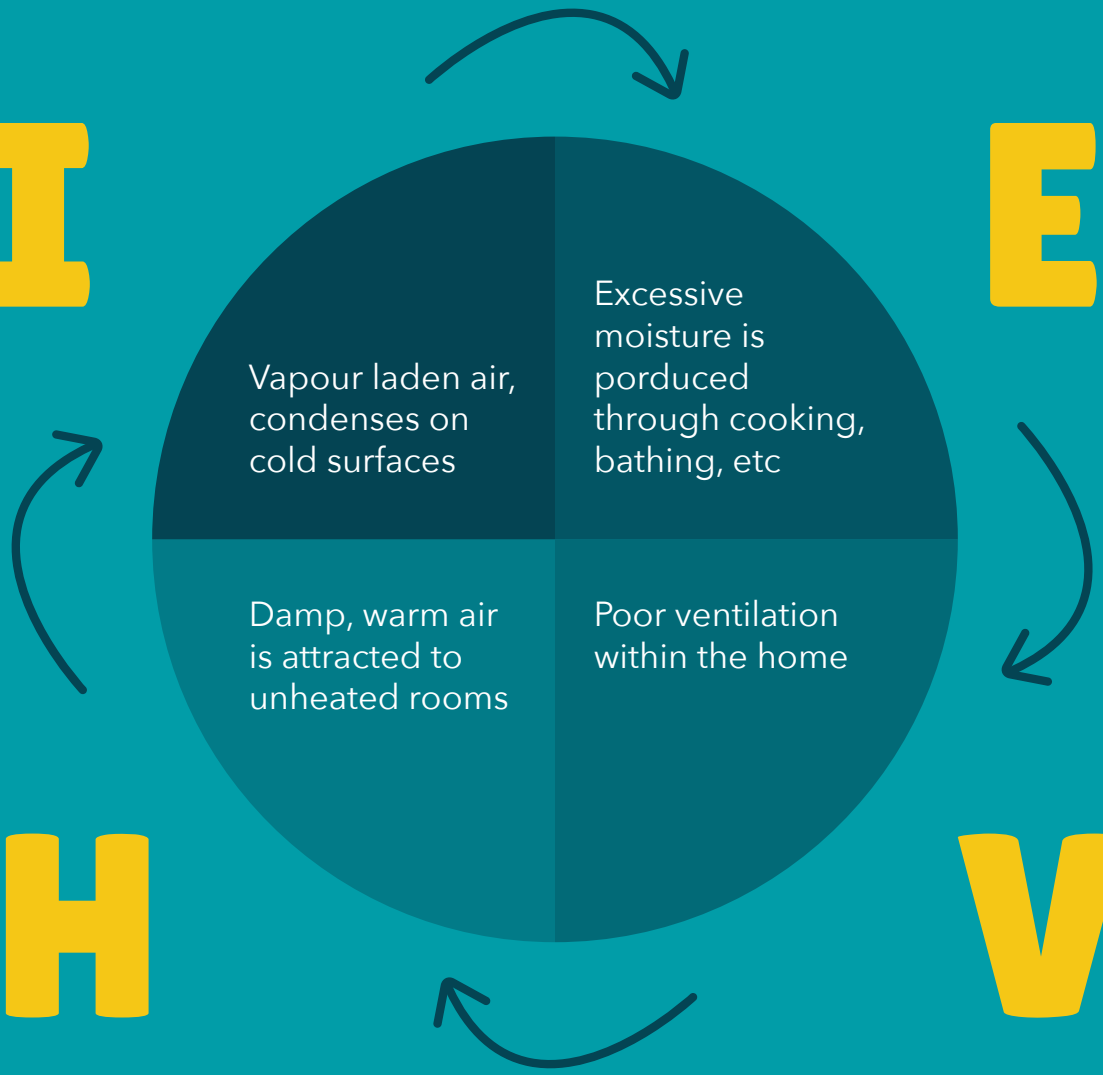
THE CYCLE OF CONDENSATION

Inadequate insulation **I**

E **Excessive moisture production**

Inadequate heating **H**

V **Inadequate ventilation**



Information about

CONDENSATION AND MOULD

THE HEALTH IMPACTS

Relative humidity is the amount of water vapour in the air at a given temperature. It is expressed as a percentage.
The Building Research Establishment (BRE) has shown that if the relative humidity in a room is 70% or more for long periods of time, mould will spread.

THE HEALTH IMPACTS OF MOULD INCLUDE:

- asthma
- respiratory infections
- skin problems e.g. eczema
- coughing/sneezing
- sinusitis
- rhinitis
- headaches/migraines
- watery itching eyes

HOW TO PREVENT CONDENSATION

Improve heating

Ensure you have adequate whole house heating, good controls and appliances, and use your controls efficiently, such as setting the correct times and temperatures on your thermostat.

Insulate the home

Install insulation such as floor insulation, wall insulation, double glazing, and draught proofing.

Control ventilation

Don't block up vents in your home, close the internal doors of the house, and open windows when you need to. You can use extractor fans for cooking and showering.

Reduce excessive moisture

Don't dry your clothes indoors, don't use bottle gas heaters, put lids on pans when you are cooking.

PREVENTING CONDENSATION AND MOULD IN THE HOME

Activity 2

AIM

- Participants will be able to identify how they can prevent condensation and mould in the home.

RESOURCES

- Flip chart
- Pens
- Access to internet

METHOD

1. Put participants into groups. Ask them to reflect on what they have learnt about HIVE and create a poster or visual display that they can put up, teaching others how to prevent condensation and mould from happening in the home.

2. Encourage them to use phones to do some more research around the “do’s and don’ts” when trying to prevent condensation and mould in the home.

3. When the groups are finished, get them to present their posters/displays to the other groups and this will naturally start up feedback and discussions within the group.

END OF SESSION 5

SOCIAL ACTION

AIMS

SOCIAL ACTION PROJECT PARTICIPANTS AND PROJECTS WILL:

- Understand how to develop and deliver local community based, energy saving, social action projects that are youth led.
- Understand and know how to implement monitor and evaluate method for their energy saving youth led social action projects.

THE LOCAL COMMUNITIES AND PEERS WILL:

- Have increased understanding of how to save energy, reduce energy costs and be better enabled to pay their bills.
- Have a raised awareness of young people's interest in energy and energy saving

POLICY MAKER WILL:

- Have an increased awareness of issues that communities and young people face through energy poverty.
- Opportunity to engage with young people on issues that affect them.

SOCIAL ACTION

WHAT IS SOCIAL ACTION?

Social action is about people coming together to improve their lives and solve problems that are important in their communities. Through the commitment and skill of citizens, social action can empower communities, help people in need, and complement public services. Taking part in social action is also associated with higher levels of wellbeing and can improve people's confidence and skills. Social action has the opportunity to support discussion with a diverse group of people from young people to policy makers with the opportunity to support positive change.

WHAT CAN YOU DO FOR YOUR SOCIAL ACTION PROJECT?

There are many great things you can do to be an active citizen in your community.

Some ideas for your social action project could be:

- Peer educating others and sharing your learning from these sessions
- Creating an online campaign to raise awareness around saving energy in the home
- Coming up with an environmental project that can benefit people in your community
- Supporting older people in your community who may be struggling with energy issues
- Fundraising for energy saving inventions/solutions

THE 5 KEY ACTIONS WHEN DEVELOPING YOUR SOCIAL ACTION PROJECT

1. IDENTIFY WHAT THE COMMUNITY NEEDS

This is crucial when creating the focus of your social action project, as it will give you a clear purpose and reason to carry out your work. It will also help you when you are evaluating your work afterwards and how it positively impacted the community. As a group, think about who you are going to target and support in the community. Will it be an intergenerational project, or will you be helping young people? You could create surveys or ask people what support they need, as well as reaching out to groups online or offline in the community for their opinions and ideas.

2. DECIDE ON A PURPOSE AND STRUCTURE

It is now time to get organised. When you have your group and your idea, you should form a structure. Decide on team roles, giving each member of the group a defined role and responsibility. This will make sure you are efficient in your work. Think of a budget, and how much you will need for your project. You can also take advice from peers, family members, or your youth worker if they have been through the process before. Give your project a name and a mission statement, this is something you can stick to and will help you remember the core purpose of your work throughout.

3. GET SUPPORT FROM THE TOP / DECISION MAKERS

Local authorities and MPs can be key in developing a successful project. Councils have resources which community groups can tap in to. Get your local councillors and MP on board with the plan. With all political parties now voicing support for community-owned renewable projects, support should be forthcoming. Just don't forget to ask! Here are some helpful links to get you started.

Councillors: www.gov.uk/find-your-local-councillors

MP's: www.members.parliament.uk/FindYourMP

THE 5 KEY ACTIONS WHEN DEVELOPING YOUR SOCIAL ACTION PROJECT

4. GET CONNECTED

Getting people on board can be one of the toughest challenges. Reach out to local community groups and do research throughout your project, information, organisational policies and guidance is always changing so much sure you are up to date. If you are choosing to do an environmental project, don't expect that it will have the support of the whole community - there are many opinions when it comes to environmental issues. Engaging at an early stage with people likely to be affected can enhance your project plan. Local knowledge should never be underestimated and harnessing the experience of the wider community can benefit your project massively.

5. EVALUATING YOUR PROJECT

Before you start your project, it's important to come together as a group and think about your main aims and outcomes. What do you want to achieve? Once you have done this, you can then think of some ways to make sure you have reached those outcomes. Evaluating the impact, you made on the community will not only close off your project nicely, but it will be a great way to display the work you did and will help you in the future if you want to expand your project. It could be used in the future for decision makers to act and make change!

RESOURCES

ENERGY BINGO

Ice Breaker - Session 1

WALK AROUND THE ROOM AND FIND SOMEONE WHO...

1. Knows how to read a meter.
2. Has seen a wind turbine.
3. Can name a fossil fuel.
4. Has a boiler in their home.
5. Knows what causes mould in the home.
6. Uses a hand-operated can opener.
7. Has seen a solar panel.
8. Can name a way to save energy in the home.
9. Recycles aluminium cans.
10. Knows which fuel gives energy to a car.
11. Can name a renewable energy source.
12. Owns a smart meter.

1. Name:	2. Name: Where do you see one?	3. Name: Name a fossil fuel:	4. Name:
5. Name: What cause mould in the home?	6. Name:	7. Name: Where did they see one?	8. Name: A way to save energy in the home?
9. Name:	10. Name: Which fuel gives energy to a car?	11. Name: A renewable energy source?	12. Name:

HOW DOES ELECTRICITY GET TO OUR HOMES?

Session 1 - Activity 1

Electricity is made at a generating station by huge generators. Generating stations can use wind, coal, natural gas, or water.	The current is sent through transformers to increase the voltage. This helps to push the power long distances.	The electrical charge goes through high-voltage tranmission lines that stretch across the country.	The electrical charge reaches a substation, where the voltage is lowered so it can be sent on smaller power lines.
The electrical charge travels through distribution lines to your neighbourhood. Smaller transformers reduce the voltage again to make the pwer safer to use in our homes.	The electrical charge connects to your house and passes through a meter that measures how much you use.	The electricity travels through wires inside the walls to the outlets and switches all over your house	

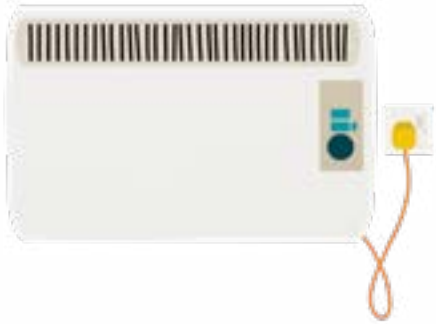
CROSSWORD

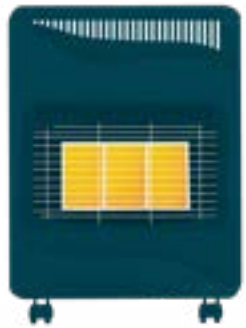
Session 1 - Activity 2

1. Radiation
2. Convection
3. Conduction
4. Thermostat
5. Boiler
6. Heating
7. Electricity
8. Oil
9. Gas
10. Coal

R	W	D	E	V	T	F	R	H	U	B	G	K	I	J	U	O	P	L	J	F	D	G	V	O	I	L	S	Q	L
H	E	U	Y	S	E	D	Q	Z	A	V	S	R	O	P	J	L	I	P	Y	T	G	C	R	E	X	S	G	K	G
B	X	Z	C	V	A	W	Y	E	R	D	H	Y	I	O	P	V	K	F	R	G	Y	N	G	D	S	W	U	D	G
L	G	Y	H	U	N	J	K	M	I	M	N	S	D	W	E	R	E	D	T	O	F	E	R	L	A	N	D	E	S
O	K	R	A	F	H	E	A	T	I	N	G	E	S	C	T	D	U	P	S	T	K	I	A	B	H	N	L	X	E
E	R	S	Y	F	C	G	V	F	R	T	O	H	Y	U	J	B	N	G	U	I	L	E	R	S	D	E	R	H	U
Q	E	D	S	X	C	G	V	E	R	T	T	H	J	B	R	A	D	I	A	T	I	O	N	O	F	K	L	H	N
M	D	Q	Z	X	Y	E	R	F	O	H	Y	U	G	F	V	H	B	K	U	L	I	N	G	H	M	P	R	D	Y
C	F	V	G	B	F	E	R	D	F	C	R	T	H	U	Y	B	D	C	R	Y	T	R	D	F	Y	U	H	B	N
Z	A	F	R	C	V	G	B	H	J	N	O	Q	E	D	R	F	T	G	C	V	F	T	G	Y	H	U	J	I	K
H	B	G	F	D	O	D	S	R	V	F	G	N	D	H	Y	G	D	V	G	R	E	D	F	U	H	T	G	Y	H
N	G	H	J	F	V	A	A	Z	X	D	F	F	D	O	J	G	F	C	N	H	O	K	I	E	R	F	O	P	M
A	W	S	V	C	S	D	L	F	D	F	I	B	G	U	V	S	A	E	H	J	K	E	S	I	N	G	F	H	L
A	Q	J	E	L	S	V	D	O	Y	S	I	R	F	M	C	D	W	U	F	G	H	J	C	S	P	L	W	Q	V
K	G	R	X	S	J	G	E	D	R	F	C	V	R	T	Y	T	S	P	O	E	R	T	G	V	Y	B	R	D	E
R	P	D	E	S	A	S	V	L	G	R	T	F	D	B	Y	H	I	D	F	E	W	Q	D	O	H	U	B	G	K
V	S	E	D	H	V	F	R	K	U	I	H	B	D	C	F	V	L	O	J	V	E	R	H	G	I	R	T	G	H
U	F	B	D	S	K	T	Y	B	F	D	E	R	G	H	L	O	P	B	N	C	S	E	D	A	A	B	G	F	W
V	O	K	N	F	L	M	H	E	T	G	Y	H	D	R	E	F	G	B	C	V	Y	G	Z	S	J	E	D	I	G
S	V	C	H	G	X	I	R	E	K	F	M	B	I	Y	G	J	T	G	Y	H	J	B	O	P	F	R	E	D	Y
Z	Y	O	V	B	F	J	K	T	R	E	Y	F	X	C	R	U	J	I	G	Y	V	H	B	M	I	N	E	R	T
G	E	N	K	D	U	H	V	D	E	M	Y	C	E	Q	I	G	O	P	G	S	N	H	E	R	F	U	B	E	F
L	O	V	L	R	E	A	D	U	B	R	O	G	H	T	X	B	E	N	R	U	C	R	L	O	P	S	V	L	Y
Q	T	E	Y	V	E	R	N	H	X	M	J	S	I	G	O	P	K	S	L	K	E	F	R	E	A	Y	T	I	L
R	C	C	Z	F	R	H	Y	B	I	N	J	K	T	D	I	H	Y	E	R	T	K	I	L	I	P	O	K	O	C
S	X	T	U	Y	U	I	O	H	N	M	Y	D	A	A	E	W	Y	G	V	Y	I	H	G	W	F	N	B	B	I
W	E	I	Y	G	R	T	D	E	F	U	H	V	F	D	T	K	H	J	N	M	O	P	Y	U	Q	E	A	Z	E
P	E	O	R	G	Y	S	W	E	V	T	N	G	B	J	K	U	I	N	M	R	E	T	Y	G	O	K	L	I	H
I	E	N	Q	E	F	X	H	C	V	E	Y	T	E	L	E	C	T	R	I	C	I	T	Y	O	H	U	S	V	U
E	N	D	W	Y	E	K	E	N	D	O	F	R	U	P	I	N	H	O	M	D	Y	X	L	D	Z	K	R	G	U

Session 1 - Activity 3





		**Blow heater:** Has a thermostat. When the room reaches a warm temperature, it turns off to save energy.	**Convector:** Heat rises upwards, quite portable and has a thermostat.
Storage heater: Input and output dials. Has no plug.	**Oil filled radiator:** Oil heats up and travels around it. It is on wheels, very heavy, you can control the levels of energy.	**Open fire:** Radiant heat and convection heat. However, the convection heat gets lost up the chimney.	**Closed fire:** Solid fuel is inside. Has a themostat.
Electric Fire: Each bar is a KW of heat.	**Infra-red room heater:** Radiant heat, each bar is KW of heat.	**Wall heater:** Convection heat.	**Bottle gas heater:** Very expensive to run and can cause condensation in the home.
Radiators: Hot water is pushed around to heat the radiators which then heat the rooms.	**Grilles/Air vents:** These will send warm air out into your home.	**Thermostat:** The controls used to regulate temperature in a heating system. You can set a preferred temperature, and the the thermostat works to keep your room or boiler at this desired level	**Mechanical programmer:** Using a machanical programmer will control the timing of your heating and hot water turning them on and off at pre-set times.

THE JOURNEY OF OUR ENERGY BILL

Session 2 - Activity 2

Energy comes to our home.

We consume energy using electricity and gas.

The Energy we consume is measured in kWh. The amount of kWh you use are displayed on your meter.

Your energy tariff will calculate the cost per kWh. Your energy tariff can be a standard variable rate which means the cost changes depending on the market, or it can be a fixed rate which means that you are guaranteed a set price for the year. There will also be a standing charge on your tariff which is an added daily cost you have to cover. This cost will have to be covered regardless of whether you use energy that day or not.

Your energy supplier will come to the house to take a meter reading, request an email reading, or sometimes they will do an estimated reading.

You will pay for the energy you have consumed through your preferred method and you will receive a statement.

THE JOURNEY OF OUR ENERGY BILL – PREPAYMENT METER

Session 2 - Activity 2

Energy comes to our home.

You take your prepayment card/key to the local payzone/post office, or online to top it up with credit.

Your meter will show you how much energy you use when your card/key is inserted, and also your remaining credit and balance.

You continue to top up the card/key when you run out of credit. Some suppliers will give you emergency credit when you run out, but this will be repaid and come out of your next top payment.

If you don't top up your/key, then you risk losing power to your home.

If you lose your card/key, you should contact your supplier immediately for a replacement.

TYPES OF PAYMENT

Session 2 - Activity 3

WHICH PAYMENT METHOD IS THE BEST FOR YOUR CLIENT?

Payment Method	Advantages	Disadvantages	Appropriate for
Cash or cheque	The consumer will only pay for their energy bill when it arrives- which will be quarterly or bimonthly. They will use their fuel and only pay for it after it has been used.	There can be 'processing fees' when they pay by cash or cheque. It can be hard to budget because in the winter, the consumer will be spending much more on their energy than they did in the summer. If the consumer is late to pay, there will be a late payment fee.	People who prefer to use a cash or cheque. People who have a stable income. People who can manage and accommodate bill amounts that change a lot.
Direct Debit	The consumer may receive a discount with this payment method. If they are on a standard variable tariff, they will be paying for the exact amount of energy consumption (if somebody comes to take an accurate reading.)	If they have a fixed direct debit then they might be underpaying in winter and/ or overpaying in summer. The amount of energy they consume could also exceed the amount they are paying, which can lead to debt. If there are insufficient funds in their bank account then bank charges will be added.	People who have a regular, monthly income. People with a bank account. People who prefer to budget monthly.

Payment Method	Advantages	Disadvantages	Appropriate for
Standing order	It is easier to budget with this type of payment. The consumer has total control over the payment.	The amount of energy they consume could exceed the amount they are paying, which can lead to debt.	People who have a regular, monthly income. People who prefer to budget monthly. People who are on a fixed tariff and are aware of their energy consumption.
Budget Scheme/ Energy Card	A payment is made weekly, fortnightly or monthly with a payment card. They can pay at a PayPoint, Payzone or Post office. No bank account is needed.	There are possible travel costs and inconvenience.	People who do not have a bank account. People who prefer to deal in cash.
Prepayment meter: Key/Card	They can top up the card online. With this meter, the risk of fraud is reduced. They pay for energy consumption and debt together. They are able to see how much fuel is being used.	Risk of running out of money and disconnecting. Easy to lose keys/cards which can lead to disconnection or additional costs. Possible travel costs.	People who prefer to budget this way. People who are repaying a debt.
Third Party Deduction- Fuel Direct	The payment is deducted from their benefits before they are received. Prevents disconnection. Fuel consumption and debt is evenly spread.	There is no flexibility in budgeting. If the benefits end then the fuel payments will end.	People who are in receipt of benefits, and need to pay off debt.

SCENARIOS

You live alone and are on a fixed energy tariff, meaning that you are paying the same amount every single month for your energy. You also have a Smart Meter and check it often to make sure you don't go above your energy consumption. You work full time and get paid monthly. You would like to know which is the best way for you to pay for your energy.

You are in a bit of debt from your previous energy bills. You also receive Universal Credit. You need to be able to pay your energy bill, but also pay off a small amount of debt to your energy provider each month. Which payment method is best for you?

You do not have a secure income or a bank account. You are always changing jobs and not sure when your money will be coming in next. You live very close to the centre of town so could travel if you needed to. Which is the best way to pay for your energy bill?

You are a single parent with a regular income. You have a variable energy tariff, meaning that you pay only for the energy that you consume. You want to know the best way to pay for your energy bill.

UNDERSTANDING YOUR ENERGY BILL

Session 2 - Activity 5

About your tariff

This information will help you compare your current tariff with others available.

What's an exit fee?

Some tariffs have an exit fee which may be charged if you choose to switch supplier before the agreed end date.

How we worked out your energy costs

If you have any questions, get in touch with our Customer Service Team.

Wearethebest.com/custservice

0800 1234 1234

Electricity Meter Number	K75L127DRS
.....	
24 October 2019 - our reading	43238
28 October 2020 - estimated reading	44091
.....	853
853kWh at 18.020p per kWh	£153.71
Standing charge 187 days at 24.523p	£45.87
.....@ 5.00%	£9.98
.....	£209.56

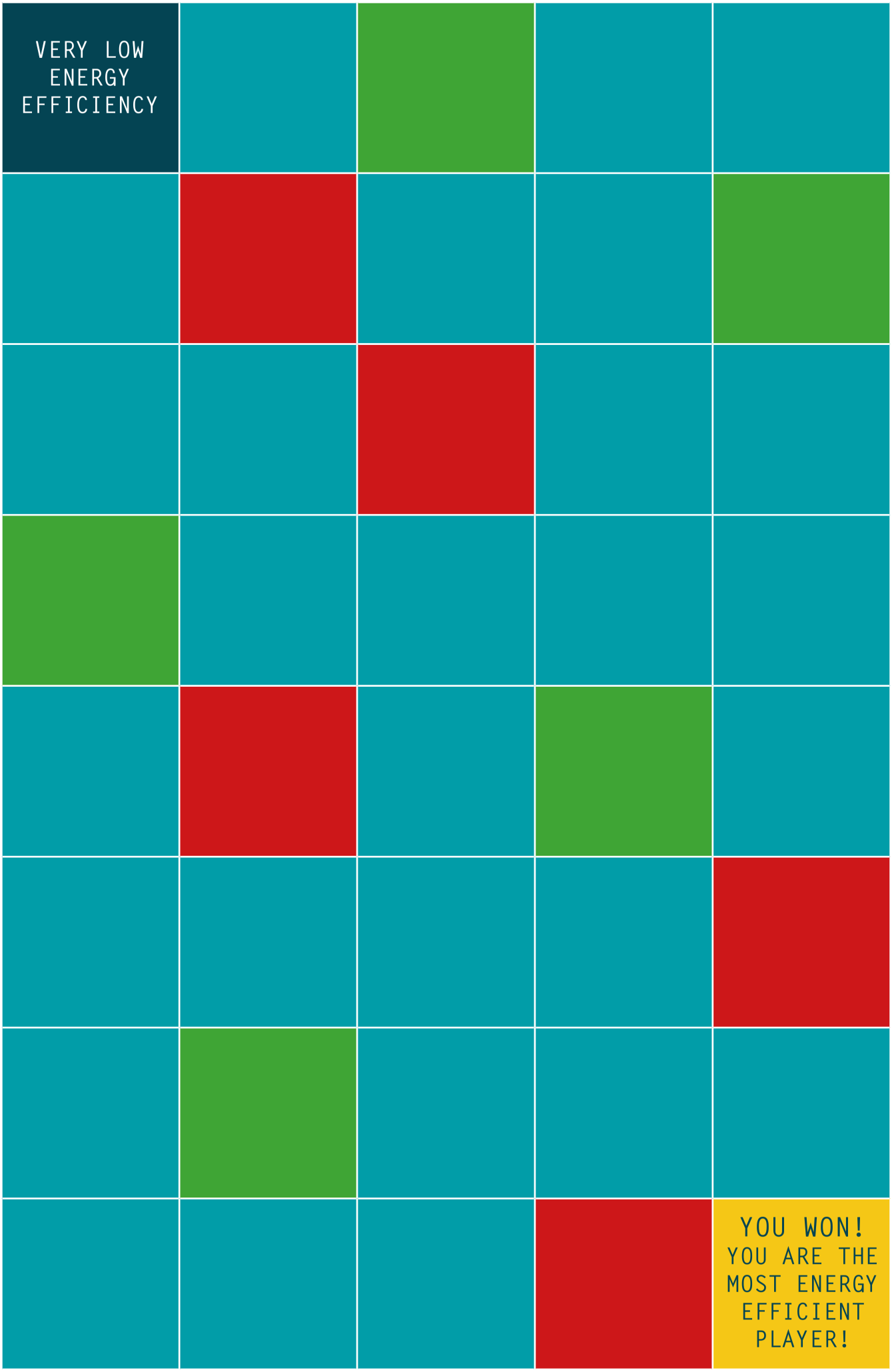
Your Electricity Tariff

.....	Standard Variable
HOW YOU PAY	Monthly Direct Debit
Tariff Ends	No end date
Early Exit Fee	None
.....	1.555 kWh

- Tariff Name
- Total kWh used
- Estimated usage over 12 months
- Total kWh used
- Total electricity cost
- How you pay
- Meter Readings
- VAT

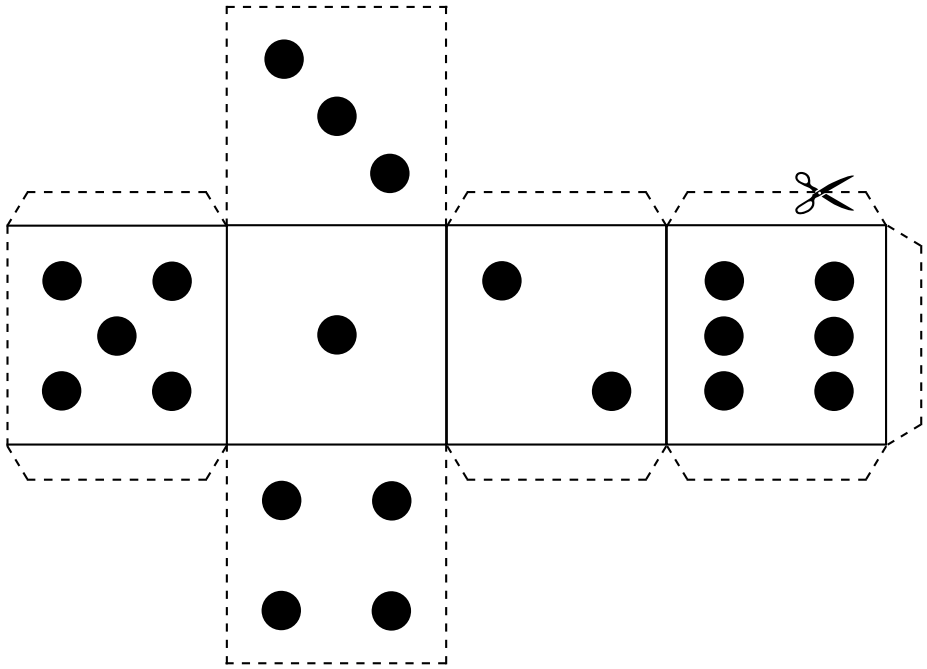
Questions:

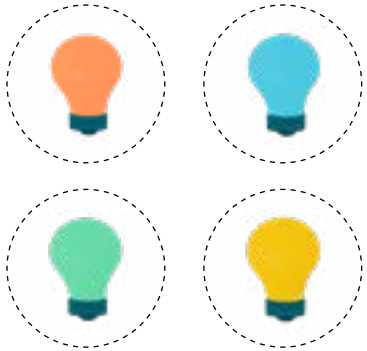
- What is the difference between a Standard variable tariff and a Fixed Rate tariff?
- It was very warm in April and the meter reading seems higher than it should have been. What is the reason for this?
- How much is my standing charge per day?


VERY LOW ENERGY EFFICIENCY
YOU WON!
YOU ARE THE MOST ENERGY EFFICIENT PLAYER!

You cut down the time of your daily shower to 5 minutes! Move forward 1 space.	You did some research and managed to get some loft insulation. Your home is much warmer now and you can turn the heating down! Move forward 2 spaces.
You bought energy saving lightbulbs! Move forward 2 spaces.	You used the ECO setting on your washing machine, move forward 1 space.
You fitted your windows with double glazing! Move forward 1 space. If you can tell the other players, why this will save you energy in the home then move forward 2 extra spaces!	You and another player (of your choice) cooked food together to save on energy spent. Both move forward 1 space!
You installed a smart meter. Move forward 3 spaces.	You and another player (of your choice) started sharing lifts to work. Both move forward 2 spaces.
You have the chance to tell the other players one useful energy saving tip that they can use in the home. If you can do this, move forward 2 spaces!	You rang your energy provider and asked for a proper meter reading after they put an estimated reading on your bill. You saved £15 this month on energy! Move forward 2 spaces.

You didn't check your fuel bill this month and got overcharged. Move back 1 space.	You bought a new fridge and didn't read the energy label. It is not very energy efficient. Go back 3 spaces.
You left the TV on standby all day. Go back 2 spaces.	Another player (of your choice) came to water your plants and left the lights on while you were out. Both move back 2 spaces.
You hung up your clothes to dry inside the house and caused condensation and mould! Move back 3 spaces. If you can tell the other players why this causes mould, move back just 1 space.	You had to put the dishwasher on twice today as you didn't fill it the first time. What a waste! Move back 2 spaces.
There was a draught in your kitchen coming from the back door, so you turned up the radiators. Go back 3 spaces. If you can name an alternative energy saving solution for this draught, move back just 1 space.	Another player (of your choice) covered up the air vents in your bedroom, and now the heating system has stopped working efficiently. Both move back 2 spaces.
You spent 5 minutes loitering with the fridge door open, instead of just quickly grabbing what you needed! Move back 1 space.	You cooked a meal in the oven when it could have been done in the microwave. Move back 2 spaces.





HOW TO MAKE THE DICE:

1. Cut out the outline of the dice shape.
2. Fold over the smaller tab and fold the dice into a cube shape.
3. Glue the smaller tabs to secure the dice together.

TRUMP MY ENERGY SCORE

Session 4 - Activity 1

UNION JACK GAS	
COST PER KWH	12p
CUSTOMER SERVICE REVIEWS	7
DAILY STANDING CHARGE	30p
ANNUAL COST	£500

FRENCH FUEL	
COST PER KWH	18p
CUSTOMER SERVICE REVIEWS	2
DAILY STANDING CHARGE	27p
ANNUAL COST	£450

NEON	
COST PER KWH	17p
CUSTOMER SERVICE REVIEWS	3
DAILY STANDING CHARGE	23p
ANNUAL COST	£290

WELSH POWER	
COST PER KWH	15p
CUSTOMER SERVICE REVIEWS	8
DAILY STANDING CHARGE	25p
ANNUAL COST	£300

G POWER	
COST PER KWH	10p
CUSTOMER SERVICE REVIEWS	5
DAILY STANDING CHARGE	22p
ANNUAL COST	£310

THISTLE ENERGY	
COST PER KWH	20p
CUSTOMER SERVICE REVIEWS	6
DAILY STANDING CHARGE	35p
ANNUAL COST	£405

TRUMP MY ENERGY SCORE

Session 4 - Activity 1

BEST ENERGY	
COST PER KWH	25p
CUSTOMER SERVICE REVIEWS	9
DAILY STANDING CHARGE	38p
ANNUAL COST	£360

POWERHOUSE	
COST PER KWH	10p
CUSTOMER SERVICE REVIEWS	4
DAILY STANDING CHARGE	20p
ANNUAL COST	£320

RENEWABLE ECO	
COST PER KWH	18p
CUSTOMER SERVICE REVIEWS	4
DAILY STANDING CHARGE	35p
ANNUAL COST	£530

IRE ENERGY	
COST PER KWH	15p
CUSTOMER SERVICE REVIEWS	7
DAILY STANDING CHARGE	36p
ANNUAL COST	£420

CASE STUDIES

Session 5 - Activity 1

What is the highest area of heat loss in this property, if the loft has been insulated?

What measures could be installed to reduce heat loss throughout the home?

his block of flats does not have any insulation measures fitted. What are the highest areas of heat loss for the building?

What measures would you recommend to reduce heat loss?

A student lives in this flat, they say it gets extremely cold even though the gas radiant fire is new and works efficiently.

What are the main areas of heat loss?

They are on a limited budget, what measures would you recommend?

EXTRA RESOURCES

These next pages are filled with some extra resources you can share with participants.

SMART METERS

A smart meter is the next generation of a gas and electricity meter. They are being installed by energy suppliers in England, Scotland, and Wales.

Both the smart meter and in-home display will be installed by the energy supplier at no upfront cost to the consumer.

HAT DIFFERENT COMPONENTS ARE THERE IN THE SMART METER SYSTEM?

When the energy supplier fits the smart meter, it will consist of the following:

1. The smart gas and electricity meters - these replace the traditional meters. Depending on the supplier, the gas and electricity meters may be replaced at different times.
2. A portable display – May need a power source
3. The communications hub which receives information from the smart meters and communicates with the in-home display and the energy supplier.

On an in-home display, the consumer can read:

1. How much energy they are using in near real – time?
2. How much energy was used in the last hour, week and month, and what it cost?
3. Whether the electricity is low, medium or high?

A smart prepayment meter in-home display will also show:

- How much credit is left?
- How much emergency credit is available?
- The debt balance if you have one?
- If credit is getting low?

HOW WILL A SMART METER SAVE YOU MONEY?

Smart meters make it easier for you to identify the situations where you are using lots of energy and might want to make changes to reduce it.

If you can use the information shown on their in-home display to help reduce energy use, you should be able to cut your energy costs.

Smart meters also mean more accurate bills, so you should only be paying for what you use, rather than overpaying as you sometimes might do with estimated fuel statements.

How to

READ A METER

INFORMATION USUALLY FOUND ON A PREPAYMENT METER:

1. Standing charge **(pence per day)**
2. Charge or tariff per unit of fuel **(pence)**
3. The amount of credit on the meter **(£/p)**
4. The amount of credit on the card/key being inserted **(£)**
5. The last payment amount **(£)**
6. Total gas or electricity debt outstanding **(£/p)**
7. The most recent amount automatically deducted for debt **(£/p)**
8. The amount of credit allowed when you use emergency credit (if you haven used up normal credit) **(£)**
9. The amount of emergency credit left **(£/p)**

ELECTRICITY METERS

Single rate digital meter

A digital meter has an electronic or digital display. It will show 5 numbers in black or white and might be followed by 1 or more red numbers.

To read the meter:

- Write down the first 5 numbers shown from left to right
- Ignore any other numbers

This meter reading is 75085. The **red number** should be ignored.

How to

READ A METER

A Two-rate digital meter

If you get cheaper electricity at certain times, you might have a two rate (or 'dual-rate') meter. This means it will have 2 rows of numbers.

The top row (labelled 'low' or 'night') shows how many units of cheaper electricity you have used.

The bottom row (labelled 'normal' or 'day') shows how many units of standard-price electricity you have used.
To read the meter:

- Read both the top and bottom rows.
- Write down the numbers shown left to right.
- **Ignore any numbers shown in red.**

his meter has 2 readings - 25404 and 54250. You will need to give both readings to your supplier.

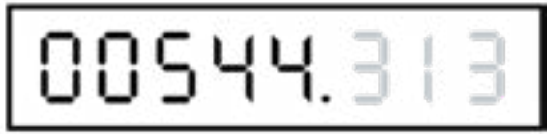
GAS METERS

Digital Metric Meter

A digital metric meter will have an electronic or digital display, showing 5 numbers then a decimal point, followed by some more numbers.

To read the meter:

- Write down the first 5 numbers shown from left to right
- Ignore the numbers after the decimal point, sometimes **shown in red**



This meter reading is 00544.

Digital imperial meter

A digital imperial meter has an electronic or digital display, showing 4 black or white numbers, followed by 2 numbers shown in red.

To read the meter:

- Write down the first 4 numbers from left to right
- Ignore the rest of the numbers, **shown in red**

This meter reading is 1860.

How to

READ A METER

How to read a dial meter

1. Establish the direction of the pointer- clockwise or anti-clockwise.

2. Write down the number the pointer has passed.

3. Pointer directly over a number? Underline it, then check the next dial to the right.

4. If the pointer on the dial to the right has not passed zero, then take 1 away from the number underlined. If the pointer has passed zero, leave the underlined number as it is.

This meter reading is **<u>1</u> 5 6 <u>4</u> 9**

Dial 1 - The pointer is travelling in a clockwise direction and is directly on the number 1. Check dial two. The pointer on dial two has passed 0 therefore the correct reading for dial 1 is 1.

Dial 2 - The pointer is travelling clockwise and has passed 5. The reading is 5.

Dial 3 - The pointer is travelling clockwise and has passed 6. The reading is 6.

Dial 4 - The pointer is travelling clockwise and is directly on the number 5. Check dial five. The pointer on dial five has not passed 0, therefore the correct reading for dial four is 4.

Dial 5 - The pointer is travelling clockwise and has passed 9. The reading is 9.

How to

SET A MECHANICAL PROGRAMMER

TIME

Set clock to current time

ON

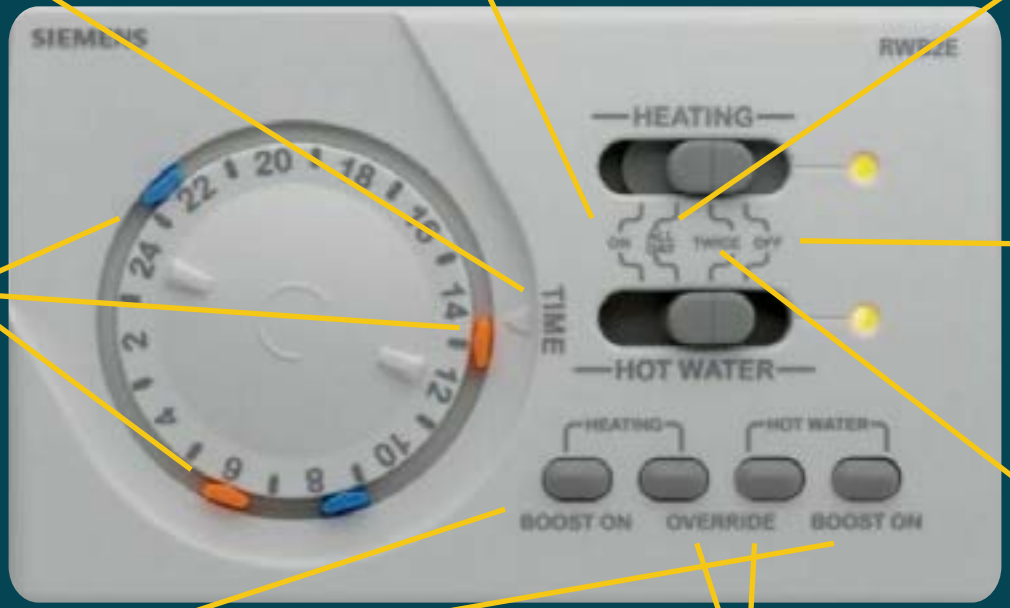
Heating/hot water is on constantly

ALL DAY

Heating/hot water goes on from the first tappet set until the last tappet set, with no breaks in between.

TAPPETS NUMBERED 1-4

You use these to set the times of day, and the order that you want the temperatures to happen.



OFF

Heating/hot water is off constantly

TWICE

Heating/hot water operates for the 2 pre-set periods.

On at tappet 1
Off at tappet 2
On at tappet 3
Off at tappet 4

BOOST

A one hour boost of heating/hot water.

OVERRIDE

Takes over from the times you have set.

The system comes on if switched off, and off if switched on (until the next pre-set time)

24 HOUR CLOCK

How to

SET A MECHANICAL PROGRAMMER

1. Set the 24-hour clock to the current time, placing it onto the **TIME** arrow

2. Place the tappet number 1 onto the time you would like it to start operating. Consider the warming up times of your heating system, this can vary. E.g. if you want your heating to come on at 8am, you may need to set the first tappet at 7.30am to give it time to warm up.

3. Place the tappet number 2 onto the time you would like it to stop operating. Take into account the cooling down times.

4. Do the same for tappets number 3 and 4.

5. You can then choose whether you want your hot water/ heating or both on at these times.

6. If you want hot water/heating on at the pre-set times then you set it to **TWICE**.

7. If you want hot water/heating on just from the first setting to the last setting, with no breaks in between e.g. if it's a Saturday and your daily plan changes, then you set it to **ALL DAY**.

8. If you want hot water/heating on constantly, then you set it to **ON**.

9. If you want hot water/heating off constantly, e.g. if you are away, then you set it to **OFF**.

10. If you need a one hour boost of heating/hot water, e.g. you come home an hour early, then you click **BOOST**.

11. If you want to do the opposite to what you have set e.g. you come home and the heating is on but you have to go out again, then you click **OVERRIDE**.

ENERGY SAVING TIPS

IN GENERAL:

- Turn thermostat down by **1 degree**.
- Turn off lights - be conscious of how many lights are on in your home.
- Fill the dishwasher up before using it or use the half load option
- Turn down the washing machine temperature (**ECO button**).
- Turn off the boiler in the summer or if no one is in.
- Look out for the best deals on energy tariffs and switch supplier if you need to.
- Install a smart meter.
- Use a programmable thermostat.
- Unplug electronics when out of use or put a timer on them.
- Air dry your laundry outdoors if possible – let the wind do the hard work.
- Install energy saving lightbulbs – LED are even better.
- Install dimmer switches.
- Use energy efficient electrical appliances – **A+++ saves more than A+ rating**
- Run a cold wash in the washing machine – **30 degrees or lower**.
- Educate others in your household about how to save energy and what options are available.

WHEN COOKING:

- Boil water in a kettle, then transfer to a pan, rather than boil water on the stove.
- Only use water as and when you need.
- Cover pots and pans with lids, the food heats faster while the process uses less energy. – **Did you know this can reduce condensation in the house?**
- Close doors to other rooms when using the hob!
- Microwaves heat food far more efficiently than electric and gas hobs. – **it can take up to 4 times less!**
- Turn off the heat a couple of minutes before your meal is fully cooked. Electric hobs take time to cool down and your food will continue to cook in the pan.
- Keep the oven door closed and look through the glass door to check if your food is ready. **Energy and heat escape every time you open the oven door.**
- Prepare food in larger batches to save energy – **Store in the Freezer for even longer.**
- Slow cookers are incredibly energy efficient and help to conserve water
- Pressure cookers have a sealed lid that traps steam and locks it into the pan, cooking your food more quickly and efficiently.

ENERGY SAVING TIPS

WHEN BUYING A FRIDGE/FREEZER:

If your fridge or freezer is more than 10 years - old, it is worth thinking about replacing it. Under EU legislation, new fridges and freezers must have energy efficiency ratings of between A+ and A+++, but if you bought yours before July 2012 it could be anything from between G and A, **with much higher running costs.**

Every fridge or freezer you look at will have an EU energy label, rating it from A+ (the least efficient but still pretty good) up to A+++ for the most energy-efficient models. The label will show the appliance's volume in litres, frozen storage volume in litres and noise level in decibels.

Retailers can still sell off old models, so you might occasionally still see a fridge or freezer rated A or B, but it will have been around since before July 2012, so it's probably best not to buy it.

Larger models will use more energy than small ones even if they have got a better rating. So if you only need a smallish energy-efficient fridge or freezer, it's probably still better to buy an A+ rated small model than an A+++ one that will be half empty most of the time.

Which is more energy efficient, a fridge-freezer with one on top of the other, or two side-by-side units?

A fridge in a side-by-side configuration could use up to 20% more energy, so if you can fit an up-and-down unit in your kitchen, this will be a more energy-efficient choice.

Did you know that place your fridge away from your cooker and make sure it isn't in direct sunlight - it will operate more efficiently if it's in a cool spot?

CARBON MONOXIDE

Carbon Monoxide (CO) is produced when a carbon - containing fuel- such as gas, oil, coal, petrol, or wood- does not burn fully because not enough air is available. This can happen when appliances such as room and water heaters, fires and cookers have been wrongly installed or poorly maintained, or when a chimney, flue, or air vent into the room has been fully or partially blocked. Poor ventilation adds to the problem by allowing CO concentrations to build up.

SYMPTOMS AND DANGER SIGNS

CO cannot be seen, smelt, or tasted.

The six main symptoms of CO poisoning are:

1. Headaches
2. Dizziness
3. Nausea
4. Breathlessness
5. Collapse
6. Loss of consciousness

The early symptoms are often confused with a cold or the flu.

- Other signs to look out for are:
- The symptoms only occur at home.
- They disappear or get better when the person leaves home but come back when they return.
- They are worse when the heating is turned up in the winter.
- Other people (or pets) in the house are feeling them too.

There are other danger signs to look out for:

- Lazy yellow/orange gas flame rather than a blue flame. (This does not apply to fuel-effect or decorative flame gas fires, as they are designed to look like flames so are meant to appear orange or yellow).
- Soot or yellow/brown stains around an appliance.
- Excessive condensation in a room with an appliance.
- Pilot lights that regularly go out.

DETECTION AND PREVENTION

1. Fit an audible CO alarm that shows a British Standards Kitemark or LPCB (Loss Prevention Certification Board) logo. It is important to remember that fitting and audible CO alarm is not an alternative to having appliances, flues and chimneys serviced and tested.

2. Have all appliances, flues, and chimneys correctly installed and serviced by trained, reputable, registered, and competent engineers. Appliances should be maintained and serviced regularly (for example an annual service). Engineers for gas appliances should be registered with Gas Safe Register. In the rented sector, landlords should provide tenants with proof that a registered engineer has serviced the gas appliances within the last 12 months.

3. Keep rooms well ventilated while using an appliance.

NEST SCHEME

The Nest is the Welsh Government's fuel poverty scheme. It aims to help reduce the number of households in fuel poverty and make homes warmer and more fuel-efficient places to live.

Anyone who is worried about the cost of heating their home, can call 0808 808 2244 free from a landline or a mobile phone.

ADVISORS CAN GIVE ADVICE ON:

- Saving energy
- Money management
- Identifying the best fuel tariff
- Entitlement to any benefits to maximise income
- Householders may also be eligible to receive home improvements at no cost, to help make the home warmer and reduce energy bills.

MEASURES COULD INCLUDE:

- Cavity Wall insulation
- Loft insulation
- External solid wall insulation- on mid-terrace properties only
- Central heating systems
- Boilers- natural gas, oil, and LPG
- Solid multi-fuel heaters
- Electric Storage heaters
- Air source heat pump (if appropriate)

Nest support is available to everyone in Wales. To find out if you live in a qualifying property, you should call 0808 808 2244

A Nest adviser will run through a series of questions to get an idea of how energy efficient your home is.

For more information about **Nest**, visit: www.nest.gov.wales

CARBON MONOXIDE

The Energy Company Obligation (ECO)/Affordable Warmth Obligation runs from October 2018 until March 2022. ECO assists households who are in fuel poverty, and those on lower incomes, who may be struggling to meet the cost of their heating bills.

Under ECO, medium and larger energy suppliers fund the installation of energy efficiency measures in British households. Each obligated supplier has an overall target based on its share of the domestic energy market in Britain.

The obligated energy suppliers work with installers to introduce certain efficiency measures into your home, such as loft or wall insulation, or heating measures.

You can find the list of obligated suppliers here:
www.ofgem.gov.uk

THE WARM HOME DISCOUNT

The WHD scheme has three different elements: The Core Group, Broader Group and Industry Initiatives. BEIS coordinates the Core Group, while OFGEM administers the Broader Group and Industry Initiatives.

CORE GROUP: A £140 rebate for fuel – Low income pensioners

BROADER GROUP: A £140 rebate to fuel – Low income customers

Support under the Broader Group element of the scheme is generally delivered on a first come, first served basis, with customers of participating suppliers applying directly for support. Most obligated suppliers open their applications over the summer and aim to pay out the rebates over the winter.

INDUSTRY INITIATIVES: Indirect help to fuel-poor customers

The Industry Initiative element of the scheme allows suppliers to help fuel- Low income customers through third parties. Depending on the obligated supplier's programme and third-party provider, it can include advice on energy saving, and help with reducing energy debts.

If you think that you might be eligible for support under the scheme, you can find information on how to apply for Warm Home Discount (WHD) at www.gov.uk, or by contacting your energy supplier. This website also lists all participating suppliers.

For more information on schemes that can help you, visit: www.simpleenergyadvice.org.uk

“The Save Your Energy project has provided young people with the tools and knowledge to be able to learn about budgeting, energy efficiency, fuel bills, and other means of support that they can access.

I think this toolkit is a useful and accessible resource for young people who want to learn about the topics surrounding energy awareness in the home.

I have learnt a lot through developing this piece of work, and I really hope that it provides youth workers and young people with the understanding and support that they need.”

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