



# Community energy supply

**Time needed for activity**     30 minutes plus

**Location**     Indoors or outdoors

## Context

This activity examines how an isolated, fictitious community could reach a conclusion on the best energy options to meet the local need.

Natural Resources Wales’ purpose is to pursue the sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales’ well-being, and provide a better future for everyone.

## Curriculum for Wales

### Humanities

- **What matters** - Informed, self-aware citizens engage with the challenges and opportunities that face humanity, and are able to take considered and ethical action.

### Science and Technology

- **What matters** - Design thinking and engineering offer technical and creative ways to meet society’s needs and wants.

### Health and Well-being

- **What matters** - Our decision-making impacts on the quality of our lives and the lives of others.

## Objectives

Learners will be able to:

- describe different types of energy that we use in our daily lives.
- form and be able to voice an opinion or feeling about different types of energy.
- explain the reasoning behind that opinion or feeling.

## Resources and equipment

- [Worksheet - Community energy supply](#)
- [Resource cards - Energy comparison](#)

## What to do

1. Introduce the activity by asking your learners about what energy sources and appliances they use in their daily lives and around their homes. Ask them to consider the amount of energy required for everyone in their community to go about their day to day home and work life.
2. Ask your learners to decide on the population size of the fictitious community, e.g. the size of the group. How many adults, children or older people? What lifestyles, jobs and interests will the people that make up the community have?

For instance:

- the Williams family - who love takeaways and gaming
- the Smiths family - who are fitness fanatics
- the Hughes family - who are nature lovers
- the Evans family - who are retired historians



3. Give your learners the scenario that an imaginary community is being forced to relocate due to climate change impacts, e.g. coastal erosion, flooding, etc. They are moving to an island that currently has no energy supply. Choose a pair of learners to act as energy salespeople for each of the energy types represented in the [Resource cards – Energy comparison](#), giving each pair their card to read. The remaining learners will represent the community.
4. Give the energy salespeople time to work on a pitch to sell their type of energy to the community. They can do additional research online to help them build a persuasive case. Use the [Worksheet – Community energy supply](#) to capture the main points.
5. Meanwhile, the community representatives think about how much energy they might need to power their lifestyles and think of questions that they might want to ask the salespeople.
6. Stage a community meeting where the salespeople can try to persuade the community to buy into their product, and the community members can seek more information and ask questions. At the end of the meeting, ask the community members to vote for what they believe is the most appropriate type of energy for their new community. Use the [Worksheet – Community energy supply](#) to explain your vote.
7. Discuss with your group. Is there a clear winner? Would the salespeople have voted for the energy type that they represented if they lived in this community or would they have chosen a different type? Why did your learners chose what they did? What was important to them about it? How did their lifestyle needs affect their decision?
8. Following the meeting, divide your learners into smaller groups according to their energy choices. Task each group with drawing what the community and surrounding area might look like, or create a 3D model using natural materials. Include natural spaces in and around the community.
9. Using their drawing or model, where would they locate the chosen energy source? Why is that the best location?
10. Ask each group to present their fictitious community and explain their decisions to the other groups. Will there be any impact on the surrounding natural environment from the location or the type of energy chosen? Is the group still happy with their energy choice?
11. Compare and discuss differences and similarities in the groups' decisions.

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### Suggested key questions

- What types of energy are available to communities?
- What type of energy is the most sustainable?
- What type of energy could be the most cost effective?
- What type of energy production would they be happiest to have located in their own community?
- Where is the best location to build a power supply to provide energy for a community?

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### Adapting for different needs or abilities

#### More support

- Reduce the amount of energy types.
- Complete the activity as a whole group.

#### More challenge

- Complete the [Activity plan - Carbon footprint](#) at step one, adding the collective footprints together to help approximate the community energy needs.
- Learners can research other energy sources and add to the resource cards.



## Follow up activity/extension

Try out our:

- [Activity plan – Energy savers](#)
- [Activity plan – Not in my back yard](#)
- Go on a site visit to a local renewable energy production site.

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## Additional Information

Find out more about Natural Resources Wales' work to address climate change at [www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk)

**Natural Resources Wales/Climate change**

## Looking for more learning resources, information and data?

Please contact: [education@naturalresourceswales.gov.uk](mailto:education@naturalresourceswales.gov.uk) or go to <https://naturalresources.wales/learning>

Alternative format; large print or another language, please contact: [enquiries@naturalresourceswales.gov.uk](mailto:enquiries@naturalresourceswales.gov.uk) 0300 065 3000

