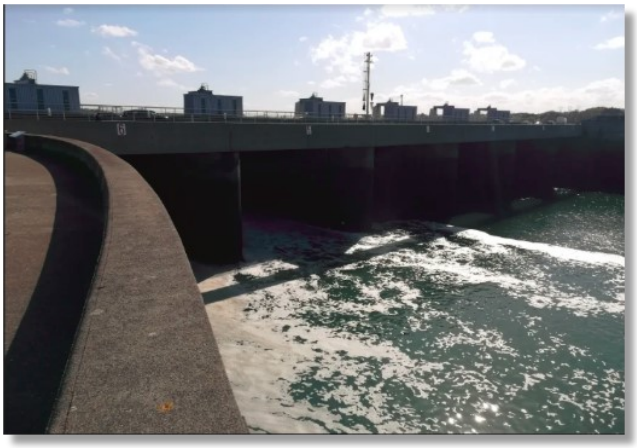
Solar	
	
Economic cost	£5000 for 20m^2 which would create enough energy for 3KW. Approximately, 1kw is needed to supply electricity for 3 light bulbs for 10 hours.
Ideal weather	A clear, bright day. However, wind and rain can help to clean the panels.
Ideal location	Direct access to sunlight and not placed in a shaded location
Longevity	Up to 20 years
Materials used	Silicon
Approximate size	Residential: 1.65m by 1m per panel Commercial: 1.95m by 1m per panel
Amount of UK power currently supplied by this energy	0.1%
Disadvantages	They cannot store energy.
Advantages	Limited manpower and low impact on the environment.

Wind	
	
Economic cost	Approximately, £1.4 million is needed to install a turbine which will supply 800kw. A smaller turbine can be built for approximately £7000 and supply 1.5kw.
Ideal weather	30mph
Ideal location	Unpopulated, windy location
Longevity	20 years
Materials used	Plastics
Approximate size	23-100m
Amount of UK power currently supplied by this energy	About 1%
Disadvantages	Noise pollution from the turbines would irritate humans in residential areas. The turbines should not be located near a location with a large population of birds as they might unknowingly fly into them.
Advantages	Compressed air storage is used to store excess electricity.

Hydroelectric	
	
Economic cost	Approximately, £170,000 is needed to build this energy source for a maximum power output of 25kw.
Ideal weather	An area with a lot of precipitation.
Ideal location	Upper course of a river, in the mountains as large drops in elevation allow more water to flow through the turbine at speed thus creating more energy.
Longevity	75 years
Materials used	Turbines contain metal coils surrounded by magnets and are located in a dam.
Approximate size	Varies
Amount of UK power currently supplied by this energy	0.8%
Disadvantages	The ecosystem are damaged (up and down stream) when creating a new reservoir however new ones are formed. Can be seen as an eye sore.
Advantages	Compressed air storage is used to store excess electricity.

Tidal	
	
Economic cost	Approximately, 8000 megawatt could be produced if the Severn Estuary barrage was built at an estimated cost of £10 billion.
Ideal weather	Irrelevant
Ideal location	A location with a high tidal range (7m for economical operation) or flow. It will generate power at high and low tide.
Longevity	85 years
Materials used	
Approximate size	Varies
Amount of UK power currently supplied by this energy	< 0.5%
Disadvantages	The turbines may accidently kill marine life. Would involve building a barrage across an estuary. There are not many in operation in the world.
Advantages	The predictable nature of tides make them highly reliable and is predicted that this energy could supply power to 15 million homes. It thought to be the most efficient renewable energy source.

Geothermal	
	
Economic cost	Approximately, the initial cost would be £1800 per kw.
Ideal weather	Irrelevant
Ideal location	An area with a lot of heat in the ground, such as a volcanic landscape.
Longevity	15 years (heat pump)
Materials used	The internal heat that is contained in rocks and fluids beneath the crust.
Approximate size	50—200 m deep
Amount of UK power currently supplied by this energy	0.1%
Disadvantages	Greenhouse gases beneath the crust can travel to the surface. The construction of geothermal plants can affect the stability of the local environment.
Advantages	Cost effective, sustainable and reliable source of energy.

Biomass	
	
Economic cost	£3000 per 1kw
Ideal weather	Temperate (to allow maximum crop production)
Ideal location	Within easy distance of agricultural resource.
Longevity	n/a
Materials used	Organic material and animal waste.
Approximate size	n/a
Amount of UK power currently supplied by this energy	1.6%
Disadvantages	If plants are not replanted it is a non-renewable energy source. The farming for biomass may result in large scale deforestation and the organic material may be transported over long distances.
Advantages	The resources (e.g. trees and crops) are available and can be replaced in a human life span. It supports farmers as they can sell their crops for biomass and waste can be turned into electricity.