Greenwashing Vs. Renewable energy generation: which energy companies are making a real difference?

Tackling the climate crisis requires that we reduce the UK's carbon footprint.

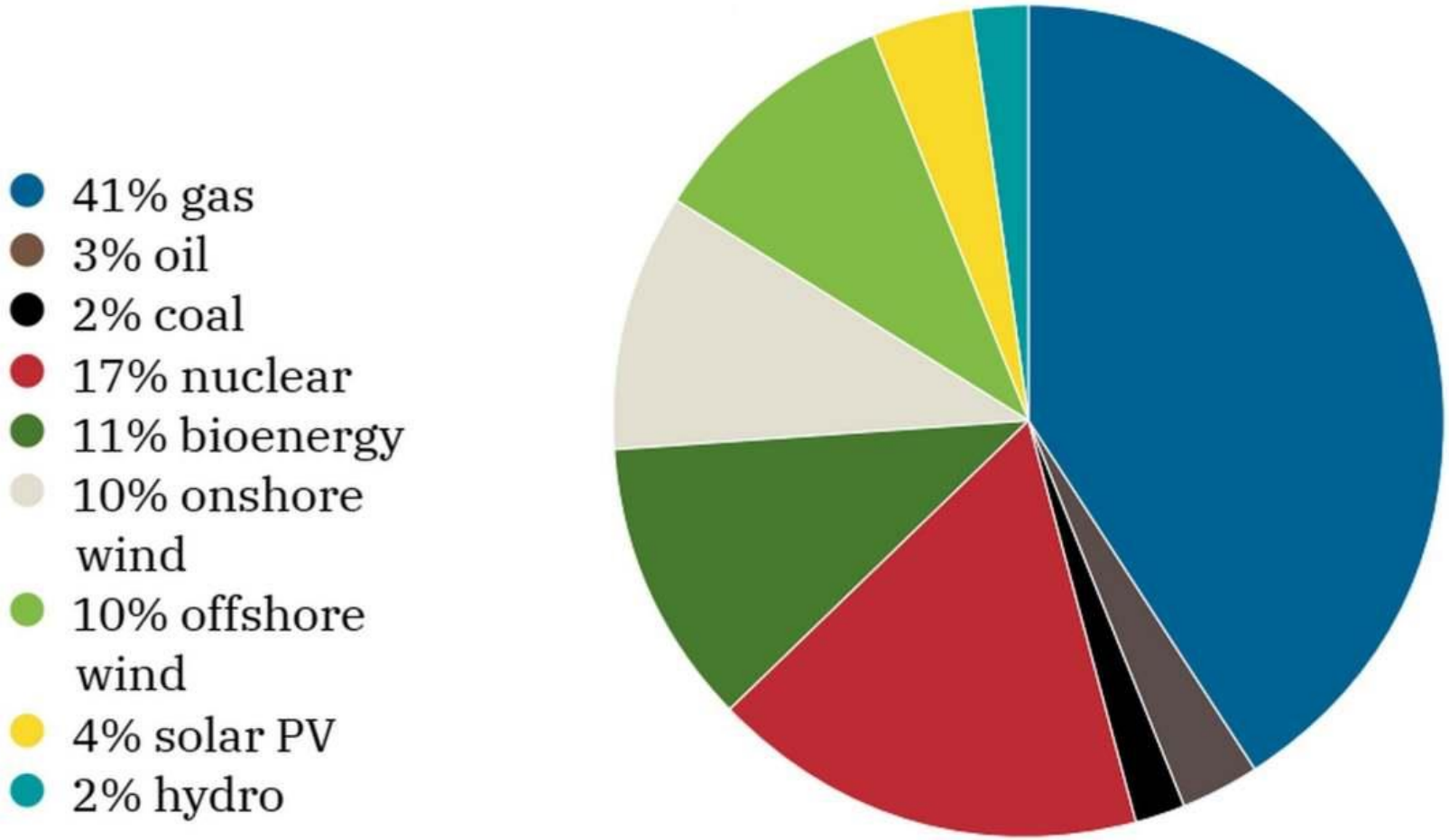
As individuals an important way we can do this is to **reduce our energy use**. This reduces our carbon footprints.

We can also make sure:

- **All** the electricity we use is generated renewably **in the UK.**
- The energy company we give our money to **only** deals in renewable electricity.
- That the company we are with **actively** supports the development of **new additional renewable generation** in the UK.

37% of UK electricity now comes from renewable energy, with onshore and offshore wind generation rising by 7% and 20% respectively since 2018.

However, we don’t just need to decarbonise 100% of our electricity. If we use electricity for heating and transport, we will need to generate much more electricity – and the less we use, the less we will need to generate.



REGOs/GoOs – used to greenwash.

This is how it works:

- If an energy generator (say a wind or solar farm) generates one megawatt hour of electricity they get a REGO (Renewable Energy Guarantee of Origin).
- REGOs are mostly sold separately to the actual energy generated and are extremely cheap – about £1.50 for a typical household's annual energy use.
- This means an energy company can buy a megawatt of non-renewable energy, buy a REGO for one megawatt of renewable energy (which was actually bought by some other company), and then claim their supply is renewable **even though they have not supported renewable generation in any way.**

Greenwashing: when a supplier claims that it supplies renewable electricity, even though it neither buys nor generates it.

Just because you buy a “green” tariff doesn’t mean your supplier is buying renewable electricity or supporting new renewable generation.

There are 3 warning signs that your company might be greenwashing itself:

- It says its electricity is certified by REGOs
- It does not say all its electricity is purchased through PPAs
- It talks about carbon offsetting its electricity

Questionable companies:

OVO & SSE Energy
Octopus & Coop Energy
Bulb
British Gas & Fosse Energy
E.ON
Together Energy
Peoples Energy
Pure
Scottish Power

Companies to avoid:

- **EDF**
- **Shell Energy**
- **Npower**
- **PFP**
- **Utilita**
- **Utility Warehouse**

An example of REGO greenwashing

Reality:

- None of the energy they buy is through Power Purchase Agreements.
- They are deeply involved in fracking and tar sands.
- They are drilling in the Arctic.
- They are responsible for appalling human rights abuses and environmental degradation in Nigeria and elsewhere.
- 90% of their capital is in fossil fuels.
- They are actively lobbying against climate legislation across the world.

Claims:

“All of our electricity comes from 100% renewable sources like wind, solar and biomass.

“Our renewable electricity is certified by Renewable Energy Guarantees of Origin(REGOs), which means that all of the electricity you buy from us is matched with the equivalent amount of units from 100% renewable sources in the UK.

“And as the demand for REGOs grows, this creates more opportunities for renewable generators in the UK.”

Who is genuinely green?

- **Good Energy**
- **Green Energy UK**
- **Ecotricity**
- **Ripple (if you invest enough)**

How can you tell if your company is genuinely supporting renewable electricity?

It should be:

- EITHER: Getting **all** the electricity it supplies from renewable generation capacity which it owns itself
- AND/OR: buying **all** the electricity it supplies from other renewable energy generators in the UK using direct power purchase agreements (PPAs)

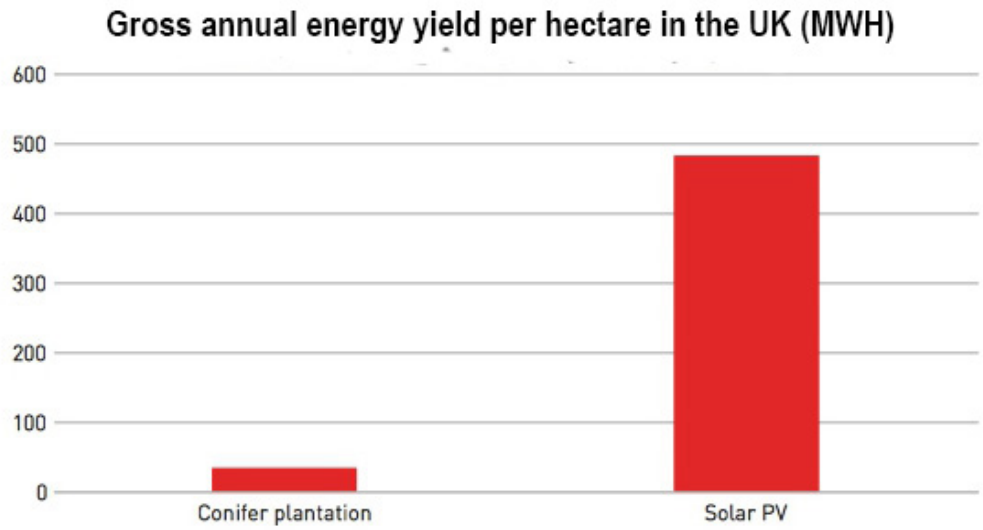
Ask them: “How much of the energy you supply do you buy through direct power purchase agreements with renewable generators in the UK, or generate through in-house owned UK-based renewable generation?”

Green gas / Biogas / Biomethane

Biogas can be made in an anaerobic digester from organic matter. It can then be burnt as fuel or upgraded to pure methane to be put in the main gas supply.

Possible feed stocks:

- wood, maize, grass,
- leftover food, agricultural waste
- animal manure, human sewage



Specially grown biomass for energy can be deeply problematic:

In 2019, Drax Power Station burned pellets made from at least 14.1 million tonnes of wood…the equivalent of 127% of the UK's total wood production. This only provided 0.81% of the UK's energy demand that year.

Drax's single biggest external pellet supplier is the USA's Enviva. Enviva regularly sources from clearcut coastal hardwood forests as well as contributing to environmental injustice by siting its pellet facilities in places already exposed to high levels of industrial pollution and social deprivation.

Where the feed stock for a biofuel comes from raises many issues including land use, transport, exploitation, deforestation, animal welfare and carbon footprint.

Methane leakage

- Methane is a powerful greenhouse gas (33 times stronger than CO2), so leaking methane from bio-digesters and upgraders has the potential to counteract the carbon footprint savings of using green gas.
- A 1.5% methane leakage rate from biogas production and upgrading would make any claims of greenhouse gas savings highly questionable.
- Methane leakage from the biodigesters and upgraders is in the range of 0.1% - 6% of the methane produced.
- There are currently no requirements to monitor methane emissions from biogas digesters or upgraders in the UK.

Things to think about for “green” gas:

- What feedstock is used to make the gas?
- Is methane leakage being monitored and controlled?
- How much of the gas supplied is green rather than carbon offset?
- If the company offsets gas, is the offsetting positive for the local people, for the climate, and would it be happening anyway?

Who do we think are the UK companies genuinely working at being green?

- Green Energy UK
- Good Energy
- Ecotricity
- Ripple (if you invest enough to cover all your electricity)

It’s nice to know if we are being effective!

If you switch your energy supplier, or support someone else to,
as a result of this event or the work we did around it,
please do tell us by emailing:
leicesterclimateaction@gmail.com

CALL
CLIMATE ACTION LEICESTER AND LEICESTERSHIRE

Trading green energy – a paper exercise or actual support for new renewable generation?

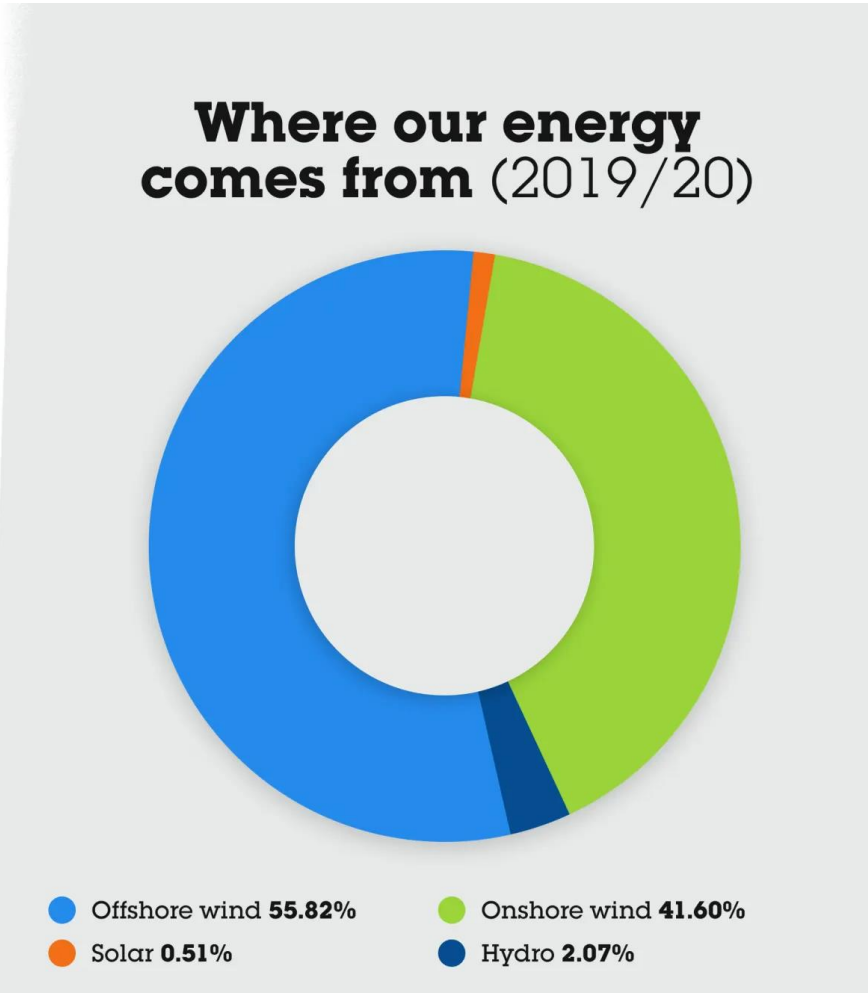
The UK is currently generating 37% of it's electricity renewably.
When you turn on the plug in your home what you get powering your lights etc is 37% renewable and has a carbon footprint of 0.26kg CO2 per kWh.

When you turn on your plug some renewable electricity will be taken (on paper) from the 37% and transferred to you:

- If your company buys electricity generated in both renewable and non-renewable ways, they will allocate some of their green energy to you and therefore allocate a higher proportion of dirty energy to their customers on some other tariff.
- If your company only buys renewable electricity, it will buy more green energy on the national energy market to supply you – in which case that energy cannot be bought by another company, and so again there is a paper transfer exercise.

Ecotricity

- 100% renewable: 20% directly owned generation, the rest through PPAs.
- Gas: 4% biogas (not from animal products); 96% carbon offsetting.
- 56% offshore wind; 41% onshore wind; 0.5% solar; 2.5% hydro.
- Profits reinvested in building new green energy production.
- Lobby on growth of green energy and the climate emergency.
- Donations to the Labour Party.
- Also Ecotalk (mobile phone network), electric highway charging network and fast electric car design, Forest Green Rovers FC.
- Economy 7, offer Warm Home discount.
- You can buy either electricity, gas or both.
- £124 per month.



Ecotricity Gas

4% biogas, not made from animal products. 96% carbon offset with:

- A biomass power plant in India, Maharashtra, using plant based agricultural waste.
- A biomass power plant in Chile
- A hydropower project in Bhutan

But they are launching green gas from UK grass: “We estimate that if we grow grass on all the marginal land in Britain, we’ll be able to make enough green gas to supply the entire country.” “The intention is to produce biogas from grass in the UK and stop having to offset.”

Biofuelwatch says: “Grassland accounts for 72% of agricultural land in the UK, and the 10.2 million hectares needed to realise Ecotricity’s vision would require 92% of it.”

Issues raised:

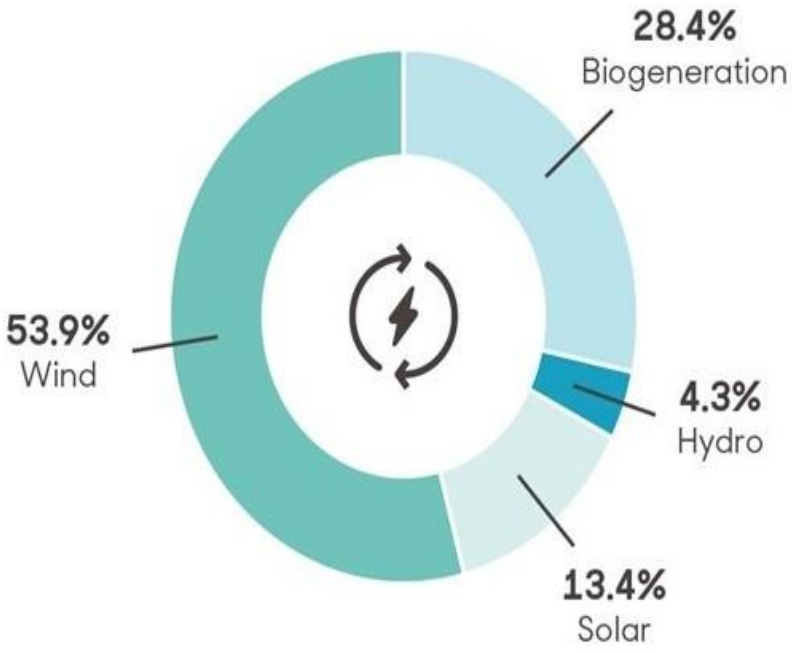
- Methane leaks
- Energy crops
- Biodiversity

Green Energy UK

- 100% renewable energy from PPAs. Using solar, wind, hydro, biomass. No breakdown available.
- 100% green gas - only UK company to do this. Biomethane from food, farm and landfill waste.
- They have an externally certified EKO tariff with additional sustainability criteria (for both gas and electricity). Includes: habitat protection and support for renewables in the global south but allows wood for biomass.
- Time of day tariffs: TIDE tariff splits the weekday into 4 parts 1600-2000 has high rates, other periods modest rates, and night very low rates. Weekends split into night and day with very low and modest rates. Also Economy 7 and offer Warm Home discount.
- Only sell electricity with gas, or electricity alone, not just gas.
- £118.40 (EKO energy) £114.22 (Sparkling)

Good Energy

- 100% renewable energy from PPAs and directly owned generation.
- Gas: 10% biogas from farm and food waste, 90% carbon offsetting.
- All energy generated in the UK 53.9% wind, 28.4% bio-generation, 13.4% solar, 4.3% hydro.
- Ecotricity owns 25% of Good Energy.
- Major aim is to support micro-generation and they do research and trials to support this.
- They lobby on a range of issues including greenwashing, regulation of REGOs & climate policy.
- Living wage and policy around gender equity.
- Time of day tariffs: Economy 7 & Economy 10.
- Green Heat tariff for people with heat pumps and EV4 tariff for people with electric vehicles.
- You can buy either electricity, gas or both.
- £80 per month.



Good Energy Gas.

Issues raised:
- Methane leaks
- Energy crops
- Animal welfare

10% is from UK biogas mainly from farm and food waste.

The rest is carbon offset with biogas projects in India, China and Turkey.

Their bio-generation procurement policy says:

- The Biofuel must be either renewable or from waste.
- Transportation of biofuel must be minimized.
- Biofuel energy conversion needs to be efficient
- Energy crop use must be minimized where reasonably practicable.
- Where waste is derived from animals, their physical and behavioural welfare requirements must be met to a reasonable standard.

Octopus.

- 100% renewable electricity backed by REGOs. Own some renewable generators, misleading claims about REGOs on their site.
- 20% owned by Origin Energy – Australian gas power station and fossil fuel exporter. But also 20% owned by their staff. Also Mitsubishi has shares in them (cars, aviation, palm oil, arms).
- Gas: their Super Green tariff is carbon offset (via tree planting in the Amazon and solar projects in Nepal and Kenya via Renewable World).
- Responsible for about 40% of the UK's large scale solar generation, 50% owner is one of the largest investors in renewables in Europe. Have teamed up with Co-operative community energy, Energy Local and Ripple Energy to set up small scale renewable energy generators in the UK.
- Donations to the Conservative Party.
- Powerloop system change. EVs can charge overnight, and then put back remaining electricity into the grid at peak time.
- Greenest £90.

origin

Ripple

- A new way to invest in renewable energy. Ripple enables you to buy shares in a coop building a windfarm. Octopus buys the electricity from the windfarm and supplies it to you.
- Your electricity is only 100% renewable if you buy enough shares to cover 100% of your energy use.
- You have to buy your energy from Co-op Energy (who are owned by Octopus).
- This means you will get your gas from Coop Energy/Octopus too, there is not the option of getting it elsewhere. They carbon offset their gas in questionable ways.
- Coop Energy/Octopus is owned by Octopus Energy Holdings (who are 20% owned by Origin Energy, large Australian gas company).
- Time of day tariff Economy 7 or Octopus Agile.
- You receive a discount on your energy bill that is equivalent to the shares you have in the windfarm – savings are dependent on the wholesale price of electricity and the windfarms yields, estimated at 25% over 20 years.
- Average 2/3 bedroom terraced house to invest 100% of their annual energy usage is £1945.

Pricing.

The cost quotes are direct from energy company websites.
They are based on:

- a 2 bedroom house
- with 2 occupants
- using 3000 kWh for electricity per year
- and 9000 kWh for gas per year.

Electric Vehicle and Smart Tariffs

Ecotricity	• Smart Grid being launched soon for people with batteries charging at low demand periods and then exporting to the grid when demand is peaking. • Fully Charged tariff for electric vehicles.
Good Energy	• Green Heat tariff for people with heat pumps - offers cost electricity and no standing charge in Winter. • Electric Vehicle tariff - different pricing for day and night.
Green Energy UK	• TIDE tariff offers smart pricing based on the time of day • EKO energy tariff, external certification for extra green criteria
Ripple/Octopus	• Octopus Agile offers smart pricing charging half-hourly. It updates daily based on wholesale costs including paying you to use excess energy from the grid when demand drops below supply. It allows you to choose to use cheap energy when the grid is not bringing gas online to meet demand. • Octopus Go offers cheaper overnight charging for EVs from 12.30-4.30am.

SHOPPING GUIDE

Electricity & gas suppliers

USING THE TABLES

Ethiscore: the higher the score, the better the company. Scored out of 14. Plus up to 1 extra point for Company Ethos and up to 5 extra points for Product Sustainability.

Green (good) = 12+
Amber (average) = 11.5–5
Red (poor) = 4.5–0

● = worst rating
o = middle rating
= best rating/no criticisms found

BRAND	Ethiscore (out of 14 + 6 extras)	Environment					Animals			People					Politics					+ve	
		Environmental Reporting	Climate Change	Pollution & Toxics	Habitats & Resources	Palm Oil	Animal Testing	Factory Farming	Animal Rights	Human Rights	Workers' Rights	Supply Chain Management	Irresponsible Marketing	Arms & Military Supply	Controversial Technologies	Boycott Call	Political Activity	Anti-Social Finance	Tax Conduct	Company Ethos	Product Sustainability
Green Energy UK [A]	14	●																			1
Good Energy [A]	13	●											o				o				1
People's Energy	13	●	●																	★	
Bulb	12.5	●	●																	☆	
Ecotricity [A, Vg]	12.5	●		o										o			●		o		2
Together Energy	12.5	●	●																		0.5
PFP Energy	11.5	●	●												o						
Ripple (investment-based) [A]	11.5	o	●				o						o				o			☆	
Octopus Energy [A]	11	●	●		o					o											
Utilita	11	●	●												o			o			
Utility Warehouse	11	●	●												o			o			
Co-op Energy [A]	8.5	o	●	o		o	o	o	o	o			o	o			o			☆	
E.ON	8.5	o	●							o					●		●	o	●		
Npower	8.5	o	●							o					●		●	o	●		
EDF	8	o	●							●					●		●	o	●		
Scottish Power	7.5	o	●	o	o					●			o		●		●	o			
British Gas	7	o	●		●					o	o				●		●	o	●		
Ovo Energy	7	o	●		o	o		o	o	o		o			o		●	o	o		
SSE	7	o	●		o	o		o	o	o		o			o		●	o	o		
Shell Energy	2	o	●	●	●		●			●	●	●	o	o	o		●	●	●		

USING THE TABLES

Positive ratings (+ve):

Company Ethos:
★ = full mark
☆ = half mark

Product Sustainability:
Various positive marks available depending on sector.

Best Buys are highlighted in blue

COMPANY GROUP
Green Energy (UK) Plc
Good Energy/Green Britain Group
People's Energy CIC
Simple Energy Limited
Green Britain Group
Together Energy Limited
Sands Investments Limited
Octopus/Midcounties/Ripple
Octopus Group
Utilita Group Limited
Telecom plus plc
Octopus/Midcounties Co-op
E.ON S.E
E.ON S.E.
Electricité de France SA
Iberdrola S.A.
Centrica Plc
OVO Group Ltd
OVO Group Ltd
Royal Dutch Shell plc

All the research behind these ratings is available for subscribers to see on the score tables on **www.ethicalconsumer.org**
Definitions of all the categories are at www.ethicalconsumer.org/our-ethical-ratings
[A] = tariff has some additionality [Vg] = electricity & gas certified as vegan

ENERGY FUEL MIX AND STEPS TAKEN TO BUILD RENEWABLE CAPACITY

Brand	Coal	Gas	Nuclear	Renewable	Other	Contribution to renewable capacity building in the UK
Ecotricity	-	-	-	100%	-	20% generated through owned renewables. Remainder purchased via PPAs.
Green Energy UK	-	-	-	100%	-	All electricity purchased through PPAs.
Good Energy	-	-	-	100%	-	All electricity purchased through PPAs.
Bulb	-	-	-	100%	-	Some electricity purchased through PPAs (proportion unknown).
Co-op Energy	-	-	-	100%	-	Supplied by Octopus Energy.
Octopus Energy	-	-	-	100%	-	Octopus is an investor in renewables and it does own a small amount of its own. However, it is 20% owned by Origin Energy the largest owner of natural gas-fired power stations in Australia.
OVO Energy	-	-	-	100%	-	20% purchased through PPAs for OVO energy customers (rather than group). 40% target by end 2021.
Ripple Energy	-	-	-	100%	-	Electricity backed by PPAs from projects directly invested in by consumer. Remaining electricity supplied by Octopus Energy, via Co-op Energy.
Shell Energy	-	-	-	100%	-	None
SSE Energy	-	-	-	100%	-	None. Supplied by OVO Energy.
Together Energy	-	-	-	100%	-	None
British Gas	-	-	24%	76%	-	All electricity for Green Future tariff purchased through PPAs.
E.ON	4%	42%	5%	46%	3%	Generating energy through biomass plants.
People's Energy	0.2%	3%	0.3%	97%	-	None
EDF	3.5%	9.3%	66.6%	20.5%	0.1%	None
Npower*	~6%	~65%	~7%	~17%	~5%	None
PFP	6%	72%	8%	8%	5%	None
Scottish Power	5%	50%	6%	36%	4%	All renewable electricity purchased using PPAs.
Utilita	6%	72%	8%	8%	5%	None
Utility Warehouse	6%	72%	8%	8%	5%	None

Data correct as at Jan 2021. *Npower discloses its fuel energy mix broken down by regional supplier. The estimates here are an average of the figures given.
**The information in this table is taken from company websites and completed questionnaires, from December-January 2021.

Meaningfully contributing to renewable capacity building for all energy supplied. No/limited meaningful contribution.
Some fossil fuels or nuclear in energy fuel mix. >5% from coal and/or % renewable below UK grid average (37%).

Co-op Energy via Octopus

- 100% green electricity, REGOs for most but PPAs for the Community power tariff with small scale wind, solar as hydro.
- 100% owned and powered by Octopus (who are 20% owned by Origin Energy)
- Their Community Power tariff is powered by 100% renewable energy from small scale community solar, wind, and hydro farms across the UK. This helps fund community energy projects and local energy groups.
- Carbon offset gas (via Octopus).
- £90.20 per month.

Fosse Energy

- Launched in 2018 in partnership with Robin Hood Energy which was a not-for-profit provider of green low-cost energy launched by Leicester City Council and Leicestershire County Council.
- However, on 5th January 2021 this company was bought out by British Gas.
- Energy Mix: 24% nuclear, 76% renewable through REGOs, except the Green Future tariff which is PPAs.
- British Gas:
  - UK's largest energy company. Owned by Centrica who are:
    - involved in fossil fuel and nuclear power generation.
    - was involved in fracking in Lancashire
    - has licenses to drill in the Arctic
    - faced workers' strikes this January over 'fire and rehire' plans
- Monthly £123.71 (via British Gas)

OVO

- 100% renewable electricity. 82.4% wind 14.4% solar 1.4% hydro.
- 20% comes from PAAs the rest is REGOs/greenwashed.
- OVO Beyond gives 15% green gas (again backed by RGGOs), 85% carbon offset: tree planting, biodigesters and forest conservation (often dodgy).
- 21% owned by Mistubishi (cars, arms, aviation, palm oil)
- Plant one tree per member per year with the woodland trust.
- Better smart £87.
- £60 exit fee.

Bulb

- 100% renewable from REGOs/greenwashing.
- Gas 3% green, 93% of this is generated via purpose grown energy crops.
- Gas is carbon offset.
- 16% owned by DST Global (internet investment).
- They use an energy generator for their “green energy” called Orsted which claims it will generate 100% renewable energy by 2023 but used to be ‘one of the most coal-intensive companies in Europe’. They have so far reduced their use of coal by 73% so far.
- Monthly £79.28.

References.

We recommend the Ethical Consumer for this kind of information, subscription £29.95/ year, they are an independent, not-for-profit cooperative who research the ethics of products and companies in depth and make it available to their members.

- https://www.ethicalconsumer.org/
- http://biofuelwatch.org.uk/docs/Ecotricity-briefing.pdf
- https://www.goodenergy.co.uk/media/6007/good-energy-biogeneration-procurement-policy.pdf
- https://www.biofuelwatch.org.uk/2018/biomass-basics-2/
- https://www.biofuelwatch.org.uk/axedrax-campaign/
- https://www.ekoenergy.org/wp-content/uploads/EKOenergy_text_Network-and-label-english.pdf
- https://www.robinhoodenergy.co.uk/
- https://www.britishgas.co.uk/energy/robin-hood.html
- https://assets.naturalcapitalpartners.com/downloads/Project_sheets/Acre_Amazonian-Rainforest_Conservation_Portfolio_Brazil_VCS_CCB_Mar16.pdf
- https://www.ecotricity.co.uk/
- https://www.greenenergyuk.com/
- https://www.ethicalconsumer.org/energy/shopping-guide/energy-suppliers
- https://www.ofgem.gov.uk/data-portal/overview
- https://www.goodenergy.co.uk/
- https://bulb.co.uk/
- https://orsted.co.uk/about-us/our-company/about-orsted
- https://www.cooperativeenergy.coop/
- https://static.rippleenergy.com/assets/GraigFatha/Ripple-Co-PilotWindProject-20210320.pdf