Greenwash
**Guide to the Jargon 1**

Carbon capture and storage (CCS) – capturing CO2 produced from fossil fuel power stations or industrial processes, transporting it and storing it deep underground.

Bioenergy with carbon capture and storage (BECCS) – the same but burning bioenergy (trees), claiming ‘negative emissions’

Carbon capture and utilisation (CCU) – so far, captured CO2 has mostly been pumped into oil fields to extract more oil. Other uses - chemical industry, fizzy drinks!
Guide to the Jargon 2

**Grey hydrogen** – made from fossil gas combined with steam, generating hydrogen + CO2

**Black/brown hydrogen** – made from coal

**Blue hydrogen** – made from fossil fuels, aims to capture and store CO2

**Green hydrogen** – made using renewable energy to split water into hydrogen and oxygen.

*Current uses of hydrogen – oil refining, fertilisers, chemicals manufacture*
Guide to the Jargon 3 – Net Zero

Baseline emissions

“good net-zero”

“bad net-zero”

90% reduction in emissions

Small reliance on negative emission to offset genuinely hard-to-abate

Modest/lazy reduction in emissions

huge reliance on negative emission to offset business-as-usual
- expensive, unsustainable, not available for all

EMISSIONS CERTAIN

NEGATIVE EMISSIONS… QUESTIONABLE

From @chrisd_jones via Twitter
What works to cut emissions:

1. Not digging up and burning fossil fuels – reduce energy demand and use clean alternatives
2. Protecting existing ecosystems which store carbon
3. Regeneration of ecosystems e.g. deforested areas, drained peatlands

NB need to implement with care for social justice, equity, biodiversity impacts

This would seriously impede the profits of large global corporations.

They have their own proposals…

The alternative:

Keep burning fossil fuels and…

1. Just ignore the climate impact (or only acknowledge a tiny part of it) – creative accounting
2. Pay someone else somewhere else to take up carbon or emit a bit less – offsetting
3. Rely on technology - capturing the carbon as fossil fuels (or wood) are burnt – techno-optimism
4. Invoke the lobbying and PR machine to get public subsidies
Greenwash 1 – Creative accounting

Ignore the climate impact of burning fossil fuels, only measure emissions from extracting them.

- Very popular with oil companies setting their climate targets. They like to ignore “Scope 3 emissions” (those associated with burning their products).
- Also - actual UK planning policy, currently being challenged in the courts.

“Is an unlit cigarette carcinogenic?”

(Another handy planning rule – if this road / airport expansion / oil well doesn’t single-handedly breach UK climate limits, councils can’t reject it because of emissions…)
Greenwash 1 – Creative accounting (more)

Ignore emissions from burning wood

Power giant Drax told by own advisers to stop calling biomass 'carbon neutral'

Countries are supposed to report emissions from forest harvesting under ‘land use' not ‘energy’ (to avoid double counting). Drax used this to claim "the use of sustainable biomass is considered to be CO2 neutral at the point of combustion"

Ignore emissions from methane leaks

Fossil gas = methane – a short lived powerful greenhouse gas in its own right. Once methane leaks are accounted for, blue hydrogen (from fossil gas + CCS) appears worse than burning fossil gas.

Also significant in emissions from Cumbria coal mine

And other fossil fuel extraction – offshore drilling and fracking
Greenwash 1 – Creative accounting (more)

It’s not just energy production – a special mention to the ‘Net Zero airports’ (just don’t count the emissions from flights)

Birmingham Airport takes a step closer to net-zero-carbon operations

European airports commit to net zero carbon emissions under their control by 2050

Heathrow set target for zero carbon

Leeds Bradford Airport’s roadmap to net zero by 2030

Leeds Bradford Airport has released its latest plan to become net zero carbon by 2030, focussed on decreasing and eliminating emissions produced by the airport.
Occasionally, funding for beneficial projects, e.g. renewable energy – the benefit of which is ‘offset’ by emissions elsewhere, so no net emissions reduction.

More often – emissions cuts are not even delivered.

Some recent headlines…
Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows

Forest regeneration that earned multimillion-dollar carbon credits resulted in fewer trees, analysis finds

How middlemen carbon brokers take a cut from money meant to help offset emissions

US forest fires threaten carbon offsets as company-linked trees burn

BP and Microsoft among groups that bought into projects designed to help achieve net-zero emissions targets

Finnish carbon offsetting firm Compensate finds 91% of carbon offset projects fail its evaluation process. Of course the remaining 9% will also not help address the climate crisis

Posted on 11 August 2021
By Chris Lang

Delta Air Lines faces lawsuit over $1bn carbon neutrality claim

US airline pledged to go carbon neutral but plaintiffs say it is relying on offsets that do almost nothing to mitigate global heating
Greenwash 3 – Techno-optimism

Overstate past performance

Carbon capture and storage has been a technology ‘close to success’ for decades for decades.

It may be ‘green’ in theory, but what happens when you scale it up…?

“We can run our homes and vehicles on green hydrogen”

Just to replace the dirty hydrogen used now in refineries, fertiliser and chemical plants, we’d need almost double the electricity now produced by every wind turbine and solar panel worldwide.

In the UK, meeting existing aviation demand entirely with biofuels made from ‘energy crops’ would require about half of UK agricultural land.
Greenwash 3 – Techno-optimism (more)

Ignore other risks

Hazards associated with hydrogen (explosive)
In the short term when transporting CO2 - a hazardous asphyxiant
In the long term – risk of leakage from storage

Only the last of these is a climate risk, but all should be treated with respect.
Greenwash 4 – Distort government policies with lobbying and PR

Energy giants push their preferred ‘solutions’ to government, but also to local communities and right up to international negotiations.

Cop28 head backs fossil phase-out with carbon capture caveat

In the process they displace solutions that really work.

Sunak U-turn on wind farms in England draws wrath of green Tories

The number of government-funded energy efficiency measures installed in UK homes fell 46% in 2022, to 97% below 2012 levels

And net big funding

UK Makes £20 Billion Bet on Carbon Capture in Race Against US