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 <u>mostly</u> 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



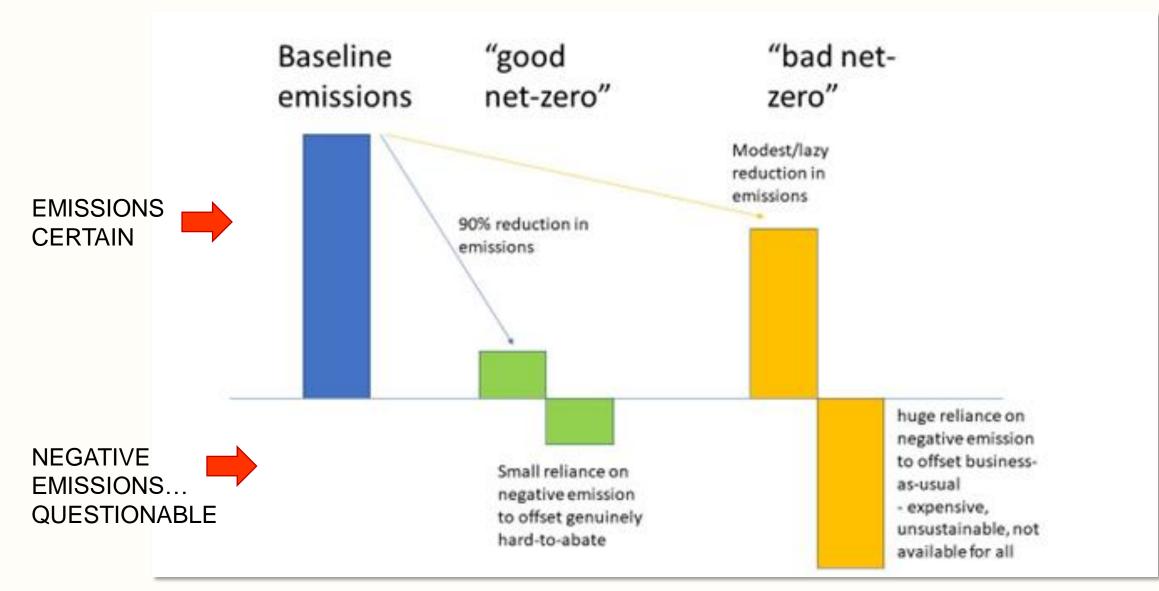
Blue hydrogen – made from fossil fuels, aims to captureAbout 1%and store CO2

Green hydrogen – made using renewable energy to split **About 0.4%** water into hydrogen and oxygen.

Current uses of hydrogen – oil refining, fertilisers, chemicals manufacture

From <u>@chrisd_jones</u> via Twitter

Guide to the Jargon 3 – Net Zero



What works to cut emissions:

- 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...

- 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
- Rely on technology capturing the carbon as fossil fuels (or wood) are burnt – technooptimism
- 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 <u>climate targets</u>. They like to ignore "<u>Scope</u> <u>3 emissions</u>" (those associated with burning their products)

Also - actual UK planning policy, currently being challenged in the courts.

"Is an unlit cigarette carcinogenic?"

West Cumbria Mining to explain plans for 'netzero' underground coal mine

Published by Jessica Casey, Deputy Editor World Coal, Wednesday, 01 September 2021 12:45 Rave to read list

Horse Hill: Future of UK fossil fuels at stake in test case

(Another handy planning rule – if this road / <u>airport expansion</u> / oil well doesn't singlehandedly 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 <u>used this</u> 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 <u>Cumbria coal mine</u>

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

> Transport December 22 2022 Anna Cooper

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

Heathrow set target for zero carbon

Newcastle International Your Airport

Home > About Your Airport > Environment > Net Zero Carbon 2

Net Zero Carbon 2035

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.

Greenwash 2 – Offsetting

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

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

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

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

Our new investigation gives a rare insight into the booming carbon

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 <u>Chris Lan</u>g

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

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 <u>almost double the electricity</u> now produced by every wind turbine and solar panel worldwide.

EMIRATES FLIES PLANE POWERED BY 50% BIOFUEL

FEBRUARY 7TH 2023

In the UK, meeting existing aviation demand entirely with biofuels made from 'energy crops' would require <u>about half of UK agricultural land</u>.

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