

Greenwashing:

the act or practice of making a product, policy, activity, etc. appear to be more environmentally friendly or less environmentally damaging than it really is”

Comes in many forms that we may not always think of as greenwashing

Net zero by 2050?

- The IPCC's 2022 assessment suggested a remaining budget of about 420 GtCO₂ for a two-thirds chance of limiting warming to 1.5°C, and of about **580 GtCO₂ for an even chance**
- **Staying within a remaining carbon budget of 580 GtCO₂ implies that CO₂ emissions reach carbon neutrality in about 30 years [ie to ~2050], reduced to 20 years for a 420 GtCO₂ remaining carbon budget**

These don't look like great odds!

Net zero” by 2050 is far too weak:

- Gives a **50:50** chance of staying within 1.5 degrees
- Takes no account of historic responsibility or unequal resources
- Gives UK far too big a share of the global carbon budget
- Enables catastrophic delay, backloading of emissions cuts and reliance on still unproven technologies
- Supports reliance on carbon markets, offsets and carbon removals – business as usual for polluters
- **Yet is repeatedly portrayed as (too) ambitious**

Greenwashing fossil fuels with carbon capture and hydrogen

CONTEXT

- A "transition pathway" shaped by aggressive lobbying for public subsidies and fiscal policies that favour mainly the powerful incumbent industries, most obviously those engaged in fossil fuel extraction, and desperate to avoid investment flight and stranded assets.
- This inherently skews the transition pathway towards technologies such as carbon capture that serve to maintain that industry, and away from the measures we know would massively cut energy demand, whilst creating employment and cutting the cost of living – like mass retrofit, or expanded public transport.
- Capture of global agenda by oil producers: eg Saudi Arabia successfully argued for the repeated inclusion in the latest IPCC report of references to CCS
- North Sea Transition Deal effectively commits UK government to a CCS-reliant pathway and to policies which encourage new markets for hydrogen (both fossil and non-fossil).

Does Carbon Capture and Storage Work?

On paper – yes. The chemical process that separates CO₂ from flu gas works

In practice – at plant-wide scale, in real-world conditions - not really.

All plant scale trials of CCS so far have been plagued by outages and tech issues. None has performed at anywhere close to its nameplate efficiency

It appears venting of CO₂ to stabilise pressures will be a regular occurrence

The **only currently operating power CCS plant in the world** – Boundary Dam in Canada - averaged a capture rate of around 50% up to 2021.

In its best year so far (up to 2021) reduction in emissions intensity (compared with unabated coal) was around 65%

All CCS has a high energy demand, so if powered by fossil fuels can actually *increase* total greenhouse gas emissions, largely due to increase in fugitive methane emissions from additional FF extraction. Methane is around 86% more potent a GHG than CO₂ if measured over 20 years rather than 100.

Is it safe?

Very questionable

- Repurposing pipelines that have previously been used to transport hydrocarbons (gas and oil) may increase the chance of pipeline rupture.
- CO₂ is an asphyxiant, and as a heavy gas, does not readily disperse. In the case of a pipe rupture, first response vehicles with ICE engines could be disabled.
- There is serious uncertainty about the security of undersea storage sites. The Norwegian Sleipner and Snohvit fields (storing CO₂ from gas processing) have shown signs of leakage.

“Low carbon hydrogen?”

96% of the world’s hydrogen is currently produced from FFs with **no** CO₂ capture. Most used for oil refineries, methanol and ammonia production.

Priority must be to decarbonise, reduce or eliminate some of these products.

“**Blue hydrogen**” (from FFs with **CCS**) is **not clean**. When fugitive methane emissions are included, blue hydrogen may have higher GG emissions than just burning gas.

Even “**green hydrogen**” – made by using an electrical current to split water into hydrogen and oxygen – is not so green in the wider picture.

It is a highly inefficient use of renewably produced electricity - used in the home it could require 6 times as much electricity as a heat pump

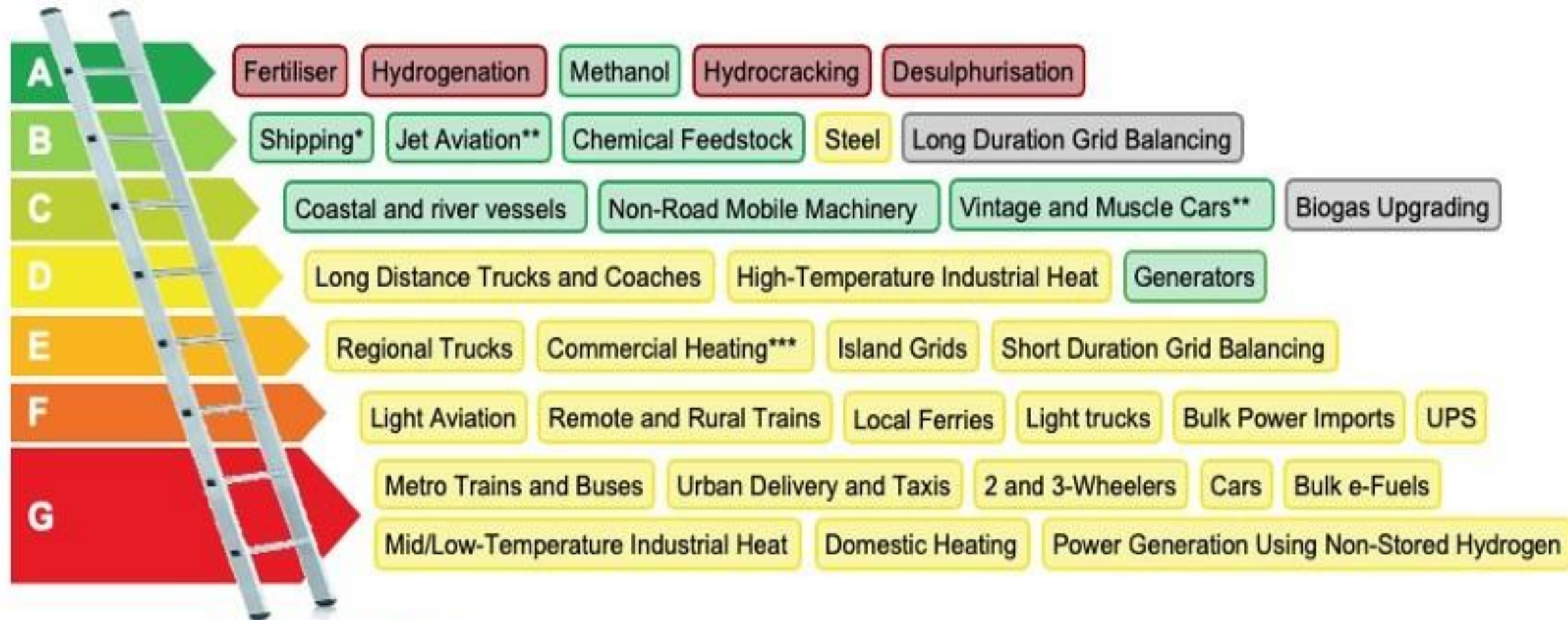
It is a significant indirect greenhouse gas, and is highly prone to leakage due to its small molecule size.

Combustion of H₂ increases concentrations of nitrous oxide which cause lung disease.

Hydrogen Ladder 5.0

Unavoidable

Key: No real alternative Electricity/batteries Biomass/biogas Other



Uncompetitive

*As ammonia or methanol **As e-fuel or PBTl ***As hybrid system

Greenwash and “jobswash”

As the climate emergency worsens, high emissions industries are bent on making emissions reduction plans seem electorally impossible, by portraying them as attacks on jobs and communities economically reliant on particular industries.

Whether it's coal mining, oil and gas extraction or burning trees for energy, those who profit from these industries have a vested interest in portraying this as the only way to protect jobs, or create new ones – with economically vulnerable communities especially targeted with this narrative.

The need to decarbonise (even the feeble “net zero”) is cited as a fig leaf for ruthless, profit-motivated jobs cuts.

How to “jobswash” fossil fuels and biomass

With threats



“increasing taxes on oil and gas production will cost tens of thousands of jobs” (don’t mention that the real cause of jobs losses is the failure to train and support the transition of workers to the vital jobs of the future).

With promises



“this new coal mine will create 500 direct jobs” (don’t mention that hardly any will go to local people as the training isn’t in place; and in any case 500 jobs is nothing compared with the many thousands of jobs needed to decarbonise the region)

With bad economics



Commission reports showing how many jobs are/could be “supported” by your dirty installation, but don’t mention the stupidly high cost to the billpayer, or the low quality and transient nature of many of these jobs. Most of all, don’t use any meaningful comparison scenarios.

Be a “friend” to the community



Lobby MPs, and *above all*, capture the discussion about green jobs in communities, workplaces and educational settings to make sure people understand what a caring employer you are, and won’t cause trouble by organising together in their trade unions and communities for public employment in genuine climate jobs.