A photograph of a forest with a large pile of cut logs in the foreground and a red tractor in the background. The text is overlaid on the image.

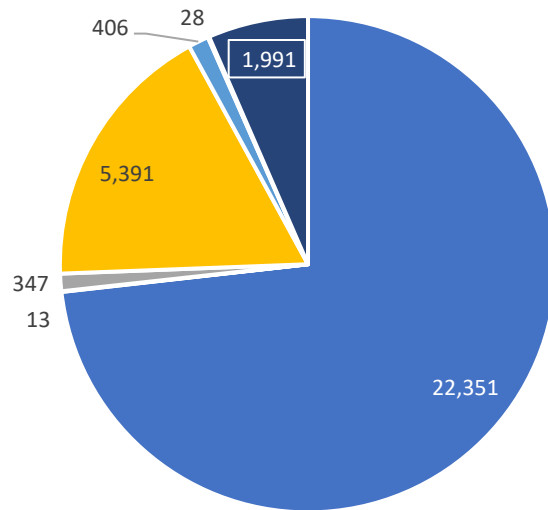
Can biomass energy – perhaps future with CCS – help Scotland address the climate emergency?

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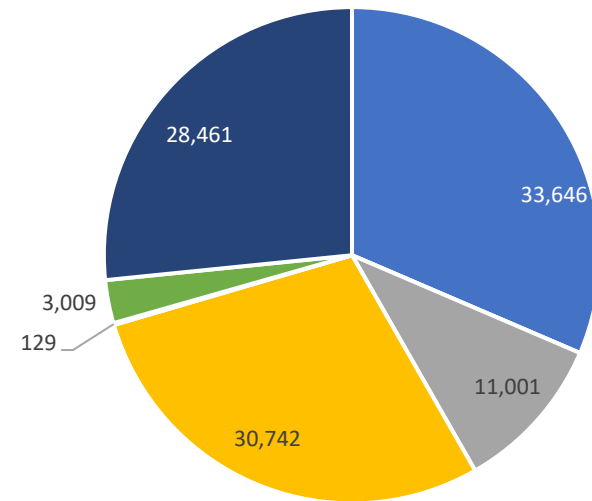
Biomass accounts for a much smaller share of renewable electricity in Scotland than in England...

Renewable electricity generation, Scotland, 2019
(GWh)



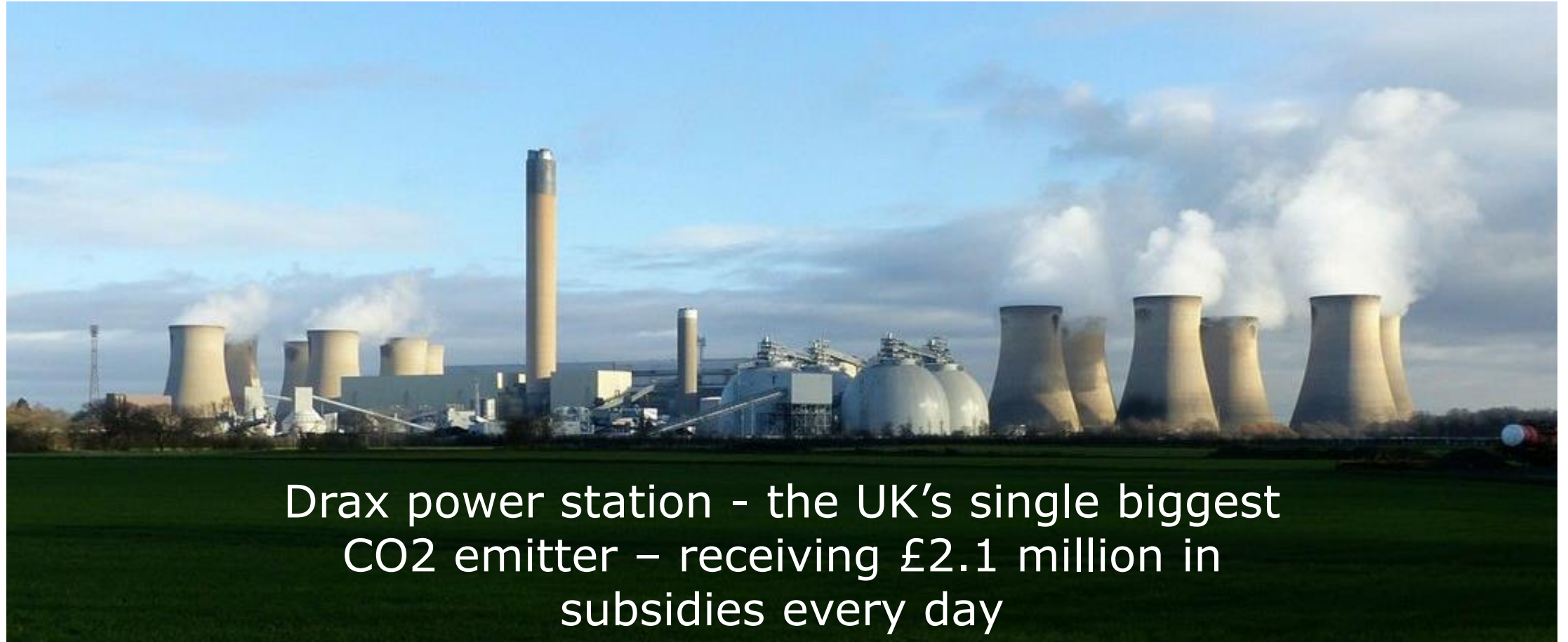
- Wind
- Hydro
- Other biomass
- Shoreline wave / tidal
- Landfill gas
- Solar PV
- Sewage sludge digestion

Renewable electricity generation, England, 2019
(GWh)



- Wind
- Hydro
- Other biomass (inc. co-firing)
- Shoreline wave / tidal
- Landfill gas
- Solar PV
- Sewage sludge digestion

...which is a good thing, considering biomass impacts on forests, climate and communities



Drax power station - the UK's single biggest CO2 emitter – receiving £2.1 million in subsidies every day

Hundreds of scientists have warned that logging trees for energy moves us further away from the goal of limiting global warming to 1.5 degrees

“Even if forests are allowed to regrow, using wood deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries –as many studies have shown –even when wood replaces coal, oil or natural gas. The reasons are fundamental and occur regardless of whether forest management is ‘sustainable.’”

(from an Open Letter to the EU Parliament signed by 800 scientists, 2018)

This applies to burning wood from Scottish conifer plantations, too

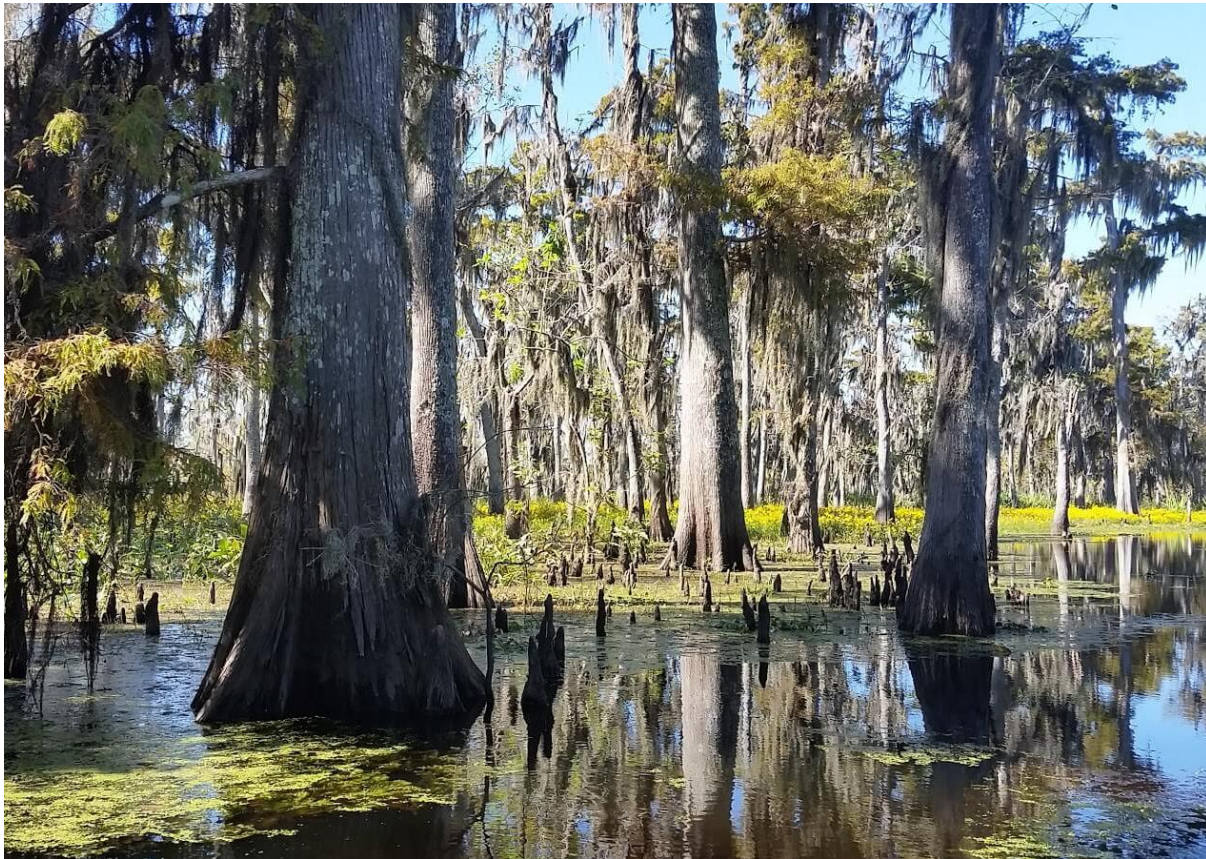


Steven's Croft power station, *Photo: David Dixon*



Conifer plantation, Scottish Borders, *Photo: Richard Webb*

In England, Drax burns more wood than the UK produces in total every year, most of it from the South-eastern USA.



Drax routinely sources pellets from the clearcutting of bottomland hardwoods; *Photos: Dogwood Alliance*

- The UK's annual wood consumption was 56.4 million m³ in 2019.
- The same year, the UK's total wood production was ~11.4 m³.

Our reliance on wood imports – e.g. from biodiverse forests in the USA, Canada and the Baltic States – will go up whenever virgin wood is burned for energy – and also, if waste wood otherwise used in different sectors is burned.

Bioenergy with Carbon Capture and Storage ?

- An unproven technology: Apart from very small-scale product testing of a novel solvent (with no carbon storage), nobody has attempted capturing CO₂ from a biomass plant;
- If it was to work, more trees would need to be cut down and burned for less energy (because energy is needed to capture and compress CO₂);
- **Protecting mature forests and allowing them to expand is the most effective way of sequestering carbon from the atmosphere in the time we have left to try and keep global warming from going beyond 1.5 or even 2 degrees.**

What does this mean for policy in Scotland?

- Scotland should support redirecting subsidies for biomass electricity to wind, solar and wave/tidal power, i.e. genuinely low carbon renewable energy;
- The Scottish National Investment Bank should not support developments which will increase wood burning for energy;
- BECCS has no role to play in Scottish climate policy and targets. If it is included, it will simply result in targets being missed.