Dear Subscriber, this is the March 2016 edition of the Biofuelwatch newsletter, complete with an invitation for you to come to our April 20th #AxeDrax protest. There's also information about our new reports on sustainability standards & synthetic biology, complete with links to recently launched synthetic biology & geoengineering websites.

We hope you find this month's newsletter an engaging read.

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Interested in hosting a talk about the impacts of biomass power stations, biofuels or large-scale bioenergy in general? Please contact us and we’ll try to help! You can also support our work by making a donation. Get in contact with us here to find out how to get involved in our campaigns, and what’s going on near to you.

1. Axe the Draxosaurus Draxotastic Demo April 20th 11am - 1pm

At 11 am on Wed April 20th you are invited to join Biofuelwatch & Biomassive in a mass demonstration of biomass opposition outside the annual Drax shareholder AGM. Please find an hour or so to come along and demand cleaner, greener energy generation systems.

By gathering en masse we can show the Government and Drax investors there is no social license and no support for their toxic polluting power station. It’s time for the UK to abandon antiquated energy generation, Ditch the Draxosaurus, and invest in truly renewable wind, wave and sun energy.

We will be making dinosaur/power station props and banners at the London Action
Please let us know when you can come by emailing: louise@biofuelwatch.org.uk.

Dinosaurs, prehistoric humans and animals are invited to attend; be they on masks, head-dresses, banners, signs, costumes or facial expressions.

The Drax Dinosaur eats whole forests, farts increased carbon and deadly particulates. If the Draxosaurus completes its conversion of three biomass units Biofuelwatch estimate Drax stands to receive a very juicy subsidy of around Â£1.8m a day.

Please help us get lots of people there, invite your friends on facebook, and email our website link to your networks. If you are a tweeter, please tweet #AxeDrax, on April 20th and follow us on @biofuelwatch.

Come along to The Grocersâ€™ Hall, Princes Street, London EC2R 8AD at 11am, (closest tube is Bank.) If you want to have even more fun â€“ come along to DECC with us around 1pm, so we can show the Department of Energy and Climate Change that biomass electricity is a foolâ€™s errand, and cutting forests to cure climate change is fundamentally flawed nonsense.

2. Bioenergy Out EU declaration

120 civil society organisations declare No to EU bioenergy subsidies
On the 10th February, Biofuelwatch were one of 120 international civil society organisations that published a declaration, calling for bioenergy to be excluded from the next EU Renewable Energy Directive (RED).

The declaration has now been submitted to an EU consultation into the renewal of the directive for 2020 onwards.

The central premise of the declaration is that bioenergy should not be classed and supported as renewable energy, contrary to current EU definitions.

The EU is provoking a global expansion in industrial bioenergy use and the rapid development and expansion of a global trade in biofuels and wood-based bioenergy. Of all energy classed as renewable in the EU in 2012, bioenergy and “waste” accounted for around two-thirds.

By including bioenergy in renewable energy targets, the EU is promoting direct and indirect subsidies for it, claiming that it is a sustainable alternative to fossil fuels.

The EU cannot be allowed to continue the current model of energy consumption, promoted through false assumptions about bioenergy being renewable, when its application at an industrial scale clearly is not.

In the EU, bioenergy tends to compete with less carbon- and land-intensive renewable energy sources such as wind and solar power, rather than with fossil fuels, because it fits into the current infrastructure for the latter, so hindering real change. You can read the report we submitted with the declaration here.

3. NEW Biofuelwatch briefing: Sustainability Standards

Biofuelwatch has published two new Briefings about the UK’s biomass.
One is a [policy analysis document](#), and the other is a [briefing for MPs](#), jointly produced with the Partnership for Policy Integrity (PFPI). We encourage you to send a copy of the parliamentary briefing to your MP, details of how to contact your MP can be found [here](#).

**Biofuelwatch believes that ending subsidies for biomass electricity is the only feasible way of avoiding high carbon emissions and forest destruction due to the UK demand for bioenergy.**

Many in the EU claim that the adverse environmental and climatic impacts of large-scale bioenergy can be avoided through the application of sustainability standards.

However, standards applied to individual batches of raw material cannot address an issue that is inherently one of scale: the very scale of industrial bioenergy is a problem in itself.

Standards and certification schemes are applied only to specific loads of biomass or biofuel, and have no impact on overall scale and expansion. On the contrary, they may add to the problem by legitimising large-scale bioenergy use in the eyes of the public.

Furthermore, as the Volkswagen scandal has shown, standards and even regulations are ineffective without strict independent enforcement, yet existing biofuel standards and proposed ones for biomass rely entirely on self-regulation by companies and their chosen consultants.

**Standards and sustainability criteria will not address the fundamental problems of industrial scale bioenergy.**
4. Exposing misleading claims about synthetic biology ‘saving orangutans’

Over the past year or two, there has been a spate of articles claiming that synthetic biology – i.e. extreme genetic engineering – can replace palm oil and thus save the orangutan. We decided to have a closer look at those claims, which can be traced back to two sources: A Californian company called Solazyme, which changed its name to Terra Via this month, and academics involved in a UK research project into oil-producing yeast.

Together with Friends of the Earth US, we published a briefing - ‘Beware False Promises: Algal Oils and Other Products of Synthetic Biology Aren’t About to Save the Orangutan...But Carry Serious New Risks’. As the briefing explains, companies and researchers are genetically engineering microorganisms to produce oils, but they are nowhere close to producing enough oils for commercial-scale biofuels, let alone replacing palm oil by using these techniques.

The UK academics in question have admitted that they are only producing 5-7 grams of oil every few days! Solazyme has so far mainly produced anti-wrinkle skin care products which contain limited amounts of very expensive algal oils – hardly a competition with palm oil, which is the cheapest of all plant oils.

Furthermore, they’re using genetically engineered algae to convert Brazilian sugar cane to oil, so their oils are still sourced from monoculture crop plantations in the tropics.

The prospects of large-scale oil production through synthetic biology might be remote, but the risks of using genetically engineered microbes in industrial refineries...
Microorganisms, including algae, play a fundamental role in regulating all of the Earth’s cycles on which all life depends, including the carbon cycle, the nitrogen cycle, and nutrient cycling in soils.

The genetic engineering techniques commonly cause unintended mutations—so nobody can be sure what the traits of all the GE microbes really are.

Yet there is virtually no research into the potential ecological impacts of them escaping into the environment. What might they do to lakes, soils and other ecosystems? Could they harm soil fertility, plants or animals? Could escaped algae engineered to produce more oil, for example, cause environmental pollution? Nobody knows, and there are no genuine risk assessments asking those questions.

A closer look at two synthetic biology companies which took $22m each from the US government for making biofuels

Biofuelwatch has taken a closer look at two synthetic biology companies: Solazyme (now called Terra Via) and Amyris.

Each of them took grants of $22m from the US Department of Energy for developing biofuels. Solazyme/Terra Via no longer pretends to be working on biofuel production. They are making most of their income from anti-wrinkle skin care products and some from algal oil food-additives.

Amyris, too, focusses mainly on cosmetics. This is not due to falling oil prices: Amyris’s directors have been cited as saying that they were hoping for production costs of $3,180 to $7,949 a barrel. Solazyme supplied biofuels for a US Navy test programme back in 2009 at a cost of $149 a barrel. Higher oil prices clearly wouldn’t make such biofuels any more competitive.

Biofuelwatch’s investigation into Solazyme raises another serious question: Solazyme got approval from the US Food and Drug Administration (FDA) for using their algal oils in food products.

Yet it appears the FDA were misled by different names for the same species of alga (which was genetically engineered) into concluding it was ‘safe’. They overlooked the fact that the species of alga used by Solazyme is in fact linked to a rare but serious and potentially fatal disease. You can find out more about our expose of Solazyme in this article published in the Ecologist.
5. New resources on Geoengineering and Synthetic Biology

GeoengineeringMonitor.org and SynBioWatch.org are websites that aim to provide up-to-date news and analysis on these important issues, and act as a place to gather civic society perspectives and campaign information.

Biofuelwatch is working with ETC Group to make these websites useful resources to newcomers to the issues, as well as campaign groups already working on Geoengineering and Synthetic Biology. Both websites launched their own newsletters this month: you can sign up to receive them and read the first editions here: Geoengineering Monitor / Synbiowatch

6. Proposed 49.9 MW biomass gasification plant in Wales

No waste or biomass gasification plant for electricity generation has ever been successfully run in the UK. Despite this, newcomer Egnedol have stated an intention to build a 49.9 MW biomass gasification at Blackbridge in Milford Haven, in Pembrokeshire, on the west coast of Wales.

If you want to find out more about this high-risk, unproven technology please read Biofuelwatchâ€™s exposing report, available here and get in touch with biofuelwatch@ymail.com to find out how you can participate in campaigning against this plant.

7. Legal challenge against Enviva - Drax pellet supplier
pellet supplier, Enviva, that the US based Partnership for Policy Integrity filed with the US Securities and Exchange Commission.

The PPI claim Enviva, used a loophole in EU and UK law to claim that wood-pellet fuel emits far less carbon dioxide than coal thereby misrepresenting emissions and environmental impacts.

Dorothy Thompson, the chief executive of Drax power station is also chair of the UK body who certify Enviva’s sustainability criteria. No conflict of interest there then.

8. Biofuel or Biofraud?

The Vast Taxpayer Cost of Failed Cellulosic and Algal Biofuels

An article which we had published by Independent Science News looks at the promises and realities of advanced biofuels, particularly in the US.

It discusses a fraud investigation into a now bankrupt company, KiOR, who had sold the first ever cellulosic ethanol in the US, but not much ethanol after that. KiOR had obtained a $75m public loan guarantee from the State of Mississippi yet had only repaid $6m of that loan at the time they went bankrupt, leaving the poorest state of the US liable for the $69 million.

KiOR had convinced the governor and investors that they could make cellulosic biofuels at an impressive yield of 67 gallons from every dry tonne of biomass - around three times more than they were actually managing to reach. Yet KiOR’s failure and exposure hasn’t stopped the US government from going ahead with a $70m grant to another cellulosic biofuel startup, Red Rock Biofuels.

They have, it appears, believed that company that they can reach an amazing 91 gallon/dry tonne yield from the very same technology, which has never been successfully demonstrated anywhere in the world.

These case studies serve as examples for the much larger failure of advanced biofuels, which are being heavily subsidised in the US and EU.
9. Take action: Speak up for the regulation of new GM techniques

We're supporting GM Freeze's online action on the regulation of new gene-editing and synthetic biology techniques. The European Commission is about to decide whether or not a set of new genetic engineering techniques should be regulated as GM. Let them know why they should and why it matters to you! You can take part in the action and find out more information here.

10. Date for your Diary: Extreme Energy event in Leeds, 4th June

Coal Action network, authors of the well researched report "Ditch Coal", are collaborating with Biofuelwatch on an interactive extreme energy event which will take place in Leeds on 4th June.

We are planning a veritable feast of energy information, combined with a unique opportunity to hear from a touring Russian activist about the devastating impacts of
provide opportunities for networking with activists working on issues such as fracking and nuclear.

Diary June 4th now and keep an eye on the Biofuelwatch and Coal Action facebook and twitter feeds for more information.

Biofuelwatch 2016. Contact us: biofuelwatch@ymail.com biofuelwatch.org.uk