

28.02.2018

Hi

1. **Winter peak - still below 50GW** - that's extraordinary!
2. Supply of **lithium and cobalt for our batteries**
3. Costing the Earth - an interesting analysis of the UK's current environmental policy
4. **Emissions from fracking** - worse than we thought
5. **Good news on UK wind power and EV charging**
6. Earthquakes - linked to our mining and extraction
7. Divestment update - **boycott Barclays**
8. Meat or no meat - the question is **how to stop intensification of farming**
9. **New crowdfunding site from Triodos**
10. **Off-set your carbon by supporting woodland at Centre for Alternative Technology**

1. Half the country is under snow **but the extraordinary thing is that this winter, we have *still* not hit 50GW of electricity consumption.** Possibly that line will be crossed the next couple of evenings but it seems unlikely we will hit last year's 52GW, which itself is a long way down from the 60GW maximum of a few years ago. This matters - it drastically cuts the incentive to build more conventional nuclear and fossil fuel generators. For us as consumers, it's really important to **turn off unnecessary consumption on winter nights, 4 - 8pm, (and all other times of course!), at work and at home. Cutting peak consumption is a quick and easy way to make a major difference.**
2. I was surprised to read a FT headline earlier this week saying '**Shares of lithium hit by gloomy forecast**'. Of course, what they meant was that prices are down as supply is up - so, bad for investors... New mines are opening up in Canada, Chile and Australia and we're even looking for the [stuff in Cornwall](#). There's no foreseeable shortage.

There have been bigger concerns around the supply of **cobalt and nickel**, which are also needed for lithium ion batteries. However, [supply of these seems to be opening up](#) too. But clearly we need to apply the principles of a circular economy and look at how we can reclaim [these minerals from our gadgets](#), rather than just dumping them in landfill and finding more... **Apparently there are around 1.6bn old phones out there, with enough cobalt for a million electric vehicles (EVs).**

With regard to **recycling vehicle batteries themselves**, China is already putting the cost and responsibility onto its car manufacturers, and in the West, companies such as Renault, [Nissan](#) and [Connected Energy](#) are taking the lead in recycling spent car batteries (**ditched when they reach 80% efficiency**) into home / commercial use. Absolute end-of-life recycling is still to be sorted...

3. You will, no doubt, have heard of **Mrs May's 25 year Environment Plan** and noticed that the **environment is now - finally - being discussed in political circles...** For some good, easy-listening analysis, here's a link to [last week's Costing the Earth](#).

4. **Methane** is one of our most powerful greenhouse gases - 27 times that of CO2 when measured over a 100 year life span, but more like **86 times in real terms**. Natural gas is almost entirely methane and there has been much concern about '**fugitive emissions**' (ie gas lost to the air) during extraction and transport. **Fracking** is believed to be a particularly wasteful method of production and a [recent US report](#) found that emissions are actually around **five times as bad as reported...**

Similarly, a [UK report found that linked emissions from gas production](#) are likely to be 2 - 3 times higher than previously thought. **Gas is simply not a 'clean fuel as the industry, and our government, would like us to believe.**

[Dril](#) [I or Drop](#) is an excellent source of latest news on fracking in the UK. One of its most worrying recent reports was that Ineos, owned by billionaire Jim Ratcliffe, [has won the right to challenge Scotland's moratorium on 'unconventional gas'](#) - and **sue the Scottish government for loss of profit**. This is a really worrying undermining of democracy by a powerful interest group with implications for many sectors of society.

5. There has been lots of good news on UK power production over the last month. The [573 MW Race Bank off-shore wind farm](#) began generating this month, and construction began on the [world's biggest offshore wind farm at Hornsea](#) - 174 wind turbines with a capacity of 1.2 GW, to be completed by 2020. [Hywind, the world's first floating wind farm](#) is performing much better than expected, helping Scotland comfortably meet its extraordinary [2020 100% renewable target](#). More [grid-scale batteries](#) are being financed.

The international renewables agency IRENA states that [most renewables will be consistently cheaper than fossil fuel production by 2020](#) and accountants Ernst and Young say that [by 2022 it will be cheaper to generate at home and store than buy from a utility](#). However, it seems that our government is determined to [replace coal with gas](#).

Better news is that the National Grid is planning a [network of super-fast EV chargers at service stations](#) across the country, 100 at each, allowing EV owners to charge up in 5 - 12 minutes. This could really bring on the EV revolution we've been waiting for....

6. The **link between earthquakes and our mining and extractive industries** was made clear in a [University of Durham study](#) last year. In Holland, after years of tremors and a recent quake of 3.4 on land close to Europe's biggest gasfield, [Gronnigen, the government has cut production drastically and ordered 200 major businesses to switch to other fuel sources](#). In early Feb [South Wales had a 4.4 quake](#) that reached as far as London and Cumbria, and two nights ago [Cumbria had a quake of 3.2](#). The precise causes have not been identified, but it does seem to strengthen arguments against expanding coal mining right next to Sellafield... Please sign the [petition](#) if you can and support [Radiation Free Lakeland](#).

7. There is plenty of **good news on divestment**. [Here's another major insurer](#) backing out of coal investments and investing positively in green tech - the threat of climate change is already real for these companies. Bristol University has made some substantial moves but **has not broken its ties with Barclays Bank**, one of the major financiers of fossil fuels. **Please sign this petition and share**, and if you are with Barclays, you may also want to consider switching (very easy to do with [7-day rule](#)..)

8. The UK is under-going an **intensification of farming** as the demand for cheaper food pushes many small producers off the land. Large scale arable farms use more nitrogen fertiliser (much of which is lost to air or run-off), and animal waste when contained in big piles or lagoons also gives off **nitrous oxide**. NO is one of our most powerful greenhouse gases, lasting up to 120 years and around 300 times more potent than CO2. Here's a [good Farming Today on the UK's growing NO problem](#). The experts seem to agree that we should combat intensification by **cutting meat consumption and, if buying meat/dairy, source from small farms** that rear their animals outdoors - preferably managing them to maximise carbon sequestration into the soil and using native breeds that do not need grain feed. [Here's a thorough debate on this issue](#) - particularly interesting is the potential for China and India to cut their emissions from this sector.

9. If you would like to help finance some renewables in the UK, and get a good return, the Triodos Bank has just launched a [new crowdfunding site](#). Investments are a minimum of £500.

10. The **Centre for Alternative Technology** needs support to maintain its woodland. See below. If you need to make up for any carbon sins, this might be one way....

**As ever, if you would like to come off the mailing list please just let me know.**

All good wishes.

Nikki

[View this email in your browser](#)



Centre for Alternative Technology  
Canolfan y Dechnoleg Amgen



Dear Nikki

**Can you help CAT raise £26,000 to develop our woodland work?**

You'll be directly supporting the rich and diverse ecosystem in our woodlands, home to hazel dormice, tawny owls and native broadleaf trees. You'll be helping thousands of students, volunteers, school pupils and visitors to gain skills and knowledge about woodlands each year.

**If you're one of the people who has already donated to this appeal, then we'd just like to say a big thank you – and you need read no further! We're so grateful for your support.**

*'CAT's woodlands are a beautiful resource, rich in biodiversity. They provide a home for at-risk species of birds, animals and plants, as well as a much-valued place for people and groups in the surrounding area and a real-life research base for the thousands of students and volunteers who learn at CAT.'*

**George Monbiot. Author and journalist.**

[Donate](#)

### **Why do we need your help now?**

CAT has invested lots of time and money to sustain our woodland areas and make them available to the public, students and volunteers. We've had help to do this from various sources, and some of that funding and support is coming to an end in the near future. We need to raise £26,000 to continue this work in 2018. Over time, we expect the woodlands to become more self-sustaining. We already create income from our woodland work, from courses and from wood products, and we expect this to increase.

Your support now is an investment into the future of our woodlands.

[Donate](#)

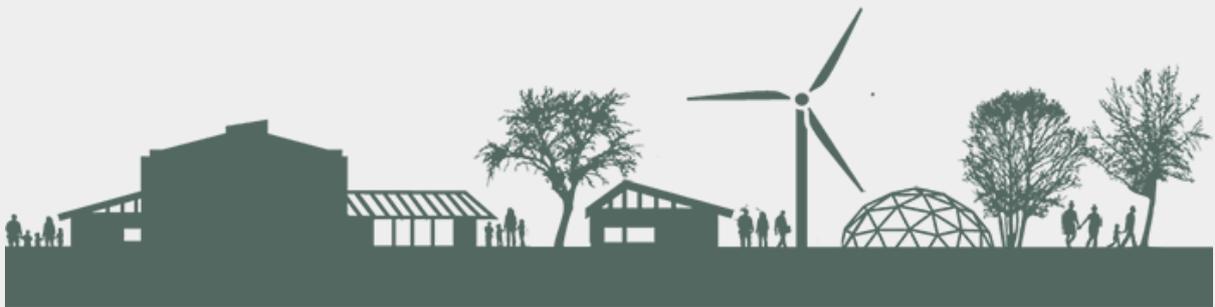
### **Why are CAT's woodlands so important?**

CAT is home to many acres of woodland that we use to preserve and increase local biodiversity, and to provide woodland education and training for students, short course participants and volunteers. We are uniquely placed to disseminate this knowledge as part of a wider jigsaw of sustainability, showing how woodlands fit with other aspects of sustainable land use, and with issues such as renewable energy and sustainable building.

**Thank you so much for any donation you can give.**



Adrian Ramsay, Chief Executive Officer CAT



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