Evans, Rebecca

From: [redacted]
Sent: 11 April 2024 23:18
To: West Burton Solar Project
Subject: 'Have Your Say'

> You don't often get email from [redacted]

Dear Sir/Madam,

I grew up in Harpswell on the edge of the 'Tillbridge' part of the proposed West Burton Solar Projects and would like to have my say about why I don't believe these projects should be approved in their current form.

Firstly, I would like to bring up the conclusions of Simon Michaux in the following presentation:

[redacted]

The Green Transition will not work as planned, what might we do instead? - Professor Simon Michaux

In this JKMRC Friday Seminar Professor Simon Michaux discusses how current thinking will not help us, and if we change that thinking, there are solution vectors if we chose to see them. See more webinar information: https://smi.uq.edu.au/event/session/13464

[redacted]

Simon Michaux is a Associate Professor at Geological Survey Finland and has done extensive work on 'minerals being the new oil,' including numerical breakdowns of the amounts of precious metals needed for the planned transition the Green Energy by 2050. In his conclusion he notes:

- **The planned Green Transition is not feasible in context of the size of the task, and the required raw materials.**
- Mining production, reserves and resources are all facing shortfalls.

- **The needed power storage buffer to manage intermittent supply from wind and solar systems has been overlooked and is a current blind spot in the phase out of fossil fuels.**
- Until the issues raised are resolved, wind and solar are not viable as the primary energy generation system for the next industrial era.

(remaining conclusions can be seen at 1:06:15)

The graphs he uses in this presentation can be found in his report here:
https://www.gtk.fi/en/current/there-are-bottlenecks-in-raw-materials-supply-chain-a-glimpse-of-the-systemic-overview-is-here-discussion-and-the-development-of-the-solutions-have-started/

To be clear, when he says that we're 'facing shortfalls' he's not talking about running just slightly short. If you take a look at the table put up at 10:56, with a 28 day buffer used to try and cover the intermittency of wind and solar (which he goes on to show isn't enough of a buffer in itself) then it'd take over 13,000 years to mine the Lithium needed to reach the 2050 targets at the 2019 (pre-Covid) production rates! This isn't just a shortfall but a HUGE ramp up production that just isn't feasible when considering how much it takes to set up new mines. This shortfall is summed up best (imo) visually by the graph he puts up at 15:06, which compares the amount of estimated resources and global reserves with the quantities of the main metals that would be required to make the buffer needed. Even if you build the mines to extract it all then it's not even close! It may be possible to get the required metals for this particular project by getting in there first, but pretending that that is part of a grand saving of the planet is not even remotely possible in this context. Ignoring these issues would seem to me to scream of financial profit at the expense of the planet.
Now obviously I'm only putting down his conclusions and a couple of small things out a large volume of work he's done in his report. While I'm not expert enough to confirm or deny his figures, the report is clearly a very thorough piece of work. He says during the Q+A towards the end that about 30% of his presentations of this report were made to government officials, who didn't deny the truth of what he's saying but pushed back anyway as they weren't sure what else to do. As he points out though, good policy and actions aren't built by ignoring the facts to fit ideology. He says he's happy for people to challenge his models as it helps build accurate ones, which is what's needed to in order to make good decisions. I urge you to do so.

Secondly, there is the destruction that would undoubtedly be caused by the additional mines themselves.

If you look at the mines that are already currently already producing the world's tech resources then comes impossible to ignore the amount of damage they do. The vast bulk of "rare earth" minerals currently produced are done so in China. An estimated 95% according to this BBC article:https://www.bbc.com/future/article/20150402-the-worst-place-on-earth

The dystopian lake filled by the world's tech lust

Hidden in an unknown corner of China is a toxic, nightmarish lake created by our thirst for smartphones, gadgets and green tech, discovers Tim Maughan.

If their figures are accurate then 70% of the world's reserves are held in the Bayan Obo mines in Mongolia. The 'Toxic Sludge Lakes' are not only giving 30-40% of villagers in surrounding villages cancer, they are leaching towards the Yellow River, China's biggest river that supplies 100's of millions of people, and from there out into the sea.
Then there's the Cobalt mines of Congo:
https://www.amnesty.org/en/documents/AFR62/7009/2023/en/

DRC: Powering Change or Business as Usual? - Amnesty International

The world needs to urgently shift away from fossil fuels, which are key drivers of the climate crisis, but at what cost? Powering Change or Business as Usual? documents how many people in the Democratic Republic of the Congo have been forcibly evicted from their homes and farmland to make way for the expansion of […]

[redacted]

https://www.independent.co.uk/climate-change/news/phone-electric-vehicle-congo-cobalt-mine-b2277665.html

Cobalt mining for Big Tech is driving child labor, deaths in the Congo

Child labor, sexual assault, birth defects, abject poverty, workers buried alive: A new exposé on artisanal cobalt mining in the Democratic Republic of the Congo lifts the curtain on a nightmarish world in which billions of people are unwittingly complicit. Senior climate correspondent Louise Boyle reports

[redacted]

Virtually all of our tech uses Cobalt and the Democratic Republic of Congo produces about 70% of it. The country has an estimated 2 million 'Artisanal' miners, including great numbers of children that work in hellish conditions to help produce our 'Green' technology. Forced evictions, rape, child labour, constant breathing of toxic fumes that cause severe health conditions and birth defects....
The point in stating these grim conditions is that the current squeaky clean image of solar, wind and other 'Green Tech' is very much a case of out of sight, out of mind. The reality of them includes environmental destruction and human rights abuses, and this is just at their current very sizeable levels. Couple this destruction with the levels of mining Simon Michaux states you'd need to reach the 2050 targets and you're looking at destruction that would adversely affect the planet and everyone/everything on it! Amnesty's question of 'Powering Change or Business as Usual?' seems to me to be grossly tipped in favour of Business at the expense of all.

Thirdly, I'm scared of losing the Countryside I grew up with and the mental health effects that would have on those I've known and loved all my life!

The claims that these Solar Industrial Estates (let's call them what they are) will be barely seen and actually improve biodiversity seem to me to be absurd nonsense claims. Lincolnshire is flat. Very flat. Virtually the only hill in the county (apart from the Wolds) is right behind my house and runs to Lincoln in one direction and further past us for miles in the other. If you're on that hill then it looks out onto the flats of Lincolnshire for vast distances. Looking down onto a 10,000-odd acre sea of grey shiny industrial panels surrounded by 80-odd km perimeter of guarded fences wont' just be noticeable, it will completely change the character of the countryside into something that can barely claim that definition! People from and living in the countryside love being there because they are open spaces that are in touch with the rhythms of nature. The pace is slow and the earth's cycles and the changing of the seasons are felt all the more

strongly for it. The idea that nature, or the people living next to or among them, will somehow flourish when surrounded by lines of tall metal structures stretching for mile after mile seems to me to be grossly unlikely. It has been shown in study after study after study that people greatly benefit from spending time in nature. Having that nature and the heritage they grew up with surrounded by 1000's of acres of industrial metalwork is likely to inversely damage them.

Fourthly, Food Security.

I'm sure there are plenty of people who will have pointed out the details and figures behind this area in much greater detail than I am currently able to - but it is of great concern to me. The stated reason for putting the solar on farmland rather than on rooftops, industrial sites and Brownfield is that sites need to have access to the storage facility. This assumes that the position of feeding the electricity into the grid is the best option. It would seem to make more sense to me to have smaller, decentralised power units that feed where the power is needed in a targeted way.
The war in Ukraine has already disrupted the world's wheat supply, affecting food prices. Now more than ever it would seem to me to be essential to protect our food sovereignty, and taking away vast swathes of productive farmland before using rooftops, industrial land and Brownfield in a more targeted way doesn't seem to me the way to go on that front.

Now I said at the start that I didn't approve of these solar farms 'in their current form.' To be clear, I'm not fully against solar, it's not just a case of NIMBY, and I currently live off a couple of panels and a couple of Lithium batteries myself. It is part of what we currently have and is part of a needed transition. Fossil Fuels are steadily dwindling and must be used wisely during this transition. I oppose these Solar Farms because I don't see them as a solution due to constraints of the minerals/metals supply and buffer needed and the scale of them. I believe they could do great damage in multiple areas.
On the whole though, I like to try and be an optimist in life. While the challenge is great, I do believe there is hope in alternative solutions. I picked the above video by Simon Michaux rather than others he's done because he does look at some other possibilities. Solar panels are improving in efficiency. Thorium reactors could produce energy much more safely and with much less waste than current nuclear reactors. Geothermal shows great potential, with yesterdays fossil fuel mines possibly becoming part of the solution. No one thing is the answer to all our problems, but I believe investing in the innovation to create the systems needed would be money much better spent than on millions of panels that will cause great destruction in their production and likely be obsolete within 10 years.

For the above reasons I feel that building these solar projects would be financially motivated 'Business as Usual' rather than part of a real solution. I hope that you will look for ways that will benefit future generations rather than greenwashing inconvenient truths and leaving a mess that may damage our countryside for generations to come.

Thank you for your time and your consideration,

Iain Tatam