To whom it may concern:

Apologies this is a few hours late as I had the wrong time for responses. This is a response on behalf of Greenpeace UK.

I'm aware of the response put together by NRDC, ClientEarth, SELC, Biofuelwatch and others and we commend that detailed response for consideration. I have nothing to add to the technical elements of what they identify.

However there is an important issue which does not fit squarely within the 35 questions you pose. It is about the capability of the political system to manage the questions bioenergy raises. I would cite 2 examples.

- 1. Indirect Land Use Change (ILUC) arising from biofuels caused by market disturbance to agricultural markets. This was raised formally with UK government in 2004 (if not before). It was raised more publicly in 2007 in UK and other countries as it became clear that a mandate for first generation biofuels had the potential to do much damage in developing country forest regions. 11 years later the concept of ILUC is widely accepted including in reports to the EU by JRC and others. Yet even in the EU which claims global leadership on sustainability has done little other than introduce a reporting mechanism, nor is there a prospect of doing so. The political system in UK and EU proved unable to manage the consequences of ILUC, even though in climate terms they may well render the policy expensive and pointless
- 2. Carbon Debt for woody biomass energy. This relates to the time lag between when a tree is cut down, transported and combusted and the carbon credit that occurs when a new tree has grown to absorb as much carbon as the old one in the meantime biomass will increase atmospheric CO2 concentrations. This risk was acknowledged in the original Bioenergy Review in 2011, and was raised publicly as a challenge to government and industry in 2012. Although resisted by industry at the time, the technical concept is no longer seriously disputed, although attempts to minimise its significance by talking about 'landscape scale impacts' and market dynamics have continued. But clearly the concept of impacts of this kind have been technically accepted for at least 7 years, yet no regulations in the world, including in UK, have acknowledged of tackled it. Again the prospect is of creating an expensive and pointless subsidy system.

I draw important conclusions from these experiences.

- a) Even relatively progressive governments struggle to deal with the complexity of indirect or counter-intuitive impacts of large scale bioenergy use
- b) At a micro-level, the reasons for this struggle can be debated but might include incumbent industries/lobbies, weak attention to detail of policy makers, low salience of impacts happening in other countries, features other than climate/environment having a bearing on decision making
- c) However there is NO CASE for saying that decision-making bureaucracies (although possibly not decision-makers themselves) were unaware of the problems outlined above for whatever reason, the decision process chose to substantively ignore them. In the face of this failure, further technical analysis would not necessarily abate policy failure
- d) Until assurance can be obtained that further policy failure wouldn't accompany further use of bioenergy, supporting or mandating bioenergy use should be avoided. Greenpeace sees no prospect of such an assurance becoming available.

e) To be clear this is not about technical analysis, of the kind that the CCC is able to do *par excellence*, but the inability of the policy/political system to deal with the meaning and consequences of such analysis in a complex world.

Yours Doug Parr

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