Department for Transport Consultation on the Draft Renewable Transport Fuel Obligations (Amendment) Order 2009

Response from Sussex Energy Group[1], SPRU, University of Sussex

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About the Sussex Energy Group

The Sussex Energy Group undertakes academically rigorous, inter-disciplinary research that engages with policy-makers and practitioners. The aim of our research is to identify ways of achieving the transition to sustainable, low carbon energy systems whilst addressing other important policy objectives such as energy security. Our core support is through a five-year award from the Economic and Social Research Council from April 2005, but we also have funding from a diverse array of other sources.

General comments

In view of the great uncertainties surrounding the sustainability of biofuels, ***we agree with the main recommendation of the Gallagher review***, i.e. adjusting the rate of increase of RTFO to reflect the need for caution in proceeding with support measures at least until the uncertainties have been reduced substantially. Future work should therefore concentrate on examining in more detail what these uncertainties mean in practice, and how policymaking should address them.

However, biofuel policy is complicated by a type of complexity which was fully reflected neither in the Gallagher review nor in the RTFO consultation document. The globalising context of biofuel policy makes it a prime example of decision-making under 'strong uncertainty', where not only facts are uncertain and disputed, but political stakes are high, decisions urgent, and the situation is characterised by a plurality of values and worldviews. In such circumstances, the legitimacy of the decision-making process becomes a criterion at least equally important as the scientific credibility of the underlying facts. Special attention should therefore be paid to the ***processes of appraisal and decision-making***. These should be as inclusive, participatory and deliberative as possible, and make explicit the underlying uncertainties, assumptions and contrasting values and worldviews.

The key question for UK biofuel policies in general, and RTFO in particular, is therefore not simply establishing the 'correct' rate of growth in the share of biofuel in transport fuel and implementing mandatory sustainability criteria. Instead, key questions relate to the processes of appraisal that precede the establishment of the sustainability criteria, ways of ensuring that the criteria are robust yet flexible enough to take account of the ***large variation in contexts across different production***

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localities, and ensuring proper ***implementation and enforcement*** of the sustainability criteria.

The ***impact assessment*** underlying the RTFO proposal (Annex D), while impressive in its level of detail, suffers from some of the shortcomings typical of methods that seek to aggregate different types of impacts, occurring at different moments in time, and affecting different groups of people, into a single unit of measurement, e.g. money. We do not argue for a complete abandonment of attributing economic value to social and environmental values (costs and benefits), but contest the idea that *all types of values* could be captured through a single measure. The aim of an impact assessment is not to seek the 'optimal' solution, but to allow better informed choices on the basis of clear and well-argued description in such a way that all parties to the planning and decision-making process can form their own opinion and settle down to the job at hand. True, the impact assessment presented in Annex D of the consultation document recognises the existence of non-monetisable costs and benefits, surrounded by uncertainties, yet the proposed solution for dealing with those uncertainties is highly unsatisfactory: by excluding from the assessment those aspects that are "too uncertain to monetise", steers attention from the essential to the measurable. The role of impact assessment should be, indeed, to highlight the uncertainties and make explicit the influence of different assumptions on the assessment results, rather than disregarding such issues as being too uncertain to include in the analysis.

A number of ***alternative methods of impact assessment*** have been developed, and could be used instead of those employed in assessing the options outlined in the consultation document (see e.g. Martinez-Alier *et al.*, 1998; Söderbaum, 1999; Stagl, 2007; Stirling *et al.*, 2007). Such methods should have as their guiding principle that different types of impacts should be presented on an equal basis, without prioritising e.g. the quantifiable impacts over the non-quantifiable ones. Conventional methods, including those employed in the RTFO document, tend to implicitly relegate to a second rank those impacts that cannot be easily quantified and therefore are presented as 'additional information', rather than being an integral element of the appraisal. By contrast, disaggregated appraisal methods that treat all impacts on an equal footing provide a more transparent basis for public discussion concerning the trade-offs and choices involved in different options.

One possible way of impact assessment would be through ***scenario exercises***, whose main objective would be to facilitate deliberation and negotiation by elaborating a broad range of possible future visions, instead of providing a supposedly 'objective' expert assessment of the most likely outcome or the elusive 'best' option. A scenario approach would make it possible to present biofuel futures in the form of conditional conclusions of the type: "given these assumptions and value standpoints, and prioritising these societal interests and objectives, the best alternative is *x*, whereas alternative *y* would be best under assumptions *a*, *b* and *c*." It is unlikely that such scenario exercises would automatically lead to a consensus. However, their true value would be to identify reasons for disagreements, facilitate debate among possibly irreconcilable viewpoints, increase transparency, and help to achieve 'reasoned disagreement' among different stakeholders.

In view of the fact that a substantial amount of biofuel to be used in the UK will come from Southern countries, and taking into account the large variation of conditions

across the potential biofuel producing regions, the ***inclusion of the different stakeholders beyond the UK borders*** in appraisal and decision-making will become crucial. This also highlights the importance of the political, cultural and social factors that shape the impacts of biofuels and conditions for the implementation of a credible sustainability assessment and certification system. For instance, Brazilian bioethanol is widely regarded as 'sustainable', yet many local NGOs and other observers have pointed out that Brazilian ethanol 'success story' conceals significant harmful health and social impacts in sugarcane-growing rural areas (e.g. Mendonça, 2006; Kenfield, 2007; da Silva, 2008).

Finally, the complexities associated with the political, cultural and social aspects of biofuel development highlight ***the limitations of any certification system*** in addressing the impacts of biofuels. These limitations apply to the institutional factors that govern agro-industrial development in the producing regions, but also to the indirect land use impacts of biofuels. A certification system, however comprehensive it might be, is not a guarantee for 'sustainability' and it may not be worthwhile to try to integrate the control of indirect land use impacts into sustainability criteria. Integrating the indirect land use impacts might also make a certification system excessively onerous and expensive, thereby working against especially the smallholder producing biofuels in the South. Instead, the impacts of biofuel development in the producing regions must be continuously monitored, but as part of a more general analysis of the institutional context. More direct integration of UK transport policy and development cooperation (DfT & DFID) would be desirable, as it would create better conditions for assessing the impacts of UK RTFO choices on Southern countries, as well as providing tools for correcting possible negative effects.

Comments on detail

- the requirement that biofuels should achieve a minimum of ***35% GHG savings*** in order to be eligible for RTFO lacks ambition and should be revised upwards; the UK could for instance follow the suggestions made by the organisation "Globe-EU" on current EU biofuel policy, i.e. requiring at least 50% GHG savings for 'next generation' biofuels and progressively increasing the level for all biofuels to 60%
- ***social impacts***, and participatory designs for their assessment, should be given particular emphasis in the future development of sustainability criteria
- ***question 17***: we are somewhat sceptical about the idea of imposing double-rewards for next generation biofuels from non-food sources – these technologies are not inherently more sustainable than the existing ones, but their impacts must be carefully assessed case by case; a preferred option would therefore be to retain the same, stringent criteria for all biofuels to qualify in RTFO, but ensure the development and deployment of new technologies through R&D funding and targeted support for deployment to those new technologies that fulfil the sustainability criteria

References

da Silva, Z. (2008). "Etanol: nefasto impacto social e ambiental." Retrieved 29 August, 2008, from http://www.sr-cio.org/index.php?option=com_content&view=article&id=60:etanol-nefasto-impacto-social-e-ambiental&catid=38:meioambiente&Itemid=63.

Kenfield, I. (2007). "Brazil's Ethanol Plan Breeds Rural Poverty, Environmental Degradation." Global Research, www.globalresearch.ca.

Martinez-Alier, J., G. Munda and J. O'Neill (1998). "Weak comparability of values as a foundation for ecological economics." Ecological Economics **26**(3): 277-286.

Mendonça, M. L. (2006). A OMC e os efeitos destrutivos da indústria da cana no Brasil. Cadernos de formação 2. São Paulo, Informações - Rede Social de Justiça e Direitos Humanos.

Söderbaum, P. (1999). Valuation as Part of a Microeconomics for Ecological Sustainability. Valuation and the Environment: Theory, Method and Practice. M. O'Connor and C. Spash. Cheltenham, UK and Northampton, MA, USA, Edward Elgar**:** 87-107.

Stagl, S. (2007). SDRN Rapid Research and Evidence Review on Emerging Methods for Sustainability Valuation and Appraisal; A report to the Sustainable Development Research Network; Final Report.

Stirling, A., M. Leach, L. Mehta, I. Scoones, A. Smith, S. Stagl and J. Thompson (2007). Empowering Designs: towards more progressive appraisal of sustainability. STEPS Working Paper 3. Brighton, STEPS Centre.