

Teagasc and IrBEA responses to IERC report

1. Teagasc and IrBEA welcome the publication of the Energy Research Strategy for Ireland by the Irish Energy Research Council. The report cites energy supply security and global warming issues as the main drivers of energy policy; in addition, we view the provision of alternative opportunities for rural enterprises as a key objective of bio-energy development.
2. The report identifies Sustainable Bioenergy as a priority area for targeted action; both organisations fully support this approach. Research in the area has been inadequately funded for many years, and in view of the biomass requirements within the various renewable energy targets set out by government, a comprehensive research programme addressing the many aspects of a land use change to achieve these targets is urgently needed. Teagasc has maintained a research programme in the area for many years with little external support, and is currently expanding its bioenergy research team. It has the land resource and capacity for field and laboratory crops research that will equip it to take a lead role in the breeding, selection, agronomy, harvesting, storage/drying and on-farm processing of bio-energy crops. It is also equipped to monitor the fuel quality of both feedstocks and biofuels, and to investigate the environmental impacts of biofuel crop production programmes.
3. While this report deals solely with energy, we also expect the emergence of a demand for biomass for other industrial uses currently supplied by petrochemicals. Parallel research will therefore need to examine a range of non-fuel industrial biomass uses. This should eventually lead to the development of biorefineries in which both energetic and other industrial products will be manufactured.
4. Most of the bio-energy support measures introduced to date have focussed on stimulating the use, rather than the production of biofuels. This has had the effect of increasing imports, rather than home production of biofuels. The long-term effects of such policies need to be carefully evaluated, especially in view of growing concerns about the sustainability of imported biofuels.
5. Both organisations agree fully with the view expressed in the report that government actions and support measures for the various bio-energy sectors need to be spelled out clearly and quickly to allow priorities to be assigned to research in these sectors. For example, while the biomass substitution target for the peat stations has been set out, little progress towards the achievement of those targets can be made until an adequate payment system for bio-

electricity from these stations (to allow a realistic price to be paid for biomass crops) has been established. Also the absence of a post-2010 strategy for liquid biofuel support is stifling development in the sector.

6. We note that first-generation biofuels are proposed to be excluded from research priorities within Sustainable Bio-energy. While understanding the wish of the authors to promote energy production from non-food biomass, we feel that the phraseology in the report could have some undesirable unforeseen consequences. For example, it would preclude support for research on biogas as engine fuel, a first-generation technology that will need lots of research as we change to a wider range of feedstocks. Biodiesel production from micro-algae would be in a similar position. Also, failure to commercialise first-generation technologies will diminish our prospects with the second generation. We suggest that a more suitable wording for the report would be that research on the energetic conversion of cellulosic crops and of residues and wastes should be given priority over the use of starch, sugar and oil crops.
7. With regard to the identification of Ireland's energy resources, Teagasc feels it is well placed to examine the potential of Irish agriculture to produce a range of biofuel crops, and the impacts any change of land use might have on current agricultural production. Teagasc also views itself as in a position to maintain a watching brief for biofuel production/processing technologies with potential for application in Ireland.