#### Hamilton, Margaret

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Edgar, Freda 09 August 2002 09:50 McCusker, Tony

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Cc:

Beatty, Malcolm; Burnside, Valerie; Daly, Doreen; McKee, Frances; McWhinney, Gerry; Stainer, Tom; Toal, Pat Renewable Energy: need for a DARD strategy

Subject:

Mr McCusker

See attached from CSO.

Freda

CC

DMB Mr Beatty Mr McWhinney Mr Stainer



Mr T McCusker, Renewable Energ...

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FROM: Professor C H McMurray

9 August 2002

#### Mr T McCusker

### RENEWABLE ENERGY: NEED FOR A DARD STRATEGY

- 1. I am writing in support of the need for DARD to develop a coherent strategy for Renewable Energy. Mr McKee's minute to you of 8 August refers.
- 2. In my judgement this is long overdue and as one who has taken a considerable interest, I have always been disappointed that the nettle and the opportunity have not been grasped to develop a coherent approach in stimulating a potentially important new industry in NI.
- 3. While the entry costs are likely to be significant initially, these are likely to come down as the application takes off ie in costs of establishment, the use of new cultivars (increased yield) etc. However like any new industry, the stimulus has to be there initially to ensure a sound base for future development.
- 4. This is particularly important given the commitment by Government to exploiting renewable energy for wider policy objectives for instance in reducing carbon dioxide emissions (Short Rotation Coppice as an energy is carbon neutral).

# DARD Research & Development

5. There is no doubt in my mind that we can put viable systems in place. The ground breaking work of Malcolm Dawson at Loughgall in both the Agronomy of the crop, the establishment of the demonstration integrated system at Enniskillen (growing, and utilisation of the crop via a gasifier with associated combined heat and power plant) and transfer of the technology to Rural Regeneration and now the potential use for bioremediation have provided a UK lead which others have been keen to exploit. But not in NI, simply because the necessary infrastructure in supporting the crop establishment has been missing. (The Woodland Grant Scheme has been inadequate for this purpose.)

- 6. This all has left the Department with a dilemma in that we have not been able to effectively promote the uptake of the crop by farmers because we have been aware of the funding gap locally (and especially compared with support available in England (&) Wales?).
- 7. Other Departments (DETI) and the Energy Regulator have been dismayed that we haven't been able to (or wanted to) seize the opportunity.
- 8. There is no doubt in my mind that DARD has a mainstream role here in promoting alternative land use, the use of a new crop, a diversification opportunity and a means of supporting rural communities and associated co-operative ventures.

## Other Energy Crops

- 9. There is another potential Renewable Energy Crop on the horizon Miscanthus. Until recently we have been advised that this would not be suitable in NI. However new strains may provide another vehicle for delivery of the same Renewable Energy Objectives and I have asked Malcolm Dawson to explore the setting up of suitable trials.
- 10. There is a completely different dimension also emerging: that is the potential of using such crops for Fuel Ethanol production. While we once thought this would be uneconomic, the policy background is changing:
- (a) The Chancellor is relaxing the tax structure for renewable fuels (this is being done for biodiesel) and there is significant interest by the DTI to mirror what is already happening in other countries eg Sweden and the USA. Brazil of course has a long-standing industry devoted to Ethanol as a fuel.
- (b) New technologies emerging from Canada and the USA are utilising woody fuels, (cellulose substrates compared with older technology using starches) for ethanol production.

## Non-Food Crops

11. Another opportunity that should be over looked is the use of Non Food Crops – for production of speciality chemicals eg

flavourings, perfumes, to name but a few. There is a very substantial body of data and significant reports have been produced. It would be easy to arrange a specialist seminar to provide an overview.

## The Way Forward

12. I fully support Mr McKee's recommendation that there needs to be a policy review. In my judgement DMB needs to commission this review and therefore it would be appropriate for you to table a shortened paper for consideration at DMB. Unfortunately I won't be there to support.

While the first priority is a policy on Renewable Energy there is a broader need for a policy on Industrial Crops (which SRC could be regarded as a part).

13. I am of course available to discuss (either employed or unemployed).

# CECIL H McMURRAY Chief Scientific Officer

cc DMB
Mr Beatty
Mr McWhinney
Mr Stainer