

**HOWARDIAN HILLS
AREA OF OUTSTANDING NATURAL BEAUTY
JOINT ADVISORY COMMITTEE
30 MARCH 2006**

ENERGY CROPS

1.0 PURPOSE OF REPORT

- 1.1 To give members an opportunity to discuss the issues surrounding the growing of energy crops in the AONB.

2.0 BACKGROUND

- 2.1 Approximately 10 years ago, in response to the issue of climate change, the Government introduced incentives to encourage the production of energy from renewable sources, principally biomass crops. In the early days Short Rotation willow Coppice (SRC) was the most popular crop grown on arable land, supported by payments from the Forestry Commission. Many members will remember the Arbore Project at Eggborough, which was set up to produce electricity from the chippings harvested from the SRC. Members will also remember that the Arbore Project failed, primarily due to the technical complexity of the gasification process it used, leaving many farmers with mature SRC and no end market.
- 2.2 In recent years new biomass crops and markets have come onto the scene. Miscanthus, or Elephant Grass, is now the preferred biomass crop. It is harvested annually, unlike willow which can only be harvested every 3 years, and therefore provides a more regular return for the farmer. Electricity generating companies are also now required to produce a proportion of their output from renewable sources. As a consequence, Drax power station is co-firing wood and other organic matter alongside coal. This simple burning technology allows a wider variety of fuels to be used and it is understood that Drax is currently burning willow chippings from SRC, forest residues and waste industrial wood.
- 2.3 Further supplies of biomass crops will however be needed to supply the demand created by the co-firing at Drax. A local producer group (BiCal) has been established to promote the growing of miscanthus crops on farmland within a 50 mile radius of Drax. BiCal is offering supplier contracts, which are a pre-requisite for farmers wishing to obtain grant aid from Defra for growing such biomass crops.
- 2.4 To date, 3 farmers in the AONB have applied to Defra for grant aid for growing miscanthus, at Ampleforth, Newburgh and Brandsby. Farmers must contract to grow at least 25ha – the 3 current proposals total some 80-85ha. As an indication of how this will relate to the needs of Drax, it is estimated that the power station will burn the annual output from 25ha in less than 30 seconds.
- 2.5 Miscanthus grows to approximately 8-9ft tall and is similar in appearance to reed. Its nearest comparable agricultural crop is maize. Growing from rhizomes, the crop is green until approximately January, when the leaves turn brown. It is harvested in March, after which the growing cycle begins again. The growing cycle and illustrative photos are attached as Appendix 1.

3.0 ISSUES

- 3.1 **Landscape.** Perhaps the main issue is how the crop will fit in the landscape, in a similar way that concerns were raised in the past about oilseed rape, linseed and other ‘colourful’ crops. These are now considered to be part of the agricultural landscape and it is perhaps likely that biomass crops will be perceived the same way.

Being similar in appearance to reed, it seems to fit well in the landscape in valley bottoms, where reed beds might have existed in the past. Because it is a dense crop that cannot be seen through or over, and because it is standing 8-9ft tall between late summer and its harvest in March, there may be issues about loss of views if the crop is grown next to popular viewpoints.

- 3.2 **Biodiversity.** As it provides a different type of habitat, and is grown on agricultural land, it is likely that some species of animals and birds will use miscanthus for feeding, sheltering or nesting. As such, it could provide a useful habitat to increase the local populations of some species. The Game Conservancy Trust has already conducted research into its use by songbirds and pheasants.

In contrast, the loss of large areas of open arable land could be detrimental to other species of farmland birds. Birds requiring wide open spaces or cereal stubble, such as skylark and grey partridge, may experience declines in a landscape which has significant areas of miscanthus.

- 3.3 **Recreation.** There may be an issue where public paths that once crossed open arable fields now follow a tunnel through a miscanthus crop, which could prove off-putting to path users.
- 3.4 **Transport.** Significant vehicle movements will be needed to transport the harvested miscanthus to Drax. However, these may only replace the vehicle movements that would be generated if wheat, potatoes or sugar beet were grown. Miscanthus is cut with a silage mower and then baled in a similar way to straw, so it may not be unreasonable to assume that vehicle movements will not increase significantly, but just take place at a different time of year.

4.0 RECOMMENDATION

None.