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Miscanthus Incentive Program Will Further Understanding of Environmental and Societal Impacts of Energy Biomass Systems

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Title IX of the 2008 Farm Bill authorized the first federal government subsidy program for energy biomass known as the Biomass Crop Assistance Program ("BCAP"). After years of delay, the Farm Service Agency (FSA) is now in full swing implementing the "Project Area" portion of the Program. Project Areas provide establishment and annual payments to producers for the planting and growing of non-food-based perennial crops and trees. The other portion of BCAP-Matching Payments (MPs)-pays an eligible material owner up to \$45 per dry ton for the collection, harvest, storage and transportation of biomass delivered to a qualified biomass conversion facility. The MP program proved highly controversial in its initial implementation throughout 2009-2010, however, due to budgetary impacts and supply pressures it created for industries that depend on forest feedstocks such as mulch and particle board. Environmentalists further questioned the environmental effects of such a payment to the extent it encouraged overharvesting of forests. Therefore, FSA has delayed MP implementation at least through mid-Summer, if not permanently.

Unlike any other federal agricultural subsidy program, FSA is requiring potential recipients of BCAP Project Area monies to conduct an environmental assessment (EA) under the National Environmental Policy Act (NEPA). FSA recently awarded a Project Area to Aloterra Energy LLC and MFA Energy Oil Biomass LLC upon its finding that no significant environmental or social impacts would result from the project if properly monitored and mitigated. Aloterra and MFA's operations will depend solely on miscanthus X giganteus feedstocks for co-firing, pelleting and other energy uses, with projections of over 200,000 acres planted by 2014. The project sponsors note that renewable energy mandates at state and local levels in the U.S., as well as in Europe, will create the demand critical for farmers to switch to dedicated biomass cropping.

Although the environmental impact monitoring and mitigation FSA has imposed on the project undoubtedly adds expense to an industry in its nascency, the data Aloterra/MFA will collect should go a long way in curbing unsupported conjecture surrounding the pressures energy biomass might place on human and natural systems. For example, the Aloterra/MFA project has the potential to produce high yields on marginal lands, with only some lesser-productive beef and corn production displaced. This demonstrates that biomass projects can be viable in the long-term while avoiding the "food versus fuel" debate that threatens to sideline biomass feedstocks as a source of fuel and electricity. Project

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monitoring will also provide scientists with valuable insight on changes in ecosystem dynamics in response to increased perennial cropping, which could include improvement in water quality from reduced inputs and erosion prevention, expansion of wildlife habitats, and overall diversification within landscapes. To address fears of invasiveness, FSA will require Aloterra/MFA to take extensive measures to mitigate any invasiveness potential of the already sterile, rhizomatous miscanthus, including agreeing not to plant the crop within 1,300 feet of other species of miscanthus (e.g., sacchariflorus or sinensis) to limit the potential for cross-pollination that could produce viable seed.

FSA expects to complete review of other project area applications by the end of June. While it remains to be seen the extent to which FSA will require environmental assessments for additional project awards, the growing biomass-to-energy sector will undoubtedly inform the wider debate on its societal and environmental impacts.