Brief Review of USDA's July 22, 2009 Economic Analysis of the "American Clean Energy and Security Act" (ACES)

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Secretary Tom Vilsack released USDA's preliminary analysis of the economic impacts of the ACES bill during testimony before the Senate Agriculture Committee on July 22, 2009. The USDA press release summarizing the Secretary's prepared remarks, and the 13-page economic analysis are posted on the USDA website. Access the report at -- http://www.usda.gov/oce/newsroom/archives/releases/2009files/HR2454.pdf.

The Department stresses that this analysis is preliminary and incomplete, but nonetheless places considerable weight on the findings in arguing that farmers will, in the end, benefit from the new policies in the ACES bill.

The major cause of added costs to the agricultural sector from the ACES bill come through increases in energy costs. The USDA relies on the EPA's analysis of the impact of ACES on the costs of different forms of energy. The increases are surprisingly modest, and likely understate by a wide margin the actual likely upward trajectory in energy costs. For example, the EPA projects, and the USDA includes in its analysis, that the cost of petroleum based fuels in 2020 will rise only 4% above baseline. Natural gas will rise 8.5% by 2020. Even by 2050, long after the world surpasses peak oil, petroleum prices are projected to increase only 14.6%.

These increases almost certainly underestimate the actual increases likely in all forms of energy used in agriculture. Given that energy prices are likely to rise more sharply than projected, and increase in volatility, the relatively modest additional impacts on prices linked to implementation of ACES will warrant little more than a footnote as farmers struggle to adapt to significantly higher energy costs.

To soften the impact of the ACES bill on farmers, Congress added a major loophole, the so-called "energy-intensive, trade exposed entities" (EITE) provision. The goal of this provision is to protect U.S.-based industries in the near-term (2010 through 2025) from an influx of imports from countries not impacted by the energy-price driven increases triggered by the bill. The nitrogen fertilizer industry will be by far the major agricultural beneficiary of this provision, and will receive what amounts to a near one-half billion dollar annual subsidy. In the USDA analysis, the value of this EITE for corn farmers is estimated at $4.82 per acre.

Virtually everyone agrees that progress in reducing agriculture's net GHG emissions will require major improvements in the efficiency of nitrogen use in corn production. Well less than one-half the applied nitrogen is utilized by the crop today and corn production is the major source of nitrous oxide from farming, a greenhouse gas 310-times more potent than CO_2 in terms of Global Warming Potential. Conventional corn farming is leaky and wasteful of energy. Big changes are inevitable as energy prices rise, but are less likely to happen if Congress and the

Administration create a near one-half billion dollar subsidy to keep nitrogen fertilizer artificially cheap. There are clear alternatives – the Senate could alter ACES to allow the price of energy-intensive nitrogen fertilizers to rise, while placing tariffs on imports equal to or greater than the price increase.

The USDA's analysis points clearly to a huge political challenge – the costs of the ACES bill will be spread fairly evenly across all agricultural sector's, with those farmers most reliant on energy-intensive inputs facing the steepest percentage increase in costs. Not so the benefits: the carrot for farmers in the ACES bill is the offset program, which will pay farmers for practices that sequester added carbon in the soil.

Farmers in different regions, growing various crops, crop farmers versus livestock operations, dryland farms versus irrigated operations, will all have different opportunities to change systems to sequester more carbon in the soil. Whenever new dollars flow to farmers as a result of government policy change, the inclination of Congress is to spread the benefits out equally and widely. Doing so will undercut the basic purpose of the ACES program, since opportunities to sequester substantial carbon in soils are not evenly distributed.

Questions and skepticism also persist about the size of the offset payments. In the press release on the Secretary's Senate appearance, the Department projects a payment of $6.40 per acre for a Northern Plains wheat farmer affixing 0.4 tons of carbon per acre, based on a carbon price of $16 per ton.

Given that it will take major farming system changes to sequester that much carbon in a dryland wheat farming system, and the fact that carbon trading programs are paying around $5.00 per ton today, not $16.00, it is clear a lot has to change for this scenario to become reality. In addition, the $6.40 payment linked to efforts to combat climate change on that hypothetical Northern Plains wheat farm are just a small portion of the likely total USDA subsidy payments.

If and as new policies are put in place to bring about climate change-driven payments, Congress and the USDA will have to adopt novel policies to assure that other farm program, and even conservation payments reinforce rather than undermine progress toward more climate-friendly farming systems.

At this point, the ACES bill dances around, or just flat out ignores, some of the most promising farming system changes, if the goal is to cost-effectively reduce net agricultural GHG emissions. These options include adoption of organic farming systems, re-inventing the nitrogen cycle on corn farms, shifting beef cattle from the feedlot back onto well-managed pastures, reducing per capita consumption of beef, and adoption of water-saving irrigation system technology, especially drip systems. If and as American agriculture gets serious about reducing greenhouse gases and as higher energy prices force changes down on the farm and in society as a whole, these will be among the changes delivering the biggest bang for the buck, regardless of who is picking up the check.