

Setting the Stage – Agricultural Sector Carbon Market Workgroup

The agricultural sector in Washington State is identified, along with the forestry sector, as having the potential to provide carbon offsets or other credits within a state or regional cap and trade system. Offsets or other credits may be long or short term in duration depending on their acceptability within a regional carbon market. Given the proposed reductions for greenhouse emissions cited in the Washington goals and/or those proposed by the Western Climate Initiative, the opportunity exists for a portion of that demand to be met with high quality carbon offsets or other credits generated through agriculturally focused projects.

In acknowledgement of this fact, the Washington State Legislature directed an analysis of the potential for these credits to be developed within a voluntary program that considers potential economic advantages/disadvantages to Washington agricultural producers that may arise from the state's participation in a regional cap and trade system. These offsets or credits may be used to assist entities faced with a regulatory cap on their emissions to achieve emission goals.

Methods used to generate offsets or other credits within the agricultural sector generally have co-benefits to the environment. Studies conducted by the federal government and universities focused on modifications to agricultural practices such as no-till, direct seeding, precision farming, and conservation set-a-sides have been shown to result in an increase of stored carbon stocks in both soil and biomass. New technologies related to anaerobic digestion or animal manure alone or coupled with other waste streams have demonstrated the ability to reduce greenhouse gases such as methane, not only by emission reduction, but through the generation of electrical power and organic fertilizers.

Several areas within the agricultural sector exist for carbon offset exploration while providing environmental co-benefits. Those areas that diverge from the business as usual paradigm and hold the most promise from an implementation and verification standpoint have been the subject of review by the Agricultural Sector Carbon Workgroup (ASCMW). Based on these considerations the ASCMW has elected to focus efforts on four of the six areas identified in 2007 by the Climate Advisory Group. They are:

- Agricultural Lands Set Aside or Managed for Conservation
- Management of Agricultural Lands Using Precision Management Techniques
- Management of Agricultural Lands to Promote Carbon Sequestration
- Development of Digester Systems to Manage Livestock and Agricultural Bi-Products

In evaluating each of these areas the ASCMW has attempted to address as many existing concerns regarding offsets developed within a biological system as possible. As is the case with most biological systems, it is not always easy to directly measure input and outputs. In consideration of this fact, potential actions that may result in the generation of a carbon offset or credit must consider the ability for direct quantification or when it is necessary to rely on the application of models or other indirect methods that remove a sufficient amount of the uncertainty such that confidence is achieved with acceptable statistical limits.

The ASCMW has provided a series of recommendations regarding not only the potential for offset development within the agricultural sector (subject to the conditions of the Washington State Legislature), but also the outline for “protocols”, by which development of carbon offsets or other credits within the agricultural sector may begin. Included in the products delivered by the ASCMW are recommendations for policy development or modifications that may be necessary to facilitate offset development while achieving a higher level of environmental protection and increasing the profitability of the agricultural sector with the intent to continue to build and develop practices that result in a decline of greenhouse gases in all sectors within Washington State.

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