

GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2009

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SENATE DRS55543-SYZ-12A\* (03/23)

Short Title: Study Carbon Offsets and Carbon Sequestration.

(Public)

Sponsors: Senators Stein, and Albertson.

Referred to:

A BILL TO BE ENTITLED

AN ACT TO DIRECT THE DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES, THE DEPARTMENT OF COMMERCE, AND THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO EVALUATE THE CARBON SEQUESTRATION POTENTIAL OF NATURAL AND WORKING LANDSCAPES IN THE STATE; TO STUDY OTHER OPPORTUNITIES TO DEVELOP CARBON OFFSETS WITHIN THE STATE; AND TO STUDY THE FEASIBILITY AND ADVISABILITY OF ESTABLISHING A CARBON OFFSET PROGRAM IN THE STATE, AS RECOMMENDED BY THE LEGISLATIVE COMMISSION ON GLOBAL CLIMATE CHANGE.

The General Assembly of North Carolina enacts:

**SECTION 1.(a)** Definitions. – As used in this act:

- (1) "Cap and trade program" means any program that (i) places a limit, or cap, on the total amount of greenhouse gas emissions that is allowed under the specific target for greenhouse gas emissions set under the program, (ii) allocates greenhouse gas emissions as credits to individual businesses so that the total credits allocated equal the cap, (iii) and allows businesses to bank credits for the future or to buy and sell credits based on whether a particular business reduced or increased its greenhouse gas emissions in a given year and the value of the credits in the marketplace.
- (2) "Carbon offset" means the credit given for activities that result in the reduction or avoidance of greenhouse gas emissions, or for the sequestration of greenhouse gases. For the purposes of this act, one carbon offset shall be equal to the reduction, avoidance, or sequestration of one metric ton of carbon dioxide emissions or its functional equivalent in other greenhouse gases.
- (3) "Carbon sequestration" means the absorption from the atmosphere of carbon dioxide by vegetation and soils; and the storage of carbon in vegetation and soils.
- (4) "Greenhouse gas" means any gas that contributes to anthropogenic global warming, including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

**SECTION 1.(b)** Study. – The Department of Agriculture and Consumer Services, the Department of Commerce, and the Department of Environment and Natural Resources shall jointly evaluate all of the following:



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- 1 (1) The carbon sequestration or reduced emission potential of all lands,  
2 wetlands, and coastal waters, including working and natural landscapes in  
3 the State, from the following practices:
  - 4 a. Alternative farming practices.
  - 5 b. Soil carbon management and storage.
  - 6 c. Reduced methane emissions from animal waste management  
7 systems.
  - 8 d. Alternative methods of forest management that can increase carbon  
9 sequestration, accounting for changes in the mortality and  
10 distribution of tree and other plant species, and the extent to which  
11 carbon is stored in trees and wood-based building materials.
  - 12 e. Avoided conversion of agricultural and forestlands.
  - 13 f. Protection and enhancement of natural landscapes and diverse  
14 ecosystems.
  - 15 g. Preserving and restoring coastal salt marshes, sea grass beds, oyster  
16 reefs, and other fisheries habitats.
  - 17 h. Sustainable use of forest resources for biomass energy production.
  - 18 i. Other practices that the agencies find relevant.
- 19 (2) Current and developing technologies for carbon sequestration, including the  
20 potential use of microalgae and biochar.
- 21 (3) Existing carbon sequestration and carbon offset programs and policies,  
22 including voluntary programs.
- 23 (4) Standards and certification regimes in place for verifying the benefits of  
24 carbon sequestration and carbon offset programs, and the feasibility of  
25 utilizing State agencies for verification.
- 26 (5) The anticipated costs for landowners, farmers, foresters, and other interested  
27 parties in the State to participate as offset providers in a cap and trade  
28 program for greenhouse gas emissions, including the costs of monitoring  
29 greenhouse gas emissions, satisfying reporting requirements, and any other  
30 costs.
- 31 (6) The anticipated benefits for landowners, farmers, foresters, and other  
32 interested parties in the State to participate as offset providers in a cap and  
33 trade program for greenhouse gas emissions, including any likely increase in  
34 their annual incomes.
- 35 (7) Other co-benefits associated with activities related to carbon sequestration in  
36 the State, including improved water quality, soil quantity and quality, air  
37 quality, and wildlife habitat.
- 38 (7) The advantages and disadvantages to the State in developing or  
39 implementing its own carbon offset certification programs or carbon offset  
40 trading systems in the event a federal cap and trade program for greenhouse  
41 gas emissions is enacted.
- 42 (8) Any other issues the agencies consider relevant to this topic.

43 **SECTION 1.(c)** Consultants. – In the conduct of this study, the agencies may  
44 employ independent consultants as provided by G.S. 120-32.02 and G.S. 120-70.44.

45 **SECTION 1.(d)** Advisory committee. – The agencies may convene an advisory  
46 committee of interested parties to assist in the design and implementation of the study.

47 **SECTION 1.(e)** Report. – The agencies may submit an interim report of their  
48 findings and recommendations to the Environmental Review Commission no later than  
49 September 1, 2011. The agencies shall submit a final report of their findings and  
50 recommendations, including any legislative proposals, to the General Assembly on or before  
51 April 1, 2012.

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**SECTION 2.** This act is effective when it becomes law.