



American Society of Agronomy • Crop Science Society of America • Soil Science Society of America

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Secretary of Energy
Department of Energy
Office of the Chief Financial Officer
1000 Independence Ave., SW
Washington, DC 20585

December 16, 2013

Dear Dr. Ernest J. Moniz:

Thank you for the opportunity to submit comments on the Draft DOE Strategic Plan for 2014-2018. We would like to address three main components of the strategic plan:

- The role of agriculture in our energy challenges
- Support for fundamental biological and environmental scientific research
- Attract and retain necessary workforce to meet goals

A recent USDA Economic Research Service Report, “Energy Use in the U.S. Food System” (2010) suggests that food-related energy use as a share of the national energy budget grew from 14.4 percent in 2002 to an estimated 15.7 percent in 2007. **We believe that DOE should acknowledge the trends in energy use in the various sectors of the food supply chain as it applies to Strategic Objective 1.**

Strategic Objective 1 focuses on mitigating climate change by reducing greenhouse gas emissions largely through carbon capture and sequestration mechanisms, but does not acknowledge how advancements in agricultural research can help increase crop yields, improve production management, and therefore reduce emissions associated with agriculture¹.

A broad, interdisciplinary knowledge base will be required to develop a better understanding of the mechanisms associated with emissions from agriculture related crop and animal production systems and develop new technologies to reduce emissions through research such as biotechnology and genomics that produces sustainable agricultural products.

Therefore, **we support Strategic Objective 3** to conduct fundamental science and innovation, especially in the highlighted area of concentration: “Biological and environmental sciences focused on exploring

¹ David I. Gustafson, Michael Collins, Jonna Fry, Saori Smith, Marty Matlock, David Zilberman, Jereme Shryock, Michael Doane & Nathan Ramsey, International Journal of Agricultural Sustainability (2013): *Climate adaptation imperatives: global sustainability trends and eco-efficiency metrics in four major crops – canola, cotton, maize, and soybeans*, International Journal of Agricultural Sustainability, DOI: 10.1080/14735903.2013.846017

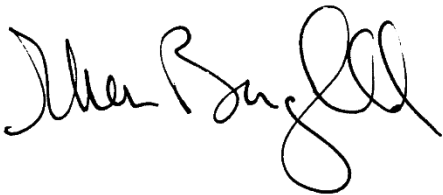
genome enabled biology, discovering the drivers and impacts of climate change, and seeking the determinants of environmental stewardship.”

In order to meet this objective, **we recommend that DOE establish an interagency advisory committee for food systems and agricultural research** with other science agencies, such as, but not limited to, the National Science Foundation and the US Department of Agriculture.

We would also request clarification on a Performance Goal under Strategic Objective 3 – “Develop capabilities to extend understanding of critical sub decadal processes and incorporate results into Earth system models to improve long term climate change projections.” How is the agricultural sector being handled in this activity?

Lastly, **we support Strategic objective 12**, “Attract, manage, train, and retain the best workforce to meet future mission needs.” DOE currently employs soil scientists at the national labs to work issues related to nuclear waste remediation. We recommend you continue to recruit scientists from the agronomy, crop, and soil science disciplines who have the expertise in managing land and crops to meet the goals of this strategic plan in the strategic objective of climate change and biofuels.

Sincerely,

A handwritten signature in black ink, appearing to read "Ellen Bergfeld". The signature is fluid and cursive, with a large loop at the end of the last name.

Dr. Ellen Bergfeld

CEO of American Society of Agronomy, Crop Science Society of America, Soil Science Society of America