



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

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May 17, 2022

The Honorable Dianne Feinstein
Chairwoman
Subcommittee on Energy and Water
Senate Committee on Appropriations
331 Hart Senate Office Building
Washington, DC 20510

The Honorable John Kennedy
Ranking Member
Subcommittee on Energy and Water
Senate Committee on Appropriations
416 Russell Senate Office Building
Washington, DC 20510

RE: FY2023 Appropriations—Support for the Department of Energy, Office of Science and the Advanced Research Projects Agency – Energy

Dear Chairwoman Feinstein and Ranking Member Kennedy:

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) represent more than 8,000 scientists and students, 13,500 Certified Crop Advisers (CCA), and over 700 Certified Professional Soil Scientist (CPSS). We are the largest coalition of scientists and professionals dedicated to the agronomic, crop and soil science disciplines in the United States.

The Nation's agricultural system must sustainably produce food and fuel despite unpredictable conditions and growing global competition. America's economic prosperity and security depend on our dedication to developing innovative, science-based solutions to meet our growing agricultural needs.

We support **\$8.8 billion for the Department of Energy's (DOE) Office of Science** in fiscal year 2023. Energy is inextricably linked to agriculture and food production. Not only do farmers produce energy crops, bolstering rural communities and sustaining America's energy independence, but on-farm energy use is tied to sustainable agricultural practices developed by agronomists and crop and soil scientists. American farmers depend on scientific advancements to achieve reliable yields while their crops efficiently use water and nutrients and effectively withstand pests and disease. The DOE Office of Science uses the latest physical, computational, and biological technologies to understand the principles controlling plant and microbial systems important to bioenergy and environmental applications.

Within the DOE Office of Science, we specifically support:

Basic Energy Sciences (BES). BES is a multipurpose, scientific research effort that fosters and supports fundamental research to expand the scientific foundations for new and improved energy technologies and for understanding and mitigating the environmental impacts of energy use. The research disciplines that the BES program supports include chemistry, soil, mineralogy, and geosciences. These subjects influence virtually every aspect of energy production, conversion, transmission, storage, efficiency, and waste mitigation.

Biological and Environmental Research (BER). The BER program produces advanced environmental and biological knowledge that supports national security through improved energy production, international scientific leadership, and research that improves the quality of life for all Americans. BER supports these vital missions through competitive and peer-reviewed research at national laboratories, universities and private institutions.

ASA, CSSA, SSSA have made the commitment to enhancing the experiences, opportunities, and safety of all Society members by creating a diverse, inclusive, and equitable environment in our scientific fields of study. DOE Office of Science can play an invaluable role in addressing the equity challenges facing minority and underrepresented groups within the research workforce. We know that students and researchers from disadvantaged backgrounds are less likely to choose a field with unreliable funding. Robust federal funding for DOE Office of Science can advance a more representative and equitable research enterprise by bolstering the student pipeline, expanding educational programs and grants - especially for MSIs, expanding resources for early career researchers, and facilitating collaborations with diverse stakeholders to address existential threats, such as climate change.

Additionally, ASA, CSSA, and SSSA support at least **\$575 million for ARPA-E** in fiscal year 2023. The Advanced Research Projects Agency – Energy (ARPA-E) takes an innovative approach to funding transformative, early-stage energy research in support of American energy security and economic competitiveness. Farmers rely on investments in biofuel crop research for seeds, tools, and technologies that keep their crops healthy and the market profitable. Biofuel farming also has the potential to be carbon-neutral or even carbon-negative – putting atmospheric carbon back into the soil. This is a win for the farmers, who benefit from richer, more productive soil, and for the planet. So far, however, that potential has yet to be realized. Programs like ARPA-E’s SMARTFARM (Systems for Monitoring and Analytics for Renewable Transportation Fuel from Agricultural Resources and Management) aim to bring carbon-negative farming within reach for biofuels producers, increasing the value of their crop through on-farm, low-cost sensors and other technologies.

Energy science research is an essential component of America’s energy independence. A strong commitment to federally funded energy research will boost the Nation’s capacity for innovation, agricultural productivity, and economic prosperity.

Thank you for your consideration. For additional information or to learn more about ASA, CSSA, and SSSA, please contact Rachel Owen at rowen@sciencesocieties.org or 608-268-4965.

Sincerely,

A handwritten signature in black ink, appearing to read 'Luther Smith', with a stylized, sweeping flourish at the end.

Luther Smith, Interim CEO
American Society of Agronomy
Soil Science Society of America
Crop Science Society of America

Cc: Members of the Senate Appropriations Subcommittee on Energy and Water Development, and Related Agencies