

April 13, 2023

The Honorable Andy Harris
Chairman
Subcommittee on Agriculture
House Committee on Appropriations
2334 Rayburn House Office Building
Washington, DC 20515

The Honorable Sanford Bishop Jr.
Ranking Member
Subcommittee on Agriculture
House Committee on Appropriations
2407 Rayburn House Office Building
Washington, DC 20515

The Honorable Martin Heinrich
Chairman
Subcommittee on Agriculture
Senate Committee on Appropriations
303 Hart Senate Office Building
Washington, DC 20510

The Honorable John Hoeven
Ranking Member
Subcommittee on Agriculture
Senate Committee on Appropriations
338 Russell Senate Office Building
Washington, DC 20510

Dear Chairman Harris, Chairman Heinrich, Ranking Member Bishop, and Ranking Member Hoeven:

As you prepare the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Bill and Report for FY2024, we write to request your support for including report language that directs the Department of Agriculture (USDA) to analyze financing gaps that present barriers to emerging agricultural innovations, technologies, and industries.

The world stands on the cusp of an industrial revolution powered by the bioeconomy. By harnessing the full potential of biotechnology and biomanufacturing, the United States is poised to unlock the power of biology to create new services and products, grow our economy and workforce, and improve our quality of life and the environment. In the food and agriculture sectors, development and adoption of emerging technologies is crucial to increasing productivity and international competitiveness, providing affordable and nutritious food, and improving environmental sustainability.

Congress should consider ways to expand manufacturing capacity of new food and agricultural technologies. Access to finance is frequently a barrier to creating pilot, demonstration, and commercial-scale facilities in many new industries. Federally supported financing, such as loan guarantees, can therefore play an important role in enabling their growth. The USDA Economic Research Service (ERS) can provide necessary analysis to assess the merits, risks, and impacts of such public financing options.

While USDA offers billions of dollars in loans and loan guarantees each year for agricultural producers, small businesses, and rural industries, it does not provide sufficient financial support to startups and other businesses developing emerging agricultural technologies and/or scaling up manufacturing capacity for their production to support their business needs. This type of public financing has been successfully deployed by the Department of Energy (DOE) for the development of clean energy and provides a roadmap for what could be achieved in agriculture.

DOE's Loan Programs Office (LPO) provides support for next-generation technologies to come to market by providing startups and incumbent firms loan guarantees and debt commitments. This type of public financing addresses gaps in private investment, especially where high-risk ventures with potentially large public benefits are deemed too risky for private lenders, and can subsequently guide market forces toward industries and firms with the highest public value. Since its creation in 2005, DOE has provided \$30 billion in financing and loan guarantees, which have led to significant emission reductions in the energy sector as well as job creation. For example, the LPO's Advanced Technology Vehicles Manufacturing Loan Program is estimated to have displaced the equivalent of 25 million tonnes of CO2 to date and, as of 2021, LPO-financed projects created 37,000 permanent jobs.

Publicly-supported financing, such as loan guarantees or grants for capital investment, is needed to support new technologies that are capital-intensive, particularly given current commercial interest rates. For example, there is currently a lack of manufacturing capacity for U.S. products requiring large scale biofermentation facilities. This is a barrier for the production of agricultural chemicals, food ingredients, microbial fertilizers, enzymes, proteins, advanced biofuels, and other products made through biomanufacturing.

Furthermore, developing breakthrough agricultural technologies that result in new innovative products or that increase sustainability is consistent with President Biden's recently issued Executive Order on Biotechnology and Biomanufacturing. The Executive Order prioritizes federal investment in agricultural research, development, and manufacturing capacity specific to biotechnologies and biomanufacturing.

USDA ERS is well equipped to assess what areas of the food and agricultural innovation ecosystem warrant publicly-supported financing, identify options for Congress and USDA to help expand manufacturing capacity, and analyze the costs and benefits of different options.

FY2024 Request

We respectfully request that the Subcommittee include report language directing ERS to research and analyze the need and benefits of USDA providing public financing to support new or significantly improved food and agricultural technologies (such as large scale biofermentation facilities) which shall include a discussion of projected long-term economic and environmental impacts that would arise from the use of products that might not otherwise be produced without public financing opportunities.

This analysis would be essential for members of Congress and the Executive Branch to inform a discussion about potential public financing programs and how they could contribute to national economic, social, and environmental goals.

Thank you for your consideration.

Sincerely,

Albedo Space Corp

Arkea Bio Corp.

Benson Hill

BIOMILQ, Inc.

C16 Biosciences
ChemFinity Technologies
Clean Crop Technologies
Dioxycle
DMC Biotechnologies, Inc.
Eat Just, Inc.
Finless Foods
Flywheel
Food Solutions Action
Gencores Inc.
Holocene Climate Corporation
Mars Materials, Inc. PBC
Molten Industries Inc.
Mori

National Grange
Nature's Fynd
New Harvest
Queens Carbon
Savor
Synergistic Hawaii Agriculture Council
Takachar
The Berggruen Institute
The Better Meat Co.
The Breakthrough Institute
The Good Food Institute
Windfall Bio
Yard Stick PBC