



Alternative Fuels & Chemicals Coalition

Advocating for Public Policies to Promote the Development & Production of Alternative Fuels, Renewable Chemicals, Biobased Products, and Sustainable Aviation Fuels

AFCC'S FY2023 CJS Funding & Legislative Request

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Appropriations Subcommittee:

Commerce, Justice, and Science (CJS)

CJS Priority:

#1 of 1

Federal Agency:

National Science Foundation

Agency Account:

Research and Related Activities

Type of Request:

Funding & Legislative

Implementing New Program

The [Sustainable Chemistry Research and Development Act of 2019](#) (H.R. 2051, S.999), sponsored in the U.S. Senate by Senator Chris Coons (D-Del) and cosponsored by Senators Susan Collins (R-Maine), Amy Klobuchar (D-Minn), and Shelley Moore Capito (R-WV), was included in the *FY2021 National Defense Authorization Act (P.L. 116-283), Subtitle E – Sustainable Chemistry*, enacted January 1, 2021.

Section E of said Act has yet to be implemented by most federal agencies.

Program Description:

This bill directs the Executive Office of the President's Office of Science and Technology Policy to convene an interagency entity under the National Science and Technology Council with the responsibility of coordinating federal programs and activities in support of sustainable chemistry.

Agencies participating in the entity are required to carry out specified activities in support of sustainable chemistry, including incorporating sustainable chemistry into existing research, development, demonstration, technology transfer, commercialization, education, and training programs. Sustainable chemistry, also known as green chemistry, is focused on conserving resources and minimizing the generation and use of hazardous substances in chemical processes.



AFCC's Request:

Consistent with the *FY2021 National Defense Authorization Act (P.L. 116-283), Subtitle E – Sustainable Chemistry, Sections 261-267*, AFCC requests that the CJS appropriations subcommittee direct NSF to use a portion of the funds appropriated for *Research and Related Activities* to:

- **Carry out *Sec. 263, Agency Activities in Support of Sustainable Chemistry, Subsection (b)(1)*** [to] “incorporate sustainable chemistry into existing research, development, demonstration, technology transfer, commercialization, education, and training programs, that the agency determines to be relevant ...” as follows:

- ✓ Create a National Science Foundation educational program for graduate students in the Division of Graduate Education to provide training in sustainable production of biobased products using industrial biotechnology tools such as synthetic biology and other microbial conversion technologies in the industry.

The program will educate students in conducting research and biobased manufacturing scale-up for sustainable production of renewable chemicals (including bioplastics), biogas, sustainable aviation fuels, and ground transportation biofuels.

This will provide the students with course credits, job-training, experience, and create new generation of U.S. scientists to keep the U.S. globally competitive.

- **Carry out *Sec. 263, Agency Activities in Support of Sustainable Chemistry, Subsection (b)(1)(B)*** [through] “grants to fund collaborative research and development partnerships among universities, industry, and nonprofit organizations ... ” as follows:

- ✓ Develop a public private partnership in sustainable chemistry for the development of U.S. biobased manufacturing programs and maintain domestic manufacturing experts.

This program would be based on matching grants from the private sector and the Natural Science Foundation.

- **Carry out *Sec. 263, Agency Activities in Support of Sustainable Chemistry, Subsection (b)(3)(A)*** [to] “expand the education and training of students at appropriate levels of education, professional scientists and engineers, and other professionals involved in all aspects of sustainable chemistry and engineering appropriate to that level of education and training, including through— (A) partnerships with industry ...” and

Sec. 264(a)(1) “The agencies participating in the Entity may facilitate and support, through financial, technical, or other assistance, the creation of partnerships between institutions of higher education, nongovernmental organizations, consortia, or companies across the value chain in the chemical industry, including small and medium-sized enterprises, to— (1) create collaborative sustainable chemistry research, development, demonstration, technology transfer, and commercialization programs” as follows:



- ✓ Encourage employment in rural America by promoting rural employment in biobased manufacturing using sustainable chemistry.

AFCC proposes that this federal program pay for a one-year employment to employees accepting positions in rural America.

AFCC's Funding and Legislative Request:

To be added at the end of the appropriations language for Research and Related Activities:

Provided further, That of the sums appropriated under this heading—

- (1) not less than \$1,000,000 shall be for establishing a training program in the Division of Graduate Education for implementation of the FY2021 National Defense Authorization Act (P.L. 116-283) Subtitle E, Section 263(b)(1);
- (2) not less than \$2,500,000 shall be for providing training in sustainable production of biobased products for an initial first-year pilot group of up to 25 students under Subtitle E, Section 263(b)(1)(B) of said Act;
- (3) not less than \$1,000,000 shall be for establishing a public-private matching grant program for the development of biobased manufacturing programs and training domestic manufacturing experts under Subtitle E, Section 263(b)(3)(A) of said Act;
- (4) not less than \$1,000,000 shall be for issuing a first-year solicitation for the development of biobased manufacturing programs and awarding four 50/50 matching grants of \$250,000 each under Subtitle E, Section 263(b)(3)(C) of said Act; and
- (5) not less than \$1,000,000 shall be for providing payment for one-year of employment for up to 10 graduates accepting positions in rural America under Subtitle E, Sections 263(b)(3)(A) and 264(a)(1) of said Act.

Amount of Federal Funding Included in the President's Budget Request for the Coming Fiscal Year:

Not yet known.

Amount of Federal Funding Appropriated for the Program During Previous Fiscal Years:

N/A

AFCC's Justification / Rationale for This Request:

The Sustainable Chemistry Research and Development Act will create a cohesive national vision for sustainable chemistry research and development, improving training of chemists and other professionals, and building new partnerships with the private sector, to maintain the Nation's scientific leadership and ensure the sustainability of its chemical enterprises for years to come.

Sustainable chemistry is central to American innovation in advanced manufacturing. There is surging global demand for sustainable chemistry ingredients in consumer and commercial



products and investors are increasingly rewarding companies that develop and source such products. The Sustainable Chemistry R&D Act will help position the US to capitalize on this burgeoning market demand, spurring innovation and job creation across a huge swath of the US economy.

The Sustainable Chemistry Research and Development Act has been endorsed by the GC3 Sustainable Chemistry Alliance, the American Chemical Society, the American Chemistry Council, the American Sustainable Business Council, 3M, Ashland, BASF, Beautycounter, the Biotechnology Innovation Organization (BIO), Chemours, Delaware Sustainable Chemistry Alliance, The Dow Chemical Company, DuPont, Environmental Working Group, The LEGO Group, Nohbo LLC, Procter & Gamble, and the University of Delaware