

Climate Assessment

Office of Legislative Oversight

Expedited Bill 23-23: Small Business Innovation Research and Small Business Technology Transfer Matching Grant Program - Amendment

SUMMARY

The Office of Legislative Oversight (OLO) anticipates Expedited Bill 23-23 will have little to no impact on the County's contribution to addressing climate change as the proposed changes have the potential to fund projects that could have positive impacts on climate change and community resilience. However, there is no certainty that the research would directly address the County's contribution to addressing climate change, so the anticipated impact is minimal.

BACKGROUND AND PURPOSE OF EXPEDITED BILL 23-23

Coordinated by the U.S. Small Business Administration (SBA), the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs are competitive federal awards programs that encourage domestic small businesses to engage in Federal Research/Research and Development (R/R&D) with the potential for commercialization. The SBIR/STTR programs are structured in three phases with awards generally ranging from \$50,000 to \$750,000 depending on the phase.¹

In fiscal year 2019, the County established the local SBIR/STTR Matching Grant Program as an entitlement program for small businesses. The program provides grants to County businesses that receive a federal SBIR/STTR Phase I or Phase II grant to conduct research in medicine, biotechnology, or life sciences.² Since its start, the program has disbursed 38 awards totaling \$1,650,000 to 25 companies, matching \$34,357,086 in federal awards.³

The purpose of Bill 23-23 is to allow applications to the County's SBIR/STTR Matching Grant Program on a fiscal year basis rather than a calendar year basis. This change will allow prospective applicants receiving federal awards in calendar year 2022 to be eligible for the matching grant program, as applications were temporarily paused while the program was undergoing legislative changes in 2022.⁴

Bill 23-23 was introduced along with Executive Regulation 2-23, which, if approved by the Council, would establish new protocols for administering the matching grant program. Expedited Bill 23-23, Small Business Innovation Research and Small Business Technology Transfer Matching Grant Program – Amendment, was introduced by the Council President on behalf of the County Executive on May 2, 2023.

ANTICIPATED IMPACTS

Research in biotechnology, life sciences, and medicine, especially agricultural and industrial biotechnology, can be an important tool in addressing climate change issues. The United States Department of Agriculture (USDA) includes agricultural biotechnology as a part of the USDA's toolkit for a healthy and sustainable future.⁵ Research in industrial biotechnology in areas such as renewable resources and biofuels also have the potential to save energy and significantly reduce carbon dioxide emissions.⁶

OLO conducted a quick search of the SBIR and STTR federal grant award database to understand how many grants have been awarded to companies in the County conducting research related to climate change and community resilience.¹⁷ Key words used include "climate change", "greenhouse gas", "community resilience", and "decarbonization." Of the 42 projects conducted in Maryland that included these key words in their description, six projects were conducted by organizations physically located in Montgomery County.²

As Bill 23-23 proposes changes to fund general research in biotechnology, life sciences, and medicine, OLO anticipates the bill will have little to no impact on the County's contribution to addressing climate change, including the reduction and/or sequestration of greenhouse gas emissions, community resilience, and adaptative capacity. There is a possibility that proposed changes could fund projects that could have positive impacts on climate change and community resilience. However, there is no certainty that the research would directly address the County's contribution to addressing climate change, so the anticipated impact is minimal.

RECOMMENDED AMENDMENTS

The Climate Assessment Act requires OLO to offer recommendations, such as amendments or other measures to mitigate any anticipated negative climate impacts.⁸ OLO does not offer recommendations or amendments as Bill 23-23 is likely to have little to no impact on the County's contribution to addressing climate change, including the reduction and/or sequestration of greenhouse gas emissions, community resilience, and adaptative capacity.

¹ The database included data for awards from 1983 to 2023.

² For reference, 9694 projects located in Maryland have been awarded SBIR or STTR federal grants between the periods of 1983 to 2023 according to the awards database. The database is not searchable by county. Please see the appendix for a table of the projects.

CAVEATS

OLO notes two caveats to this climate assessment. First, predicting the impacts of legislation upon climate change is a challenging analytical endeavor due to data limitations, uncertainty, and the broad, global nature of climate change. Second, the analysis performed here is intended to inform the legislative process, not determine whether the Council should enact legislation. Thus, any conclusion made in this statement does not represent OLO's endorsement of, or objection to, the bill under consideration.

PURPOSE OF CLIMATE ASSESSMENTS

The purpose of the Climate Assessments is to evaluate the anticipated impact of legislation on the County's contribution to addressing climate change. These climate assessments will provide the Council with a more thorough understanding of the potential climate impacts and implications of proposed legislation, at the County level. The scope of the Climate Assessments is limited to the County's contribution to addressing climate change, specifically upon the County's contribution to greenhouse gas emissions and how actions suggested by legislation could help improve the County's adaptative capacity to climate change, and therefore, increase community resilience.

While co-benefits such as health and cost savings may be discussed, the focus is on how proposed County bills may impact GHG emissions and community resilience.

CONTRIBUTIONS

OLO staffer Kaitlyn Simmons drafted this assessment.

APPENDIX

Grant Recipient Name	Location	Project Name and Link	Key Word used in Search
Caelum Research Corp	Rockville	Applying Machine Learning Techniques for Sensitive Spectral Identification and Detection of Hazardous Target Molecules	“Climate Change”
Intelligent Automation	Rockville	Universal Signals-of-Opportunity (UNISOP) Sensor Payload for Cube/Small Satellites	“Climate Change
Intelligent Automation	Rockville	Climate Impact Visualization Tools Using 3D City for Community-Based Planning and Outreach	“Climate Change”
Intelligent Automation	Rockville	Climate Impact Visualization Tools Using Virtual 3D City for Community Based Planning and Outreach	“Climate Change”
Mentor Tech	Rockville	Satellite Observations of High Clouds in the Tropics and Climate Change	“Climate Change”
N5 Sensors	Germantown	Low Cost, Low Power Sensors for Detection of Gases for Farming and Agricultural Activities	“Greenhouse Gas”

¹ “About,” SBIR-STTR America’s Seed Fund, U.S. Small Business Administration, Accessed May 6, 2023.

<https://www.sbir.gov/about>

² “Continuation of SBIR/STTR Matching Grant Program Review,” Memorandum from Gene Smith, Legislative Analyst, to Planning, Housing, and Economic Development (PHED) Committee, Montgomery County Council, October 12, 2022.

https://www.montgomerycountymd.gov/council/Resources/Files/agenda/cm/2022/20221017/20221017_PHED1.pdf

³ “Continuation of SBIR/STTR Matching Grant Program Review,” Memorandum from Yaakov “Jake” Weissmann, Assistant Chief Administrative Officer to PHED Committee Chair

⁴ Introduction Staff Report for Bill 23-23, Montgomery County Council, Introduced May 2, 2023.

https://www.montgomerycountymd.gov/council/Resources/Files/agenda/col/2023/20230502/20230502_7A.pdf

⁵ “Biotechnology and Climate Change”, U.S. Department of Agriculture, Accessed May 10, 2023.

<https://www.usda.gov/topics/biotechnology/climate-change>

⁶ “Industrial Biotechnology and Climate Change”, Organization for Economic Cooperation and Development (OECD), 2011.

<https://www.oecd.org/sti/emerging-tech/49024032.pdf>

⁷ “Award Data”, SBIR-STTR America’s Seed Fund, U.S. Small Business Administration, Accessed May 10, 2023.

<https://www.sbir.gov/sbirsearch/award/all>

⁸ Bill 3-22, Legislative Branch – Climate Assessments – Required, Montgomery County Council, Effective date October 24, 2022