MARYLAND
CLEAN ENERGY CENTER

Economic Impact of the Maryland Clean Energy Center

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Executive Summary

The Business and Community Outreach Network at Salisbury University (BEACON) partnered with the Maryland Clean Energy Center (MCEC) to estimate the economic impacts of MCEC's initiatives on Maryland's economy from 2009 through 2026. The study covers eighteen years of operations and began in July 2026.

The results below summarize BEACON's estimates of the statewide economic impacts associated with MCEC's initiatives from 2009 through 2026, an eighteen-year reporting period.

Cumulative Statewide Impacts | 2009–2026

$824M	**3,729**	**$299M**	**$107M**
Total Econmic Output	Jobs Supported	Labor Income	Tax Revenue Generated

Employment impact averaged 207 jobs supported annually over the 18-year period.

Return on Public Investment | 2009–2026

$17.91	**$2.32**	**81**
in output for every public dollar	in tax revenue for every public dollar	jobs per **$1** million in public investment

BEACON estimates that MCEC's activities from 2009 through 2026 contributed more than $824 million in statewide economic output and an estimated $299 million in labor income. The activities supported 3,729 jobs over the eighteen-year period, averaging 207 per year, and contributed approximately $107 million in combined local, state, and federal tax revenue. Residents and firms participating in several initiatives continue to benefit from ongoing energy cost savings.

BEACON collected, interpreted, refined, and verified data on MCEC's initiatives for IMPLAN modeling. The team reviewed MCEC-supplied data, annual reports, and other documents to understand each program's scope, focus, and potential impacts. Discussions with MCEC staff clarified program operations and supplied the information needed to model statewide economic impacts. Where necessary, BEACON supplemented these data with relevant industry information to represent each initiative's impacts comprehensively and accurately. After modeling part of the data and calculating preliminary impacts, BEACON met with the Board to identify specific concerns or needs.

This report presents overall estimates for MCEC and separate estimates for each initiative. BEACON used IMPLAN, a widely accepted economic modeling platform, to calculate

direct, indirect, and induced impacts associated with MCEC's clean energy programs. These estimates describe economic activity associated with the programs; some activity may also be reflected in studies by other industry groups in the sector. The totals therefore must not be added to those other studies' estimates.

FY 2026 Economic Impact: Single-Year Perspective

BEACON also evaluated the impact of MCEC's initiatives in FY 2026. Based on the rounded figures in the summary, the FY 2026 shares of cumulative 2009–2026 statewide economic output and tax revenue fall between 20% and 23%.

The results below summarize BEACON's estimates of the statewide economic impacts associated with MCEC's initiatives in FY 2026.

MCEC Statewide Impacts | FY2026

$193M	**730**	**$59M**	**$23M**
Total Econmic Output	Jobs Supported	Labor Income	Tax Revenue Generated

MCEC Return on Public Investment | FY 2026

$11.12	**$1.34**	**42**
in output for every public dollar	in tax revenue for every public dollar	jobs per **$1** million in public investment

BEACON estimates that MCEC's FY 2026 activities contributed more than $193 million in statewide economic output, supported 730 jobs, and generated an estimated $59 million in labor income and more than $23 million in combined local, state, and federal tax revenue. Participants in several initiatives also continue to receive energy cost savings. The reported single-year return ratios are lower than the cumulative-period ratios. These results do not yet reflect the full impacts of significant investments in unfinished projects under programs including the Bridge Finance Facility (BFF) and Strategic Revolving Fund (SRF). Impacts from other programs' projects that are not fully operational are also excluded.

Introduction

The Maryland General Assembly established the Maryland Clean Energy Center (MCEC) in 2008 as a state instrumentality charged with advancing clean energy and energy efficiency initiatives to promote economic development, support job creation, and improve environmental outcomes. Operating as a statewide green bank, MCEC develops and facilitates programs that expand access to financing, reduce energy costs for consumers, and encourage the adoption of innovative clean energy technologies. Through strategic partnerships with public, private, and nonprofit organizations, MCEC plays a significant role in strengthening Maryland's clean energy economy by leveraging financial resources, supporting businesses and contractors, assisting local governments, and enhancing energy resilience across communities.

The economic potential of investments in clean energy and energy efficiency extends well beyond Maryland. According to a 2026 study by the American Council for an Energy-Efficient Economy (ACEEE), improvements in energy efficiency across the building, transportation, and industrial sectors could generate approximately $4.8 trillion in cumulative nationwide savings, equivalent to $31,000 per household. The study further estimates that these improvements could support approximately 1 million net jobs annually and reduce climate-related emissions by one-third by 2050[1]. Although these projections reflect potential impacts at the national level, they underscore the broader economic and environmental benefits associated with energy efficiency investments. Within Maryland, MCEC contributes to these objectives by facilitating clean energy financing, supporting energy efficiency projects, and encouraging investments that can generate economic activity, reduce energy costs, and improve environmental outcomes.

This report evaluates MCEC's economic contributions to Maryland through two complementary analyses. The first examines the cumulative statewide economic impacts of MCEC-supported activities from 2009 through 2026 (pages 9–18), providing a long-term perspective on the organization's contributions to economic output, employment, labor income, and tax revenue. The second focuses on the economic impacts generated during fiscal year (FY) 2026 (pages 19–29), offering a more detailed assessment of MCEC's recent activities and their contributions to Maryland's economy.

Initiatives Evaluated

This analysis uses MCEC's 2009–2026 program and operational data to estimate the direct impacts of its operations and the indirect and induced effects of its initiatives on Maryland's

[1] American Council for an Energy-Efficient Economy. (2026, July 27). *Study: Cutting energy waste could save $4.8 trillion, equal to $31,000 per household*. https://www.aceee.org/news/study-cutting-energy-waste-could-save-4-8-trillion-equal-to-31000-per-household/

economy, including economic output, employment, and tax revenue. BEACON evaluated the Maryland Home Energy Loan Program (MDHELP), Clean Energy Advantage Loan Program (CEA), Pre-Development Technical Assistance Services (PTAS), Maryland Property Assessed Clean Energy Program (MDPACE), Maryland Clean Energy Capital Program (MCAP), Strategic Revolving Fund (SRF), Climate Catalytic Capital Fund (C3), and Maryland Energy Innovation Accelerator (MEIA). BEACON also reviewed the Bridge Finance Facility (BFF), which had no program expenditures in FY 2026. For each initiative, BEACON assessed program expenditures and related economic activities to estimate cumulative impacts. This report expresses results in 2026 dollars; the 2025 report used 2025 dollars. Direct subtraction or addition of figures across the two reports does not yield a comparable impact estimate without adjustment to a common dollar basis.

Data Collection

MCEC provided the programmatic and operational data used to conduct the economic impact analysis. BEACON requested detailed spreadsheets documenting activities undertaken during FY 2026 and reviewed the submissions as they were received to assess completeness, consistency, and suitability for analysis. Throughout the data collection process, BEACON coordinated with MCEC to clarify information, address questions, and obtain additional details as needed. Where program-level data were unavailable or insufficient, BEACON supplemented the information provided by MCEC with publicly available industry estimates related to energy savings and average project expenditures.

To estimate MCEC's cumulative economic impacts from 2009 through 2026, BEACON integrated historical data from the 2025 economic impact report with the newly submitted FY 2026 program data. MCEC operates on the State of Maryland's fiscal year, which runs from July 1 through June 30. Data collection for the FY 2026 analysis began in August 2026, following the conclusion of the fiscal year.

Economic Impacts of MCEC and its Initiatives (2009-2026)

Through its operations and initiatives, the MCEC facilitates partnerships, administers financing programs, and supports initiatives that expand access to clean energy technologies for businesses, institutions, local governments, and residents throughout Maryland. MCEC's core operational activities include program administration, technical assistance, financial management, stakeholder engagement, and policy coordination, all of which contribute to strengthening Maryland's clean energy economy and infrastructure.

The cumulative analysis covers economic activity from 2009 through 2026, but each program's reporting period reflects when it was established, became operational, or began generating measurable economic activity. Some programs cover the full period; others cover shorter spans, such as 2012–2026. This approach represents each program's operational history without assigning impacts to years before implementation. Although several initiatives continue to produce energy savings and other long-term benefits, the estimates include only activity within the applicable reporting periods and exclude projected future impacts. All estimates are expressed in 2026 dollars for consistency across programs and reporting years. Comparisons or year-over-year calculations using the previous report, which presented results in 2025 dollars, require adjustment to a common dollar basis.

Table 1: MCEC Cumulative Statewide Output | 2009–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	2,363	$204,695,680	$306,039,748	$534,521,880
Indirect	687	$51,060,046	$86,653,876	$152,824,889
Induced	680	$43,367,156	$89,304,666	$137,053,532
Total	3,729	$299,122,882	$481,998,290	**$824,400,301**
Per Year	207	$16,617,938	$26,777,683	**$45,800,017**

Table 2: MCEC Cumulative Statewide Tax Output | 2009–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$20,750,105	$44,469,420	$65,219,525
Indirect	$9,233,191	$11,685,258	$20,918,449
Induced	$10,442,659	$10,264,309	$20,706,968
Total	$40,425,954	$66,418,987	**$106,844,941**
Per year	$2,245,886	$3,689,944	**$5,935,830**

BEACON reviewed the impacts shown above and calculated how these measured when compared to the investment of local, state, and federal funds in MCEC.

For the **2009–2026** reporting period, BEACON estimates approximately **$17.91** in economic output associated with MCEC's activities **for each public dollar received** and **$2.32** in combined **local, state, and federal tax revenue for each public dollar invested**. These ratios describe modeled economic output and tax revenue relative to public funding; they are not payments returned to MCEC or a financial yield to an investor.

Cumulative Economic Impacts by Initiative | 2009 – 2026

Maryland Clean Energy Center (MCEC) Program Management

Table 3: MCEC Program Management Economic Output | 2009–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	139	$15,673,861	$19,091,542	$28,364,870
Indirect	33	$2,514,590	$3,836,534	$6,443,482
Induced	48	$3,065,945	$6,447,357	$9,824,308
Total	220	$21,254,395	$29,375,434	**$44,632,660**
Per Year	12	$1,180,800	$1,631,969	**$2,479,592**

Table 4: MCEC Program Management Tax Output | 2009–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$793,854	$3,347,257	$4,141,111
Indirect	$287,077	$566,052	$853,129
Induced	$738,872	$729,029	$1,467,901
Total	$1,819,803	$4,642,338	**$6,462,141**
Per year	$101,100	$257,908	**$359,008**

Maryland Home Energy Loan Program (MDHELP)

The MDHELP initiative started in 2011 and had impacts starting in 2012. MDHELP stopped funding improvements on August 1, 2017, but energy savings from previously financed improvements continue through 2026 and beyond. Created through a collaboration between MCEC and the Maryland Energy Administration (MEA), the program offered low-interest loans of up to $20,000 to help homeowners cover the initial costs of residential energy efficiency improvements. Eligible measures included upgraded heating and cooling systems, insulation, and other improvements to home energy performance. Combined with existing rebate initiatives, the financing reduced financial barriers for Maryland residents seeking to lower energy use and utility expenses.

Table 5: MDHELP Overall Economic Output | 2012–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	332	$16,555,181	$26,802,501	$45,880,043
Indirect	42	$3,079,646	$5,220,591	$9,223,215
Induced	39	$2,467,729	$5,534,499	$8,277,297
Total	413	$22,102,557	$37,557,590	**$63,380,555**
Per Year	28	$1,473,504	$2,503,839	**$4,225,370**

Table 6: MDHELP Overall Tax Output | 2012–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$3,169,365	$3,353,273	$6,522,638
Indirect	$558,321	$708,871	$1,267,192
Induced	$615,719	$609,973	$1,225,692
Total	$4,343,405	$4,672,116	**$9,015,522**
Per year	$289,560	$311,474	**$601,035**

Clean Energy Advantage Loan Program (CEA)

CEA was developed by the Maryland Clean Energy Center (MCEC) in partnership with private lending institutions to expand access to affordable financing for residential clean energy projects. The initiative began in 2022 and continued through 2026. The program enables Maryland homeowners to invest in energy efficiency improvements by offering low-interest loans through approved local lenders. CEA supports projects such as HVAC upgrades, whole-home insulation, and other home performance enhancements that reduce energy consumption and utility costs. By facilitating partnerships between homeowners, contractors, and lenders, the program helps accelerate the adoption of clean energy technologies and supports the state's broader goals for energy efficiency and sustainability.

Table 7: CEA Overall Economic Output | 2022–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	28	$1,800,037	$2,827,236	$4,681,541
Indirect	7	$463,772	$855,370	$1,409,120
Induced	8	$479,291	$947,534	$1,469,412
Total	43	$2,743,100	$4,630,140	**$7,560,073**
Per Year	9	$548,620	$926,028	**$1,512,015**

Table 8: CEA Overall Tax Output | 2022–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$298,120	$398,647	$696,767
Indirect	$109,351	$110,348	$219,699
Induced	$110,026	$115,842	$225,869
Total	$517,498	$624,837	**$1,142,335**
Per year	$103,500	$124,967	**$228,467**

Pre-Development Technical Assistance Services (PTAS)

Established by the Maryland Clean Energy Center (MCEC), PTAS helps public, nonprofit, and commercial entities move clean energy and resiliency projects from concept to implementation. Although the initiative has operated for many years, its first direct impact in Maryland occurred in 2025. The program provides expert guidance and financial support for feasibility studies, engineering and design assessments, financial modeling, and procurement planning. This early-stage assistance reduces upfront technical and administrative barriers, helping organizations make informed investment decisions and prepare projects for financing and construction.

Table 9: PTAS Overall Economic Output | 2025–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	104	$10,031,199	$14,980,046	$25,307,405
Indirect	32	$2,557,334	$4,580,697	$7,785,968
Induced	43	$2,716,038	$5,354,276	$8,305,026
Total	179	$15,304,571	$24,915,019	**$41,398,399**
Per Year	89	$7,652,285	$12,457,510	**$20,699,200**

Table 10: PTAS Overall Tax Output | 2025–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$664,528	$2,186,992	$2,851,521
Indirect	$576,272	$600,379	$1,176,652
Induced	$621,224	$654,072	$1,275,296
Total	$1,862,025	$3,441,443	**$5,303,468**
Per year	$931,012	$1,720,722	**$2,651,734**

Maryland Property Assessed Clean Energy Program (MDPACE)

The Maryland Commercial Property Assessed Clean Energy (MDPACE) program gives commercial property owners access to private financing for clean energy, resilience, and environmental remediation projects. Participation is voluntary, and financing is repaid through a property-assessed lien collected through property tax billing. Financing generally starts at $50,000 and covers eligible improvements such as energy efficiency upgrades, renewable energy installations, and building resilience enhancements. This structure reduces upfront expenditures and spreads repayment over time, potentially aligning payments with long-term energy savings and operational benefits. Program impacts were first recorded in 2017.

Table 11: MDPACE Overall Economic Output | 2017–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	880	$65,792,368	$105,076,406	$195,047,000
Indirect	317	$21,365,554	$36,976,725	$65,524,952
Induced	225	$14,439,750	$29,573,301	$45,536,916
Total	1,421	$101,597,672	$171,626,432	**$306,108,868**
Per Year	142	$10,159,767	$17,162,643	**$30,610,887**

Table 12: MDPACE Overall Tax Output | 2017–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$7,679,542	$14,350,345	$22,029,887
Indirect	$3,843,050	$4,803,228	$8,646,279
Induced	$3,555,335	$3,293,707	$6,849,042
Total	$15,077,928	$22,447,279	**$37,525,208**
Per year	$1,507,793	$2,244,728	**$3,752,521**

Maryland Clean Energy Capital Program (MCAP)

MCAP provides financing solutions that enable businesses, institutions, government entities, and nonprofit organizations to implement clean energy projects. The program facilitates access to affordable capital through both taxable and tax-exempt bond financing, supporting a wide range of energy efficiency and renewable energy initiatives. The initiative has assisted entities in creating clean energy impacts since 2012.

Table 13: MCAP Overall Economic Output | 2012–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	539	$56,426,954	$65,552,142	$87,456,844
Indirect	46	$3,664,162	$6,488,767	$11,363,927
Induced	131	$8,270,650	$17,879,756	$26,989,093
Total	716	$68,361,766	$89,920,664	**$125,809,864**
Per Year	48	$4,557,451	$5,994,711	**$8,387,324**

Table 14: MCAP Overall Tax Output | 2012–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$3,182,460	$11,296,094	$14,478,554
Indirect	$825,066	$859,420	$1,684,486
Induced	$2,070,531	$1,955,139	$4,025,670
Total	$6,078,057	$14,110,654	**$20,188,710**
Per year	$405,204	$940,710	**$1,345,914**

Maryland Energy Innovation Accelerator (MEIA)

MEIA supports the commercialization of innovative solutions and innovations that help mitigate and adapt to climate change. As part of the climate technology commercialization ecosystem, it works alongside other entities supporting the industry to bring those solutions to market rapidly. The initiative has been operating since 2020.

Revenue and expense data for both MCEC and the Maryland Energy Innovation Accelerator (MEIA) program were compiled from annual financial statements provided by MCEC.

MEIA and MCEC staff provided impact data for firms that MCEC had assisted with the commercialization and deployment of energy and climate technologies. BEACON worked with staff to distinguish three groups: firms supported only by MEIA, firms supported jointly by MEIA and MEI2, and firms supported only by MEI2. This classification was used to avoid duplication in impact reporting.

Table 15: MEIA Overall Economic Output | 2020–2026

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	319	$36,415,871	$68,583,758	$142,165,207
Indirect	201	$16,720,154	$27,485,147	$48,979,966
Induced	177	$11,323,421	$22,383,346	$34,794,525
Total	697	$64,459,446	$118,452,251	**$225,939,698**
Per Year	100	$9,208,492	$16,921,750	**$32,277,100**

Table 16: MEIA Overall Tax Output | 2020–2026

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$4,786,783	$9,088,999	$13,875,782
Indirect	$2,904,985	$3,871,406	$6,776,391
Induced	$2,595,164	$2,756,059	$5,351,223
Total	$10,286,932	$15,716,464	**$26,003,396**
Per year	$1,469,562	$2,245,209	**$3,714,771**

Climate Catalytic Fund (C3)

The C3 Fund was established to support Maryland's Climate Solutions Now Act (CSNA) goals by advancing technology development and deployment aimed at reducing greenhouse gas emissions and mitigating the impacts of climate change. Each fiscal year, 40% of the fund balance must be allocated to qualified projects benefiting low- and moderate-income (LMI) households and communities.

Table 17: C3 FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	11	$834,038	$1,536,274	$2,914,026
Indirect	6	$420,296	$728,990	$1,284,990
Induced	4	$282,022	$552,813	$866,581
Total	21	$1,536,356	$2,818,076	**$5,065,596**

Table 18: C3 FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$104,295	$198,089	$302,384
Indirect	$70,662	$100,010	$170,672
Induced	$63,368	$70,228	$133,596
Total	$238,324	$368,327	**$606,651**

Strategic Revolving Fund (SRF)

The Solar Revolving Fund (SRF) is a $5 million revolving fund established to accelerate the deployment of solar photovoltaic (PV) and energy storage systems throughout Maryland. Designed as a self-sustaining financing mechanism, the fund aims to provide ongoing support for renewable energy projects benefiting affordable housing communities.

Table 19: SRF FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	11	$1,166,172	$1,589,843	$2,704,944
Indirect	3	$274,537	$481,057	$809,269
Induced	5	$322,310	$631,784	$990,374
Total	20	$1,763,019	$2,702,683	**$4,504,588**

Table 20: SRF FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$71,156	$249,724	$320,880
Indirect	$58,406	$65,544	$123,950
Induced	$72,420	$80,260	$152,680
Total	$201,982	$395,528	**$597,510**

Bridge Finance Facility (BFF)

The BFF financing program provides short-term bridge loans, generally ranging from $500,000 to $1 million, for community solar and affordable multifamily housing solar projects in Maryland. Established to accelerate solar photovoltaic (PV) development, it addresses financing gaps during pre-construction and early construction. Access to capital at these stages is intended to reduce delays, facilitate implementation, and expand renewable energy benefits for low- and moderate-income (LMI) households throughout Maryland.

To ensure that program investments directly benefit underserved populations, eligible projects must allocate more than 50% of their total benefits to LMI households and achieve a minimum 20% reduction in participating households' energy burdens.

As of FY 2026, the program had not generated measurable economic impacts for inclusion in this analysis. Initial project activity and associated economic impacts are anticipated to begin materializing in FY 2027, as financed projects advance through development and implementation.

Conclusion

MCEC's initiatives continue to affect Maryland's consumers and industry by reducing energy demand and energy costs. Investments in energy-efficient capital generate short-term economic activity and longer-term benefits through continued reductions in energy spending. Although the study's return figures were lower than those in the prior study, much of the reduction reflects investments still being completed that are expected to begin producing energy cost savings in the coming years.

Recommendations

BEACON again recommends that MCEC continue collecting estimates of projects' energy impacts as the projects are deployed. The 2026 measurement process was more efficient than the prior study because it covered one year rather than seventeen and benefited from MCEC's improved collection of impact data.

Methodology and Scope

Analytical Approach

The economic impact analysis utilized IMPLAN input-output modeling software and Maryland-specific economic data to evaluate the economic contributions of MCEC programs and initiatives. The analysis measured the direct, indirect, and induced economic effects associated with each program, capturing both the initial economic activity generated by MCEC-supported investments and the broader effects throughout Maryland's economy.

For each initiative, BEACON entered relevant program-level data into the economic model, including project budgets and scope, lending activity, operating expenditures, employment, and investment totals. The model estimated employment, labor income, business activity, and tax revenues. Using the same analytical framework across initiatives supported estimates of individual program impacts, return on investment (ROI) relative to public funding received by MCEC, and MCEC's overall economic contribution to Maryland.

All economic impacts were estimated for 2026 and expressed in 2026 dollars. The analysis utilized the 2024 IMPLAN dataset, the most current dataset available at the time of the study. This standardized approach ensured consistency and comparability across programs while providing a comprehensive assessment of MCEC's economic contributions during the study period.

Scope and Limitations

Although the analysis was conducted on behalf of MCEC, the estimated economic impacts extend beyond the organization itself to include activity generated by businesses and industries

supported through MCEC-funded initiatives. Consequently, some economic activity captured in this analysis may also be reflected in economic impact studies conducted for related industries or organizations. For example, businesses benefiting from MCEC-supported investments may also be represented in broader clean energy industry assessments. Accordingly, the economic impacts attributed to MCEC should not be added to those reported by other entities without accounting for potential overlap, as doing so could result in double counting.

The geographic scope of the analysis was limited to economic activity occurring within Maryland. **Economic activity** occurring **outside the state was excluded** from the reported impacts. The analysis identified approximately **$134.3 million** in **direct economic leakage**, representing economic activity associated with expenditures that flow outside Maryland rather than remaining within the state's economy. Additionally, the study did not estimate impacts on the electric generation and distribution industry.

The program-level evaluation also accounted for the continuing economic effects of initiatives implemented in prior years. Although certain programs may not have generated new investment or expenditures in 2026, they may continue to produce measurable economic benefits through sustained energy savings. These ongoing effects were incorporated where applicable to provide a more complete assessment of MCEC's economic contributions during the study period.

Analytical Process

The study employed a structured, multi-phase methodology to ensure consistency, accuracy, and comparability across MCEC's programs and initiatives. The process began with project initiation and data collection, followed by the compilation, review, and verification of program-level information. Once the necessary data were established, each initiative was evaluated individually using IMPLAN to estimate its direct, indirect, and induced economic impacts.

Following the economic modeling, return on investment (ROI) calculations were completed, and financial and economic results were standardized to 2026 dollars to provide a consistent basis for analysis. The final phase involved consolidating program-level findings, assessing MCEC's aggregate economic contributions, and preparing a comprehensive report and presentation of findings for MCEC and its stakeholders.

The primary focus of this report is to evaluate **MCEC's cumulative economic impacts from 2009 through FY 2026**, providing a comprehensive assessment of the organization's long-term contributions to Maryland's economy. Cumulative impacts represent the combined economic activity associated with MCEC's programs and operations over their respective evaluation periods, beginning as early as 2009 and extending through FY 2026. This approach provides a broader perspective on the economic benefits generated through MCEC's initiatives, including their contributions to employment, labor income, economic output, and tax revenue over time.

The main body of the report presents these cumulative findings, focusing on programs with multiple years of available impact data to illustrate MCEC's historical economic contributions. To supplement this analysis, **Appendix A provides a separate examination of FY 2026 economic impacts**, presenting the individual results for each program and initiative with measurable activity during the fiscal year, including those that generated their first economic impacts in FY 2026. While FY 2026 results are incorporated into the cumulative findings where applicable, their separate presentation in Appendix A allows stakeholders to examine the most recent year's performance without duplicating program-level discussions throughout the main report. Together, these analyses provide both a long-term perspective on MCEC's economic contributions and a detailed account of its most recent fiscal year.

IMPLAN Economic Modeling Framework

IMPLAN is a widely used economic modeling platform that provides data and analytical tools for evaluating economic activity at the local, regional, and national levels. Originally developed in the 1970s to support economic analysis for the U.S. Forest Service, IMPLAN has evolved into a comprehensive input-output modeling system used by researchers, policymakers, government agencies, businesses, and economic development organizations.

The model estimates how an initial economic activity generates additional economic effects throughout a defined geographic area. By examining relationships among industries, businesses, and households, IMPLAN captures the broader economic activity associated with changes in spending, investment, and employment.

The IMPLAN methodology measures three primary categories of economic effects:

- **Direct Effects:** The initial economic activity resulting from a specific investment, expenditure, or program. For example, the employment and expenditures associated with constructing a new facility represent direct economic effects.
- **Indirect Effects:** The additional economic activity generated through purchases of goods and services from suppliers supporting directly affected industries. For example, a construction project may increase demand for materials, equipment, and professional services from businesses within Maryland.
- **Induced Effects:** The additional economic activity generated when employees of directly and indirectly affected businesses spend their earnings on household goods and services. These expenditures support businesses such as grocery stores, restaurants, retailers, and other service providers throughout the local economy.

IMPLAN incorporates Input-Output Analysis and a Social Accounting Matrix (SAM) to model the relationships among industries, institutions, and households. This framework captures how changes in demand for goods and services affect production, employment, income, and subsequent spending throughout the economy.

By accounting for these interconnected economic relationships, IMPLAN provides a standardized method for estimating the broader economic contributions of MCEC-supported programs and investments. The resulting estimates provide insight into how MCEC initiatives support economic activity within Maryland, including effects that extend beyond the organizations and businesses receiving direct program support.

For additional information about IMPLAN's methodology and reporting framework, visit IMPLAN.com.[2]

[2] Implan Report toolkit – IMPLAN - support. (n.d.-b). https://support.implan.com/hc/en-us/articles/360044985833-IMPLAN-Report-Toolkit

Appendix A:

FY 2026 Economic Impact: Single-Year Perspective of MCEC and its Initiatives

FY 2026 Economic Impact: Single-Year Perspective of MCEC and its Initiatives

To estimate MCEC's total economic impact for fiscal year (FY) 2026, BEACON modeled the combined effects of the organization's administrative and operational activities and its programmatic initiatives, including MDHELP, CEA, MDPACE, PTAS, MCAP, MEIA, SRF, and C3. The analysis utilized FY 2026 data exclusively, excluding historical and cumulative figures, to isolate the economic impacts attributable to activities undertaken during the fiscal year. This approach provides a comprehensive assessment of MCEC's annual contributions to Maryland's economy while distinguishing current-year impacts from those generated over the organization's operational history. The 2026 results reflect approximately 23% of MCEC's results from inception to 2026.

Table 1: MCEC FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	380	$34,028,756	$55,098,676	$115,522,241
Indirect	184	$14,411,182	$24,918,059	$44,189,629
Induced	166	$10,840,550	$21,250,929	$33,312,458
Total	730	$59,280,488	$101,267,664	**$193,024,327**

Table 2: MCEC FY 2026 Overall Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$4,160,887	$7,883,031	$12,043,918
Indirect	$2,728,025	$3,428,630	$6,156,655
Induced	$2,436,164	$2,699,554	$5,135,718
Total	$9,325,077	$14,011,215	**$23,336,292**

BEACON reviewed the impacts shown above and calculated how these measured when compared to the investment of local, state, and federal funds in MCEC.

MCEC produced approximately **$11.12** in **economic output for every public dollar received** and generated an estimated **$1.34** in **total tax revenue per public dollar invested**.

The 2026 results may be reflective of the investments in recent programs that have not yet had time to deliver significant impact.

NOTE: *The project descriptions are listed in the impacts for the lifetime impacts. In the following sections, the fiscal year 2026 impacts are listed.*

Economic Impacts by Initiative FY 2026

Maryland Clean Energy Center (MCEC) Program Management

Table 3: MCEC Program Management FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	23	$2,674,717	$3,217,215	$4,854,741
Indirect	7	$578,282	$890,476	$1,498,305
Induced	11	$732,523	$1,435,953	$2,250,969
Total	41	$3,985,522	$5,543,645	**$8,604,015**

Table 4: MCEC Program Management FY 2026 Overall Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$142,450	$566,723	$709,173
Indirect	$67,670	$133,379	$201,049
Induced	$164,611	$182,414	$347,026
Total	$374,731	$882,516	**$1,257,247**

Maryland Home Energy Loan Program (MDHELP)

Although new project activity under MDHELP has concluded, the program continued to generate economic benefits during FY 2026 through ongoing energy savings associated with previously completed projects. During this period, MDHELP supported an estimated **26 jobs statewide**, including 20 direct jobs and an additional 6 jobs through indirect and induced economic activity. The program generated **$2.98 in total economic output**, including **$1.73 millio**n in **direct output**, and supported **$1.01 million in labor income** and **$1.73 million in value added**.

In addition to these economic contributions, MDHELP generated **$496,508 in total tax revenue**, including **$240,200** in **federal taxes** and **$256,308 in state, county, and subcounty taxes.**

Table 5: MDHELP FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	20	$615,515	$988,307	$1,731,647
Indirect	3	$217,798	$380,878	$687,018
Induced	3	$185,848	$364,321	$571,101
Total	26	$1,019,162	$1,733,506	**$2,989,767**

Table 6: MDHELP FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$181,506	$141,860	$323,366
Indirect	$33,037	$52,059	$85,096
Induced	$41,765	$46,281	$88,046
Total	$256,308	$240,200	**$496,508**

Clean Energy Advantage Loan Program (CEA)

BEACON's evaluation of CEA's FY 2026 economic impacts utilized project-level information and associated energy audits, which provided detailed energy-saving data for newly implemented projects.

During FY 2026, CEA supported an estimated **7 jobs statewide**, including **5 direct jobs** and an additional **2 jobs** through **indirect and induced** economic activity. The program generated approximately **$1.06 million in total economic output**, including **$629,789** in **direct output**, and supported approximately **$393,766 in labor income** and **$635,637 in value added**.

In addition to these economic contributions, CEA generated approximately **$167,000 in total tax revenue**, including **$90,000 in federal taxes** and **$77,000 in state, county, and subcounty taxes**.

Table 7: CEA FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	5	$253,359	$371,038	$629,789
Indirect	1	$68,814	$124,263	$210,131
Induced	1	$71,593	$140,337	$219,989
Total	7	$393,766	$635,637	**$1,059,909**

Table 8: CEA FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$47,108	$55,390	$102,498
Indirect	$14,183	$16,624	$30,807
Induced	$16,087	$17,828	$33,915
Total	$77,379	$89,842	**$167,220**

Pre-Development Technical Assistance Services (PTAS)

During FY 2026, PTAS supported an estimated **20 jobs statewide**, including **10 direct jobs** and additional employment through indirect and induced economic activity. The program generated approximately **$4.96 million** in **total economic output**, including $**2.82 million** in **direct output**, and supported approximately **$1.93 million** in **labor income** and **$2.78 million** in **value added.**

In addition to these economic contributions, PTAS generated approximately $646,000 in total tax revenue, including **$432,267** in **federal taxes** and **$213,752 in state, county, and subcounty taxes.**

Table 9: PTAS FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	10	$1,242,389	$1,493,486	$2,822,715
Indirect	4	$332,137	$588,984	$1,045,394
Induced	5	$353,881	$693,718	$1,087,457
Total	20	$1,928,407	$2,776,188	$4,955,566

Table 10: PTAS FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$64,074	$264,102	$328,175
Indirect	$70,152	$80,040	$150,192
Induced	$79,526	$88,125	$167,651
Total	$213,752	$432,267	$646,019

Maryland Property Assessed Clean Energy Program (MDPACE)

During FY 2026, the MDPACE program supported **296 jobs statewide**, including **157 direct jobs** and an additional **139 jobs** through **indirect and induced economic activity**. The program generated approximately **$71.54 million** in total economic output, including **$42.25 million** in **direct output**, and supported approximately **$21.74 million** in **labor income** and **$39.84 million** in **value added**.

In addition to these economic contributions, MDPACE generated approximately **$8.99 million** in **total tax revenue**, including **$5.18 million** in **federal taxes** and **$3.82 million in state, county, and subcounty taxes.**

Table 11: MDPACE FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	157	$12,238,347	$22,245,947	$42,248,726
Indirect	78	$5,532,424	$9,800,430	$17,079,338
Induced	61	$3,973,830	$7,789,307	$12,210,401
Total	296	$21,744,601	$39,835,684	**$71,538,464**

Table 12: MDPACE FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$1,863,423	$2,864,860	$4,728,283
Indirect	$1,061,242	$1,322,915	$2,384,156
Induced	$892,856	$989,542	$1,882,398
Total	$3,817,520	$5,177,317	**$8,994,837**

Maryland Clean Energy Capital Program (MCAP)

During FY 2026, MCAP supported an estimated **42 jobs statewide**, including 20 direct jobs and additional employment through indirect and induced economic activity. The program generated **$14.85 million in total economic output**, including **$8.8 million in direct output**, and supported **$3.96 million in labor income** and **$6.73 million in value added**.

In addition to these economic contributions, MCAP generated **$1.6 million in total tax revenue**, including **$929,591** in **federal taxes** and **$674,467 in state, county, and subcounty taxes.**

Table 13: MCAP FY 2026 Economic Output

Impact	*Employment*	*Labor*	*Value*	***Total***

		Income	*Added*	***Output***
Direct	20	$2,237,092	$3,239,632	$8,830,253
Indirect	10	$1,003,595	$2,082,808	$3,806,322
Induced	11	$721,936	$1,415,206	$2,218,445
Total	42	$3,962,623	$6,737,646	**$14,855,019**

Table 14: MCAP FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$173,037	$495,176	$668,213
Indirect	$339,196	$254,637	$593,833
Induced	$162,234	$179,778	$342,012
Total	$674,467	$929,591	**$1,604,058**

Maryland Energy Innovation Accelerator (MEIA)

During FY 2026, several companies supported through MEIA experienced employment growth and increased economic activity. The initiative supported an estimated **258 jobs statewide**, including **122 direct jobs** and additional employment through indirect and induced economic activity. MEIA generated **$79.45 million in total economic output**, including **$48.78 million** in **direct output,** and supported **$22.94 million in labor income** and **$38.48 million in value added**.

In addition to these economic contributions, MEIA generated **$8.96 million in total tax revenue**, including **$5.49 million** in **federal taxes** and **$3.47 million in state, county, and subcounty taxes.**

Table 15: MEIA FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	122	$12,767,126	$20,416,935	$48,785,399
Indirect	72	$5,983,298	$9,840,174	$17,768,862
Induced	64	$4,196,607	$8,227,490	$12,897,141
Total	258	$22,947,031	$38,484,599	**$79,451,401**

Table 16: MEIA FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$1,513,839	$3,047,107	$4,560,946
Indirect	$1,013,478	$1,403,422	$2,416,900
Induced	$943,297	$1,045,098	$1,988,396
Total	$3,470,614	$5,495,627	**$8,966,241**

Climate Catalytic Fund (C3)

The C3 Fund was established to support Maryland's Climate Solutions Now Act (CSNA) goals by advancing technology development and deployment aimed at reducing greenhouse gas emissions and mitigating the impacts of climate change. Each fiscal year, 40% of the fund balance must be allocated to qualified projects benefiting low- and moderate-income (LMI) households and communities.

FY 2026 marked the first year of measurable economic impacts associated with the C3 Fund's activities. During this period, the program supported an estimated **21 jobs statewide**, including **11 direct jobs** and an additional 10 jobs through indirect and induced economic activity. The program generated **$5.06 million in total economic output**, including **$2.9 million** in **direct output**, and supported **$1.53 million in labor income** and **$2.81 million in value added**.

In addition to these economic contributions, the C3 Fund generated **$606,651 in total tax revenue**, including **$368,327** in **federal taxes** and **$238,324 in state, county, and subcounty taxes.**

Table 17: C3 FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	11	$834,038	$1,536,274	$2,914,026
Indirect	6	$420,296	$728,990	$1,284,990
Induced	4	$282,022	$552,813	$866,581
Total	21	$1,536,356	$2,818,076	**$5,065,596**

Table 18: C3 FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$104,295	$198,089	$302,384
Indirect	$70,662	$100,010	$170,672
Induced	$63,368	$70,228	$133,596
Total	$238,324	$368,327	**$606,651**

Strategic Revolving Fund (SRF)

The Solar Revolving Fund (SRF) is a $5 million revolving fund established to accelerate the deployment of solar photovoltaic (PV) and energy storage systems throughout Maryland. Designed as a self-sustaining financing mechanism, the fund aims to provide ongoing support for renewable energy projects benefiting affordable housing communities.

FY 2026 marked the first year of measurable economic impacts associated with the SRF's activities. During this period, the program supported an estimated **20 jobs statewide**, including **11 direct jobs** and additional employment through indirect and induced economic activity. The program generated **$4.5 million in total economic output**, including **$2.7 million** in **direct output,** and supported **$1.76 million in labor income** and **$2.7 million in value added**.

In addition to these economic contributions, the SRF generated **$597,510 in total tax revenue,** including **$395,528** in **federal taxes** and **$201,982 in state, county, and subcounty taxes.**

Table 19: SRF FY 2026 Economic Output

Impact	*Employment*	*Labor Income*	*Value Added*	***Total Output***
Direct	11	$1,166,172	$1,589,843	$2,704,944
Indirect	3	$274,537	$481,057	$809,269
Induced	5	$322,310	$631,784	$990,374
Total	20	$1,763,019	$2,702,683	**$4,504,588**

Table 20: SRF FY 2026 Tax Output

Impact	*State, County, and Subcounty*	*Federal*	***Total***
Direct	$71,156	$249,724	$320,880
Indirect	$58,406	$65,544	$123,950
Induced	$72,420	$80,260	$152,680
Total	$201,982	$395,528	**$597,510**

Bridge Finance Facility (BFF)

The BFF financing program was established to accelerate the development of solar photovoltaic (PV) projects located in Maryland by addressing critical financing gaps during the pre-construction and early construction phases. The program provides short-term bridge loans, generally ranging from $500,000 to $1 million, to support community solar and affordable multifamily housing solar projects. By providing access to capital during these critical development stages, the program seeks to reduce project delays, facilitate implementation, and expand access to renewable energy benefits for low- and moderate-income (LMI) households throughout Maryland.

To ensure that program investments directly benefit underserved populations, eligible projects must allocate more than 50% of their total benefits to LMI households and achieve a minimum 20% reduction in participating households' energy burdens.

As of FY 2026, the program had not generated measurable economic impacts for inclusion in this analysis. Initial project activity and associated economic impacts are anticipated to begin materializing in FY 2027, as financed projects advance through development and implementation.