



Maryland
Energy
Administration

**STRATEGIC
ENERGY
INVESTMENT
FUND**

Activities for Fiscal Year 2023

Volume 1

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¹ Due to the number of SEIF award recipients in FY23, Appendixes B and C are located in Volume 2 of the FY23 SEIF report.

A. Introduction

The purpose of the Strategic Energy Investment program is to decrease energy demand and increase energy supply to promote affordable, reliable, and clean energy to fuel Maryland's future prosperity. On behalf of the state, the Maryland Energy Administration (MEA) administers the Strategic Energy Investment Fund (SEIF), implements SEIF-funded programs that support Maryland's energy policies, and monitors SEIF-funded programs being implemented by other state agencies.

Programs funded by SEIF can help reduce energy bills, minimize energy waste, create jobs, improve reliability and resiliency, address energy access and equity issues, help attract and retain businesses, and promote energy independence. Importantly, SEIF-funded programs can also address global climate change concerns by decreasing greenhouse gas emissions.

Background

Pursuant to Section 9-20B-12 of the State Government Article, MEA is required to prepare an annual report to the Governor, General Assembly, and the SEIF board members. This report, among other things, describes the expenditures of the SEIF, grants awarded by MEA, energy savings estimated, and programs, projects and activities conducted. The data in this report demonstrates achievements being made toward promoting affordable, cleaner, and reliable energy for the benefit of all Marylanders.

SEIF Expenditures and Commitments

A relative distribution of the fiscal year 2023 (FY23) SEIF expenditures and commitments across all state agencies from all funding sources is shown in Appendix A, Chart 4. In addition to programs implemented by MEA, in FY23 SEIF funding was also provided to the Maryland Department of the Environment (MDE), the Maryland Energy Innovation Fund at the University of Maryland, the Maryland Department of General Services (DGS), the Maryland Department of Human Services (DHS), and the Maryland Department of Health (MDH), as well as several others.

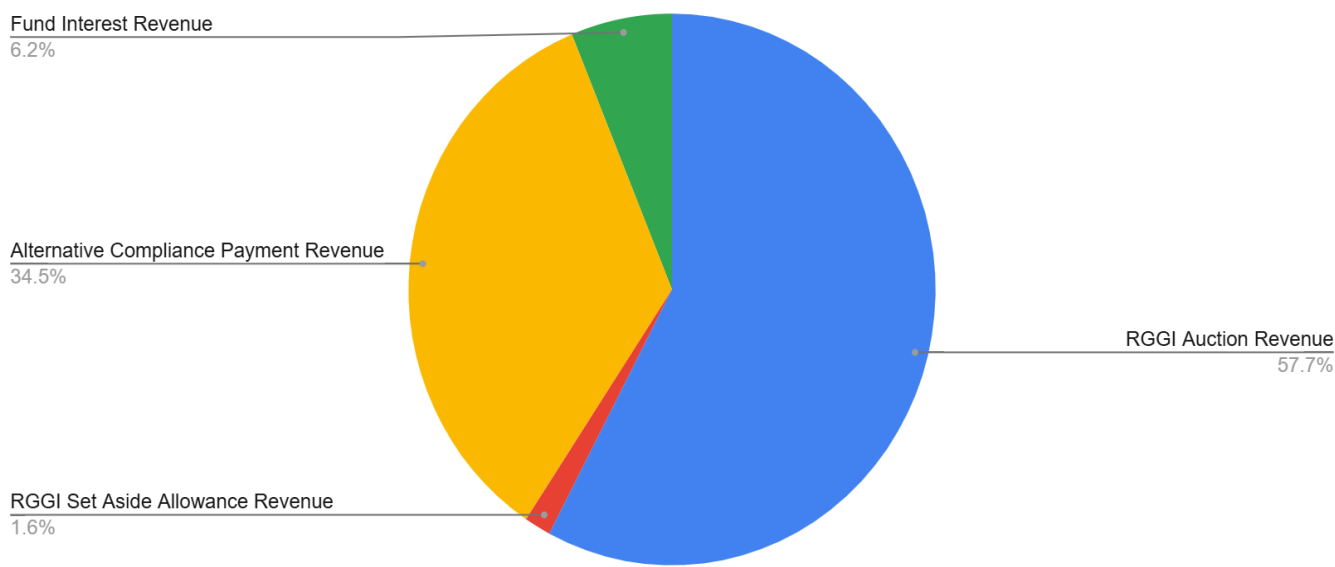
SEIF Proceeds

SEIF proceeds increased in FY23. The increase in annual SEIF proceeds in FY23 was a result of more robust Regional Greenhouse Gas Initiative (RGGI) auctions coupled with an influx of solar-related alternative compliance payments under Maryland's Renewable Portfolio Standard (RPS).

The main source of SEIF proceeds, on a percentage basis, has historically been from the RGGI. This was true again in FY23, but to a lesser extent than prior years, due to an infusion of alternative compliance payments received late in FY23.

- In FY23, the overall percentage of SEIF revenues from RGGI remained relatively static at 58%; in comparison, 65% of FY22 SEIF revenues came from RGGI;
- Alternative compliance payments from Maryland's RPS increased in FY23 and represented 35% of all FY23 SEIF proceeds, having been 34% of FY22 SEIF proceeds.

Chart 1: Composition of FY23 SEIF Proceeds by Funding Source on a Percentage Basis



A summary of overall revenues into the SEIF for the last three years can be found in Appendix A, Chart 5. Appendix A also contains Chart 6 which provides information on each RGGI allowance auction, and includes the number of allowances sold, allowance price, and total RGGI revenue by allowance auction.

Summary

In FY23, over \$130 million of FY23 SEIF funding was committed to programs or initiatives benefiting low or moderate income Maryland residents. Internal to MEA, these initiatives included the Low-to-Moderate Income Energy Efficiency program, the Community Solar Low-to-Moderate Power Purchase Agreement (LMI-PPA) Grant program, and the Low Income Solar Program; all of these initiatives are described in greater detail later in this report. External to MEA, SEIF funds were also used to enable energy bill assistance implemented by the DHS.

Multiple state agencies implement climate and energy-related programs and initiatives funded through the SEIF. While MEA is the administrator of the SEIF, FY23 programs implemented by MEA total only 42.2% of Maryland’s total FY23 SEIF expenditures and active commitments.

Within MEA, the volume of SEIF-funded awards increased in FY23. MEA made more than 6,500 awards in FY23, in comparison to more than 6,400 awards in FY22. SEIF awards made by MEA in FY23 are anticipated to ultimately help incentivize over 100 megawatts of new or future solar projects, which includes over 4,500 residential solar projects. From a transportation perspective, FY23 SEIF is helping to incentivize more than 1,500 electric vehicle charging stations and 44 alternative fuel vehicles, including electric semi-trucks, electric light duty vehicles, and electric school buses.

Details describing activities funded through the SEIF in FY23 are provided in the narratives and charts that follow. Appendix B in Volume 2 of this report provides a list of FY23 grantees receiving multiple SEIF-funded awards from MEA, while Appendix C contains the name of the FY23 SEIF award recipient by MEA program.

SEIF-Funded Initiatives Implemented by MEA

B. Low-to-Moderate Income Energy Efficiency Grant Program

FY23 SEIF Expenditures and Encumbrances: \$19.373 million²

Beneficiaries

Nonprofit organizations and local governments can receive funding from this Program to implement energy efficiency measures that benefit low-to-moderate income (LMI) Marylanders.

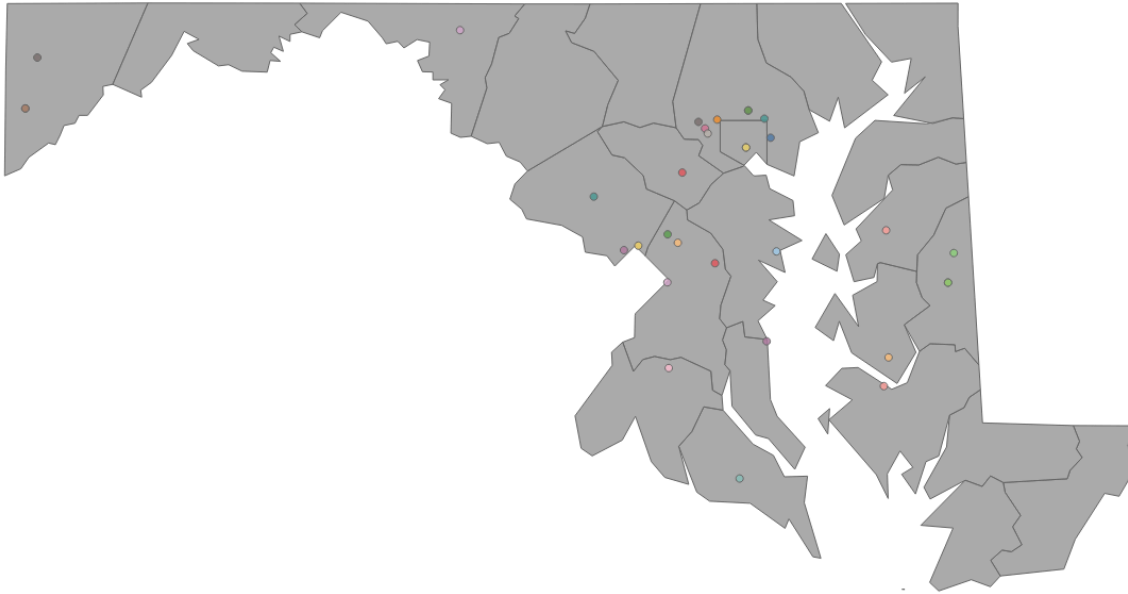
Description

Grants were awarded for energy efficiency projects that generate significant energy savings, with the benefits of the energy savings being passed on to Marylanders experiencing LMI. Priority was given to projects that maximize energy savings and the number of residents that benefit from the measures. MEA allocated grant funds by formula on a regional basis to prioritize a fair distribution of funds across the state, before then making awards competitively within each region.

Through the program, energy efficiency upgrades have been completed at community centers, libraries and shelters, as well as residential homes.

² This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting. In FY24, this program name changed to Energy Efficiency Equity Grant Program.

Map 1: FY23 Low-to-Moderate Income Energy Efficiency Program Awards



Awardee Names

- Arundel Community Development Services - \$150,000
- Building Change Inc - \$1,000,000
- Building Change Inc - \$1,204,613
- Building Change Inc - \$233,070
- Choptank Electric Cooperative - \$150,000
- Choptank Electric Cooperative - \$279,685
- City of Baltimore - \$448,331
- Civic Works Inc - \$600,000
- Civic Works, Inc - \$488,068
- Community Action Council of Howard County \$364,586
- County Commissioners of Queen Anne's County - \$23,500
- Diversified Housing Development - \$1,350,255
- Diversified Housing Development - \$1,400,000
- Diversified Housing Development - \$199,585
- Enterprise Community Development, Inc - \$126,160
- Enterprise Community Development, Inc - \$140,180
- Frederick County Government - \$571,948
- Garrett County Community Action Committee - \$100,000
- Garrett County Community Action Committee - \$337,292
- Govans Ecumenical Development Corporation (GEDCO) - \$96,747
- Green and Healthy Homes Initiative - 365,357
- Green and Healthy Homes Initiative - \$230,000
- Habitat for Humanity Choptank - \$110,770
- Healthy Neighborhoods Inc - \$601,519
- Maryland Rural Development Corporation - \$139,842
- New Ecology Inc - \$60,000
- Rainbow Community Development Center - \$57,860
- Rebuilding Together Montgomery County - \$221,750
- Safe Housing Inc - \$1,827,100
- Safe Housing Inc - \$3,571,815
- Safe Housing Inc - \$450,130
- Safe Housing Inc - \$933,691
- Safe Housing, Inc - \$576,118
- The Community Builders Inc - \$213,303
- The Community Builders Inc - \$360,3398
- Town of North Beach - \$100,000
- United Communities Against Poverty - \$289,761

Several of the grantees listed in Map 1 are working in more than one geographical area of the state. Map 1 typically depicts the grantee’s office location; however, the majority of grant awards fund residential upgrades in multiple locations. As an example, while all of Safe Housing’s awards are mapped to the location of the awardee’s headquarters, the grantee will be completing residential energy efficiency upgrades in western, central, eastern, and southern Maryland.

Note that FY23 projects are still being installed. For this reason, the anticipated total estimates for FY23 are based on results from previous fiscal years. Some energy saving measure installations may leverage additional funding sources. Actual energy and environmental benefits will not accrue until the individual projects have been completed.

Program Accomplishments

Fiscal Year	FY23
# of grants issued	37
Anticipated annual kWh savings	6,658,000
Anticipated annual fuel savings (MMBTU) ^{3,4}	35,300
Anticipated CO2 avoided (metric tons CO2/year)	3,979

³ Million British Thermal Units.

⁴ May include natural gas, propane, or #2 fuel oil.

C. Maryland Smart Energy Communities

SEIF Expenditures and Encumbrances: \$0.886 million⁵

Participants

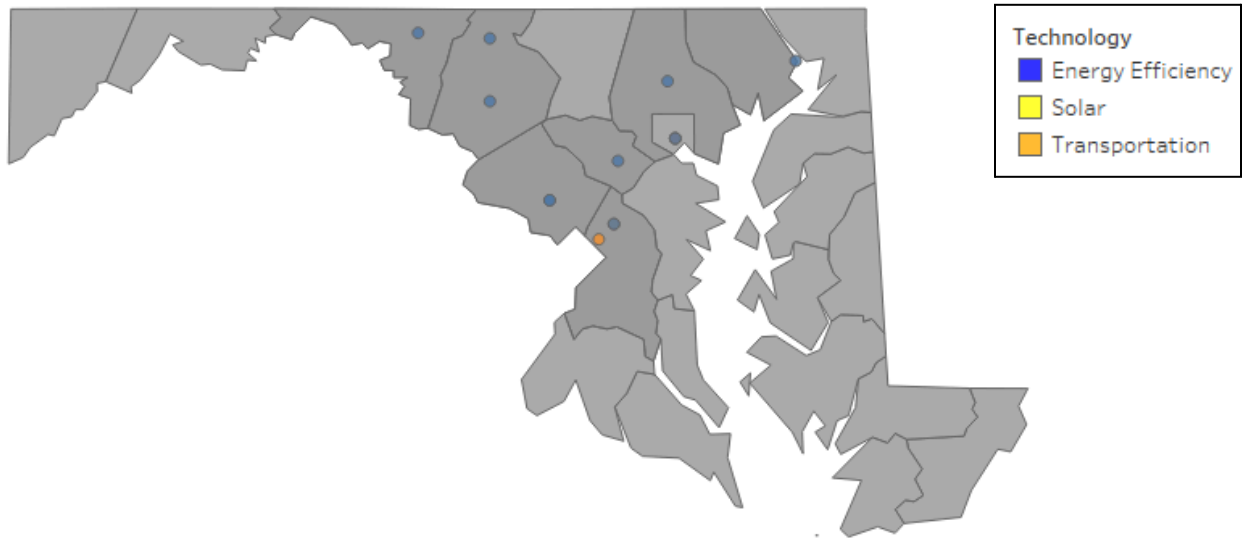
This program benefits local incorporated governments (i.e., towns, cities, and counties) in Maryland. In FY23, the Maryland Smart Energy Communities (MSEC) program provided 15 awards to 10 communities.

Description

The goal of the program is to support local governments as they adopt clean energy policies. Communities benefit from sustained reduction of energy usage, cost savings, and opportunities for renewable energy development. Once active in the program, a local government adopts energy goals and develops an energy baseline. After a local government has successfully adopted at least two out of three clean energy policies (i.e., energy efficiency, renewable energy, and transportation fuel reduction), it can leverage program funding to assist with projects toward achieving its energy goals. MSEC participants gain a better understanding of their energy usage, enabling them to reduce energy costs and contribute to the state's energy and environmental goals.

⁵ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

Map 2: FY23 Maryland Smart Energy Communities awardees



Awardee Names

- Howard County- \$110,814
- Baltimore City- \$55,000
- Baltimore City- \$60,000
- Baltimore City- \$150,000
- Baltimore County- \$55,000
- City of Hagerstown- \$33,375
- City of Rockville- \$50,000
- City of Rockville- \$100,000
- Frederick County Government- \$54,060
- Greenbelt City- \$16,017
- Greenbelt City- \$27,000
- Havre de Grace City- \$44,705
- Hyattsville City- \$22,500
- Thurmont Town- \$53,010

Program Details

Projects selected for MSEC funding in FY23 include HVAC replacement, lighting upgrades, and electric vehicle replacements for existing gasoline vehicles.

Energy savings estimates shown below are based only on the FY23 awards to existing MSEC communities for energy projects identified in their respective grant agreements. Savings from other energy projects that contribute to the MSEC energy goals, but do not receive direct MSEC funding, are not included in the estimates below.

Some projects have lead times and therefore are still being installed. The FY23 annual savings estimates shown below reflect the initial projections. In addition, the new MSEC communities

participating in the FY23 program will still be developing their specific clean energy projects so these project savings are not included below.

MSEC Program	FY23
# of MSEC awards to municipal governments	12
# of MSEC awards to county governments (or county equivalent)	3
# of new MSEC communities	0
Estimated annual reductions (in kWh) anticipated from projects for existing MSEC communities	1,139,659
Estimated kWh of annual solar generation	0
Estimated annual avoided gasoline (gallons)	11,658
Estimated annual avoided natural gas use (MMBTU)	1,233
Anticipated annual CO2 avoided (metric tons CO2/year)	440

D. Commercial, Industrial, and Agriculture Grant Program

SEIF Expenditures and Encumbrances: \$1.758 million⁶

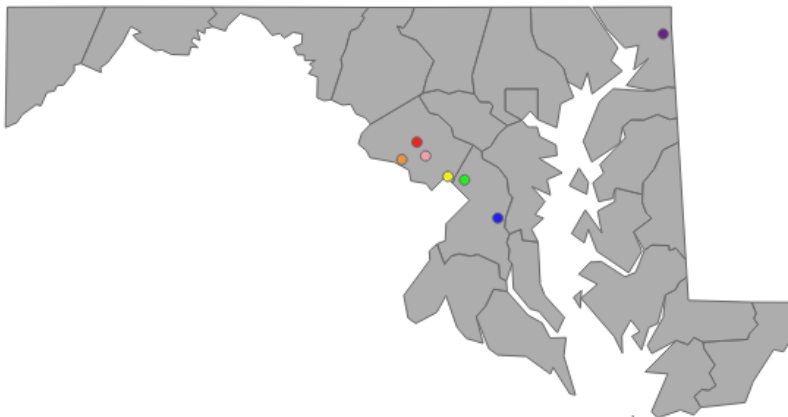
Beneficiaries

The Commercial, Industrial, and Agriculture (CI&A) Grant Program offers financial incentives to Maryland's commercial, industrial, and agricultural sectors.

Description

In FY23, the CI&A grant program provided seven grants to increase the energy efficiency of electric and non-electric fuel consumption of existing facilities, or dedicated spaces within buildings. Possible energy efficiency measures included building insulation; envelope improvements; lighting and controls; motors and variable frequency drives (VFDs); heating, ventilation, and air conditioning (HVAC) upgrades; refrigeration; retro-commissioning; and, energy data analytics and operational changes to improve energy efficiency.

Map 3: FY23 Commercial, Industrial, and Agriculture Grant Program awards



Awardee Name

- Beth Sholom - \$132,386
- Covenant Life - \$300,000
- IMAAW - \$300,000
- Melvin J Berman Hebrew Academy - \$300,000
- RFF Properties - \$226,465
- Terumo Medical Corporation \$200,000
- TwinLine Master Owner - \$300,000

Program Accomplishments

Many projects have long lead times and therefore are still being installed. FY23 annual savings

⁶ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

estimates below reflect the initial projections of the energy reductions that are anticipated to accrue from program-funded projects, but are subject to change. The summary report below shows anticipated total project savings, including energy savings from any measures that may be benefitting from other funding sources, including utility incentives and financing through a Jane E. Lawton Conservation loan.

Fiscal Year	FY23
# of grant awards	7
Annual electricity savings (kWh)	6,093,754
Annual natural gas savings (therms)	226,980
Annual propane savings (gallons)	0
Anticipated annual CO2 avoided (metric tons CO2/year)	3,133

E. Combined Heat and Power Program

SEIF Expenditures and Encumbrances: \$0.429 million⁷

Beneficiaries

Facilities that can benefit from onsite electricity generation and increased resiliency, and have coincident onsite thermal loads that can utilize the waste heat from the electricity generation process.

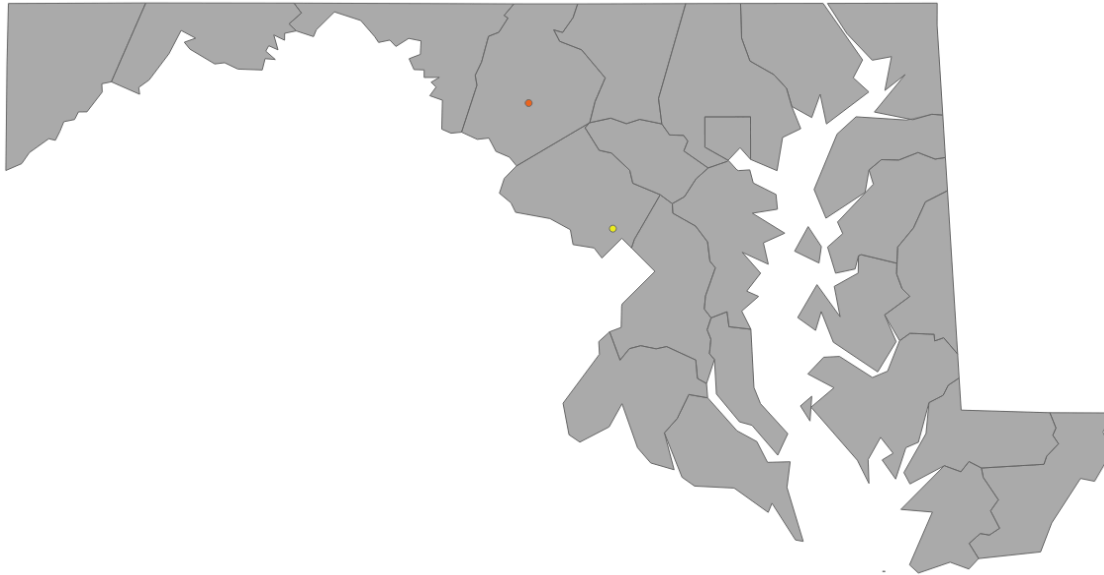
Description

MEA launched this program in FY15 to encourage Combined Heat and Power (CHP) development, initially targeting healthcare and publicly-owned wastewater treatment facilities because of their inherent requirement for enhanced electricity resiliency. The CHP program then expanded to include critical infrastructure, fuel cells, and commercial, industrial, and institutional facilities. The program also targeted projects leveraging biogas, biomass, or other innovative clean energy fuels as a fuel source.

By generating electricity on site, CHP systems avoid electric line losses that would otherwise occur between the centralized power plant and the electricity end user. Waste heat from the electricity generation process can be captured to help meet onsite thermal loads, thereby reducing the demand for heat energy from more traditional combustion sources and improving overall building efficiency. FY23 was the last year of MEA offering a stand-alone CHP program, as MEA is focusing on more overall decarbonization efforts.

⁷ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

Map 4: FY23 Combined Heat and Power Program Projects



Awardee Name

■ Bimbo Bakeries USA, Inc. - \$349,250

■ Council of Co-Owners of the Waterford Condominium - \$80,000

Program Accomplishments

Fiscal Year	FY23
# of awards	2
Anticipated CHP capacity (kW)	695
Anticipated CHP generation (kWH/year)	5,533,234
Annual avoided utility fuel savings (MMBTU/year)	-18,415
Annual thermal fuel savings (MMBTU/year)	464
Anticipated annual CO2 avoided (metric tons CO2/year) ⁸	2,377

⁸ The FY23 project is not anticipated to fully use the available thermal energy energy from the CHP plant initially. Should thermal demand increase in the facility in the future, fuel usage will improve and avoided CO2 savings will increase further.

F. Streetlight and Outdoor Lighting Energy Efficiency program

SEIF Expenditures and Encumbrances: \$0.406 million

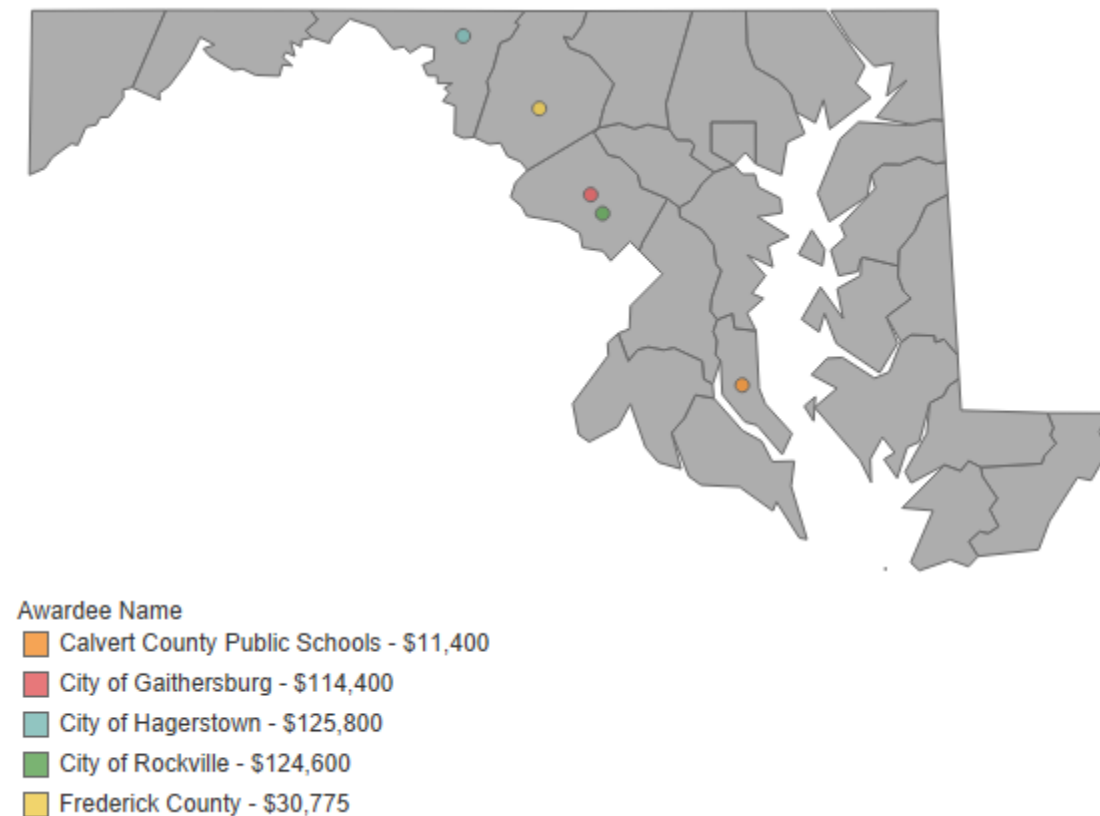
Beneficiaries

Potential participants include Maryland non-profit organizations, state agencies, local governments and incorporated cities, public and private schools, and community colleges.

Description

The Streetlight and Outdoor Lighting Efficiency Grant Program makes grants available to eligible entities to defray the cost of replacing outdated, less efficient pole-mounted fixtures that are used for street lighting, parking lot illumination, parks, athletic fields, and other outdoor lighting systems, along with implementing certain lighting controls.

Map 5: FY23 Streetlight and Outdoor Energy Efficiency Program Grantees by Location



Program Accomplishments

Fiscal Year	FY23
# of grant awards	5
Annual electricity savings (kWh)	571,669,000
Anticipated lights to be retrofitted	1,798
Anticipated annual CO2 avoided (metric tons CO2/year)	181

G. Decarbonizing Public Schools Program

SEIF Expenditures and Encumbrances: \$0

Beneficiaries

Maryland local education agencies⁹ (LEAs) are eligible to participate.

Description

Offered for the first time in FY22, the Decarbonizing Public Schools Program made grants available to expand the capacity of LEAs to manage energy data, reduce operating costs, and incorporate energy performance criteria into capital improvement planning. However, In FY23 MEA did not award any additional grants through the Decarbonizing Public Schools Program. This hiatus allowed for a strategic expansion of program objectives to more comprehensively address the need for capital funds to jump start the effort on improving energy efficiency, sustainability, and carbon reduction goals of all Maryland LEAs for an expanded program in FY24.

Fiscal Year	FY23
# of grant awards	0
# of LEAs receiving an award to help defray the cost of energy management and ENERGY STAR Portfolio Manager deployment	0
# of LEAs receiving an award to cover the cost of incorporating net zero energy design principles into LEA facility development portfolios	0

⁹ In Maryland, local education agencies correspond with the county, or county-equivalent, public school system.

H. Resilient Maryland

SEIF Expenditures and Encumbrances: \$3.053 million¹⁰

Beneficiaries

Potential applicants include businesses, critical infrastructure facilities, local and state governments (including public universities, community colleges, and schools), nonprofit organizations, healthcare facilities, multifamily housing, regional planning organizations, agriculture, food production and supply chain, hotels, utilities, cooperatives, and municipal utilities implementing microgrids to improve community resilience. Downstream beneficiaries include low-to-moderate income Maryland residents.

Description

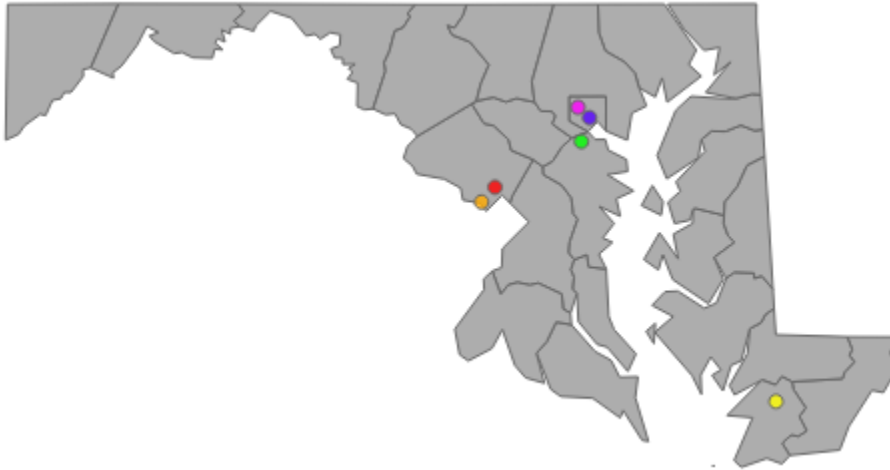
Resilient Maryland is aimed at driving growth in the adoption of microgrids and other distributed energy resource (DER) systems that enhance a facility's resiliency, sustainability, and efficiency. Solar photovoltaics, advanced combined heat and power, energy storage systems, grid-interactive energy efficiency technologies, and many other distributed energy resources (DERs) can be strategically combined to provide long-term affordable energy and resilient power solutions that bolster essential infrastructure, vulnerable communities, and businesses and organizations sensitive to energy disruption. The FY23 program covered three different areas of interest (AOIs) in FY23:

- AOI 1 focuses on feasibility analyses, planning, preliminary designs, financial analyses, greenhouse gas reduction projections, analyses on barriers to system implementation, and other pre-construction activities for community and campus-scale microgrids and other innovative configurations. The program provides competitive grants that help offset the costs of equipment and installation of DERs and the associated wiring and communication infrastructure comprising the microgrid. The program can help incentivize microgrid development, enhance the resilience of essential public facilities and infrastructure, improve socioeconomic equity of historically underserved and unserved Marylanders, encourage economic development, and provide educational and workforce development opportunities for clean energy careers.
- AOI 2 focuses on similar activities as AOI I, but for a single facility.
- AOI 3 incentivizes the design of “resiliency hubs”, which are community locations fitted with a solar photovoltaic and battery storage system for community members to safely congregate, sized to power essential loads during an electricity grid outage. AOI 3 also incentivizes capital construction. Funding is provided to partially compensate solar microgrid developers for costs incurred in the development and construction of eligible combined solar and energy storage systems. Incentivized systems will independently run and maintain electrical power even if power from the electrical grid fails, to serve as resiliency hubs supporting neighborhoods with significant numbers of LMI residents.

¹⁰ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

During grid outage, the solar plus energy storage system will provide important resources for the surrounding community. A resiliency hub is envisioned as a venue where a solar plus energy storage system has been installed, with the system designed to provide energy to meet important electricity needs (e.g., emergency heating and cooling, refrigeration of medications, and plug power for cell phones). When the electric grid is operational, the solar plus storage system may be used to provide solar energy and peak shaving to the facility where the hub is located.

Map 7: FY23 Projects funded through Resilient Maryland



Awardee Name

- Glen Echo Park Partnership for Arts & Culture, Inc. - \$100,000
- Housing Opportunities Commission of Montgomery County - \$100,000
- Maryland Aviation Administration - \$100,000
- MITAGS-PMI-MCC - \$100,000
- University of Maryland Eastern Shore (UMES) - \$100,000
- Women's Home Preservation, LLC - \$100,000

Program Accomplishments

Fiscal Year	FY23
# of projects receiving an award	9

I. Residential Clean Energy Rebate Program

SEIF Expenditures and Encumbrances: \$5.700 million (residential)

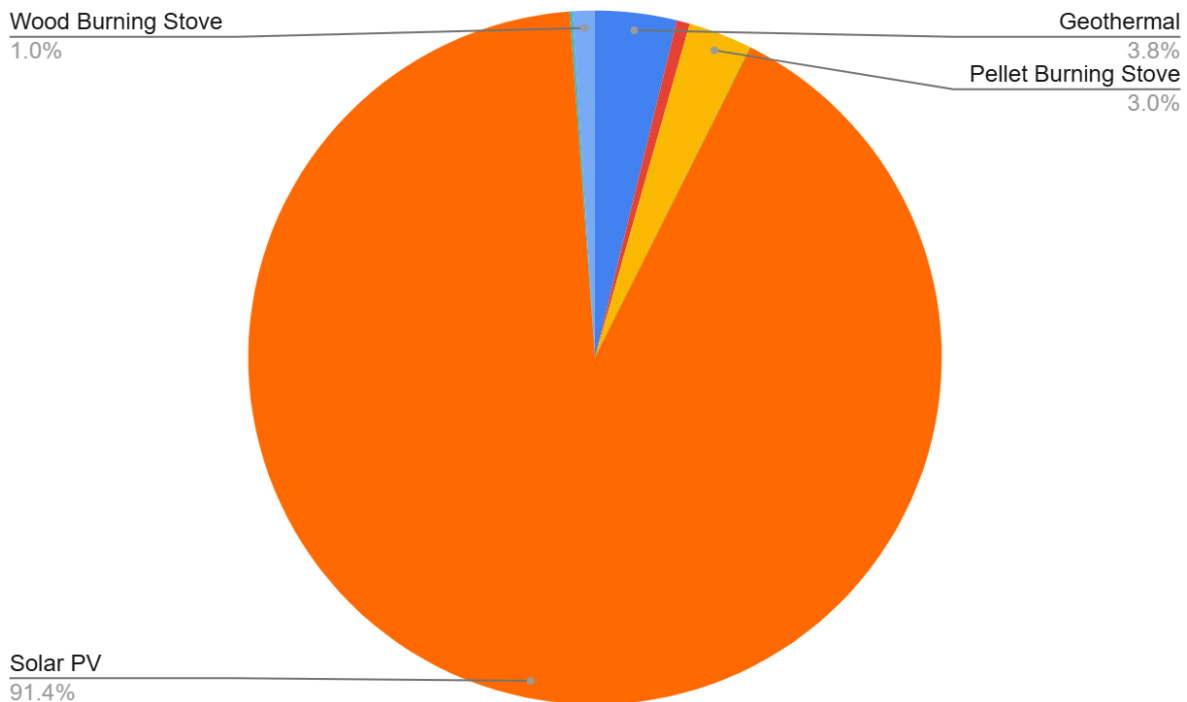
Beneficiaries

Beneficiaries include homeowners that install eligible renewable energy systems.

Description

The Clean Energy Rebate Program (CERP) was designed to support renewable energy installations across the state, and offers incentives for both residential and commercial projects. In FY23, Residential CERP provided incentives for solar photovoltaic (PV), solar water heating, geothermal heating and cooling, and wood and pellet stoves. The solar photovoltaic category has expanded to also include solar shingles, where the solar photovoltaic technology is installed as part of a building's roof. As shown in Chart 2 below, solar photovoltaic is the most popular technology by far, representing over 5,000 awards and approximately 90% of FY23 residential CERP applications.

Chart 2: FY23 Residential Clean Energy Rebate Program Awards by Technology



In FY23, residential CERP applications far exceeded commercial applications in both the number of awards made and total dollar amount of awards issued.

Residential CERP incentive levels are set at a prescribed amount per technology installation (e.g., \$1,000 per solar photovoltaic award, \$3,000 per geothermal heat pump) while commercial

incentive levels are calculated based on the size and type of renewable energy system. By offering incentives for multiple technologies, potential program participants have options to help suit their cost and/or geographical requirements.

Program Accomplishments

Fiscal Year	FY23
Total # of awards	4,949
Estimated new electricity generated <u>or</u> avoided incentivized by CERP (kWh/year)	4,611,592
Estimated MMBTU/year avoided due to projects receiving CERP incentives	141,985
Overall Solar PV Capacity ¹¹ (kW)	48,879
Solar Thermal (sq. ft.)	0
Capacity of new Geothermal installed (Ton)	928
# of wood and pellet stove installations	199
Anticipated annual CO2 avoided (metric tons CO2/year)	41,611

¹¹ Includes residential solar photovoltaic shingles.

J. Commercial Clean Energy Rebate Program

SEIF Expenditures and Encumbrances: \$0.597 million

Beneficiaries

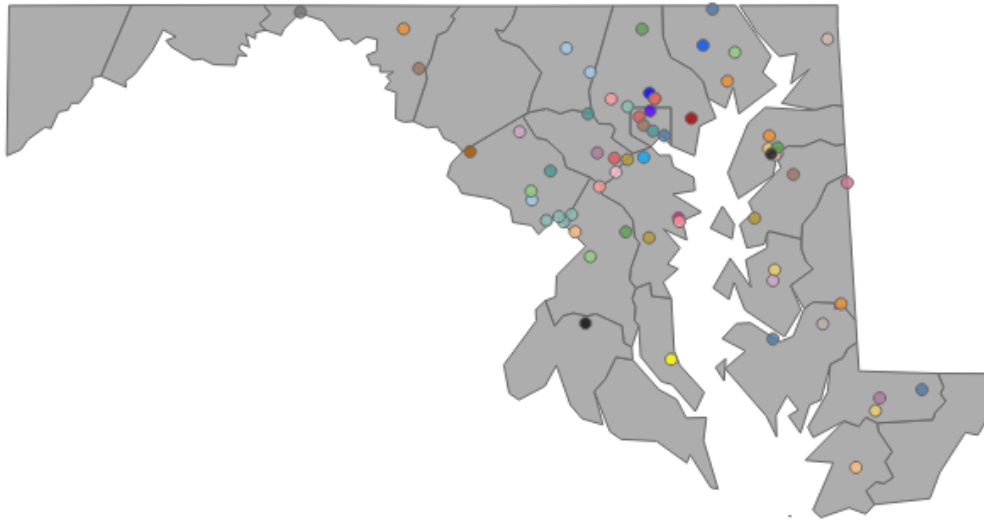
Beneficiaries can include businesses, nonprofit organizations, and state and local government entities that install eligible renewable energy systems.

Description

The FY23 Commercial Clean Energy Rebate Program (CERP) provides incentives for solar and geothermal systems. There were a total of 65 commercial CERP projects in FY23, all of which involved solar technology. In FY23, commercial projects occurred across the state, in nineteen of Maryland's counties.

Commercial incentive levels are calculated based on the size and type of renewable energy system. By offering incentives for multiple technologies, potential program participants have options to help suit their cost and/or geographical requirements.

Map 10: FY23 Commercial CERP Project Locations¹²



Program Accomplishments

Fiscal Year	FY23
Total # of awards	65
Estimated new electricity generated <u>or</u> avoided incentivized by CERP (kWh/year)	6,795,477
Estimated MMBTU/year avoided due to projects receiving CERP incentives	4,700
Overall Solar PV (kW)	5,227
Solar Thermal (sq. ft.)	0
Capacity of new Geothermal installed (Ton)	0
Anticipated annual CO2 avoided (metric tons CO2/year)	2,091

¹² A list of awardees can be found in Appendix C.

K. Solar Canopy Program

SEIF Expenditures and Encumbrances: \$0.888 million

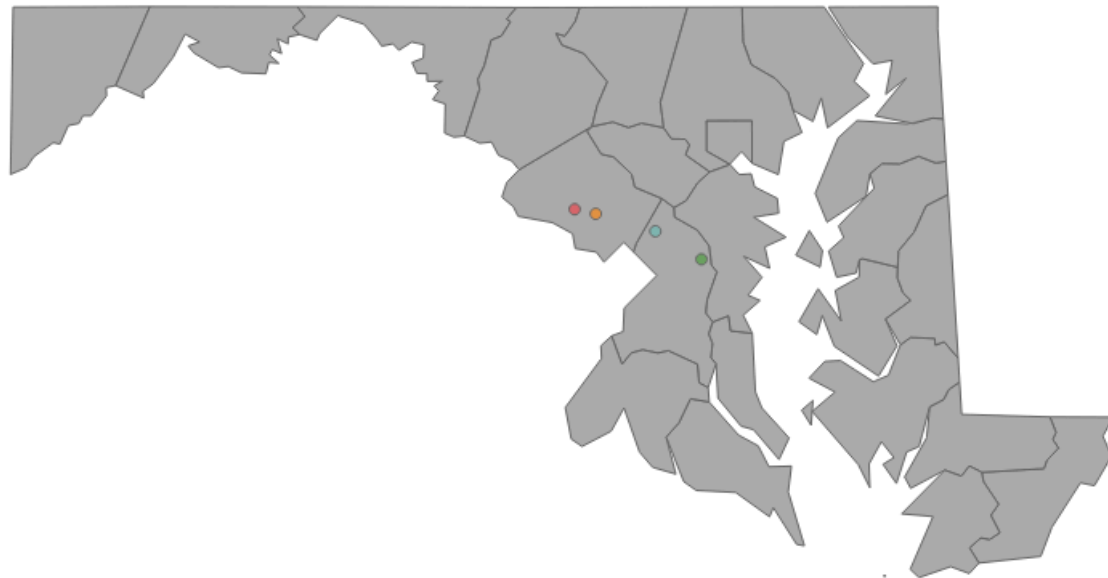
Beneficiaries

Potential applicants include businesses, state and local governments, and non-profit organizations.

Description

This competitive program, previously referred to as the Parking Lot Solar Canopy with Electric Vehicle Charger program, has been offered by MEA since 2014. Eligible projects must consist of at least 75 kW of solar photovoltaic panels mounted on a canopy-type structure over a parking lot or parking garage roof, and at least four Level 2 or Level 3 EV charging stations must be installed in conjunction with the canopy system. Participating parking lot properties can help support the state's electric vehicle adoption, Renewable Portfolio Standard, and greenhouse gas reduction goals all while performing the facility's primary function of providing parking access. As ancillary benefits of these projects, vehicles parked underneath the canopies are protected during inclement weather and kept shaded, and thus cooler, during the summer months.

Map 11: FY23 Solar Canopy Program Awards



Awardee Name

- City of Rockville - \$144,000
- City of Rockville - \$250,000
- HESP MD CSEG, LLC - \$224,525
- Maryland Science and Technology Center II, LLC - \$250,000

Many of the parking lot solar canopy projects are in fairly visible locations, helping to increase the visibility of solar to the public at large. As examples, this year's solar canopy projects will be

installed at Maryland Science and Technology Center, City of Rockville properties, and an apartment complex in Prince George’s county.

FY23 projects are still being developed and are not yet installed. Anticipated system capacity estimates for these projects are included below, but are subject to change.

Program Accomplishments

Fiscal Year	FY23
# of projects receiving an award	4
Solar capacity (kW) resulting from the parking lot canopy projects	1,792
Electric vehicle charging stations	20
Anticipated annual generation (kWh)	2,240,000
Anticipated annual CO2 avoided (metric tons CO2/year)	709

L. Community Solar Program

SEIF Expenditures and Encumbrances: \$9.848 million¹³

Beneficiaries

The ultimate beneficiaries of MEA's Community Solar program are LMI residents who are now more likely and able to participate in a community solar project in the Maryland Public Service Commission (PSC) pilot program.

Community solar helps improve energy equity by expanding the pool of Maryland residents who can potentially participate in solar projects, opening up solar to rental households that make up 32% of Maryland's housing units¹⁴ and households who may not have the financial resources (e.g., upfront capital, credit history) to otherwise access solar technologies.

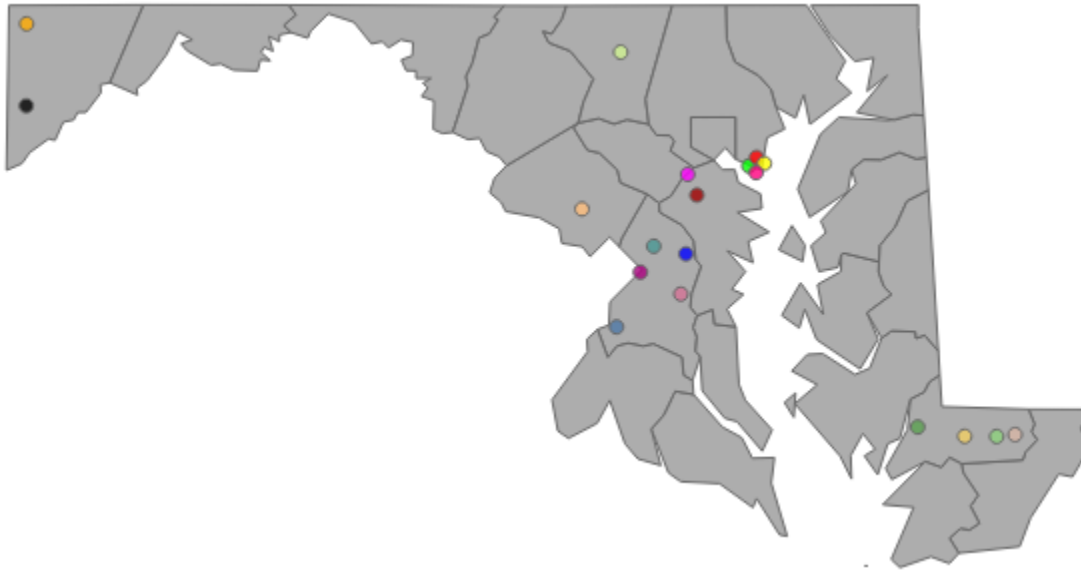
Description

Community solar allows Maryland residents to purchase subscriptions for electricity produced from local community solar arrays, thereby gaining some of the same economic advantages as having solar modules directly on a residence, while avoiding possible obstacles to participation in solar that may exist (e.g., roof age, property ownership, roof orientation, or shading). The incentives offered by MEA are designed to help enable LMI Marylanders to participate in the larger, statutorily-created Community Solar pilot program being overseen by the PSC.

¹³ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

¹⁴ U.S. Census Bureau, <https://data.census.gov/table/ACSST1Y2022.S1101?q=maryland%20housing>, accessed 11/28/2023.

Map 12: FY23 Community Solar Array Locations



The community solar arrays incentivized in FY23 are power purchase agreement (PPA) projects, in which subscribers agree to purchase the electricity produced by the community solar project, rather than purchase a portion of the community solar array itself. In FY23, incentives for subscriber organizations enable terms and conditions to be offered in the community solar subscription agreement (i.e., a contract by which a customer agrees to participate in a community solar project) that will increase cost savings, and provide more lenient entry and exit subscription contract terms for LMI residents.

FY23 projects are still being developed and are not yet installed. Generation and capacity estimates for these future installations are included below, but are subject to change.

- Awardee Name**
- Beech Road Solar LLC -\$210,759
 - Beech Road Solar LLC -\$413,325
 - Beech Road Solar LLC -\$413,325
 - Carroll County MD Solar LLC -\$250,619
 - Carroll County MD Solar LLC -\$250,619
 - Chaberton Solar Chesapeake LLC -\$395,366
 - Goose Haven -\$317,000
 - Mardela Springs Cooper Mill Solar 1, LLC - \$500,000
 - McCormick & Company, Inc. - \$413,470
 - McCormick & Company, Inc. - \$413,470
 - McCormick & Company, Inc. - \$413,470
 - McCormick & Company, Inc. - \$413,470
 - PG Solar LLC - \$259,132
 - PG Solar LLC - \$500,000
 - Parker Place Solar LLC -\$398,405
 - Solar Landscape -\$1,666,876
 - Solar Landscape -\$1,912,762
 - TPE Development LLC -\$353,364
 - TPE Development LLC -\$353,364

Program Accomplishments

Fiscal Year	FY23
Total # of grant awards	19

Estimated total new electricity generation of all community solar projects receiving LMI incentives(kWh-ac/year) from MEA	90,685,024
Overall total capacity of community solar PV (kW) projects receiving LMI incentives from MEA	69,102
Estimated amount of new electricity generation from the incentivized community solar projects directed specifically to the LMI community (kWh-ac/year) ¹⁵	43,330,339
Capacity of the incentivized community solar projects that is directed specifically to the LMI community (kW)	33,359
Anticipated annual CO2 avoided from the LMI portions of the incentivized Community Solar projects (metric tons CO2/year)	28,697

¹⁵ The generation capacity and corresponding electricity generation directed specifically to LMI participants is a subset of each participating community solar project.

M. Public Facility Solar Grant Program

SEIF Expenditures and Encumbrances: \$0.053 million¹⁶

Beneficiaries

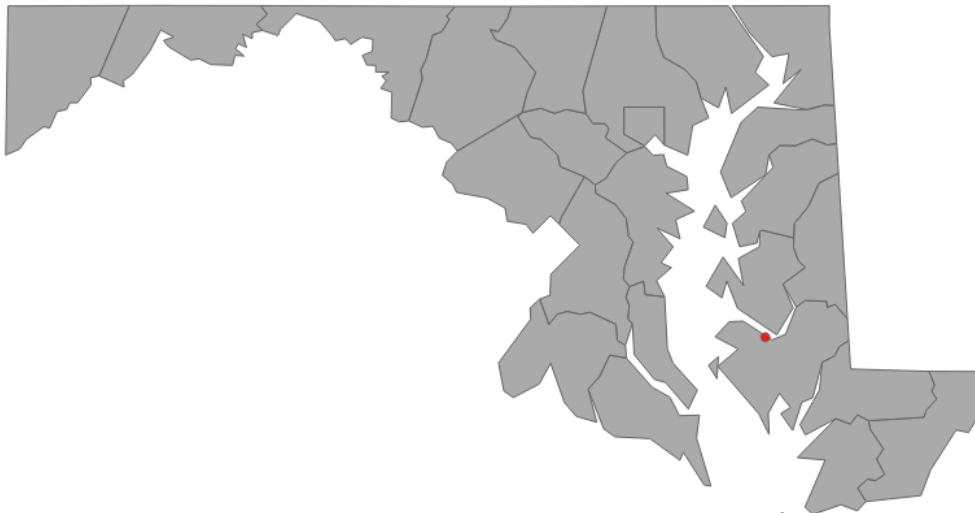
State, county, or municipal government entities.

Description

First offered in FY21, the program provides grant funding on a competitive basis to state, county, or municipal government entities to support the planning and installation of solar arrays on existing infrastructure of public facilities. Installation may occur through the direct purchase and installation of solar modules by the public entity, or through a PPA with a third party for installation of a solar array on a public facility or incorporated into a public facility's existing infrastructure.

The Public facility receiving a solar array through the FY23 program is the Cambridge Public Works facility.

Map 13: FY23 Public Facility Solar Grant Program



Awardee Name

■ City of Cambridge - \$53,900

Program Accomplishments

¹⁶ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

Fiscal Year	FY23
# of projects receiving an award	1
# of participating entities receiving an award	1
Solar capacity (in kW(DC))	21.6
Anticipated annual solar generation (kWh/year)	27,381
Anticipated annual CO2 avoided (metric tons CO2/year)	9

N. Low Income Solar Grant Program

SEIF Expenditures and Encumbrances: \$4.57 million

Beneficiaries

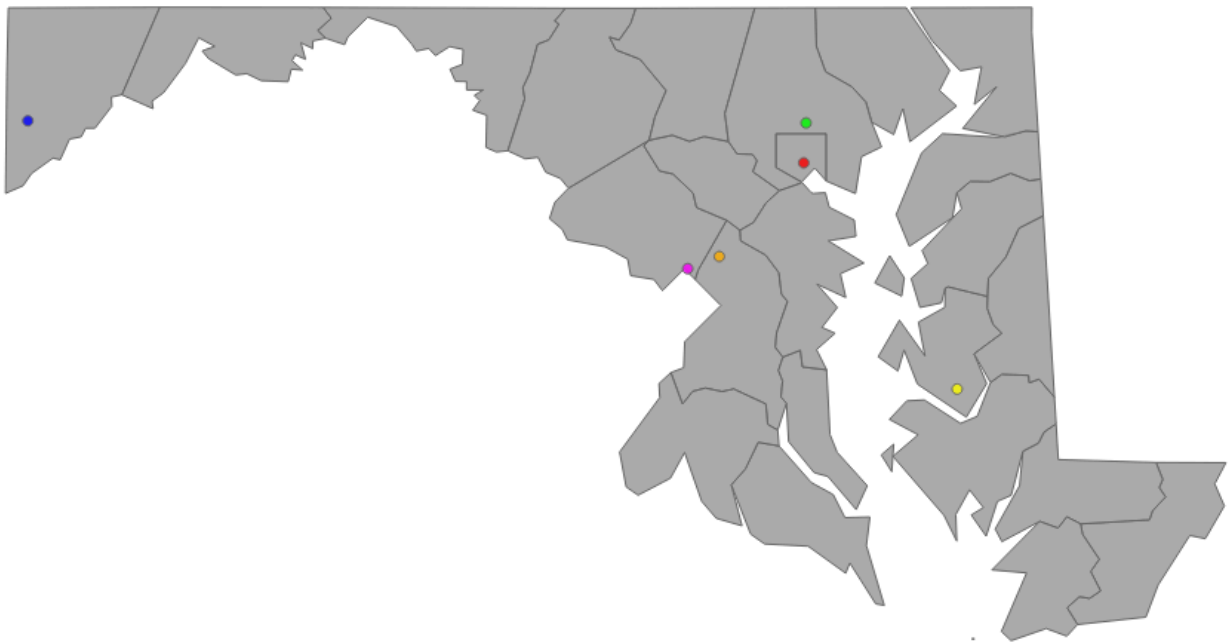
Non-profit organizations and local governments.

Description

Offered for the first time in FY22, this program provides grant funding on a competitive basis for the design and installation of solar energy systems for single family homes owned by low income residents. Participating households will have already received an energy audit and weatherization-type energy efficiency upgrades as part of MEA's Low-to-Moderate Income Energy Efficiency Grant Program. The Low Income Solar Grant Program makes available up to 100% of the cost for the design and installation of a solar PV system, with a funding cap of \$25,000 per home.

FY23 projects may not yet be installed. Anticipated system capacity and generation estimates for these projects are included below, but are subject to change.

Map 14: FY23 Low Income Solar Grant Program Awardees



Awardee Name

■ Building Change, Inc - \$1,000,000

■ Civic Works Inc - \$1,750,000

■ Garrett County MD Community Action Committee, Inc - \$1,000,000

■ Green & Healthy Homes Initiative, Inc. - \$250,000

■ Habitat for Humanity Choptank, Inc - \$75,000

■ Habitat for Humanity Metro Maryland - \$500,000

Map 14 depicts the grantee's location, rather than the location of the participating homes.

Program Accomplishments

Fiscal Year	FY23
# of projects receiving an award	6
# of low income solar households anticipated to participate	183
Estimated Solar capacity (in kW(DC))	1,555
Anticipated annual solar generation (kWh/year)	1,255,662
Anticipated annual CO2 avoided (metric tons CO2/year)	4,315

O. Offshore Wind Programs

SEIF Expenditures and Encumbrances: \$0.654 million

Beneficiaries

Maryland emerging businesses; nonprofit organizations; and state, local, and municipal governments and their agencies/institutions.

Description

The Offshore Wind program includes both the Offshore Wind Development Fund (OSWDF) within the SEIF and the Offshore Wind Business Development Fund (OSWBDF) outside of the SEIF. Respectively, these funds are used for the research efforts of offshore wind projects and the creation of a business supply chain in Maryland.

The OSWDF has historically been used for research initiatives including environmental surveys and wind resource characterization campaigns.

OSWDF Program Accomplishments

In FY23, OSWDF funds were used for sponsorship and booth-related activities at the 2023 Offshore Wind International Partnering Forum that was held in Baltimore. In addition, the funds were used for membership in the Responsible Offshore Science Alliance (ROSA), a nonprofit organization advancing research and monitoring on the effects of offshore wind energy on state and federal fisheries. OSWDF funds were also used for membership in the Regional Wildlife Science Collaborative, which works on regional monitoring and research of wildlife and marine ecosystems that support the advancement of environmentally responsible and cost efficient offshore wind power developing the the U.S. Atlantic.

Fiscal Year	FY23
# of OSWDF grant awards	9

P. Electric Vehicle Supply Equipment Program

SEIF Expenditures and Encumbrances: \$1.798 million

Beneficiaries

Electric Vehicle Supply Equipment (EVSE) Rebate Program participants can include homeowners, businesses, nonprofit organizations, and state and local government entities that install eligible electric vehicle charging equipment. Entities purchasing and installing EVSE for non-exclusive individual use in a multi-unit dwelling development (e.g., apartments, condominiums, homeowners associations, etc.) may also participate.

Description

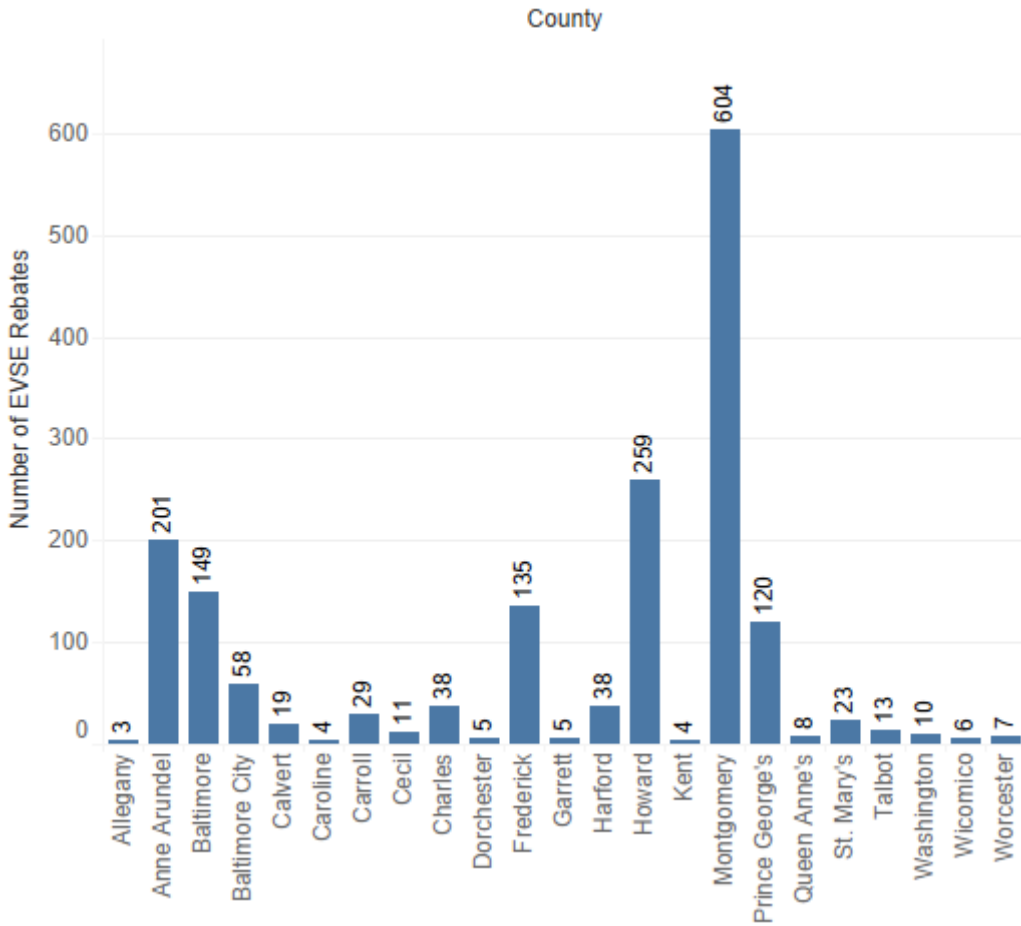
The EVSE Program aims to reduce the financial burden of acquiring and installing electric vehicle charging stations, in order to increase electric vehicle (EV) adoption in support of Maryland's EV deployment and greenhouse gas (GHG) reduction goals.

Over 1,500 EVSE rebates were funded through SEIF in FY23, including both residential and commercial EVSE installations. While each residential EVSE award typically corresponds to one charger, the commercial EVSE program allows for rebates for multiple chargers to be included on the same award application and therefore can result in larger award amounts.¹⁷

In FY23, approximately 96% of rebate funds went to Maryland residents, with the remaining rebate funds going to eligible commercial entities.

¹⁷ The SEIF report provides a list of participants at the awardee, rather than individual rebate, level. With this in mind, a commercial EVSE participant receiving multiple rebates as part of the same application is listed as one award.

Chart 3: FY23 EVSE Awards by County¹⁸



As illustrated by Chart 3, it can be seen that in FY23 the highest number of rebates were incentivizing chargers installed along the Interstate I-95 corridor, as well as in Montgomery, Anne Arundel, and Baltimore counties.

In addition to numerous Maryland residents, FY23 EVSE commercial program participants include apartment complexes, condominium associations, and businesses. Commercial awards in FY23 have also gone to entities, such as the Electric Vehicle Institute, working to build out the public EV charging network in the state.

Program Accomplishments

Fiscal Year	FY23
# of total EVSE rebate awards made	1,746

¹⁸ This is the county where the charger was installed, which may be different from the mailing address of the rebate applicant.

Q. Clean Fuels Incentive Program

SEIF Expenditures and Encumbrances: \$3.16 million¹⁹

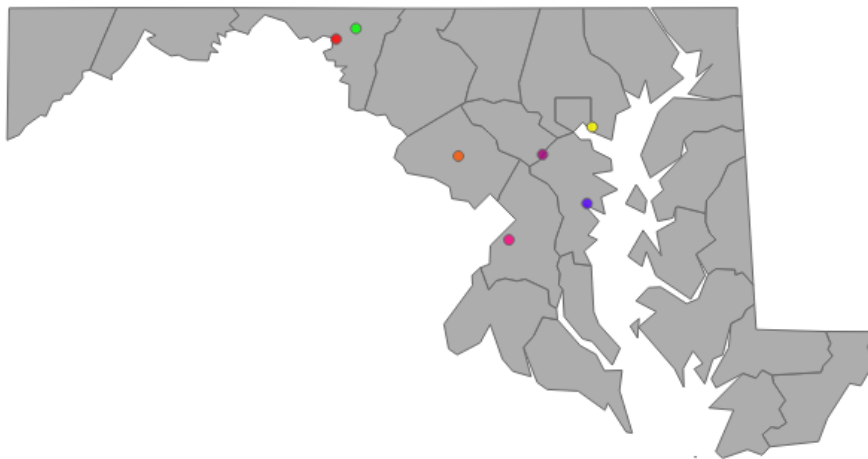
Beneficiaries

Applicants must be a fleet vehicle operator or a fleet vehicle purchaser. Eligible applicants include school districts, local governments, businesses, and non-profit organizations.

Description

This competitive program provides financial assistance for the purchase of new and converted alternative fueled fleet vehicles registered in Maryland. Specifically, the program provides funding to support the incremental cost to purchase alternative fuel fleet vehicles, or to convert new fleet vehicles to utilize alternative fuel. The program establishes a maximum grant award per vehicle, based on the different types of alternative fuel (i.e., all electric, natural gas, propane, biodiesel, and hydrogen) and vehicle class.

Map 16: FY23 Clean Fuels Incentive Program



Awardee Name

- 11V Logistics - \$900,000
- D.M. Bowman, Inc. - \$150,000
- Highland Electric Fleets, Inc. - \$240,000
- Highland Electric Fleets, Inc. - \$240,000
- Highland Electric Fleets, Inc. - \$400,000
- Sysco Baltimore, LLC - \$1,200,000
- Washington Suburban Sanitary Commission - \$30,000

¹⁹ This reflects the awards made in FY23 and does not include financial transactions for awards from prior fiscal years that impacted FY23 accounting.

Program Accomplishments

In FY23, vehicles funded through the Clean Fuels Incentive Program included fifteen Class 8 battery electric vehicles, six Class 2 battery electric vehicles, and eleven electric school buses.

Fiscal Year	FY23
# of projects receiving an award	7
# of vehicles anticipated to be incentivized	44
Anticipated annual GHG avoided (metric tons of GHG/year)	840

R. Maryland Energy Infrastructure Program

SEIF Expenditures and Encumbrances: \$9.25 million

Beneficiaries

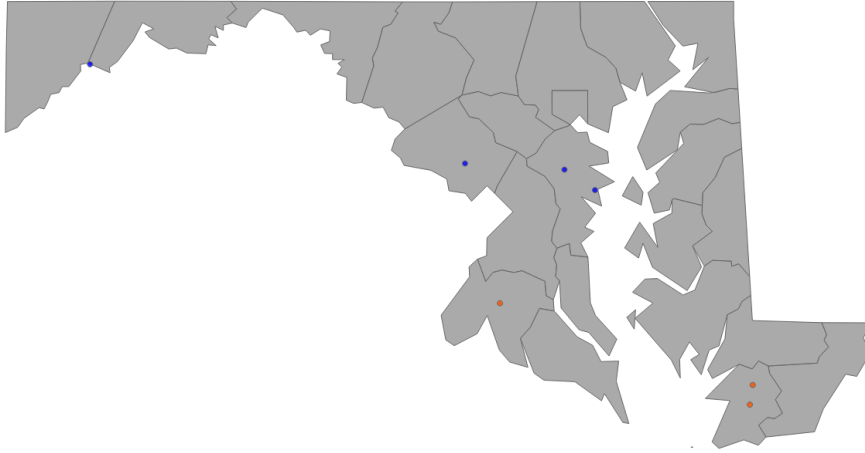
Maryland utilities, local government agencies, and institutions

Description

The Maryland Energy Infrastructure Program (MEIP) includes the Maryland Anchor Customer (Anchor Customer) and the Maryland Local Distribution Company (LDC) subprograms. These initiatives provide funding to assist with energy projects that promote natural gas infrastructure across the state. The SEIF received funds as a result of PSC Order #88631, a part of the PSC case (Case No. 9449) ultimately approving the Merger of AltaGas, Ltd., Washington Gas, and WGL Holdings. The conditions of that Merger, agreed upon by the settling parties, required the creation of the Maryland Gas Expansion Fund (MGEF) and required that that fund be used for the specific purpose of promoting natural gas infrastructure across the state.

- The Anchor Customer subprogram issues grants to commercial, industrial, state agencies, local governments, and nonprofit energy consumers in Maryland. The purpose of the Anchor Customer subprogram is to assist with energy projects that help promote natural gas distribution, including investments in assets that assist customers in converting their operations to natural gas; reintegrate previous natural gas customers who no longer possess natural gas infrastructure or functional natural gas infrastructure; and benefit existing customers not presently utilizing their natural gas infrastructure and/or are seeking to expand their energy demands.
- The LDC subprogram provides matching grants to licensed LDCs to aid in natural gas infrastructure expansion in Maryland. The purpose of the LDC subprogram is to invest in assets that distribute natural gas to new customers, reintegrate previous customers who no longer use natural gas service, and benefit existing customers who are not presently utilizing their natural gas infrastructure.

Map 17: Maryland Energy Infrastructure Program awardees



Awardee Name

- Adventist HealthCare - \$942,000
- Board of Education of Anne Arundel County - \$876,947
- Chesapeake Utilities - \$185,500
- Chesapeake Utilities - \$250,225
- Maryland Environmental Service - \$1,181,053
- SEM WaferTech - \$3,000,000
- Washington Gas & Light (WGL) - \$2,814,275

Program Name

- Local Distribution Company (LDC)
- Maryland Anchor Customer Program (MACP)

Some FY23 projects are still being implemented.

Program Accomplishments

Fiscal Year	FY23
# of grants issued	7

S. OPEN Energy Program

SEIF Expenditures and Encumbrances: \$0.75 million

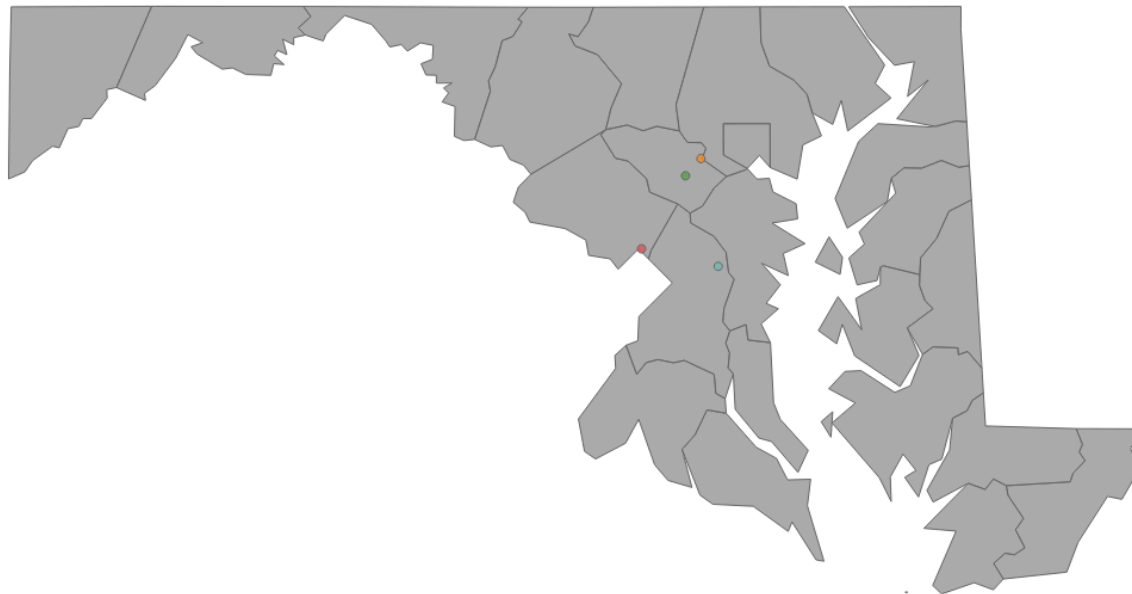
Beneficiaries

Participants must be located, or registered to do business, in Maryland.

Description

MEA occasionally receives proposals for energy projects and initiatives outside of the agency's suite of established technology and sector-specific energy programs offered in a given fiscal year. MEA acknowledges that these types of proposals can potentially help advance the state's energy goals and agency mission in innovative ways while also being responsive to evolving energy issues and engaging a broad range of stakeholders. Offered for the first time in FY22, MEA's OPEN Energy Program (OPEN Energy) provides an avenue for the agency to consider these proposals for funding. Applications under OPEN Energy should be efforts that have the potential to be replicated or provide a public benefit beyond a single project or activity.

Map 18: FY23 OPEN Energy awards



Award: MEA Award Name

- Howard County
- Kerb-e Inc
- Prince George's County FY23 OPEN award
- The Community Ecology Institute

Program Accomplishments

The scope of OPEN ENERGY is by design broad in nature, to allow for innovation in the energy

space. Projects funded since the launch of the program in FY22 include:

- a demonstration project to show that low methane content biogas from a landfill can be used to generate electricity;
- an initiative to demonstrate and educate on the use of alternative energy technologies in rural settings;
- a project to expand outreach and services to manufacturing companies to adopt energy efficiency, renewable energy, and green transportation technologies, as well as to prepare to enter the offshore wind supply chain; and,
- an assessment for electrifying fishing and marine vessels.

Fiscal Year	FY23
# of grant awards	4

T. Communications and Marketing

SEIF Expenditures and Encumbrances: \$0.079 million

Beneficiaries

All Marylanders.

Description

Funds under the Communications and Marketing budget are used to promote MEA energy programs and awareness to Maryland residents, businesses, nonprofits and local governments. The majority of FY23 communication and marketing funding was used for a display booth.

U. Energy Technical Support

SEIF Expenditures and Encumbrances: \$3.939 million

Beneficiaries

Maryland residents, businesses, nonprofit organizations, and local governments.

Description

MEA funded technical support for efforts that support the state's energy efficiency, renewable energy, and energy-related transportation initiatives, as well as energy reliability and resiliency.

Program Accomplishments

Energy programs receiving technical implementation support using FY23 funding include the LMI Energy Efficiency Program, Maryland Smart Energy Communities Program, and the Commercial, Industrial, and Agriculture Program.

In addition, MEA leveraged outside technical services in support of statutorily-established energy priorities. In FY23, this included:

- A Task Force to Study Solar Incentives
- An update to Maryland's energy security plan.²⁰

MEA also funded studies and data analyses in FY23. SEIF funds were used to provide an evaluation and assessment of Maryland's geothermal energy.

²⁰ As the state energy office for Maryland, MEA receives an annual State Energy Program (SEP) award from the U.S. Department of Energy. Section 40108 of the Infrastructure Investment and Jobs Act (IIJA) requires states receiving SEP funding to submit a State energy security plan.

V. Administration

SEIF Expenditures and Encumbrances: \$5.079 million

Beneficiaries

All Marylanders benefit from the efforts that occur under the SEIF.

Description

In order to help the state meet its energy goals, MEA implements numerous energy programs and helps develop energy policy, as well as financially administers the Strategic Energy Investment Fund. As MEA does not receive any General Funds, the majority of MEA's funding for staffing of energy programs, energy policy and planning efforts, and general operational expenses come from Regional Greenhouse Gas Initiative proceeds.

Program Accomplishments

During FY23, funding under the Administration Program enabled:

- MEA to execute a number of the state's energy programs described throughout this report
- Support of the Maryland Clean Energy Center's (MCEC) Climate Catalytic Fund

Further, during FY23, MEA participated in various collaborative efforts such as the Zero Emission Electric Vehicle Infrastructure Council, the Maryland Green Buildings Council, the National Offshore Wind Research and Development Council, the Maryland Clean Energy Center Executive Board, and the Maryland Commission on Climate Change. Nationally, MEA has participated in events organized by the National Association of State Energy Officials.

SEIF-Funded Initiatives Implemented by State Entities other than MEA

W. Maryland Department of the Environment - Climate Change Program

FY23 Appropriation: \$3.945 million

FY23 Expenditures and Encumbrances: \$2.744 million

Program Beneficiaries and Participants

The State of Maryland.

Description

As required by §9-20B-04 of the State Government Article, monies are provided from SEIF to the Clean Air Fund managed by the Maryland Department of the Environment (MDE). SEIF is used to fund the costs of MDE's programs to reduce or mitigate the effects of climate change. MDE used SEIF to fund staffing and operating costs across MDE's Air and Radiation Administration, including efforts related to climate change, air quality planning, the Director's Office, permits, and compliance. Further expenditures include contractual assistance for tasks beyond the expertise of the staff, such as emissions modeling and economic analyses, and for securing, as necessary, additional resources to assist in implementing the Climate Solutions Now Act (CSNA). The CSNA requires the State to develop a State GHG reduction plan, including supplemental analyses, a report on progress, adopting Building Energy Performance Standards, and organizing several working groups and task forces, including a highly technical Building Energy Transition Implementation Task Force.

SEIF is also used by MDE to pay annual dues for Maryland's membership in RGGI, Inc. RGGI, Inc. is a regional organization that assists the member states with the operational aspects of the program. The member states are required to pay dues to RGGI, Inc. for their share of the operational costs of the auction platform, as well as for other implementation costs.

X. Maryland Department of the Environment- Energy-Water Infrastructure Program

Awards made by MDE during FY23 utilizing SEIF from prior fiscal years: \$0

SEIF funds transferred in FY23 to MDE: \$2.626 million²¹

Beneficiaries

Maryland water and wastewater treatment plant owners.

Description

The Energy-Water Infrastructure program (EWIP) provides capital grant funds to water and wastewater treatment plant owners to develop energy efficient and resilient projects, including CHP systems and other alternative or green energy sources, and for replacement of aging equipment with newer, more energy efficient technologies. The program focuses on promoting onsite waste-to-energy power generation by commissioning new combined heat and power systems, more efficient pumps, energy efficiency measures, or other alternative/green energy sources.

Program Accomplishments

No new awards were made in FY23 under EWIP.

²¹ Unlike the majority of other SEIF-funded programs in this report, MDE's EWIP is a capital program with multiple year funding appropriation. All EWIP funding was appropriated in previous fiscal years (i.e., FY17, FY18 and FY19).

Y. Maryland Energy Innovation Institute

SEIF FY23 Transfers to the Maryland Energy Investment Fund: \$2.1 million

Summary

As required by Chapter 13 of the Acts of the General Assembly of 2021, \$2.1 million in SEIF funds were transferred to the Maryland Energy Innovation Fund (MEIF) in FY23. The Maryland Energy Innovation Institute (MEII) that manages the MEIF has produced an annual report of FY23 MEII activity.²²

In the MEII's Annual Report FY23, MEII reports an FY23 budget of \$2,141,191 with actual expenditure of \$2,108,227.²³ The Maryland Clean Energy Center (MCEC), which in previous years received funding directly from the SEIF, received more than half of the FY23 SEIF funds provided to the MEIF via a subaward from MEII. The MEII Annual Report indicates that MCEC received \$1,200,000 through a subaward from MEII in FY23.

²² Maryland Energy Innovation Institute Annual Report FY2023,
<https://energy.umd.edu/sites/energy.umd.edu/files/MSAR13862FY2023.pdf>

²³ Maryland Energy Innovation Institute Annual Report FY2023, Appendix 1, page 38.

Z. Department of Labor- EARN Maryland

SEIF FY23 Appropriated Budget: \$1 million

SEIF FY23 Expenditures and Encumbrances by the Department of Labor: \$0

Beneficiaries

Maryland businesses and workers

FY23 Program Accomplishments

In FY23, the Department of Labor (Labor) did not make new awards under the Employment Advancement Right Now (EARN) Maryland Green Jobs Initiative.²⁴

²⁴ Chapter 757 of the 2019 Acts of the Maryland General Assembly will ultimately provide eight million dollars over multiple years to Labor, starting in FY21. This funding is to be used to support clean energy job development through the utilization of registered apprenticeships, pre-apprenticeships, and youth apprenticeships via the Clean Energy Workforce Account. Labor indicates that a Solicitation for Implementation Grants was released in December 2021. Though 18 applications were received, none met the legislatively mandated requirements of the CEJA funding and therefore no SEIF funds were awarded by Labor in FY23. Labor anticipates releasing another Solicitation in November 2023 and hopes to make awards from the fund as a result.

AA. Department of Budget and Management- State Fleet Electric Vehicle Program

FY23 SEIF appropriation: \$1.25 million

Description

In FY23, the purchase of state fleet electric vehicles was again coordinated by the Department of Budget and Management.

BB. Maryland Department of Transportation

FY23 SEIF appropriation: \$0 million

FY23 SEIF funding transferred amount: \$0²⁵

Description

Maryland's Zero Emission Vehicle Tax Credit program is administered by the Maryland Vehicle Administration, which is a business unit of the Maryland Department of Transportation. Chapter 670 of the Acts of the Maryland General Assembly of 2021 requires MEA to transfer the lesser of \$10,000,000 or the actual total outstanding amount of the credit allowed against the excise tax credit from the Strategic Energy Investment Fund to the Transportation Trust Fund. The transfer will offset the reduction in revenues from the vehicle excise tax credit for qualified plug-in electric drive vehicles and fuel cell electric vehicles under §13-815 of the Transportation Article that were applied for before July 1, 2020.

²⁵ MEA did not yet receive a SEIF transfer request related to the vehicle excise tax credit in FY23.

CC. Department of Commerce

FY23 SEIF appropriation: \$0.500 million

FY23 SEIF committed funding: \$0 million

Program Description

For fiscal years 2021 through 2028, section §9-20B-05 of the State Government Article requires monies from the SEIF, in prescribed annual amounts, to be provided as funding for access to capital for small, minority, women-owned, and veteran-owned businesses in the clean energy industry. As required by statute, \$0.5 million in SEIF was committed to the Department of Commerce (Commerce) for fiscal year 2023 via a memorandum of understanding between MEA and Commerce.

Program Outcomes

In the annual report submitted by Commerce to MEA regarding the use of SEIF funds, Commerce indicated that there was no program activity during fiscal year 2023. Commerce further indicates that it “does not expect to utilize any of the SEIF Funds” and that “Commerce has not received any inquiries from businesses in this sector regarding the SEIF Funds”.²⁶

²⁶ Annual Financial Status Report, State Government Article, Maryland Department of Commerce, July 6, 2023.

DD. Department of General Services

SEIF FY23 Appropriated Budget: \$4.8 million

SEIF FY23 Expenditures as of 6/30/23: \$1.5 million

SEIF FY23 Encumbrances of 6/30/23: \$4.2 million

Beneficiaries

State agencies and Maryland taxpayers benefit from this program.

Description

Within the Department of General Services (DGS), the Office of Energy and Sustainability (Energy Office) provides professional, managerial and technical services to reduce energy consumption and costs by identifying state agency energy reduction opportunities. Some of the initiatives being undertaken by the DGS Energy Office include energy performance contracting (EPC), energy use tracking, renewable energy sourcing, and demand response.

SEIF funds were used to support the energy performance contracting (EPC) program, to support staff time to work on an executive order related to energy savings goals for state government, to install energy efficient lighting, and to improve and update data in the statewide utility database. During FY23, the DGS Energy Office continued to work on developing EPCs with the Maryland Transit Administration, and the Maryland Department of Public Safety and Correctional Services. The DGS Energy Office also hired a third-party measurement and verification (M&V) firm to help develop energy baselines and to review the annual M&V reports submitted by energy service companies on current projects.

The DGS Energy Office, working with project managers from the Facilities Engineering and Design office at DGS, encumbered \$2,963,199 in SEIF funds to install nearly 14,000 state of the art LED light fixtures and controls in several DGS, MSD and MDH buildings covering more than 1 million square feet. Total annual project savings are expected to be 1.924 MWH of electricity, avoidance of \$342,396 in annual operating expenses, and yearly avoidance of 1,089 metric tons of CO₂. SEIF funds were used for project expenses including installation and materials.

Work on the energy database included tracking and reporting energy use data. The DGS Energy Office continues to work with the contractor that manages the database to add functionality to the database to take in submeter data, and to make it a more useful tool.

EE. Department of Human Services- Energy Universal Service Program Bill Assistance

SEIF FY23 Budget Appropriation: \$82.818 million

SEIF FY23 Disbursements by MEA to DHS: \$82.818 million

SEIF FY23 Expenditures by DHS: \$82.818 million²⁷

Beneficiaries

The Office of Home Energy Programs (OHEP) within the Maryland Department of Human Services (DHS) provides electric utility payment assistance to eligible low-income Maryland households.²⁸

Description

SEIF funds are used for Electric Universal Service program (EUSP) Bill Assistance and Arrearage Retirement Assistance program benefits. Bill payment assistance benefits make ongoing electric bills more affordable by paying part of a household's monthly electric bill. Benefit amounts are based on electric usage, household size, and income. Funds generated through the EUSP utility ratepayer service charge provide the majority of funding for bill assistance, with SEIF funds fulfilling benefits when ratepayer funds are exhausted.

Electric Arrearage Retirement Assistance benefits retire past due bills up to \$2,000. An arrearage retirement benefit is available once every five years, with certain exceptions for vulnerable populations. Benefits are paid directly to electric utilities on behalf of the program applicant.

Program Accomplishments

The EUSP bill assistance and electric arrearage retirement assistance benefits administered by OHEP prevent and resolve utility disconnections. The electric arrearage retirement assistance benefit directly prevents or resolves disconnections that may result in life-threatening health and safety concerns, or result in households becoming homeless. Bill assistance keeps bills at an affordable level so that customers do not end up in a utility crisis in the first place.

FY23 Outcomes	Households Served	Total Benefits Paid	SEIF Benefits Paid
Bill Assistance	96,367	\$ 90,470,384.00	\$42,817,693.00
Arrearage Retirement Assistance ²⁹	29,376	\$ 32,977,849.51	\$40,000,000.00
Total	96,367	\$ 123,448,233.51	\$82,817,693.00

²⁷ As reported by DHS to MEA.

²⁸ Eligibility requires income equal to or less than 200% of the federal poverty level.

²⁹ Arrearage recipients are a subset of EUSP Bill Assistance recipients.

FF. Department of Health - Energy Performance Contract Repayments

FY23 SEIF Transfer: \$1.087 million³⁰

Description

In Maryland, General Funds typically pay for state agencies' energy bills. To lower energy bills, many state agencies participate in EPC agreements. EPC agreements are intended to be self-funded with the state borrowing funds to pay for the energy improvements, and the annual energy savings from those improvements guaranteed to be more than enough to repay the borrowed funds. However, for some past MDH energy performance contracting agreements, the state has chosen to use RGGI-derived SEIF funds allocated for energy efficiency to repay the loans. FY23 is the last year that SEIF funds have been budgeted for Department of Health Energy Performance Contract repayments.

³⁰ DHS requested the FY23 transfer in FY24.

GG. SEIF Planning FY23

Introduction

§9-20B-12 of the State Government article requires MEA to report annually on the status of SEIF expenditures during the current fiscal year, as well as provide an update on the possible or expected program initiatives and changes in future years. Consistent with §9-20B-12, this section of the FY23 SEIF report constitutes MEA's planning update for SEIF in future fiscal years.

Background on SEIF

Historically, SEIF has been primarily funded through RGGI proceeds. RGGI-derived SEIF proceeds fluctuate with the RGGI auction prices, which are impacted by many external factors. Since its inception, SEIF has also received funding from multiple non-RGGI sources. The amount of SEIF revenues received by source in FY20, FY21, FY22, and FY23 are shown in Appendix A, Chart 5.

In the past, the majority of non-RGGI contributions to SEIF came by order of the PSC, and in most cases were not known in advance and thus not predictable. Funds from these PSC proceedings came with strictly prescribed allowable uses that, in some cases, are similar to the prescriptive uses of funds derived from the RGGI auctions. Funds from PSC proceedings are typically restricted to distinct purposes, and possibly specific areas of the state.

Alternative compliance payments made under Maryland's Renewable Portfolio Standard are also deposited into the SEIF. Alternative compliance payments increased significantly between FY21 and FY22 and remained elevated from FY22 to FY23, as described further in the *Fund Source Availability* section below.

Looking forward, long-term SEIF proceed forecasting over multiple years can be challenging. Forecasting RGGI-derived proceeds several auctions out is difficult, as the RGGI auction price is market-based and thus dynamic, similar to a stock price. Changes in statute can also impact available SEIF proceeds, such as changes to the RPS statute.

Statutory changes can also impact the amount of SEIF proceeds available for programmatic initiatives from year-to-year. As new uses of SEIF funds are contemplated, the existing uses of SEIF also need to be considered to ensure existing energy programs effectively serving Maryland are not inadvertently impacted in an adverse way.

With these considerations in mind, MEA provides the following discussion of funding source availability and forecast of potential future SEIF programming. All future SEIF uses must be consistent with the SEIF statute, and SEIF can not be used for the general obligations of the state.

Finally, §9-20B-07 of the State Government article establishes a Strategic Energy Investment Advisory Board. An update on the Strategic Energy Investment Advisory Board is provided at the end of this section.

Regional Greenhouse Gas Initiative

Revenues from RGGI auctions have historically been volatile, sensitive to both market fundamentals and changes in local and national policy. Since the first auction, auction clearing prices have varied from \$1.86 to \$13.90 per allowance.³¹ All the while, the CO₂ allowance budget has decreased from 188.1 million allowances in CY09³² to 93.4 million allowances in CY23.³³

As a result of the dramatic drop of clearance prices and revenues that followed RGGI Auction #30 in December 2015, MEA adopted a conservative approach to the projection of RGGI revenues in the state's budget. Under this approach, auction revenues were projected at the auction floor price, assuming all available allowances sold. This conservative approach built a definitive revenue base in the face of the RGGI volatility and allowed for the proper budgeting of revenue over the auction floor price in a subsequent budget cycle. Proceeds received above the auction floor price were then budgeted in a future fiscal year cycle. However, this methodology resulted in fund balances accruing in the SEIF while awaiting the next budget cycle, if the RGGI auction price was higher than the floor.

With this in mind, MEA has amended the RGGI proceeds budgeting process to now instead be based on a rolling average of the clearing prices of the most recent eight RGGI auctions. In this way, budget forecasts are now based on more recent RGGI activity and should generally allow a greater share of RGGI proceeds to be budgeted more quickly, while still in a fairly conservative manner based on the average auction price results of the last two years. Similar to the prior method of budgeting, any RGGI proceeds received above the rolling average of the clearing prices of the most recent eight RGGI auctions, rather than the auction floor price that was used in the past, will then be budgeted in a future fiscal year cycle.

RGGI Formula

As required by §9-20B-12 of the State Government article, MEA is required to report on recommendations for changes to the allocation of RGGI-derived SEIF funds. As the goal of the RGGI initiative is to reduce greenhouse gas emissions, MEA supports the use of RGGI funds for energy projects that enable greenhouse gas emission reductions, while also supporting state energy goals and investments.

A significant majority of MEA's funding for staffing of energy programs, energy policy and planning efforts, and general operational expenses come from Regional Greenhouse Gas Initiative proceeds under §9-20B-05 of the State Government article. §9-20B-05 caps the allocation of funds credited for these purposes under the formula at up to 10%,

³¹ <https://www.rggi.org/Auctions/Auction-Results/Prices-Volumes>.

³² https://www.rggi.org/sites/default/files/Uploads/Allowance-Tracking/2009_Allowance-Distribution.xlsx.

³³ This is the CO₂ allowance adjusted budget. See https://www.rggi.org/sites/default/files/Uploads/Allowance-Tracking/2023_Allowance-Distribution.xlsx.

but not more than \$5 million. MEA does not receive any General Funds. Additionally, MEA does not have a mechanism to be able to obtain resources for program-related implementation and administration from non-RGGI proceeds into SEIF. As a result, during times of higher RGGI proceeds or financial infusions into SEIF from other sources (e.g., increased RPS alternative compliance payments), MEA is left with a structural challenge of having to administer a more robust SEIF and manage larger energy programs that deploy greater amounts of funding with limited administrative resources.

To better align the level of effort required to manage the SEIF and implement effective SEIF-funded energy programs, Chapter 98 of the 2023 Laws of Maryland increased the maximum amount of RGGI funding that can be utilized for administration from \$5 million to \$7.5 million beginning in FY24. However, in order to ensure effective and efficient deployment of SEIF resources, the administrative allocation cap should be removed or at least be more reflective of the level of proceeds coming into the SEIF and the commensurate level of effort and resources that are required to successfully design, implement, and oversee the SEIF and SEIF-funded initiatives. Additionally, though MEA has seen an influx of revenue from ACP, the agency is unable to utilize any portion of these funds for administrative purposes. A statutory change should be considered to permit a portion of this revenue for administration. Preferably, MEA would be able to utilize up to 10% of revenue regardless of the source for the purpose of administration. This would create consistency among MEA's several dedicated funding streams.

Alternative Compliance Payments

During fiscal year 2023, the SEIF experienced an influx of solar alternative compliance payments (SACP), resulting from statutory changes made to Maryland's RPS in 2019.³⁴ In addition to requiring all new SACP moving forward be used to incentivize projects that are owned or benefit low-income Marylanders, the statutory changes in 2019 also increased the RPS solar carve-out.³⁵ As a result of the larger RPS solar carve-out, approximately all of the available SRECs were used for compliance in RPS compliance year 2021. Once available SRECs were depleted, the only way for suppliers to comply with the solar carveout portion of the RPS for compliance year 2022³⁶ was to pay the SACP. This development resulted in SACP for compliance year 2022 being a more significant portion of new proceeds into the SEIF during FY23 than in most prior years, though fairly consistent with the immediately preceding year. SACP funds are restricted to solar projects that are owned by or directly benefit low-income residents.

Other SEIF sources from Prior Years

Fund balances from several non-RGGI fund sources originating in prior years remain in

³⁴ Chapter 516 of the Acts of the Maryland General Assembly of 2019.

³⁵ Additional information on Maryland's Renewable Portfolio Standard can be found in the Renewable Energy Portfolio Standard Report With Data for Calendar Year 2022 produced by the Public Service Commission of Maryland.

³⁶ The ACP proceeds accrued in the spring of 2023, corresponding to the time that RPS supplier certification reports and alternative compliance payments are due to the Maryland Public Service Commission, which regulates Maryland's RPS program.

the SEIF.³⁷ All SEIF fund balances must be used consistent with the respective funding source's allowable use(s), and subject to all necessary concurrences and approvals by the Governor and the General Assembly.

Current SEIF-Funded Energy Programs (FY23)

Maryland Energy Administration

In FY23, MEA is offering a number of energy programs funded through SEIF that focus on energy efficiency, renewable energy, transportation electrification, or energy resiliency. Depending on the nature of an incentive program, if applicable, and the eligible technology, some programs are implemented competitively while other programs are first-come, first-served. MEA's programs are outlined in greater detail in the beginning of this report.

SEIF-Funded Programs Implemented by other State Agencies

State agencies other than MEA also implement initiatives funded through SEIF. Other Maryland state agencies allocated SEIF in fiscal year 2023 include the Department of Human Services, the Department of General Services, the Maryland Department of the Environment, the Department of Commerce, the Department of Labor, and the Department of Budget and Management. Additionally, SEIF funds were transferred, as required by statute, to the Maryland Energy Innovation Fund for the Maryland Energy Innovation Institute at the University of Maryland, College Park which provides a subaward to the Maryland Clean Energy Center.

Information on FY23 expenditures and FY24 appropriations to other state agencies can be found in Appendix A, Chart 4.

Future SEIF Programs

Looking forward, the existing portfolio of MEA programs outlined above is generally anticipated to continue serving all sectors of the economy and providing benefits across communities in Maryland. The types of energy programs being offered by MEA are highly dependent on the overall magnitude of funding available, as well as the allowable uses of each fund source.

With that in mind, MEA sees a continued opportunity to potentially bundle energy programs under "umbrella" or "portfolio" programs, to help with program marketing and help interested parties find their relevant programs more quickly and easily. MEA was able to successfully deploy this concept in fiscal year 2023 to MEA's portfolio of resiliency-related programs from prior years, integrating the previous Resilient Maryland Program for planning support with the Resilient Maryland Capital Development and Resiliency Hub Grant Programs. This combined program framework enables more centralized energy resiliency planning efforts and creates an array of incentives to assist

³⁷ End of year SEIF fund balances are included annually in the Maryland Budget Highlights document.

projects from conception through installation and operation. Similarly, the Data Center Energy Efficiency Program was consolidated into the Commercial, Industrial, and Agriculture Program for energy efficiency in FY23.

Finally, MEA anticipates possibly making SEIF program adjustments to align with the funding opportunities for energy initiatives that will be available under the federal Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA).

- MEA has proposed to use federal IIJA State Energy Program funding to develop a multiple year plan for MEA's portfolio of SEIF-funded energy programs. If approved by DOE, this effort will collectively analyze MEA's portfolio of energy programs; review the program portfolio from a lens of diversity, equity, and inclusion; and help identify ways to expand our portfolio of outreach partners to reach key market segments and demographics.
- As Maryland's state energy office, MEA will also be the recipient for the home energy rebates being provided under Sections 50121 and 50122 of the IRA. While the specific details of these programs are still being developed by the U.S. Department of Energy, the sheer magnitude of these multiple year programs will require coordination with many of Maryland's energy programs, both internal and external to MEA, including SEIF-funded programs.

Conclusion

In conclusion, MEA envisions that the SEIF will continue to be used to enable energy efficiency, renewable energy, alternative transportation fuels, or energy resiliency programs and initiatives. MEA continues to work to develop the most impactful programs, leverage new technologies, and track national trends as well as emerging federal opportunities. As in past years, MEA intends to continue to evaluate energy programs for both efficacy and affordability. All potential programmatic activity is subject to all necessary concurrences and approvals by the Governor and the General Assembly.

SEIF Board update

A Strategic Energy Investment Advisory Board (Board) was created to advise the MEA on the uses and expenditures of the SEIF under § 9-20B-07 of the State Government Article. MEA continues to meet with the Board regularly to inform that body on the status of the RGGI program and MEA programs. Additionally, MEA has a dedicated webpage³⁸ that contains the 2023 Board meeting history, as well as presentations presented to the Board.

The Board staff provided by MEA utilizes the regular Board meetings as an educational opportunity. In addition to the status of SEIF-related expenditures, revenues, balances, and programs, meetings have covered other topics including diversity, equity, and inclusion (DEI) efforts.

³⁸ <https://energy.maryland.gov/Pages/Strategic-Energy-Investment-Fund-Board.aspx>.

Appendix A: SEIF Financials

Chart 4: SEIF Expenditures and Active Commitments for FY23 with FY24 Appropriations

	FY2023 Actual	FY2024 Appropriation
Maryland Department of the Environment - RGGI Inc. Dues	\$395,605	\$300,000
Maryland Department of the Environment - Energy-Water Infrastructure Program	\$0	\$0
Maryland Department of the Environment - Climate Change	\$2,348,966	\$3,550,000
University of Maryland (Maryland Energy Innovation Fund)	\$2,100,000	\$2,100,000
Department of Human Services - Energy Bill Assistance	\$82,817,693	\$99,079,134
Department of General Services	\$4,850,000	\$3,850,000
Department of Health - Energy Performance Contracting Repayments	\$1,087,344	-
Maryland Energy Administration - Energy Efficiency - Low-to Moderate Income	\$19,629,877	\$20,000,000
Maryland Energy Administration - Energy Efficiency - Other	\$5,346,225	\$31,575,000
Maryland Energy Administration - Renewable Energy, Transportation, and Resiliency	\$48,655,364	\$99,850,000
Maryland Energy Administration - Admin	\$4,978,642	\$6,791,027
Department of Commerce ³⁹	\$500,000	\$500,000
Department of Labor ⁴⁰	\$1,000,000	\$1,000,000
Department of Budget and Management -State agency electric vehicles	\$2,250,000	\$1,250,000
Motor Vehicle Administration - Electric Vehicle Tax Credit reimbursement	\$0	\$0
TOTAL	\$179,414,111	\$269,845,161

Chart 5: SEIF Revenues Received by Source

Source	FY2020	FY2021	FY2022	FY2023
RGGI Auction Revenue	\$54,804,407	\$77,812,461	\$143,396,452	\$140,362,801
RGGI Set Aside Allowance Revenue	\$2,963,293	\$3,096,825	\$3,575,067	\$3,976,469
Alternative Compliance Payment Revenue	\$41,089	\$52,240	\$77,182,625	\$83,803,433
Fund Interest Revenue	\$3,077,621	\$728,892	\$810,395	\$15,093,672
TOTAL	\$60,886,410	\$81,690,418	\$224,964,539	\$243,236,375

³⁹ While MEA executed a MOU with Commerce, Commerce did not have any activity in the program during the fiscal year

⁴⁰ While MEA executed a MOU with Labor, Labor did not make any awards in FY23.

Chart 6: RGGI Results & Projections by Auction and Fiscal Year

RGGI Auction	Allowances Sold	Allowance Price	Total RGGI Revenue	Fiscal Year 2023	Fiscal Year 2024	Fiscal Year 2025
57	2,821,238	\$13.45	\$37,945,651	\$37,945,651		
58	2,821,238	\$12.99	\$36,647,882	\$36,647,882		
59	2,596,685	\$12.50	\$32,458,563	\$32,458,563		
60	2,616,709	\$12.73	\$33,310,706	\$33,310,706		
61	2,616,709	\$13.85	\$36,241,420		\$36,241,420	
62	3,397,263	\$14.88	\$50,551,273		\$50,551,273	
63	<i>2,777,138</i>	<i>\$9.94</i>	<i>\$27,604,752</i>		<i>\$27,604,752</i>	
64	<i>2,777,139</i>	<i>\$9.94</i>	<i>\$27,604,762</i>		<i>\$27,604,762</i>	
65	<i>2,777,139</i>	<i>\$13.15</i>	\$36,519,378			\$36,519,378
66	<i>2,777,139</i>	<i>\$13.15</i>	\$36,519,378			\$36,519,378
67	<i>2,649,939</i>	<i>\$13.15</i>	\$34,846,698			\$34,846,698
68	<i>2,649,940</i>	<i>\$13.15</i>	\$34,846,711			\$34,846,711
<i>Italicized Numbers are Estimates</i>			RGGI Auction Revenue	\$140,362,801	\$142,002,206	\$142,732,165
<i>Note: Due to high revenue attainment, the base allowance price is assumed at an average of the prior 2 years auctions.</i>			RGGI Set Aside Allowances Revenue	\$3,976,469	\$3,750,000	\$3,750,000
			Total:	\$144,339,270	\$145,752,206	\$146,482,165