THE CENTER FOR
CLIMATE STRATEGIES

WORKING TOGETHER TO CREATE A BETTER SAFER AND MORE JUST WORLD

Memo

To: Maryland CSN/CEJA Interests

From: The Center for Climate Strategies

Re: **Federal Funding Opportunities for Climate Solutions Now and Clean Energy Jobs Act**

Date: July 7, 2022

This memo provides an **overview and mapping of funding opportunities from the Federal Infrastructure Investment and Jobs Act (IIJA) for specified Maryland climate change policies and programs** mandated in recent state legislation, including**:**

- Climate Solutions Now Act (CSN)
  - Reauthorization of EmPOWER (and related energy efficiency)
  - Climate Catalytic Capital (C3) Fund (for clean energy)
  - Building Codes (and related energy efficiency)
  - Low- or Moderate- Income (LMI) Energy Efficiency (EE) and Renewable Energy (RE)
  - Local Cost Share for School Construction (and related energy efficiency)
  - Chesapeake Conservation Corps Program (workforce development)
- Clean Energy Jobs Act (CEJA)
  - Clean Energy Workforce Account and EARN Program (workforce development)
  - Renewable Portfolio Standard (RPS) (and related solar and wind capacity expansion, grid upgrades, and energy storage)
  - Offshore Wind (OSW) (and related grid upgrades, and energy storage)
  - Power Plant Research Program (and related renewable energy expansion)

Additional information on the specific target and program provisions in CSN and CEJA is provided in Annex A, including economy wide targets for CSN and sector wide targets for CEJA. Programs identified in this memo build on federal funds for buildings, energy efficiency, electric vehicles, and public transportation that can be found in the Buildings and Transportation memos prepared by the Center for Climate Strategies (CCS. Because CEJA and CSN have broad coverage within and across sectors, overlaps exist in the areas covered by the memos

Funding from IIJA includes formula-based programs and competitive (discretionary) grant programs that are open to governmental and non-governmental organizations. The federal guidance for awards in these areas is in varying stages of release. Programs are authorized over the next 4-5 years. Actual amounts depend upon appropriations. The requirements of each award are unique, but IIJA includes cross-cutting requirements for compliance with Justice 40 Initiative[1] (Justice 40) (targeting disadvantaged populations) and Buy America provisions.

[1] 40 percent of the overall benefits of relevant federal investments must be directed to disadvantaged communities in geographically concentrated areas as well as dispersed populations with common conditions.

The table below provides summary details on current federal funding programs under IIJA relevant to the areas listed above with an indication of key dates for application. More information about each program is provided in the text following the table.

Federal Funding Program (IIJA Section)	Climate Solutions Now (CSN) / Clean Energy Jobs Act (CEJA) Provision	Key Dates	Relevant MD Agency
Healthy Streets Program (11406)	▪ CSN: Chesapeake Conservation Corps	TBD	MPOs, Local gov.
Grid Hardening Grants[2] (40101)	▪ CSN: Climate Catalytic Capital Fund ▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN ▪ CEJA: RPS and OSW targets	NOI/RFI this summer, Application anticipated to open 3rd Quarter 2022	MEA
Grid Resilience Demonstration Grants (40103)	▪ CSN: Climate Catalytic Capital Fund ▪ CEJA: RPS and OSW targets	Applications expected 3rd quarter of 2022	MEA
Transmission Facilitation Program (40106)	▪ CEJA: RPS and OSW targets	1st solicitation late 2022 (operation by end of 2027), 2nd solicitation in 2023	MEA
Smart Grid Grants (40107)	▪ CSN: Climate Catalytic Capital Fund ▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN	Applications expected end of 2022	MEA
State Energy Program (40109)	▪ CEJA: RPS and OSW targets ▪ EmPOWER	next round TBD	MEA
Energy Efficiency Revolving Loan Fund (40502)	▪ CEJA: Small, Minority, and Women Businesses Account ▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN ▪ CSN: Climate Catalytic Capital Fund	Application expected to open 4th quarter 2022	MEA
Energy Auditor Training (40503)	▪ CEJA: Small, Minority, and Women Businesses Account ▪ CEJA: Clean Energy Workforce Account	Opening TBD	MEA

[2] This program is also sometimes referred to as "Grid Resilience" grants. It is referred to as "Grid Hardening" here to avoid confusion with the Grid Resilience Demonstration grants.

Federal Funding Program (IIJA Section)	Climate Solutions Now (CSN) / Clean Energy Jobs Act (CEJA) Provision	Key Dates	Relevant MD Agency
	▪ CEJA: EARN		
Building Codes Implementation (40511)	▪ CSN: Building Codes ▪ CEJA: Clean Energy Workforce Account	Applications expected end of 2022	MBCA
Building, Training, And Assessment Centers (40512)	▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN	Expected 4th Quarter 2022	MHEC
Career Skills Training (40513)	▪ CEJA: Small, Minority, and Women Businesses Account ▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN	Expected 1st Quarter 2023	MEA
Grants for EE and RE (Schools and Nonprofits) (40541)	▪ CSN: Net-Zero School Grant Fund ▪ CSN: Zero Emission School Buses	Expected 3rd Quarter 2022	MEA
Weatherization Assistance Program (40551)	▪ CEJA: Clean Energy Workforce Account ▪ CEJA: EARN	Applications due July 1	DHDC
Energy Efficiency and Conservation Block Grant Program (40552)	▪ CSN: Building Energy Performance Standard	Expected 4th Quarter 2022	MEA
Energy Storage Demonstration Projects (41001)	▪ CEJA: RPS and OSW targets	Expected 3rd Quarter 2022	MEA
EPA Clean School Bus Rebates (71101)	▪ CSN: Zero Emission School Buses	Open through August 19, 2022	MDOT

Please note that:

1. For several funding programs demonstrated approaches and tie-ins to **workforce development** will be required. This could include expansion of government program capacity as well as non-governmental and private sector capacity for installing and operating charging stations. More details are provided under the individual programs.
2. **Maryland state leadership**
   - The Maryland Department of Environment (MDE) leads planning and development for and monitoring and updating of the state's Greenhouse Gas Reduction Act (GGRA) and Climate Solutions Now (CSN) including policy measures across all sectors. The Maryland Energy Administration (MEA) serves as the state lead on energy issues, including its Low to

Moderate Income Energy Efficiency Grant Program. In addition, the Maryland Public Service Commission (PSC) oversees siting, development, grid connections, and energy storage related to renewable energy capacity expansion, including wind and solar. The PSC regulates public utilities and certain passenger transportation companies doing business in Maryland. The PSC will play a lead role in the crafting of Maryland's 100 percent RPS by 2040, including current feasibility research underway. The Maryland Office of People's Counsel (OPC) represents Maryland residential customers before the PSC and federal agencies and provides assistance dealing with utility issues, including affordable and reliable service. (On May 5, 2022, OPC petitioned the PSC to open a public proceeding to examine what utilities in the State are doing to access federal funds available under the IIJA.) The Department of Human Services (MDHS) supports buildings and energy efficiency programs through the Office of Home Energy with the Maryland Energy Assistance Program (MEAP), Electric Universal Service Program (EUSP), and Utility Service Protection Program (USPP). Weatherization and Energy Efficiency Services are within the Maryland Department of Housing and Community Development (DHCD).

3. **Maryland county leadership**
   - County and city leadership on energy is typically housed in an Office of Sustainability, Department of Environmental Protection, Department of Public Works, or Department of Housing. Broader, multi-sector actions may be led by Sustainability Programs and Departments of Public Works or Transportation or other programs such as housing, forestry, agriculture, and waste.
4. **Technical assistance resources** available to applicants
   - US DOE BIL funding opportunity announcements: https://www.energy.gov/bil/bipartisan-infrastructure-law-programs
   - Grants.gov, How to Apply for Grants: https://www.grants.gov/web/grants/applicants/apply-for-grants.html
   - DOE Office of Energy Efficiency & Renewable Energy Technical Assistance page has links to many programs offering a wide variety of technical assistance supporting energy efficiency and renewable energy: https://www.energy.gov/eere/technical-assistance.
   - Other technical assistance programs relevant to transportation and buildings.

1. Healthy Streets Program

Scope and Level of Funds

- Mitigates urban heat island effect by:
  - conducting tree cover assessments,
  - planting and maintaining tree canopy cover, and
  - installing cool and porous pavement materials.
- Conducts equity assessments by mapping canopy cover, urban heat island areas near pedestrian and public transportation stops, near and around **underserved communities**.
- 80% federal cost share with awardees receiving up to $15 million.
- $100 million each fiscal year from FY22 to FY26 in block grants.
- **Local governments can apply directly for funds from USDOT**

Eligible Parties

- States
- Local governments
- Metropolitan planning organizations
- Tribes
- Nonprofit organizations working in coordination with above entities
- Low-income communities

Potential CSN/CEJA Applicability:

- Chesapeake Conservation Corps

Important Dates and Next Steps

- TBD

Resources

- Fact sheet: https://www.davey.com/media/3121047/fact-sheet-healthy-streets-program-funding-support-2-1-1.pdf

2. Preventing Outages and Enhancing Resilience of the Electric Grid (Grid Hardening Grants)

Scope and Level of Funds

- $5 billion in grants, including $2.3 in formula funds
- Grid modernization activities are eligible
    - Undergrounding equipment
    - Utility pole upkeep
    - Extreme weather resilience
    - Monitoring and controls for real-time updates
    - Integration of distributed energy resources
- Funding may also be used for the **training, recruitment, retention, and reskilling** of skilled and properly credentialled workers in order to perform the work required for the particular resilience measures listed above.
- Formula grants: 15% recipient cost share, up to 5% for technical assistance
- Subgrantees must match 100% (unless designated as "small utility" generating less than 4 million MWh per year)
- Proposed annual formula funding for MD: $4,404,825

Eligible Parties

- States, Tribes, Territories (formula grants)
- MEA administers funding
- Subgrant eligible entities
    - Electric grid operators
    - Storage operators
    - Generators

- Transmission owner and operators
- Fuel supplier
- Any other relevant party determined by Secretary

Potential CSN/CEJA Applicability:

- Climate Catalytic Capital Fund
- Clean Energy Workforce Account
- EARN
- Renewable Portfolio Standard and Offshore Wind targets

Important Dates and Next Steps

- Notice of Intent (NOI)/Request for Information (RFI) for formula grant program; application release expected on or around July 1, open for 60 days – opportunity for stakeholders to provide comment
- NOI/RFI for utilities /industry competitive program expected Summer 2022
- Applications Anticipated to Open 1st Quarter 2023.

Resources

- Program page: https://www.energy.gov/bil/preventing-outages-and-enhancing-resilience-electric-grid-grants

3. Electric Grid Reliability and Resilience, Research, Development, and Demonstration (Grid Resilience Demonstration)

Scope and Level of Funds

- $5 billion, (50% formula grants / 50% matching grants to industry)
- $1 billion appropriated annually from FY22 to FY26 (to remain available until expended)
- Projects must demonstrate innovative approaches to transmission, storage, and distribution, improving resilience and reliability.
- Show new approaches to enhance regional grid resilience, implemented through rural and public electric cooperative entities on a cost shared basis.

Eligible Parties

- States
- Combination of two or more states
- Tribes
- Public utility commissions

Potential CSN/CEJA Applicability:

- Climate Catalytic Capital Fund
- Renewable Portfolio Standard and Offshore Wind targets

Important Dates and Next Steps

- NOI/RFI expected Summer 2022
- Estimated application opening date, 3rd quarter 2022.

Resources

- Program page: https://www.energy.gov/bil/program-upgrading-our-electric-grid-and-ensuring-reliability-and-resiliency

4. Transmission Facilitation Program

Scope and Level of Funds

- $2.5 billion revolving fund program
- provide federal support to overcome the financial hurdles in the development of **new large-scale transmission lines** and **upgrading existing transmission**
- not less than (a) 1,000 megawatts (MW); or (b) in the case of a project that consists of upgrading an existing transmission line or constructing a new transmission line in an existing transmission, transportation, or telecommunications infrastructure corridor, 500 MW.
- Funding Mechanism: Loan, Direct Financing, or Capacity Purchase

Eligible Parties

- Transmission Developers

Potential CSN/CEJA Applicability:

- Renewable Portfolio Standard and Offshore Wind targets

Important Dates and Next Steps

- First solicitation later in 2022 (limited to applicants seeking capacity contracts that will commence operation by end of 2027)
- Second solicitation in 2023 (open to all forms of support)

Resources

- NOI/RFI: https://www.energy.gov/sites/default/files/2022-05/TFP%20NOI%20RFI%2005062022.pdf

5. Deployment of Technologies to Enhance Grid Flexibility (Smart Grid Grants)

Scope and Level of Funds

- $3 Billion for FY22 through FY26 in grants.
- $600 million appropriated annually, available until expended.
- Upgrades for grid resilience including:
    - Monitoring software
    - Distributed energy resources
    - Demand response and control
    - Extreme weather anticipations and mitigation controls
    - Integration of EV charging infrastructure
- **Workforce training** associated with Smart grid installation and maintenance is also eligible.

Eligible Parties

- Utilities

Potential CSN/CEJA Applicability:

- Climate Catalytic Capital Fund
- Clean Energy Workforce Account
- EARN

Important Dates and Next Steps

- Applications Expected at the end of 2022

Resources

- Program page: https://www.energy.gov/bil/deployment-technologies-enhance-grid-flexibility

6. State Energy Program

Scope and Level of Funds

- The US DOE Energy Program (SEP) provides funding and technical assistance to states and territories for energy conservation measures, renewable energy measures, and programs to increase deployment of energy efficiency and renewable energy.
- SEP's objectives are to increase energy efficiency, implement energy security, resiliency, and emergency preparedness plans, reduce energy costs and energy waste, expand the use of energy resources, promote economic growth
- MD allocation of $999,850 for FY22. No matching funds are needed (change compared to past applications)
- A State Energy Security Plan is required as part of the submission starting from FY 2023
- J40 requirements: specify how to engage disadvantaged communities (DACs) as well as how much of annual SEP funding will be delivered to these communities and how delivery or benefit to these communities is measured. No definition of DACs is provided.
- No information is publicly available on status and contents of Maryland application

Eligible Parties

- States
- MEA administers funding

Potential CSN/CEJA Applicability:

- Renewable Portfolio Standard and Offshore Wind targets
- EmPOWER

Important Dates and Next Steps

- Closed, next round TBD

Resources

- Program page: https://www.energy.gov/eere/wipo/state-energy-program

7. Energy Efficiency Revolving Loan Fund Capitalization Grant Program

Scope and Level of Funds

- US DOE Formula grant to establish a revolving loan fund that states will use to administer grants for **residential and commercial** energy efficiency audits, upgrades, and retrofits to increase efficiency and comfort of residential and commercial buildings.
- The federal cost share is 60%.
- $250 million for formula grants. State allocation TBD

Eligible Parties

- States
- MEA administers funding

Potential CSN/CEJA Applicability:

- Small, Minority, and Women Businesses Account
- Clean Energy Workforce Account
- EARN
- Climate Catalytic Capital Fund

Important Dates and Next Steps

- Estimated application opening date 4th quarter 2022

Resources

- Program page: https://www.energy.gov/bil/energy-efficiency-revolving-loan-fund-capitalization-grant-program

8. Energy Auditor Training Grant Program

Scope and Level of Funds

- Cooperative Agreements and Management and Operating Contracts at National Laboratories to provide grants for **training i**ndividuals to conduct energy audits and surveys for commercial and residential buildings
- Training can be provided by States or State certified third party training programs
- $40 million available nationally until expended

Eligible Parties

- States
- MEA administers funding

Potential CSN/CEJA Applicability:

- Small, Minority, and Women Businesses Account
- Clean Energy Workforce Account
- EARN

Important Dates and Next Steps

- Opening TBD

Resources

- Program page: https://www.energy.gov/bil/energy-auditor-training-grant-program#:~:text=Description%3A%20To%20provide%20grants%20to,pollution%20from%20building%20energy%20use.

9. Building Codes Implementation for Efficiency and Resilience

Scope and Level of Funds

- US DOE competitive grant for building codes updates for new and existing residential and commercial buildings (including **multifamily**); development of building codes implementation plans; **training** to builders, contractors and building codes officials; address various implementation needs in **rural, suburban,** and **urban** areas
- $225 million available nationally
- DOE Office of Energy Efficiency & Renewable Energy

Eligible Parties

- States and State Partnerships
- MBCA administers funding

Potential CSN/CEJA Applicability:

- Building Codes
- Clean Energy Workforce Account

Important Dates and Next Steps

- Applications expected to open at the end of 2022.

Resources

- Program page: https://www.energy.gov/bil/building-codes-implementation-efficiency-and-resilience

10. Building, Training, and Assessment Centers

Scope and Level of Funds

- Provides Grants to institutions of higher learning in establishing building, training, and assessment centers to educate and train building technicians and engineers on implementing modern building technologies.
- $10 million in grants

Eligible Parties

- Institutions of higher education
- Administered by MHEC

Potential CSN/CEJA Applicability:

- Clean Energy Workforce Account
- EARN

Important Dates and Next Steps

- Applications are expected to open at the end of 2022.

Resources

- Program page: https://www.energy.gov/bil/building-training-and-assessment-centers#:~:text=Description%3A%20To%20provide%20grants%20to,on%20implementing%20modern%20building%20technologies.

11. Career Skills Training

Scope and Level of Funds

- $10 million for FY22 in grants.
- Through State and Community Energy Program
- Programs must experience in implementing and operating workforce skills training and education
- Programs must target populations that would benefit from training and be involved in energy efficiency and renewable energy industries
- Demonstrate ability to help individuals to gain economic self sufficiency
- 50% Federal cost share

Eligible Parties

- Nonprofit partnerships that include:
  - Industry
  - Public or private employers
  - Labor organizations including labor management training programs
- May include:
  - Workforce investment boards
  - Community based organizations
  - Qualified service and conservation corps
  - Educational institutions
  - Small businesses and cooperatives
  - State and local veterans agencies

Potential CSN/CEJA Applicability:

- Small, Minority, and Women Businesses Account

- Clean Energy Workforce Account
- EARN

Important Dates and Next Steps

- Expected 1st Quarter 2023

Resources

- Program page: https://www.energy.gov/bil/career-skills-training

12. Grants for Energy Efficiency and Renewable Energy (Schools and Nonprofits)

Scope and Level of Funds

- $500 million in competitive grants for FY22 through FY26
- Any improvement, repair, or renovation that results in direct reductions of energy costs, improvements to health as a result of air quality, or installation of renewable energy sources.
    - Also includes installation of alternative charging infrastructure and purchase of alternative fuel vehicles.
    - Lease of alternative fuel vehicles.

Eligible Parties

- States
- Local educational entities
- Schools
- Nonprofits
- For profit entities
- Community partners

Potential CSN/CEJA Applicability:

- Net-Zero School Grant Fund
- Zero Emission School Buses

Important Dates and Next Steps

- Expect 3rd Quarter 2022.

Resources

- Program page: https://www.energy.gov/bil/grants-energy-efficiency-and-renewable-energy-improvements-public-school-facilities

13. Weatherization Assistance Program

Scope and Level of Funds

- The U.S. Department of Energy (DOE) Weatherization Assistance Program (WAP) reduces energy costs for low-income households by increasing the energy efficiency of their homes.
- Formula grant program: funding flows from DOE to state and territorial governments and then to local governments and weatherization agencies.
- Federal cost share is 100%.
- Measures eligible include insulation, space-heating equipment, energy-efficient windows, water heaters, and efficient air conditioners.
- States design the plan and choose the allocation of funds.
- Specific allocation to support workforce development activities. The plan should specify:
    - How to attract, retain, or transition a local workforce
    - Use of workforce partners, unions, community colleges, potential supportive services, and use of Registered Apprenticeships or other joint, labor-management partnerships training programs, or other high-quality training models.
    - Comprehensive training on a regular basis,
    - Support for good-paying jobs
- $3.5 Billion, Maryland 2022 allocation $$3,488,780
    - 15% of total allocation is granted at the time of initial award
    - 35% of total allocation is granted upon DOE approval of the grantee plan that identifies the quarterly milestones over the 5-year period of performance (due by July 1, 2022)
    - Balance of total allocation (50%) is based on the grantee demonstrating progress in meeting expenditures goals, production targets and reporting requirement compliance.
- Current DHCD Maryland draft plan is for $3.5 million
    - The plans cover 333 units (excluded weatherized)
    - Eligibility is determined based on the LIHEAP limit of 60% of State Median Income (SMI) but not lower than 200% of Federal Poverty Level (FPL)
    - Local Weatherization Agency staff will perform a comprehensive energy audit of each home to identify the problems in the building that promote air movement, heat loss, and heating system inefficiency and will use the DOE approved energy audit tool to model the house and determine the most cost- effective measures.
    - Decisions as to which Energy Conservation Measures are to be installed are determined by the DOE-approved energy audit results
    - The plan includes a training and technical assistance plan with the goal to maximize energy savings, minimize production costs, improve quality of work, and foster management expertise while reducing the potential for waste, fraud abuse, and mismanagement.
    - No formal stakeholders process is established, and DHCD is planning to engage stakeholders after DOE's approval of the plan.

Eligible Parties

- States
- Maryland WAP funds are administered by DHCD. Maryland homeowners of dwelling units can then apply to DHCD local agencies.

Potential CSN/CEJA Applicability:

- Clean Energy Workforce Account
- EARN

Important Dates and Next Steps

- DHDC has submitted the budget for DOE's approval and is planning to submit the WAP plan by September 1, 2022.
- Monitor current plan for readiness for the next plan; focus on fuel switching as great opportunity

Resources

- Program page: https://www.energy.gov/eere/wap/weatherization-assistance-program
- State page: https://dhcd.maryland.gov/Residents/Pages/wap/default.aspx

14. Energy Efficiency and Conservation Block Grant Program

Scope and Level of Funds

- Assists States, Local Governments, and Tribes to reduce energy and fossil fuel use while improving energy efficiency.
- $550 Million in block and competitive grants

Eligible Parties

- States
- Local Governments
- Tribes
- MEA administers funding

Potential CSN/CEJA Applicability:

- Building Energy Performance Standard

Important Dates and Next Steps

- Applications are expected to open at the end of 2022.

Resources

- Program page: https://www.energy.gov/bil/energy-efficiency-and-conservation-block-grant-program

15. Energy Storage Demonstration and Pilot Grant Program

Scope and Level of Funds

- Agreements to carry out three energy storage demonstrations
- $355 million in grants, cooperative agreements, and others.

Eligible Parties

- States
- Local Governments
- Technology Developers
- Tribal Organizations
- Community Based Organizations
- National Laboratories
- Universities
- Utilities
- MEA administers funding

Potential CSN/CEJA Applicability:

- RPS and OSW targets

Important Dates and Next Steps

- Applications are expected to open 3rd Quarter 2022.

Resources

- Program page: https://www.energy.gov/bil/energy-storage-demonstration-and-pilot-grant-program

16. EPA Clean School Bus Rebate Program

Scope and Level of Funds

- $500 million in rebates for adoption of clean and zero emissions buses.
- $500 million in rebates for adoption of zero emissions buses.
- 50% cost share to replace existing school buses with zero emissions buses.
- 50% cost share to replace school buses with clean school buses and zero emissions buses.

Eligible Parties

- States
- Any state or local government entity responsible for school bus service, school bus purchases, eligible contractors, nonprofit transportation providers, and Indian Tribes.
- Administered by MDOT

Potential CSN/CEJA Applicability:

- Zero Emission School Buses

Important Dates and Next Steps

- Open through August 19, 2022.

Resources

- Program page: https://www.epa.gov/cleanschoolbus

Annex A. - Climate Solutions Now Act Provisions

Targets

Reduce statewide GHG emission by 60% of 2006 levels

- Proposed plan by June 30, 2023
- Final plan by December 31, 2023
- Achieve target by 2031

Net zero

- Proposed plan by December 31, 2030
- Final plan by December 31, 2035
- Achieve target by 2045

Programs and Implementation Mechanisms

Agency-wide GHG Goals Test

- When conducting long-term planning, developing policy, and drafting regulations agencies SHALL take into consideration the likely impact of the decisions on the statewide GHG goals.

EmPOWER

- Reauthorizes EmPOWER through 2026
- Sets targets for utilities to achieve gross energy savings
- Requires that the core objective of the change in targets from 2025 onward be changed from electricity reduction to a portfolio of mutually reinforcing goals, including GHG reduction, energy savings, net customer benefits, and reaching underserved customers

Climate Catalytic Capital Fund

- Appropriation of $5M/year to promote geographical impact remedies and leverage increased investment in technology development and deployment,
- Includes clean energy generation and storage, electrification of transportation, energy management and efficiency in buildings, energy storage, weatherization,
- Does NOT allow use for new fossil fuel equipment or improving efficiency of fossil fuel equipment
- At least 40% to communicate with LMI households

Building Energy Performance Standard

- Requires the Department to establish a building energy performance standard that achieves a 20% reduction in net direct GHG emissions on or before 1/1/2030 as compared with 2025 levels for average buildings of similar construction
- Requires net zero direct GHGs on or before 1/1/2040

- Requires reporting by covered buildings beginning in 2025
- Requires promulgation of regs by Dept by 6/1/2023
- Provides for alternative compliance pathways and provides exemptions.
- Prohibits building owners from using GHG emissions from food services facilities that engage in commercial cooking and water heating from calculations to set the statewide standard.

Building Codes

- Requires Building Codes Administration to develop recommendations for an all-electric building code with an interim report to the legislature by 1/1/2023 and a final report by 12/31/2023,
- Provide a report to the PSC on the projected annual and peak summer and winter gas and electric loading impacts of electrification,
- Categorized by building type and size, in sufficient detail for gas and electric public service companies to develop the plans required under subsection (c)(1)(i) of this section
- Consider recommendations for the inclusion of renewable, low–carbon biofuels, including biodiesel, during the State's transition to an all–electric building code including an analysis of the impact on electric and gas rates, market availability, and environmental impact.
- MD shall adopt the International Building Code as MD's Building Performance Standards after determining if modifications are necessary
- MD will adopt the 2018 International Green Construction Code and each subsequent version

State Owned Buildings

- On or before 1/1/2030 each state procurement unit will ensure that 75% of electricity supplied to in-state facilities is no or low carbon

Building Energy Transition Implementation Task Force

- Task Force created to examine complementary policies, programs, and incentives aimed at reducing building GHGs, including incentives for projects that would not otherwise result in strong returns,
- develop a plan for funding retrofits to meet the standard, plan may include including financial incentives through the EMPOWER program and other state programs,
- targets for retrofits and heat pumps for low-income households,
- creation of commercial tax credits and on-bill financing.
- Must submit a report to Governor by 12/1/2023

Low- or Moderate- Income (LMI) Energy Efficiency (EE) and Renewable Energy (RE)

- Develop a grants program for energy conservation projects and to install renewable energy generating systems in LMI households
- Governor shall provide appropriation of $5 million in fiscal years 2024-2026

Net-Zero School Grant Fund

- At least one school in each school system constructed from July 1 2023 to June 30, 2033, inclusive, shall be constructed to meet net-zero energy requirements
- Adjustment of local cost-share for constructing net zero schools in counties with median household income in bottom quartile

Climate Transition and Clean Energy Hub

- Creates a Climate Transition and Clean Energy Hub to serve as clearinghouse for information on advanced technologies and architectural solutions to reduce GHGs from buildings and provide technical assistance to private and public entities to achieve GHG reductions and comply with state and local energy efficiency and electrification requirements

Property Tax

- Exempts solar projects under 2MW from personal property taxes if: 50% or more serves LMI at a cost of 20% less than the electric company that serves the area, is installed on a rooftop, parking facility canopy, or brownfield for as long as it meets these requirements

Labor and Employment Standards

- Any utility that uses federal funds for its distribution system shall employ prevailing wage, offer health and retirement, participate in apprenticeship programs, and have a plan to employ MD residents for 25% of work hours performed by MD residents including: returning citizens, minority individuals, women or veterans

Distribution System Planning

- Establishes as the goal of the state a distribution system that cost-effectively supports state policy goals of: GHG reductions, renewable energy generation, decreased dependency on electricity imports, and resilience, efficiency and reliability
- Requires PSC to adopt regulations for Distribution System Planning to achieve MD policy goals
- Requires the PSC to conduct a general system planning study for all gas and electric companies with gross annual revenues equal to or greater than 3% of total gross annual revenues of all public services companies in the state to assess the capacity of each company's distribution systems to successfully serve customers under a managed transition to a highly electrified building sector and report its findings to the legislature by September 30, 2023

Reports on Distribution System Readiness

- Report on status of electric distribution grid including measures to reduce GHGS, increase distributed energy and EV s, prioritize vulnerable communities and more

Federal Funding for Utilities

- Encourages utilities to apply for federal funding under sections 40101, 40103, and 40101 of IIJA, commits MEA and PSC to supporting utility applications for federal funding and identifying opportunities for federal funding, requires utilities to report on federal funding. Allows PSC to promulgate regulations requiring utilities to apply.

Equity

- Defines Community Listening Session, Environmental Justice, Overburdened Community, Underserved Community
- Requires agencies to adopt method for identifying communities disproportionately impacted by climate and develop strategies to address impacts and set goals for percentage of state funding to be directed to these communities

Chesapeake Conservation Corps Program

- Appropriates $1.5M per year starting in fiscal year 2024 for conservation corps program to implement clean energy projects, environmental restoration projects, community education, with focus on disproportionately affected communities.

Zero Emission School Buses

- County school boards must purchase ZEV school buses unless they are not available or there is insufficient funding

State Fleet ZEV Requirements

- Intent of GA that 100% of state passenger fleet be ZEV by 2031 and all LDV be ZEV by 2036 with interim standards for procurement
- Requires Dept of Gen Services to ensure adequate charging infrastructure
- Annual reporting by Dept of Gen Services on the purchase of vehicles
- Number of ZEV vehicles, cost savings, and charging infrastructure

Just Transition Employment and Retraining Program

- Form a working group that will advise the commission on best practices for workforce development and conduct a study for the Maryland Commission on Climate Change on jobs created to combat climate change, job and economic impacts of transition and strategies that impact historically disadvantaged communities, women and returning citizens

Energy Resilience and Energy Efficiency Working Group

- Form a working group under the Maryland Commission on Climate Change that will conduct a study of the impacts to business of transitioning to renewable energy

Solar Photovoltaic Systems Recovery, Reuse, and Recycling Working Group

- Form a working group under the Maryland Commission on Climate Change that would advise the commission on energy storage, electric gird distribution transformation projects, and lifespan and viability of non-emitting sources including biofuel, solar, nuclear, wind, and hydro-electric
- Form a working group and submit a report to the commission outlining environmental and ratepayer impacts for recovery, reuse, and recycling of solar PV systems

Annex B. - Clean Energy Jobs Act Provisions

Targets

Renewable Portfolio Standard

- 50% by 2030,
- At least 14.5% from solar and
- 1,200 MW from Round 2 offshore wind
- Interim targets

Offshore Wind Projects

- At least 1,200 MW by 2030

Programs and Implementation Mechanisms

Small, Minority, and Women Businesses Account

- Receives money from SEIF and VLT (Video Lottery Terminals) money
- 50% for designated areas near casinos and 50% throughout MD

Clean Energy Workforce Account

- Funded by SEIF
- Provides grants for workforce development in clean energy practices

Employment Advancement Right Now (EARN) Program

- Industry partnerships advancing skills of the state workforce
- Competitive general fund grants for workforce development

Offshore Wind Projects

- Establishes Round 1 and Round 2 location and application periods
- Criteria for evaluation of projects
- Removes upper limit on offshore wind development

Power Plant Research Program

- To ensure electricity demands are met at reasonable costs.
- Evaluates and recommends long-term solutions.
- Examines generation and transmission issues.

SEIF Transfers for Various Clean Energy Initiatives

- $7 million for Small, Minority and Women Businesses Account (5-1501);
- $6.5 million for Youth Apprenticeship Program
- $1.5 million for Pre-Apprenticeship (11-708.1)

Annex C. - Maryland Context Overview

1. Expected GHG Emissions Trajectories - Statewide

This section provides an overview of the Maryland economy-wide GHG emission baseline Background information provided in this section are retrieved from the assessment conducted for the GGRA.

Figures 1 and 2 below show the **share of emissions by each sector in the 2017 state inventory and forecasts through 2050**. While all sectors play a critical role in emissions, transportation plays a dominant role, accounting for about 40 percent of Maryland emissions – consistent with its national and global sector ranking as the number one source of emissions. Note that the share of emissions attributable to operation of Light Duty Vehicles (LDV) is dominant. The next highest contributor to Transportation emissions is Heavy Duty Vehicle (HDV).

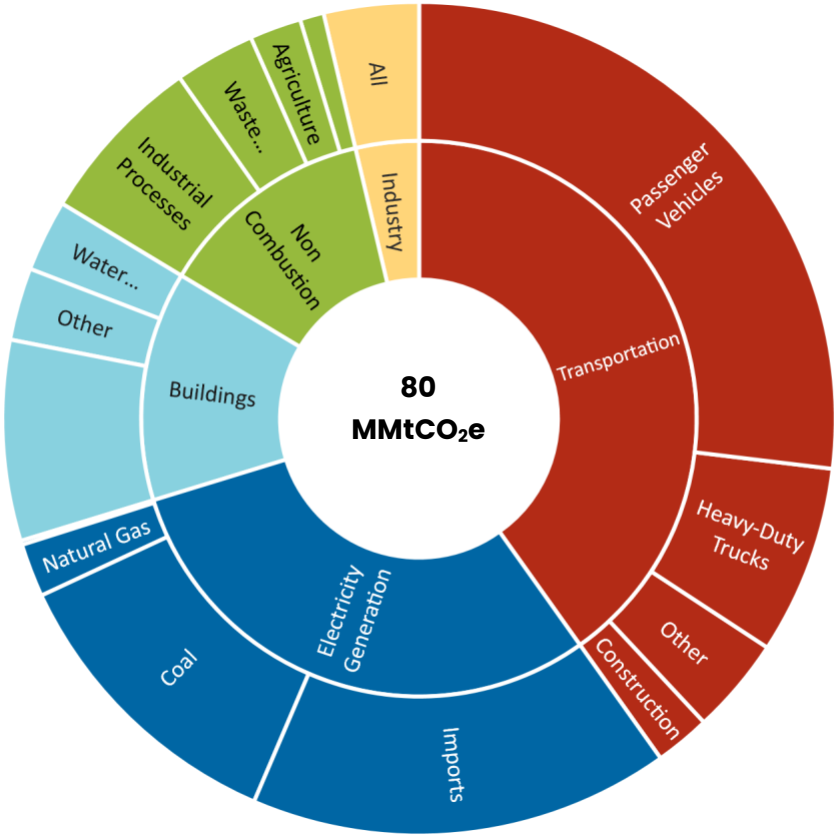

Figure 1. Maryland GHG Emissions Inventory (Gross Emissions), 2017

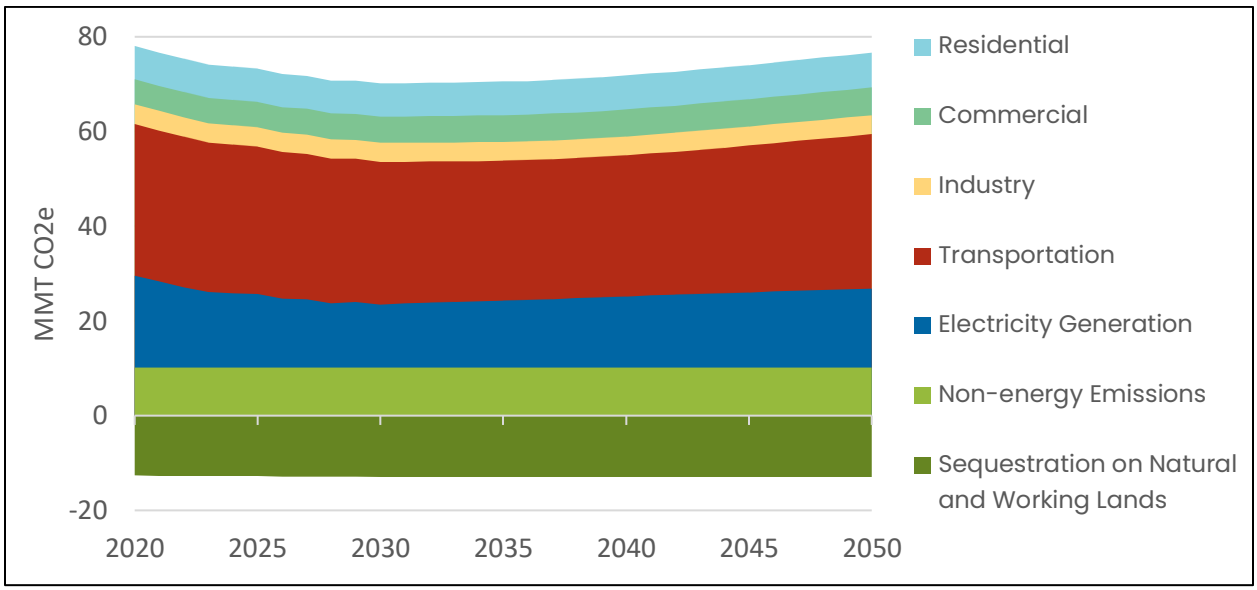

Figure 2. Maryland GHG Emissions Reference Case Scenario, 2020-2050

Prior to the passage of CSN in April 2022 Maryland had comprehensive state legislation through GGRA that set ambitious GHG reduction targets for 2030 and 2045 and specified a series of sector-level policies and measures for their potential attainment. Many of these were official or "on the books" governmental commitments and others included recommendations by the MWG not yet formally adopted by the state. With the passage of CSN, **GHG emissions reduction targets were expanded to 60 percent reduction from 2006 levels by 2031 and net zero emissions by 2045**. Figure 3 below compares the expected GHG emission reduction trajectories under the Reference Case, the GGRA scenario and the CSN scenario.

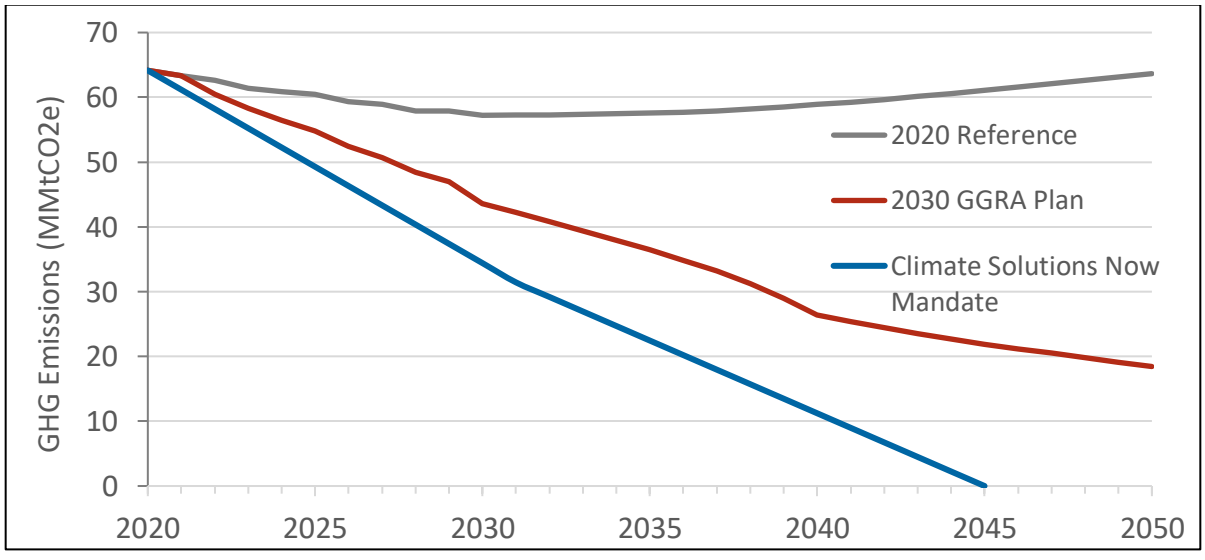

Figure 3. Maryland GHG Reductions Pathways 2020-50: All Sectors

Attainment of these new goals requires implementation of existing and planned actions as well as the formulation of new actions specified in CSN and others to be developed.

2. Expected GHG Emissions Trajectories – Energy Sector

Figures 4 and 5 below show the electricity generation by fuel in the Reference Case and GGRA modeling scenarios. The GGRA includes both energy efficiency measures (reduction in consumption) and building and transportation electrification (increase in consumption), which result in a net increase in electricity generation, from 71 TWh to 80 TWh. In addition, the GGRA scenario phases out the use of fossil fuels (coal, natural gas, and oil) for electricity generation. The increased generation and decreased used of fossil fuels is mostly balance through increased solar generation.

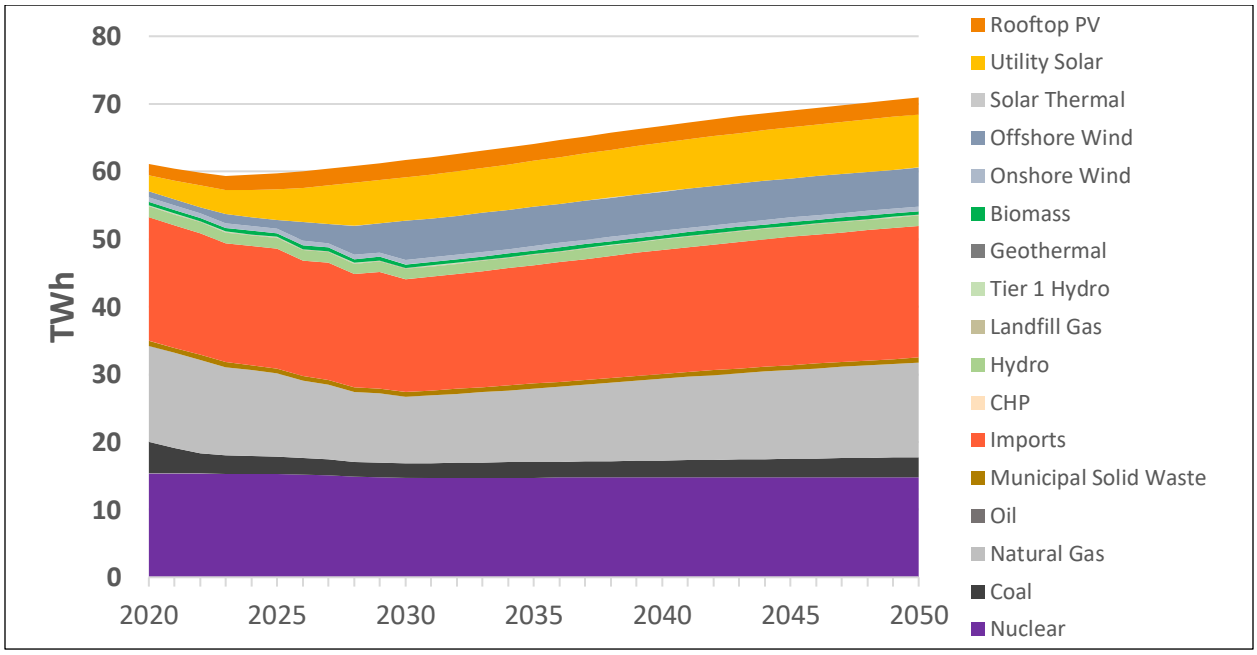

Figure 4. Electricity Generation by Fuel – Reference Case Scenario, 2020-50

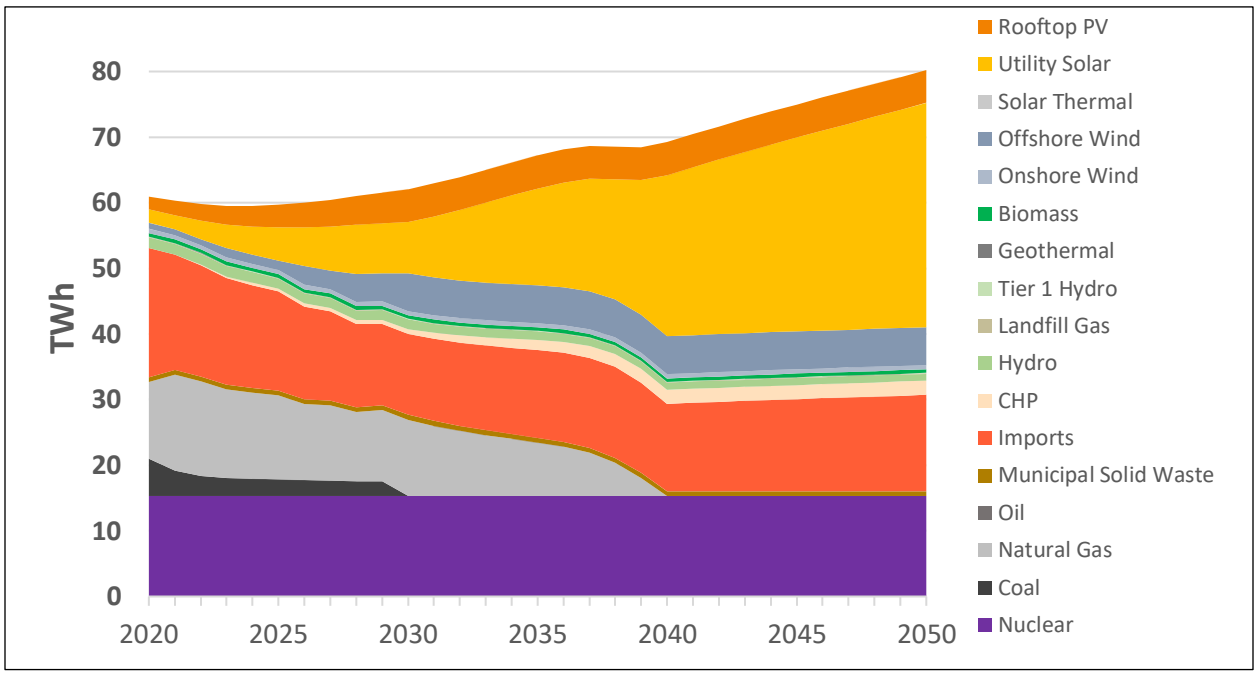

Figure 5. Electricity Generation by Fuel – GGRA Scenario, 2020-50