

# **Climate Pollution Reduction Grant & Draft Action List**

Providence-Warwick MSA

February 14, 2024

Prepared by the Southeastern Regional Planning & Economic Development District  
(SRPEDD)

Funded through the EPA Climate Pollution Reduction Grants (CPRG) Program

## Climate Pollution Reduction Grant (CPRG) Overview

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### What are Greenhouse Gases (GHGs)?

Greenhouse gases (GHGs) trap heat from the sun in the Earth's atmosphere, creating the greenhouse effect. Human activities release GHGs including carbon dioxide from burning oil and gasoline, methane from cattle, nitrous oxide from gasoline combustion, and CFCs and haloalkanes from refrigerators and industrial processes.

### Program Goals

Through the Inflation Reduction Act of 2022, Congress provided tools to pursue greenhouse gas (GHG) pollution reductions, including the Climate Pollution Reduction Grants (CPRG) program. In implementing this program, EPA seeks to achieve three broad objectives:

- 1. Tackle damaging climate pollution while supporting the creation of good jobs and lowering energy costs for families.
- 2. Accelerate work to address environmental injustice and empower community-driven solutions in overburdened neighborhoods.
- 3. Deliver cleaner air by reducing harmful air pollution in places where people live, work, play, and go to school.

### Two Planning Geographies

The CPRG program funds planning for two geographic scales:

- 1. States [\$3 million]
- 2. 68 most populous Metropolitan Statistical Areas (MSAs) [\$1 million]

Figure 1: Providence-Warwick MSA CPRG Planning Area – A map showing the Providence-Warwick Metropolitan Statistical Area spanning portions of Rhode Island and Massachusetts, including the SRPEDD planning area municipalities.

What is an MSA? Delineated by the Census Bureau, Metropolitan Statistical Areas (MSAs) represent "a core area containing a substantial population nucleus, together with adjacent communities having a high degree of economic and social integration with that core."

### Deliverables Timeline

- Priority Climate Action Plan (PCAP) – Due March 1, 2024
- CPRG Implementation Grant Application Deadline – April 1, 2025
- Comprehensive Climate Action Plan (CCAP) – Due July 1, 2025
- Status Report – Due June 30, 2027

### Priority Climate Action Plan (PCAP) Requirements

- A GHG inventory (priority sectors)
- Priority quantified GHG reduction measures

- A low-income and disadvantaged communities benefits analysis
- A review of authority to implement

### **Comprehensive Climate Action Plan (CCAP) Requirements**

- A GHG inventory (complete)
- GHG emission projections
- GHG reduction targets
- Quantified GHG reduction measures
- A benefit analysis for the full geographic scope and population covered by the plan
- A low-income and disadvantaged communities benefits analysis
- A review of authority to implement
- A plan to leverage other federal funding
- A workforce planning analysis

### **Major PCAP Work Program Elements – Low-Income and Disadvantaged Communities (LIDAC) Benefits Analysis**

Block Groups in the following communities are included in the LIDAC analysis:

|    |                                                                                                                                                                                                                                                                                                                           |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RI | Barrington, Bristol, Central Falls, Charlestown, Coventry, Cranston, Cumberland, East Providence, Hopkinton, Johnston, Lincoln, Middletown, Narragansett, Newport, North Kingstown, North Providence, Pawtucket, Portsmouth, Providence, Woonsocket, Smithfield, South Kingstown, Warren, Warwick, West Warwick, Westerly |
| MA | Attleboro, Dartmouth, Fairhaven, Fall River, Mansfield, New Bedford, North Attleborough, Taunton                                                                                                                                                                                                                          |

### **Major PCAP Work Program Elements – Stakeholder Engagement**

- Municipal Leadership Team
- Public webpage & comment form
- Online Public Forums
- Expanded in the CCAP process: recruit additional participation from municipalities (targeted interviews, survey – multiple channels to get widest response)
- Additional public outreach & forums
- Sector- or topic-area specific working groups

## Regional Greenhouse Gas Inventory

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### GHG Inventory Overview

- Baseline year: 2020
- PCAP inventory sectors (totaling 85–90% of the region's total emissions):
  - Electricity Consumption (residential & commercial)
  - Heating (residential, commercial, industrial buildings)
  - Transportation (vehicles & transit)
- Additional sectors for CCAP: Industrial Process, Solid Waste, Wastewater, Forestry

### Preliminary GHG Inventory

Total regional greenhouse gas emissions by sector for 2020 (measured in Million Metric Tons of CO<sub>2</sub> equivalent, MMT CO<sub>2</sub>e):

|                                        |        |       |       |
|----------------------------------------|--------|-------|-------|
| Electricity Consumption                | 2.852  | 2.042 | 0.810 |
| Residential                            | 0.367  | 0.367 | —     |
| Commercial                             | 0.444  | 0.444 | —     |
| Heating                                | 5.307  | 3.290 | 2.018 |
| Residential Heating                    | 3.177  | 1.910 | 1.267 |
| Commercial Heating                     | 1.555  | 0.805 | 0.750 |
| Industrial Heating                     | 0.575  | 0.575 | —     |
| Transportation                         | 6.215  | 3.716 | 2.499 |
| Highway Vehicles                       | 5.841  | 3.344 | 2.497 |
| Transit                                | 0.006  | 0.006 | —     |
| Non-Road Sources                       | 0.374  | 0.372 | 0.002 |
| TOTAL (Electric + Heat +<br>Transport) | 14.374 | 9.047 | 5.327 |

Percent of total emissions by sector (2020): Electricity Consumption 20%, Heating 37%, Transportation 43%.

### What is a MMT CO<sub>2</sub>e?

Emissions are measured in Million Metric Tons (MMT) of Carbon Dioxide Equivalent (CO<sub>2</sub>e). To illustrate scale: 0.028 MMT CO<sub>2</sub>e (equal to 0.2% of the entire region's total annual emissions) is the amount of emissions avoided by any ONE of the following:

- 100 MW of solar (can power 17,300 homes)
- 30 MW offshore wind (can power 33,000 homes)
- Converting 7,500 single family homes from oil to electric heat
- Replacing 3,500 gasoline commuter vehicles with EVs
- Planting 15 square miles of tree canopy

## Emissions Reductions Actions by Sector

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Note: 0.028 MMT CO<sub>2</sub>e = 0.2% of the entire region's total annual emissions = 100 MW of solar (17,300 homes). All estimated potential annual emissions reductions are referenced against this benchmark.

### Buildings (Residential & Commercial)

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Increase Energy Efficiency | 1. Fund and streamline incentive programs for residential building decarbonization and energy efficiency improvements (including heat pump conversions, electrical system upgrades, weatherization and protections for critical infrastructure), prioritizing multi-family and renter-occupied housing, particularly in low-income areas. Include funding for energy efficiency audit programs that also assess electrification potential and prioritize building decarbonization. | 0.028 MMT per 10,000 households                    |
| Increase Energy Efficiency | 2. Fund incentive programs for municipal building energy efficiency and electrification improvements.                                                                                                                                                                                                                                                                                                                                                                              | Roughly similar to residential; final estimate TBD |
| Policy / Advocacy          | 3. Provide outreach and support to assist communities in creating or updating zoning and municipal regulations to incorporate climate resilience and building efficiency into building, development and housing regulations.                                                                                                                                                                                                                                                       | Difficult to quantify; final estimate TBD          |
| Policy / Advocacy          | 4. Provide outreach and support to communities to adopt Building Energy Reporting Ordinances/Bylaws (similar to Providence's), and offer funding to offset tracking and reporting costs.                                                                                                                                                                                                                                                                                           | Difficult to quantify; final estimate TBD          |

### Transportation

|                         |                                                                                                                                                                                                                                |                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Vehicle Electrification | 1. Support light-duty electric vehicle transition: improve charging infrastructure availability, grid upgrades to support demand, battery waste disposal, and municipal and private incentives for electric vehicle purchases. | 0.028 MMT per 3,500 vehicles                                                                       |
| Vehicle Electrification | 2. Fund incentive programs to transition to electric school buses.                                                                                                                                                             | 0.028 MMT per 3,500 buses                                                                          |
| Public Transportation   | 3. Reduce commuter emissions: expand regional public transit options for those commuting between RI & MA, paired with transit oriented development zoning;                                                                     | 0.028 MMT per 3,500 vehicles removed from commuting (equal to increasing ridership by 2,500–3,500) |

|                   |                                                                                                                                                                                                                                                                                                                                                                           |                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
|                   | fund employer-provided incentives to encourage remote work, public transit, carpooling or biking; work with schools to encourage more walkers and reduce vehicle drop-offs.                                                                                                                                                                                               |                                           |
| Policy / Advocacy | 4. Adopt small scale vision-zero-type interventions across the entire region (i.e. traffic signal improvements, complete streets, road diets, etc.).                                                                                                                                                                                                                      | Difficult to quantify; final estimate TBD |
| Ports             | 5. Develop a 'Green Port' strategy and grant and incentive programs to reduce emissions from port activities, including: reduce/eliminate in-port emissions from vessels; fund decarbonization and energy efficiency improvements to land-based operations; fund infrastructure improvements and workforce development initiatives to support the offshore wind industry. | More data needed; final estimate TBD      |

## Electricity Generation

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                |                                           |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Policy / Advocacy          | 1. Advocate that the State (MA) enable more solar energy generation by raising or eliminating municipal & utility caps for solar net-metering, and manage interconnection feeds for public renewable energy projects.                                                                                                                                                                                                          | 0.028 MT per 100 MW of solar installed    |
| Policy / Advocacy          | 2. Provide clean energy workforce training in schools and for adults in phasing out careers.                                                                                                                                                                                                                                                                                                                                   | Difficult to quantify; final estimate TBD |
| Electricity Infrastructure | 3. Implement regional grid upgrades to improve capacity for renewable electricity, including: grid and distribution improvements; automations to reduce but also support future peak demand; install solar canopies above electric vehicle charging stations to offset energy demands; fund and expand grid resiliency grant programs; fund engineering competitions to improve technology around efficient energy generation. | Difficult to quantify; final estimate TBD |
| Electricity Infrastructure | 4. Fund and support the adoption of battery energy storage systems (BESS).                                                                                                                                                                                                                                                                                                                                                     | Difficult to quantify; final estimate TBD |

## Agriculture & Working Lands

|                                                |                                                                                                                                                                                                                                                                                                                               |                                           |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Increase Local Food Awareness and Availability | 1. Support local food growth & distribution (i.e. Resilient Food Systems Infrastructure (RFSI) Program in MA; facilitate partnerships between restaurants and grocery stores and local growers).                                                                                                                              | More data needed; final estimate TBD      |
| Policy / Advocacy                              | 2. Support trees' capacity to remove and store carbon: implement programs to expand urban tree canopy, particularly in disadvantaged neighborhoods; protect existing trees through local bylaws/ordinances that penalize tree removals and incentivize the maintenance and expansion of tree canopy in new and redevelopment. | 0.028 MMT per 9,600 acres of tree canopy  |
| Policy / Advocacy                              | 3. Provide outreach, incentives and training programs to farmers to adopt regenerative land management practices that promote healthy soils and store carbon.                                                                                                                                                                 | Difficult to quantify; final estimate TBD |

## Waste Management & Materials

|                   |                                                                                                                                                                                                                                                               |                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Policy / Advocacy | 1. Develop and distribute municipal recycling procurement guidelines and policies; and facilitate regional intermunicipal partnerships to increase efficiency.                                                                                                | Difficult to quantify; final estimate TBD |
| Reduce Waste      | 2. Reduce the organic waste stream: enable municipal or regional curbside food scrap collection (or drop off) & composting programs; provide more industrial composting and anaerobic digester facilities to manage large scale and/or industrial wastes.     | More data needed; final estimate TBD      |
| Reduce Waste      | 3. Improve container reuse and recycling programs: public education and infrastructure improvements to improve recycling operations; expand bottle deposit and return systems; fund reuse and refill systems, particularly at large waste-producing entities. | Difficult to quantify; final estimate TBD |

## Industrial Processes

|                   |                                                                                                                                                          |                                      |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Policy / Advocacy | 1. Work with utilities and energy efficiency vendors to ensure municipal wastewater treatment plants are utilizing energy efficiency incentive programs; | More data needed; final estimate TBD |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|

|                           |                                                                                                                                                                                         |                                           |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Improve Recycling Process | <p>expand program funding if necessary.</p> <p>2. Support wash facilities, sorting facilities, and refilling facilities to facilitate more material reuse in industrial operations.</p> | Difficult to quantify; final estimate TBD |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|

## **Now We Want to Hear From You!**

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Thank you for participating!

You may now unmute to ask questions and share your feedback.

You can also access the draft action list and public comment form on the project webpage: [www.srpedd.org/cprg](http://www.srpedd.org/cprg)

Email contact: [enviro@srpedd.org](mailto:enviro@srpedd.org)

Learn more about CPRG, review the draft action list and share your input through 2/23/24!