



Department of Environmental Protection

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Massachusetts Air Sensor Grant Opportunity Application Guidance and Grant Requirements

July 20, 2021

Overview/Goals of this Grant Opportunity

The Massachusetts Department of Environmental Protection (MassDEP) is issuing this grant opportunity for all municipalities in the Commonwealth to receive between five and ten PurpleAir sensors (at no cost) to measure levels of fine particulate matter (PM_{2.5}) in outdoor air in their local communities for at least one year. MassDEP has allocated \$200,000 to the Air Sensor Grant Program, and this funding will be utilized by MassDEP to purchase PurpleAir sensors (through an authorized state procurement process) for distribution to all municipalities that submit an application seeking to participate in this Program.

MassDEP's goal in offering the Air Sensor Grant Program is to facilitate the agency's collaboration with municipalities to effectively assess outdoor air PM_{2.5} levels in local communities, which can be a significant airborne pollutant that impacts public health. PM_{2.5} is a mixture of solid particles and liquid droplets found in the air and is so small that it can be inhaled deep into the lungs and may even enter a person's bloodstream. Breathing PM_{2.5} in the air can lead to adverse health effects, including aggravated asthma and other respiratory and cardio-pulmonary illnesses. Through this grant program, municipalities can assess outdoor air PM_{2.5} levels in order to work with residents, schools, and community groups to increase understanding of local air pollution and also can identify any potential areas with higher pollution levels where mitigation efforts can be directed to protect public health.

PurpleAir Sensors: description and functions for PM_{2.5} outdoor air monitoring

PurpleAir LLC manufactures and distributes PurpleAir Sensors, which are used to measure PM_{2.5} by a wide variety of governments, organizations, and citizens to monitor both indoor and outdoor air quality. While the company offers three (3) types of air sensors, MassDEP will be purchasing and distributing the PA-II PurpleAir sensor model to municipalities that apply to participate in this Program.

All PurpleAir Sensors require access to an electrical source and a WiFi network for installation. The PA-II PurpleAir sensor that MassDEP is offering through this Program is designed for

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

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residential, commercial, or industrial use. Once installed, the PA-II PurpleAir sensor measures PM_{2.5} levels in “real time,” and the data is transmitted to the PurpleAir Map, which populates the air sensor’s readings at 10-minute averaged data intervals. The PurpleAir Map stores the data where it can be viewed through any smart device, which means both the participating municipality and MassDEP will have ongoing access to the PM_{2.5} data readings from the air sensor once it has been installed by the municipality. In addition, the PurpleAir sensor data also can be viewed on the U.S. Environmental Protection Agency’s AirNow Fire and Smoke Map together with data from regulatory PM_{2.5} monitors operated by MassDEP and other regulatory agencies (see <https://fire.airnow.gov/>). PurpleAir provides a limited warranty on its air quality sensors for a one (1) year period to be free from defects in material and workmanship.

Further details regarding PurpleAir sensors are available through a detailed FAQ on the PurpleAir LLC website at: <https://www2.purpleair.com/>.

Eligible Applicants

The Air Sensor Grant Program is open to all Massachusetts municipalities, although MassDEP seeks to encourage the placement of outside air sensors in Environmental Justice (EJ) populations by giving preference to these grant applications. Applicants may apply for a minimum of 5 and a maximum of 10 air sensors, which must be installed outdoors at any location within the boundaries of the municipality. Municipalities are encouraged to partner with residents, schools, and local organizations that work on public health and environmental justice issues.

MassDEP EJ Commitment: MassDEP is committed to advancing equity, diversity, and environmental justice (EJ)¹ through its public investments. The agency seeks to prioritize the direction of these resources to benefit EJ communities and to address environmental inequities. To that end, MassDEP grant and funding programs include criteria and evaluation parameters that emphasize equity, diversity, and environmental justice, consistent with each program’s statutory authority and source of funding.

Application Submission Process:

Applicants must perform the following steps to submit an application for this grant opportunity:

1. Read MassDEP’s grant guidance document.
2. Visit the PurpleAir website at <https://www2.purpleair.com/> to become familiar with PurpleAir sensors and its functions (As noted above, the PurpleAir PA-II is the model that will be provided through this grant opportunity).
3. Read MassDEP’s PurpleAir Installation Guidance at <https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant>; as noted above, PurpleAir sensors require electricity and access to wi-fi.

¹ Environmental Justice (EJ) is based on the principle that all people have a right to be protected from environmental pollution and to live in and enjoy a clean and healthful environment. EJ is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits.

4. Determine how many sensors the municipality will apply for through its application (this number must be between 5 – 10 air sensors) and the geographic area (i.e., outside locations) within the municipality where the air sensors will be deployed.
5. Develop a brief project description for how the municipality plans to deploy the sensors (e.g., work with residents in specific neighborhood or section of municipality; work with schools to educate students on air quality; partner with local organizations or companies to work with residents to deploy sensors, etc.). Please indicate if some or all of the sensors will be deployed in a designated Environmental Justice (EJ) Population. Designated EJ populations can be identified on EEA’s website at <https://www.mass.gov/info-details/environmental-justice-populations-in-massachusetts>.
6. Fill out the grant application at <https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant>.
7. MassDEP will review each application for eligibility and completeness and will notify applicants of the outcome of the review.
8. For applications that are selected, MassDEP will issue an Approval Letter and a contract document for execution by the Grantee.
9. Grantees will have 30 days to return the signed contract to MassDEP.
10. **Note to Applicants:** this is a competitive grant opportunity and not every grant applicant is guaranteed to receive all sensors requested in the submitted application, particularly if the number of sensors requested exceeds the total number that MassDEP is able to purchase with the funding allocated to this grant opportunity. In the event that the sensors requested exceed the funding available for sensor purchases, MassDEP will allocate the award and distribution of air sensors on an equitable basis, while giving preference to the placement of air sensors in EJ populations.

Grant Terms and Conditions

1. All municipal Grantees must execute a contract agreement with MassDEP prior to MassDEP’s purchase and distribution of the PA-II PurpleAir Sensors to municipalities. A copy of the MassDEP proposed contract can be found on the MassDEP website as part of this grant opportunity.
2. Municipal Grantees must agree to work directly with sensor hosts (i.e., residents, schools, community organizations, companies or other entities who will operate the sensors) or with one or more local partner organizations who would work with sensor hosts to deploy the sensors (i.e., locate the equipment in an outside location within the municipality’s city or town boundaries) within 60 days of receiving the PA-II Purple Air Sensors from MassDEP.
3. Municipal Grantees must ensure and confirm with MassDEP that the local hosts partnering with the city or town provide an outside location with electricity and access to wi-fi, install and set the PA-II Purple Air Sensor to “public mode” so the sensors appear on the PurpleAir website, and ensure/allow the sensors to operate for at least one year.
4. Each municipal Grantee must notify MassDEP in writing when the PurpleAir sensors have been deployed and appear on the PurpleAir website.

Estimated Grant Calendar:

Grant Procurement Activity	Date	Time
Notice of Air Sensor Grant Opportunity (posted on COMMBUYS And MassDEP website)	July 20, 2001	
Air Sensor Grant Program Opportunity Release Date (Posting Date) on MassDEP website https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant	July 20, 2021	
Deadline for Submission of Questions to MassDEP (prior to deadline, via email, to): air.sensor@mass.gov	Extended to Thursday, August 12 , 2021	5:00 P.M.
Official Answers for Q&A published on MassDEP website (estimated) https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant	Friday, August 20, 2021	5:00 P.M.
<u>GRANT APPLICATION DEADLINE;</u> <u>ELECTRONIC SUBMISSION TO:</u> https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant	Friday, October 1, 2021	5:00 P.M.
Notification of Grant Award(s) (Estimated) (POSTED ON COMMBUYS AND MASSDEP WEBSITE) https://www.mass.gov/how-to/apply-for-a-massdep-air-sensor-grant	November 19, 2021	
Estimated Grant Contract Start Date – MassDEP Distribution of PA-II PurpleAir Sensors (within 30 days of Grantees’ execution of contract with MassDEP)	January 21, 2022	

More Information

All applicants interested in MassDEP’s Air Sensor Grant opportunity are encouraged to submit questions to air.sensor@mass.gov by the question deadline posted in the Estimated Grant Calendar.