## Request for Information – Funding to Address Air Pollution
Docket ID No. EPA-HQ-OAR-2022-0876

### Crosscutting Questions
1. How can EPA design these programs to most effectively benefit low-income and disadvantaged communities that face disproportionate impacts from air pollution?
2. How can EPA (or the federal government generally) incentivize/facilitate cooperation/coordination across state agencies to implement the IRA (to facilitate communication between a states or tribe's Department of Environmental Protection/Quality, utilities commission, and Department of Transportation and promote coordination among them)?
3. What metrics should this program use for measuring success and ensuring accountability?
4. What EPA technical assistance (training, tools) or other support is needed by low-income and disadvantaged communities especially for successful application for and implementation of the IRA programs?

We urge EPA to, whenever possible, ensure that data from new monitors funded is actionable. Identifying air pollution problems is an important first step, but for communities to experience the health benefits of pollution cleanup, monitored data must translate to enforcement action or other cleanup requirements. In the case of low-cost sensors that identify air quality problems that could lead to corrective action, communities should have a pathway to securing additional official monitors based on the sensor data.

We also urge EPA to provide technical assistance to communities not only for designing air quality monitoring systems and analyzing the data, but also for applying for the funds.

### Funding to Address Air Pollution – Fenceline Monitoring [60105(a)]
Funds ($117.5 million) can be used to deploy, integrate, support, and maintain fenceline air monitoring, screening air monitoring, national air toxics trend stations, and other air toxics and community monitoring.

In developing a framework for Fenceline Monitoring for air toxics, hazardous air pollutants, and criteria air pollutants, we suggest reviewing the text of S. 4510 - Public Health Air Quality Act of 2022[1] and S. 2476 - Environmental Justice Air Quality Monitoring Act of 2021[2] both of which offer some specifics on siting determinations, integrating, maintaining, and reporting of fenceline monitors.

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[1] Sen. Tammy Duckworth (IL) *et al*. sponsors. (07/12/2022). S. 4510 - Public Health Air Quality Act of 2022; SEC. 3. HEALTH EMERGENCY AIR TOXICS MONITORING; SEC. 4. COMMUNITY AIR TOXICS MONITORING; SEC. 5. NAAQS MONITORING NETWORK, (a) DEPLOYMENT OF NCORE MULTIPOLLUTANT MONITORING STATIONS; SEC. 6. SENSOR MONITORING, (a) DEPLOYMENT OF AIR QUALITY SENSORS; SEC. 7. DATA REQUIREMENT; https://www.congress.gov/117/bills/s4510/BILLS-117s4510is.pdf

[2] Sen. Ed Markey (MA) *et al*. sponsors. (07/27/2021). S. 2476 - Environmental Justice Air Quality Monitoring Act of 2021; SEC. 4. PILOT PROGRAM FOR HYPERLOCAL AIR QUALITY MONITORING PROJECTS IN ENVIRONMENTAL JUSTICE COMMUNITIES; https://www.congress.gov/117/bills/s2476/BILLS-117s2476is.pdf

The Bill S. 4510:

- **"Direct(s) the EPA to implement immediate fenceline monitoring** for toxic air pollutants at facilities contributing to high local cancer and other health threats from dangerous pollutants like ethylene oxide, chloroprene, and formaldehyde. Air monitoring data, monitor maintenance information and any actions taken using the data must be made publicly available and accessible in multiple languages. EPA must update emission test methods and emission factors if necessary, based on new air data.

- **Ensure(s) that fenceline monitoring and continuous emission monitoring are core components of national emission standards** for chemical, petrochemical and other sources of fugitive toxic air pollution to assure compliance with pollution limits and so that communities never again have to wonder what is in their air. EPA must issue rules to implement the best available method of fenceline monitoring and corrective action in the highest threat source categories with fugitive emissions where needed to assure compliance or protect public health, using more protective monitoring methods.

- **Directs EPA to integrate data collected** through these programs into EJSCREEN, the agency's publicly available environmental justice screening and mapping tool."[3]

Sections 3 and 4 of this Bill deal with "Health Emergency Air Toxics Monitoring" and "Community Air Toxics Monitoring" respectively.

The Bill S. 2476 requires EPA "to implement a pilot program to award, on a competitive basis, grants or contracts to state, local, and tribal air agencies to carry out specified projects for hyperlocal air quality monitoring systems in environmental justice communities (i.e., communities with significant representation of communities of color, low income communities, or tribal and indigenous communities that experience, or are at risk of experiencing, higher or more adverse human health or environmental effects)". Section 4 of the Bill "Pilot Program For Hyperlocal Air Quality Monitoring Projects In EJ Communities" describes the specifics of the projects to be implemented.

**QUESTIONS:**

1. What are the needs for additional national air toxics trends stations and other air toxics monitoring?
2. What are the most important needs for monitoring air pollution in communities near the fenceline?
3. How can data systems be improved to help support the management of the additional monitoring data?
4. How should EPA determine which communities or locations should receive priority for new monitoring?

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[3] Jul 13, 2022. Duckworth Introduces Bill To Strengthen Nationwide Air Monitoring And Protect Public Health

The needs for additional air toxics monitoring and trends stations should be informed by comprehensive data gathered from the location of toxic emission sources, public health of communities living near them, and resources available to such communities to improve their local air quality. We suggest combining local Toxics Release Inventory (TRI)[4] data, local healthcare data (from hospitals, medical centers, self-reporting, etc.) of fenceline communities (that might show health hotspots relative to the population at large), data gathered from EPA's EJ SCREEN and HHS's Environmental Justice Index mapping tools that help identify overburdened populations, community surveys, etc. as the first step. These data would inform the need to install additional monitors, and also in the review of existing control methods and requirement of any additional emissions controls of local TRI sources.

If health hotspots exist in a community without a major TRI-reporting emission source, then we suggest that grants be made available to:
- acquire emissions data from local small (minor/area) sources, from governmental, industrial, commercial, and residential facilities, that are not among sectors covered by, or emit at lower levels than the reporting requirements of, the TRI. We recommend funding local air agencies to develop, curate, QA/QC, & maintain such local inventories in a transparent process and make the data publicly available.
- acquire healthcare data from local hospitals, medical centers, etc.
- use the above data to develop and implement, with input from and in consultation with the community, programs to continually monitor & reduce local emissions, and to mitigate community health impacts.

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[4] Toxics Release Inventory (TRI) Program: https://www.epa.gov/toxics-release-inventory-tri-program/reporting-tri-facilities#q1

**Funding to Address Air Pollution – Multipollutant Monitoring [60105(b)]**
Funds ($50 million) can be used to expand the national ambient air quality monitoring network with new multipollutant monitoring stations, and to replace, repair, operate, and maintain existing monitoring stations.

**QUESTIONS:**
1. What are the most important considerations and needs for expanding the national ambient air quality network with new multipollutant monitoring stations?
2. What should EPA consider when thinking about the existing and future needs for replacing, repairing, operating, and maintaining the national air quality monitoring network through September 30, 2031?
3. How should EPA use these funds to support national multipollutant air quality monitoring networks (e.g. the Clean Air Status and Trends Network (CASTNET)) in underserved rural communities where gaps in air monitoring data frequently exist?
4. How can ambient monitoring enhancements in disadvantaged communities be best used to prioritize and accelerate improvements in air quality?
5. What training and technical assistance would best help communities engage in multi-pollutant air quality planning processes to achieve community benefits of multi-pollutant emission reductions?
6. To what extent has your organization/community integrated a multi-pollutant reduction approach into your air quality planning process or conversations with local stakeholders? Should EPA conduct additional analysis to help refine current plans, or should EPA first provide foundational information on how to approach this topic in your area?

For some of the above questions, we suggest reviewing the text of [S. 4510 - Public Health Air Quality Act of 2022](#)[5] section 5(a) of which describes the Deployment of NCORE Multipollutant Monitoring Stations within the NAAQS Monitoring Network requiring EPA to:

- "Ensure a rapid expansion of the NAAQS or national ambient air monitoring network through the addition of at least 80 new NCore multipollutant monitoring stations in communities where this is most needed to protect people with asthma and other health conditions. It also ensures an additional 100 pollutant-specific monitors to be deployed in unmonitored or under-monitored areas. EPA must also assess and report on the status of the entire network and a plan to address all failing monitors and must perform repair and maintenance at broken or failing monitors where this is most needed."[6]

The Bill also:

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[5] Sen. Tammy Duckworth (IL) *et al*. sponsors. (07/12/2022). [S. 4510 - Public Health Air Quality Act of 2022](#); SEC. 6. SENSOR MONITORING, (A) DEPLOYMENT OF AIR QUALITY SENSORS; https://www.congress.gov/117/bills/s2476/BILLS-117s2476is.pdf

[6] Jul 13, 2022. [Duckworth Introduces Bill To Strengthen Nationwide Air Monitoring And Protect Public Health](#)

- "Directs EPA to integrate data collected through these programs into EJSCREEN, the agency's publicly available environmental justice screening and mapping tool."[7]

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**Funding to Address Air Pollution – Air Quality Sensors [60105(c)]**
Funds ($3 million) can be used for the deployment, integration, and operation of air quality sensors in low-income and disadvantaged communities.

**QUESTIONS:**
1. What are the existing and future needs for air quality sensors in low-income and disadvantaged communities?
2. How can EPA best support the deployment, integration, and operation of air quality sensors?

For some of the above questions, we suggest reviewing the text of S. 4510 - Public Health Air Quality Act of 2022[8] section 6 on Air Quality Sensor Monitoring which requires EPA to:

- **"Deploy at least 1,000 new air quality sensors** in communities affected by air pollution and complement the NAAQS monitoring network and increase communities' access to information about air quality."[9]

We also suggest reviewing "Section 8. Emerging Methods For Observational Studies Contributing To Causal Determinations" of the National Academy of Sciences report on causality determination in NAAQS reviews.[10]  In the "The Advances in Methods for Exposure Assessment," the report discusses the use of low-cost sensor technologies to fill in (regulatory monitor) data gaps.

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**Funding to Address Air Pollution – Emissions from Wood Heaters [60105(d)]**
Funds ($15 million) can be used for testing and other agency activities to address emissions from wood heaters, EPA research, development, etc., and contracts with outside organizations.

**QUESTIONS:**
1. Beyond measuring for particle emissions from these appliances, what other air pollutants are essential to measure from residential wood heating appliances?
2. What benefits to public health and air quality management are gained by improving the testing methods EPA uses to address emissions from wood heaters?

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[7] *Ibid* 5

[8] Sen. Tammy Duckworth (IL) *et al*. sponsors. (07/12/2022). S. 4510 - Public Health Air Quality Act of 2022; SEC. 5. NAAQS MONITORING NETWORK, (a) DEPLOYMENT OF NCORE MULTIPOLLUTANT MONITORING STATIONS; https://www.congress.gov/117/bills/s2476/BILLS-117s2476is.pdf

[9] *Ibid* 5

[10] National Academy of Sciences. (2022). Advancing the Framework for Assessing Causality of Health and Welfare Effects to Inform National Ambient Air Quality Standard Reviews. Sponsored by EPA

3. What value do you place on data and emissions information related to cord wood fuel species burned in your area(s)?
4. Do you feel that it is important for EPA to research the impact of flue draft on particulate matter emissions in relation to residential wood heating?
5. Are there other technological advances that EPA should be considering to address air emissions from wood heaters?

We note that wood heaters create significant health harms in local communities. Not only is it important that EPA improve test methods to reflect real-world use, but EPA must also take steps to address gaps in the current process used to certify wood heaters. In 2021, Northeast States for Coordinated Air Use Management released an assessment of EPA's certification program for residential wood heaters and found "a systemic failure of the entire certification process, including EPA's oversight and enforcement of its requirements." At every stage of the certification process, data gaps existed that we are concerned could ultimately be leading to stoves being certified and sold that do not meet the current requirements, with real-world air and health harms.[11]

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**Funding to Address Air Pollution – Clean Air Act Grants [60105(f)]**
General funding ($25 million) for Clean Air Act's research, development, and grants program.

**QUESTIONS:**
1. How could EPA funding best support multi-pollutant air quality planning and analysis for municipalities, States, regional planning organizations, and Tribal governments, particularly toward targeting/prioritizing action in overburdened communities?

The first step in air quality improvement in overburdened communities is to identify such communities, with tools such as EJ SCREEN and HHS' new Environmental Justice Index. We note that these areas which tend to mostly urban and inner city may not necessarily be in nonattainment areas for criteria air pollutants (CAPs). Additional resources include maps of major stationary sources and mobile sources (traffic from highways, trains, marine ports, airports) of CAPs, maps of TRI sources, current census data (to account for newly forming/expanding metropolitan areas – movement due to Covid etc.) and qualitative reports from residents.

The second step is to review current ground monitors for the various pollutants – their number, siting, and kind (regulatory or non-regulatory) in the areas identified in step 1.

The third step is to seek the advice of the CASAC on what questions need to be answered given the data in steps 1 & 2, how to formulate these research questions.

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[11] Northeast States for Coordinated Air Use Management (2021). "Assessment of EPA's Residential Wood Heater Certification Program." Available at https://www.nescaum.org/documents/nescaum-review-of-epa-rwh-nsps-certification-program-rev-3-30-21.pdf

Together with CASAC advice and input from local air quality planners, and community leaders, develop a program and integrate it with existing programs, to reduce air pollution burden on community health.