**Sample ESSER Funds Grant Application**

Description: Airflow and ventilation are an important part of keeping students healthy and safe this year. The Department of Education and the Centers for Disease Control have both identified carbon dioxide monitoring as a way in which to measure the airflow within indoor spaces. According to the Centers for Disease Control, CO_2 levels can be used as a proxyto measure how clean indoor air is. Every time someone exhales, speaks, singsetc., CO_2 is released into the air. As CO_2 levels rise in closed spaces with poor ventilation, so does the air exhaled by someone else in the room (aka "shared air"). Research has shown that as the levels of CO_2 rise, there are greater levelsof "shared air" and increased risks of transmission of airborne viruses (e.g. COVID-19, influenza, whooping cough). Measuring CO_2 levels allows school administrators and staff to get an objective, data-based measure of indoor airflow in classrooms or other shared spaces. Keep school staff and students safe by monitoring indoor air and acting quickly to improve air quality.

Proposed Solution: Carbon Dioxide monitoring can provide real-time information about the levels of carbon dioxide in rooms. We are asking for XXX CO_2 Check monitors, as well as XXX network plug and go solutions, so that we can start to immediately monitor our indoor spaces (Figure 1). The plug and go solutions are completely external to the school's network, with their own wi-fi hot spot, cellular service, and devices which are connected via wi-fi. There is a central remote trend monitoring dashboard on a mobile phone app, as well as a desktop mobile-ready version which can be displayed online, through a monitor, and/or accessed via QR code and made accessible to anyone who would like to follow real-time CO_2 level trend tracking.

Why CO_2 Check: CO_2 Check provides low-cost monitors with real-time visual display of CO_2 levels. It also has the ability to connect to a completely separate network solution that operates externally from the school's wi-fi network. Supported by a mobile hotspot with cellular service and wi-fi capabilities, the network is extended using a series of mesh nodes that allows for complete coverage of the school. No other monitor currently allows for visual display, portable CO_2 devices, as well as the ability to plug and go immediately so that these networks can be shifted from school to school with ease. Very little additional programming will be needed, and schools/parents/facilities' managers, and/or superintendents can watch these levels in real-time. Other devices have some of these capabilities, but not all, which is why we are requesting these monitors and networks specifically.

ESSER Fund eligibility: Per the [Department of Education Section of the American Rescue Plan](#), CO_2 monitoring devices "are eligible for funds to improve indoor air quality for in-person learning."

Figure 1: Sample Mesh Network Configuration to Cover Whole School
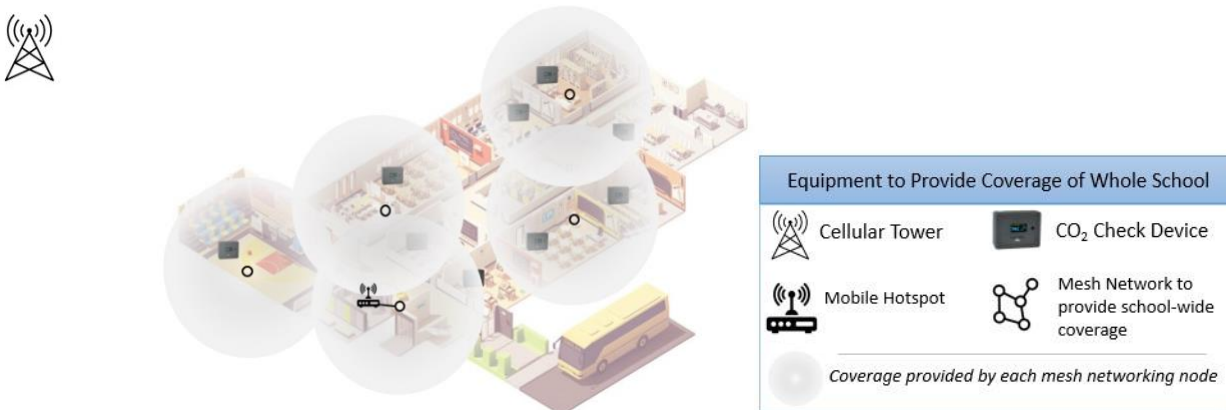
Purchasing Details: All devices and networks can be obligated by the deadline of September 30th, 2022, and a purchase order can be issued immediately. Please support our woman-owned, minority business that is registered in the SAM.gov site. Do not let your ESSER funds go unused!