

Clean Air Excellence Awards – 7/2/2024

Since 2004, the local Asheville-Buncombe Air Quality Agency recognizes local businesses and organizations that surpass air quality rules and regulations to adopt voluntary, innovative programs that include emissions reductions that lead to improved air quality and regional visibility in our area. This year, the Asheville-Buncombe Air Quality Agency presents the Clean Air Excellence Award to Green Built Alliance for their Appalachian Offsets Program.

Over the last few years, the Appalachian Offsets program of Green Built Alliance has been reducing local emissions and improving air quality by leading efforts to install solar technology at deserving not for profit organizations in Buncombe County. Appalachian Offsets raises funds from their donors and promotes collaboration in the community to make these projects happen. In a sense, Appalachian Offsets provides the seed ideas and money so that residents that want to invest in their community can do so while also investing in improving the environment. The most recent projects include a 300 KW solar array at Isaac Dickson School in 2021, an 8.6 KW array at St. Paul Missionary Church in the Burton Street area of West Asheville in 2022, and a 30 KW array at the United Way building in downtown Asheville in 2023.

Assuming a 23% capacity factor for these facilities results in 682 megawatt hours (MWH) of electricity not needed to be produced at the Duke Energy Progress Asheville steam plant, the emissions reductions associated with this project are estimated at 365 tons of carbon dioxide, 0.11 tons of sulfur dioxide, and 0.17 tons of nitrogen oxides per year. Over the approximate 25 years of panel life, the emissions reductions would be approximately 9,122 tons of carbon dioxide, 2.63 tons of sulfur dioxide, and 4.12 tons of nitrogen oxides. The annual energy production is enough to power 56 homes for an entire year.² In addition to the climate change benefits associated with greenhouse gas emissions reductions, the reductions of nitrogen oxides, sulfur dioxide and particulate matter reduce ground level ozone and acid deposition, benefiting public health.

In addition to the reductions in emissions, these projects reduce the electricity bills for each of these community non-profits, and thus allow these non-profits to devote additional funds to the valuable community services they provide.

The awards will be presented at the beginning of the AB Air Quality Board Meeting on July 11, 2024 at 4:30 pm at 30 Valley Street in Asheville. For additional information, please contact the Agency at 828-250-6777, airquality@buncombecounty.org, or visit the website at www.abairquality.org.

1. EPA [AVERT](#), U.S. national weighted average CO₂ marginal emission rate, year 2022 data. U.S. Environmental Protection Agency, Washington, DC.
2. EPA Greenhouse gas equivalencies calculator. Updated January 2024. On average, each home consumes 12,154 kWh of delivered electricity (EIA 2022a). <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>