

Clean Air Excellence Awards

Year	Recipient	Project Description
2012	Bill Eaker of Land-of-Sky Regional Council	<p>Bill Eaker of Land-of-Sky Regional Council has over 30 years of experience in environmental, land use, and growth management planning at the local, regional, and state levels. He has worked at Land-of-Sky Regional Council since 1981 and provides technical assistance to local governments on environmental issues in the areas of air quality planning, clean vehicle technologies, and water resources management. Bill currently serves as the Coordinator of the Regional Clean Air Campaign, which he worked to establish in 1998, and the Land-of-Sky Clean Vehicles Coalition, which he established in 2004. Under Bill's leadership, the Coalition has assisted numerous public and private sector stakeholders in developing and securing grant funding for alternative fuel vehicle and infrastructure projects. These successful projects have resulted in an annual reduction of 319,737 gasoline gallon equivalents and 2,364 tons of greenhouse gas emissions. The Coalition's stakeholder fleet includes 1,373 alternative fuel vehicles utilizing biodiesel, E85, CNG, LPG, as well as all-electric and hybrid-electric vehicles. Bill has managed over 50 environmental improvement projects over his career at Land-of-Sky and assisted entities in applying for grant funds totaling \$9.8 million in awards since 2002. He has demonstrated outstanding leadership and dedication to preserving and protecting the air quality and natural resources of Buncombe County and the surrounding region.</p>
2012	Mountain Mobility	<p>Mountain Mobility, Buncombe County's Community Transportation System, has taken proactive measures to effectively reduce the system's vehicle emissions by becoming the first community transportation system in the state of North Carolina to use alternative fuel vehicles in a paratransit fleet. A recent project funded by (ARRA) stimulus grant monies involved the conversion of 10 fleet vehicles to a dual fuel system using the PRINS Alternative Fuel System, allowing them to operate on autogas (liquid propane) in addition to gasoline. An onsite LP fueling tank was installed at the Mountain Mobility facility as a part of the project. In addition, 12 new Goshen Coach buses with dual compressed natural gas (CNG)/gasoline fuel systems were purchased to replace 11 paratransit gasoline-powered vans and one diesel-powered light transit vehicle. As a result of the project, 51% of Mountain Mobility's fleet now use alternative fuels, which has reduced air pollution emissions, including 91.6 tons per year of greenhouse gases. In addition to improving air quality, this project has increased the availability of propane fueling infrastructure, raised awareness about alternative fuels in the community, reduced gasoline consumption, and decreased the fuel and maintenance costs of the Mountain Mobility fleet. Project partners and supporters included Land-of-Sky's Clean Vehicles Coalition, the Regional Clean Air Campaign, Blossman Gas, German MotorWerks, Alliance AutoGas, NC DOT-Public Transportation Division, and Buncombe County's Community Transportation Advisory Board. The work of these organizations and businesses has advanced the use of alternative fuel technologies and practices in Buncombe County and in the public transportation industry in North Carolina. After seeing Buncombe County's alternative fuel success story, five other transportation systems have initiated similar clean fuel conversion projects. The cooperative efforts of these organizations recently led to the Buncombe County Sheriff's Department obtaining a grant to convert 10 fleet vehicles to autogas, and an additional fueling site was added at the County Garage.</p>
2013	Blue Ridge Biofuels, LLC	<p>Blue Ridge Biofuels, LLC is a worker-owned biodiesel company committed to making fuel from local resources and strengthening the community through local sustainability initiatives. Since opening in 2005, they have sold over 1.3 million gallons of locally-produced biodiesel, which has kept over 11,000 tons of carbon dioxide out of our region's atmosphere. Initiatives include a cooking oil recycling program, the Field to Fryer to Fuel Tank (F3) project, energy partnerships with the North Carolina Biodiesel Association and Evolve Energy Partnership, education and outreach in the community, and green job training. Blue Ridge Biofuels is committed to benefitting the community with sustainable practices through the triple bottom line concept with a focus on improving the community, environment, and the economy.</p>

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2013	Buncombe County Sheriff's Office	<p>The Buncombe County Sheriff's Office has converted 10 Ford Crown Victorias in the fleet to run on clean propane autogas, with funding through the Southeast Propane Autogas Development Program. Operating fleet vehicles on autogas goes hand-in-hand with the sheriff office's mission to clean up the community and create a better environment for future generations of Buncombe County. Propane autogas-powered vehicles emit fewer harmful emissions than gasoline vehicles, including a 20 percent reduction in carbon monoxide, 40 percent less nitrogen oxides, and a 10 to 18 percent reduction in carbon dioxide. With 10 patrol cars running on autogas since February 2012, the sheriff's fleet is displacing about 20 tons of greenhouse gas emissions annually. When it came to choosing an alternative fuel to power their fleet, the sheriff's office considered the reduction in the overall carbon footprint for the county, in addition to fuel cost savings and vehicle performance. Propane autogas was the practical fuel choice because it supports all three of these goals. The patrol cars travel an average of almost 25,000 miles each year, so they're using about 17,000 gallons of propane autogas annually. The sheriff's fleet is also saving more than \$13,000 annually on fuel cost savings alone operating 10 autogas vehicles. Ninety-eight percent of the nation's autogas supply is domestically produced, so fleets running on autogas are helping to support U.S. energy security. Not only is propane autogas 20 percent cleaner than gasoline, U.S. fleets save more than \$1-per-gallon filling with autogas versus gasoline.</p>
2013	City of Asheville Water Resources Department	<p>The City of Asheville Water Resources Department was recognized for voluntarily opting in to the agency's permitting program and having a certified ISO 14001 Environmental Management System. City of Asheville Water Resources Department is committed to maintaining compliance with all applicable regulations, pollution prevention, and continuous improvement in product, systems, and processes to maximize customer satisfaction. They have demonstrated leadership in this area and meet the guidelines outlined in the Clean Air Excellence Awards.</p>
2013	U.S. Department of Veterans Affairs Medical Center	<p>The U.S. Department of Veterans Affairs Medical Center has made numerous energy efficiency upgrades and improvements in 2012 that have resulted in significant energy savings and air pollution emission reductions. These voluntary measures include replacing windows, a reflective roof, lighting upgrades to LED technology in the parking lot, upgrades to HVAC controls and the chiller system, the addition of vestibules, energy efficient kitchen equipment, and the use of power management settings on computers. The pollution prevented by these projects amount to approximately 600 tons of greenhouse gases, 1.9 tons of sulfur dioxide, and 0.74 tons of nitrogen oxides per year.</p>
2014	Alliance AutoGas (AAG)	<p>Alliance AutoGas (AAG), based in Swannanoa, is America's only complete program to transition fleets to clean burning propane autogas. The AAG program includes vehicle technology, EPA-certified conversions, refueling infrastructure, data integration, fuel supply, and all of the training required to keep fleets up and running on autogas. The new AAG Autogas Research and Technology Center, located on Sweeten Creek Road in Asheville, will focus on testing and development of propane autogas systems and also provide vehicle technician training. The Autogas Research and Technology Center is expected to open in the fall of 2014. Originally founded by Blossman Gas, the nation's largest independent propane company, AAG is comprised of more than 90 companies nationwide, with the hub of the company being in Western North Carolina. Autogas produces significantly fewer pollutants than gasoline, including 25 percent less carbon monoxide, 40 percent less nitrogen oxide and 12 percent less carbon dioxide. The 105 octane rating of autogas means vehicles produce equivalent performance and maintenance is also improved as fewer oil changes are required.</p> <p>In 2013, 116,208 gallons of gasoline was displaced in Buncombe County in AAG vehicles, reducing harmful emissions by 30% from each of these vehicles and saving the participating organizations and businesses tens of thousands of dollars over a period of years in fuel costs. Partners in Buncombe County include Buncombe County Sheriff's Department, Biltmore Estate, Mountain Mobility, and Blossman Gas.</p>

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2015	Biltmore	<p>Biltmore is a family owned estate and popular tourism destination with a history of environmental stewardship. Biltmore’s Sustainability Plan focuses on reducing energy use in order to minimize impact on the environment. Priorities include increasing energy efficiency and using clean, renewable energy. Energy efficiency improvements include retrofitting appliances and utilizing energy efficient technology. The ongoing project of retrofitting older buildings on the estate resulted in a decrease in energy consumption of 11% between 2011 and 2012. Newer buildings, including those within Antler Hill Village and the Inn on Biltmore Estate, were built with efficient HVAC systems, natural lighting, erosion control, and water conservation features. Occupancy sensors with energy efficient light bulbs in break rooms have provided a 15-25% energy savings. In addition, a 1.7-megawatt solar system was installed on nine acres of former pastureland. Biltmore continues to utilize this land for agriculture operations by allowing sheep to graze inside the solar fields. This installation has offset approximately 20% of total energy used on the Estate.</p> <p>Sustainability efforts that have reduced emissions from vehicles include biofuel production and the use of biodiesel in on road and off road vehicles, converting shuttle buses and police vehicles to run on clean burning propane autogas, and reducing vehicle miles traveled by guests through the select use of shuttle buses on the estate. From 2013 to 2014 when these projects were implemented, over 36,000 gallons of petroleum fuels have been offset and greenhouse gas emissions reductions total over 227 tons.</p> <p>Biltmore is also growing canola on 50 acres and manufacturing biofuel from the oil contained in the seed. They recycle all waste vegetable oil produced from restaurants on the estate, which is also used to make biofuel. Biltmore continues to explore additional options for canola including a closed loop system where the canola crop they grow and harvest is used to produce canola oil for the restaurants and then used to produce biofuel.</p>
2015	Eaton Corporation	<p>Eaton Corporation’s Arden Plant is a manufacturer of power management products such as Low Voltage Switchgear, Medium Voltage Drives, Automatic Transfer Switches, and Power Factor Correctors. In an effort to reduce both air pollutants and carbon footprint, a LED lighting project throughout the manufacturing area was implemented. All fluorescent light fixtures were replaced with LED fixtures. The new programmable lighting system has settings for off-shift times and area sensors with automatic dimming capability. Projected decreases with the new LED system are:</p> <ul style="list-style-type: none"> • 2,580,293 pounds of Carbon Dioxide • 9,481 pounds of Sulfur Dioxide • 21,996 pounds of Nitrogen Oxides • Baseline annual kWh usage at 2,300,052; projected reduction to 761,283 <p>The facilities projected annual kWh savings is 1,538,769 for a 66.9% reduction in total manufacturing area lighting cost.</p>

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2016	Asheville Housing Authority	<p>The Asheville Housing Authority was certified for accreditation by the Sustainable Performance Institute (www.sustainable-performance.org) as a sustainable affordable housing provider in 2013. The Institute partnered with the U.S. Department of Housing and Urban Development (HUD) to create a customized accreditation program for public housing authorities and other grantees. Asheville Housing Authority was one of 40 agencies and companies from around the United States that went through the voluntary process of achieving this unique recognition, which provided support to internalize best practices and then validated that the applicant has institutionalized the systems, processes and program management to deliver best practices in green building, and realize portfolio-wide improvements over time.</p> <p>The Asheville Housing Authority was accredited in part based on the significant commitment it has made over the last several years to energy efficiency. The implementation of an energy performance contract with Siemens has reduced baseline energy and water consumption significantly, with electricity down 16%, natural gas down 24%, and water consumption down 50%. Specific Examples related to the contract include:</p> <ul style="list-style-type: none"> • Installation of electronic ballasts and T8 lamps in all fluorescent fixtures in hallways, stairwells, common areas and other appropriate locations. • Replacement of more than 13,000 incandescent light bulbs with compact fluorescents. • Replacement of more than 7,000 windows with low-E, high efficiency windows. • Replacement of older heating units with new energy efficient natural gas heating equipment, duct sealing and insulation, and new thermostats. • Replacement of older refrigerators with new energy efficient refrigerators. • Installation of a solar thermal hot water heating system for 114 affordable units at Bartlett Arms. • Major energy efficiency renovations of Aston Park Tower and the W.C. Reid Center, now called Arthur R. Edington Education and Career Center. At Aston Park Tower, renovations included removal of the exterior building envelope down to the structural concrete and metal studs, new energy efficient windows, exterior doors, insulation, vapor barrier and exterior sheathing, and the installation of high efficiency laundry equipment in the three laundry rooms. At the Edington Center, renovations included replacement of the old gas boiler with a geothermal water-based heat pump system that provides cooling as well as heat and includes 35 geothermal wells in the parking lot behind the Center. Energy efficient lighting was installed throughout the building with motion sensor controls and the bathrooms fixtures were upgraded with Water Sense or better fixtures and equipment. A new reflective membrane roof and insulation meeting current code standards over the gym and auditorium (which had old black tar paper roofing) has been installed.
2016	Asheville Housing Authority (Continued)	<ul style="list-style-type: none"> • Other recent and ongoing projects include replacement of the antiquated boiler at Altamont Apartments with a new high efficiency boiler and thermostatic control system; upgrading all laundry rooms with high efficiency equipment, and replacement of the water delivery system at Livingston Heights to reduce leaks. <p style="text-align: center;">Annual emissions reductions with the energy efficiency upgrades are estimated by Siemens to be:</p> <ul style="list-style-type: none"> • 3,865,287 pounds of Carbon Dioxide • 4,711 pounds of Sulfur Dioxide • 4,156 pounds of Nitrogen Oxides <ul style="list-style-type: none"> • Emissions reductions are equivalent to removing 321 cars from the road each year.