



Clean Air Excellence Awards - 7/6/2015

Since 2004, the Western North Carolina Regional Air Quality Agency (WNCRAQA) has been giving special recognition to local businesses and other organizations that have gone above and beyond air quality rules and regulations to implement voluntary, innovative programs that reduce air pollution in our region. In 2012, with the assistance of the Agency's Advisory Committee, the awards program was updated and expanded to include more detailed guidelines and generate more interest from the local community. This year, WNCRAQA is presenting a Clean Air Excellence Award to Biltmore and Eaton Corporation.

Biltmore

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.

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.

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.

Eaton Corporation

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:

- 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

The facilities projected annual kWh savings is 1,538,769 for a 66.9% reduction in total manufacturing area lighting cost.

The awards will be presented at the beginning of the WNCRAQA Board Meeting on July 13th at 4:00 pm at the Agency's office on Mount Carmel Road. For additional information, please contact the Agency at 828-250-6777, wncair@buncombecounty.org, or visit the website at www.wncairquality.org.