

LaRC wins the 2013 Governor's Environmental Excellence Award

Governor Bob McDonnell announced the winners of the 2013 Governor's Environmental Excellence Awards, which were presented at the Environment Virginia Symposium in Lexington on April 10th. NASA LaRC was recognized as a Bronze winner for our Biomass Steam Optimization Program.

The awards recognize the significant contributions of environmental and conservation leaders in two categories: sustainability and land conservation. They are given to businesses and industrial facilities, not-for-profit organizations, and government agencies.

Speaking about the awards, Governor McDonnell commented, "Last year I hosted a Corporate Sustainability Roundtable as part of Earth Week. At that time I announced that this year's awards would focus on these principles. These award winners provide excellent examples of environmental protection efforts that benefit all Virginians. They demonstrate the spirit of environmental innovation and leadership of companies and organizations all across the Commonwealth."



Recipients pictured above left - right: Wes Wigginton (Facility Systems Engineer, COD), Steve Bollman (Plant and Facility Operations Manager, Jacobs Technology, Inc.), John MacDonald (Plant Manager, City of Hampton), and Mike Croft (Utilities Supervisor, Jacobs Technology, Inc.)

Summary of the Project

Trash-Powered Research: Optimizing Biomass Energy

Since 1917, Langley Research Center (LaRC) has been vital to NASA's innovative role in aerospace technology, space exploration, and the understanding of the Earth's changing climate. LaRC is dedicated to accomplishing its mission in a sustainable manner, with innovative and effective environmental stewardship as one of its primary guiding principles. The Center has an extensive steam infrastructure that has been used for over 60 years. Steam is used not only for heating and cooling purposes, but also for research

operations in seven wind tunnels on the Center. Standard practice at LaRC had been to operate the wind tunnels using steam from the Center's onsite Steam Plant's dual-fuel boilers, which use natural gas, in addition to using steam from a waste-to-energy (WTE) biomass (municipal solid waste) plant on NASA-owned land adjacent to the Center operated by the City of Hampton. In 2011, LaRC implemented a focused initiative to increase use of steam from the WTE plant, thereby reducing the use of steam from the Center's fossil fuel-powered plant. The project focused on operational and cultural initiatives to overcome communication gaps and change long-standing practices and biases. As a result of the effort, LaRC realized a 47% reduction in natural gas and 2 million gallons of water.