

Authorization of New Capital Improvements Project – North Carolina State University

North Carolina State University's campus culture is one of actively engaging students as well as faculty and staff in investigating and implementing energy savings opportunities. The campus is guided by a Strategic Energy and Water Plan, a tactical program of addressing inefficiencies and meeting the environmental stewardship required by both UNC Tomorrow and the Board of Governor's Sustainability Policy and statutory (G.S. 143-64.12) energy reduction goals of 20% by 2010 and 30% by 2015.

The Board of Trustees of North Carolina State University requests authority to establish an energy-related capital improvements project financed through a guaranteed energy savings contract. The project scope will implement "energy conservation measures" or ECM's at two steam & chilled water central distribution facilities on North and Central Campus to improve energy efficiency and reliability. The savings achieved will be sufficient to cover all project costs, including annual maintenance and monitoring fees for the duration of the contract term. ECM's at the two utility plants will result in net annual savings in electric, water, sewer and treatment. The contract includes the installation of cogeneration (also known as combined heat and power, CHP, one of the listed approved ECM's under G.S.143-64.17) at Cates Utility Plant and replacement/rehabilitation of boilers at the Yarbrough Utility Plant. Energy cost savings will occur at the Cates Utility Plant by the use of a heat engine or a power station to simultaneously generate both electricity and useful heat, increasing power plant energy efficiency by 40%. Energy cost savings will occur at the Yarbrough Plant by increasing boiler plant efficiency by 15%. Along with increased reliability and efficiency, this project will meet projected steam demand growth through the year 2029 and will reduce green house gas emissions by 25,000 tons per year. G.S. 143-64.17B and 143-64.17F authorize state agencies to utilize guaranteed energy

savings contracts to reduce the State's increasing utility costs, improve efficiencies of operations, and reduce environmental impacts.

Working with the State Energy Office, NCSU selected Ameresco, Inc. as the company to execute the performance contract. NCSU entered into an agreement with Ameresco in March, 2010 to perform a thorough Investment Grade Energy Audit (IGEA) of the proposed energy conservation measures.

Ameresco, Inc. has validated the estimated project costs and utility savings and is willing to enter into a contract to guarantee that 100% of the projected savings will be achieved, and if not, will be liable for any shortfall. The first year guaranteed savings is \$3.9 million, with a guaranteed savings at the end of the project of \$10 million per year. These savings will continue to accrue, benefiting both the University and State Of North Carolina after the term of the contract.

NCSU and Ameresco will solicit competitive proposals from qualified lenders to finance this project with a tax-exempt, or taxable Build America Bond loan in an amount not to exceed \$61 million with a rate not to exceed 4.875% to be repaid from utility savings within 18 years. Construction is anticipated to commence in January 2011.

The project, the guaranteed energy savings contract, and the method of financing will be accomplished within the guidelines, procedures, and policies of the Department of Administration, Office of State Budget and Management, and Department of State Treasurer, and will be subject to the approval of the Council of State. It is recommended that the request of the Board of Trustees of NCSU be approved.

RESOLUTION OF THE BOARD OF GOVERNORS OF THE
UNIVERSITY OF NORTH CAROLINA THE EXECUTION AND
DELIVERY BY NORTH CAROLINA STATE UNIVERSITY OF AN
ENERGY SAVINGS FINANCING AGREEMENT TO FINANCE
ENERGY CONSERVATION MEASURES.