ECM Projects by County and city

NOV-30-

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Evaluation Status is Eligible

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
Multi-County Projects							**8 ECM**
	GBI Regional Labs	Controls/Building Automation	80	GBI Controls Upgrade	Add Building Automation System connectivity for 3 labs to allow control and network access from the central server at GBI HQ which controls the HQ and 4 labs at this time. Install Variable Frequency Drive's to control fan speeds on AHU's that do not have them. Provide programming for the controls systems so that schedules and strategies are in place and maintained to reduce chiller, boiler, and fan power during unoccupied hours. Considering that the HVAC systems only need to operate in the occupied mode a third of the time, 60 hours per week, tremendous amounts of electricity and natural gas can be saved over the course of a year. AHU's serving office areas can be turned off at night and only allowed to run when temperatures exceed the night high and low limits. Closing outside air dampers during unoccupied modes and reducing air flow during unoccupied hours will also reduce energy consumption. AHU's serving the labs need to run continuosly, but strategies to minimize both exhaust and supply air and raise and lower temperature setpoints during unoccupied hours can significantly reduce HVAC energy costs.	Bureau of Investigation, Georgia	$142,800
	Various Farmers' Markets	Lighting/Other,This ECM will replace bulbs and ballasts, and install motion sensor devices.	137	"Growing Green in Georgia" - Georgia Farmers' Market Energy Improvement Project	The Department of Agriculture with the help of Georgia Power has conducted an investigation of the lighting systems at six State Farmers' Markets and determined there are significant opportunities for lighting retrofits. The department will use the required stimulus funds for replacing and installing new energy efficient lighting fixtures as well as lighting controls linked to motion sensors to conserve power. The Department hope to replace and upgrade roughly 10,300 lamps and motion sensors in 40 buildings. The retrofits will benefit the Department of Agriculture and our market tenants by reducing energy bills. Currently, energy bills are one of the major operating costs at State Farmers' Markets, which is significant because the markets generated more than $7.2	Agriculture, Georgia Department of	$1,200,000

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					million in revenue for the state treasury in FY 2008. In addition, the targeted markets are home to more than 140 small businesses that employ roughly 3400 employees. In 2009, these markets facilitated sales of over $1 Billion in agricultural products. Therefore, the substantial reduction in the electricity bills of our market tenants would boost business and job growth. The Department of Agriculture will perform a more precise audit showing the exact lamps and motion sensor locations if the Department is awarded the stimulus funds. We believe our current estimates of project costs and savings to be very conservative.		
	Various Cabins and Residences	Building Envelope/Other,Weatherization - windows, doors, roof, insulation	147	Energy Efficiency Projects in Cabins and Residences	This project would seek to weatherize the Department's 375 cabins and 205 residences. This will consist of upgrading to more efficient windows, improving insulation, and tightening the building envelope. The cabins and residences constitute 682,500 square feet, or approximately 50% of the Department's conditioned space. Using Energy Information Administration estimates of residential energy use per square foot, the cabins and residences consume 13% (8,498,025 kWh) of the Department's total energy purchased every year. (The energy-use intensity used to estimate energy use in the cabins was reduced significantly from EIA's residential estimate to account for the cabins' lower process loads) A meta-analysis compiled by the Oak Ridge National Laboratory (ORNL) estimates that weatherization has been found to reduce household energy consumption by approximately 23%. Thus, this weatherization project could save almost 2 million kWh annually, reducing the Department's total energy consumption by 3%. This project would represent significant step in meeting the Department's 15% reduction laid out in the Governor's Energy Challenge. Costs for this project were generated with the help of the above-mentioned ORNL study. That study estimates weatherization construction costs to be approximately $2,500 per unit. This number was reduced to $2,000 for this project to account for the relative	Natural Resources, Department of	$1,334,000

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					simplicity of the units being weatherized.		
	Various YDCs	Lighting/Sensors	220	DJJ Lighting Controls Project	The Department of Juvenile Justice has identified five buildings that would benefit from improved lighting control by utilizing occupancy sensors. This includes: Augusta (built 1950, 275,786 sq ft); Bill Ireland (1944, 415,823 sq ft); Eastman (1995, 155,666 sq ft); Macon (1968, 128,134); and Metro (1950, 111,356 sq ft). An energy audit revealed that occupancy sensors can reduce energy costs and improve efficiency for 4,705 existing fixtures. DJJ seeks to implement an occupancy sensor that utilizes motion and inferred sensing coupled with lighting timer switches. This would minimize the amount of energy used in the buildings at off- peak hours or when occupants leave a room for a prolonged period of time.	Juvenile Justice, Department of	$361,019
	Various Locations	Commissioning/Recommissioning/	291	Building Commissioning/Retro-Commissioning	Commissioning/Retro-Commissioning: In order to measure and verify the success of implemented programs and target future energy efficiency projects, the Georgia Department of Corrections has identified all buildings over 25,000 sq. ft. as eligible to participate in this program. The GDC has a total of 170 buildings meeting this criterion in its portfolio, totaling 6,995,377 gross square feet. This process creates an inventory and analysis of existing buildings and commissioning services include: • monitoring the function of existing equipment • functional performance testing for new equipment • identify systems operation and integration issues • witnessing of various testing procedures and factory start-ups for new equipment • maintenance and owner training • Creation and review of a systems manual. The commissioning/retro-commissioning plan will ensure the effectiveness of other proposed energy efficiency projects and programs identified for the purposes of this grant and will lay the basis for a comprehensive building commissioning program.	Corrections, Department of	$5,785,268
	Various Locations	Controls/Metering	319	Building Utility Sub-metering	The Georgia Department of Corrections has identified all buildings over 5,000 sq ft as eligible for the utility sub-metering program. This includes 544 buildings for a total of 12,367,183 gross sq. ft. The GDC plans to apply sub-metering technology to	Corrections, Department of	$8,160,000

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					3 major utilities per building to monitor consumption and analyze variances and fluctuations. Upon determining the differences between energy efficient operation and inefficient operation of buildings the GDC will prioritize energy improvement programs where they will achieve the greatest effect. Additionally, this comparison will initiate investigations to determine if a behavioral change or equipment malady has contributed to changes in consumption and result in immediate corrective measures. Sub-metering also provides an effect method to provide measurement and verification of performance of energy conservation measures. And sub-metering raises building occupant energy use awareness that has been shown to have a real effect on energy consuming behavior of building occupants.		
	Various YDCs	Controls/Metering	351	Building Utility Sub-metering	The Department of Juvenile Justice has identified 7 buildings to monitor and verify as a part of the utility control sub-metering project. This project includes: Augusta (built 1950, 275,786 sq ft); Bill Ireland (1944, 415,823 sq ft); Eastman (1995, 155,666 sq ft); Macon (1968, 128,134); and Metro (1950, 111,356 sq ft); Waycross (1967, 17,860 sq ft); Dalton (1973, 19,596 ft sq). For existing facilities that are already sub-metered to improve efficiencies, the previous year's energy performance serves as the baseline for evaluating potential upgrades. The DJJ plans to apply sub-metering technology to 3 utilities for buildings 5000 sq ft and above. The DJJ will prioritize energy improvement programs for the buildings based on their determined efficiencies. The savings that are generated after a retrofit can be a fraction of a facility's total energy use, and it can be difficult to estimate project savings from analysis of monthly utility bills alone. As such, indirect methods such as energy modeling and engineering calculations are often used to estimate savings. Readings prior to and after the retrofit can be used to establish both the energy use baseline and the energy savings if the end-uses of buildings are individually metered.	Juvenile Justice, Department of	$711,008
	Various YDCs	Commissioning/Recommissioning/	377	Building Commissioning/Retro-	In order to measure and verify the success of	Juvenile Justice,	$735,289

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				Commissioning	implemented programs, and target future energy efficiency projects, The Department of Juvenile Justice has identified 7 facilities as a pilot for energy efficient commissioning and retro-commissioning. This project includes: Augusta (built 1950, 275,786 sq ft); Bill Ireland (1944, 415,823 sq ft); Eastman (1995, 155,666 sq ft); Macon (1968, 128,134); and Metro (1950, 111,356 sq ft); Waycross (1967, 17,860 sq ft); and Dalton (1973, 19,596 ft sq). This process, which creates an inventory and analysis of existing buildings and commissioning services, includes: • Monitoring the function of existing equipment • Functional performance testing for new equipment • Witnessing of various testing procedures and factory start-ups for new equipment • Maintenance and owner training • Creation and review of a systems manual. The commissioning/retro-commissioning plan will ensure the effectiveness of other proposed energy efficiency projects and programs identified for the purposes of this grant and will lay the basis for a comprehensive building commissioning program. This project is specific to buildings within these facilities totaling 5,000 sq ft and above.	Department of	
TOT							$18,429,384
Augusta-Richmond County							**3 ECM**
Augusta	Augusta State University	Mechanical/Chillers	102	Upgrade HVAC to Meet Current Energy Codes, Galloway Hall	Augusta State University has researched the energy saving potential of replacing two 30 year old DX air conditioning systems by connecting the building to the central energy plant for the campus. The existing systems are tremendously inefficient and do not meet modern fresh air intake requirements or current energy codes. By converting this 16,271 sq/ft building to obtain heating and cooling from the central energy plant will take a very small amount of additional energy from the plant that is already conditioning approximately 600,000 sq/ft. This will reduce our overall energy consumption by a significant amount. The central energy plant is powered by a 2009 model variable speed chiller and two 2000 model single speed chillers, as well as modern efficient gas and electric boilers. This project will not only	Regents, Board of	$600,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					reduce our energy consumption, but it will reduce the price we pay for the electricity that we buy for the entire campus. The old DX systems in Galloway Hall are preventing the University from changing the base electrical rate across campus to the less expensive School Load Management (SLM) saving the University over $85,121 or 12% savings per year in unit cost alone, this figure is reflected below in the annual cost savings. Finally, the University will save more than $9,500/year in maintainance costs for parts and labor. The scope of work includes replacing all existing building chilled water fan coil units with new more efficient chilled water fan coil units. Replacement of both existing large DX single zone air handling systems with new variable speed chilled water air handling units and will add new pretreatment energy recovery unit for outside air. This new system will be environmentally friendly by eliminating ozone depleting CFC refrigerant that is in the existing system. The design for this project has already been funded and is in progress at this time. This project can be shovel ready and under construction by October of 2009.		
Augusta	Augusta State University	Lighting/Bulb Replacement	119	Upgrade incandescent lighting to LED, Christenberry Fieldhouse	Augusta State University has investigated the viability of upgrading the existing incandescent marquee sign at our athletic complex with modern LED technology. The project will involve removing the existing incandescent lighting grid containing 3,072 bulbs with an LED screen. The structure holding the grid will not be modified in any way, the money will only be spent on energy saving technology. This replacement will also save the University a great deal of money in annual maintenance. Each year we replace at least 1,536 light bulbs at a cost of $7,680 plus $1,500 for labor to install them. This will give us a savings of $9,180/year. The computed payback below does not reflect the true payback because it does not include the reduced maintenance cost stated above.	Regents, Board of	$89,500

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					The true payback would be 6.8 years. The added benefits of this project is the positive impact on the environment, by eliminating the impact of the light bulb manufacture and the packaging that winds up in the landfill.		
Augusta	Medical College of Georgia	Controls/HVAC contols	465	Optimize Chiller and Cooling Tower Performance - 2 Energy Plants	This ECM will optimize the operation of the chilled water systems in the Central and South Energy Plants. This will be done by installing site-specific software to operate the cooling towers and chillers at their overall highest efficiency point at a particular time subject to prevailing weather conditions. This software incorporates information specific to the actual chillers and cooling towers in operation and will automatically make system adjustments as needed.	Regents, Board of	$195,000
TOT							$884,500
Baldwin County							**5 ECM**
Milledgeville	Powell Building	Lighting/Sensors	98	Powell Exterior Energy Improvements	Lighting Controls Upgrades - DBHDD has concluded that significant opportunity exists for lighting control improvements. CSH proposes to install occupancy sensors in administrative areas of the Powell Building that will "cycle" lights when the areas are unoccupied. CSH proposes to retrofit approximately 425 fixtures.	Human Resources, Department of	$32,837
Milledgeville	Powell Building	Controls/HVAC contols	99	Powell Exterior Energy Improvements	HVAC Controls Upgrades - DBHDD has determined that opportunities exists to retrofit our energy management programs to control HVAC equipment in unoccuppied areas. CSH proposes to make programming upgrades, control module modifications/replacements, to approximately 15 air handlers in the administrative areas of the Powell Building.	Human Resources, Department of	$12,000
Milledgeville	Georgia College & State University	Controls/Metering	105	Campus Utility Metering	Currently all utilities on campus are metered/monitored through a master meter system approach. This existing metering system monitors electricity, natural gas and domestic water supply to more than one structure. This request will enable GCSU to accurately monitor the utility usage on 36 of our facilities located on or adjacent to the main campus square. Through the use of a Strategic Energy Plan for these selected facilities this project will allow monitoring of chilled water, hot water/steam, domestic	Regents, Board of	$783,675

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					water, landscape irrigation, electricity, fuel oil and natural gas. All of these utilities are currently delivered to the square at a single point and distributed through university infrastructure to each facility. Monitoring of these facilities individually and accurately is not possible under the current structure. This will also allow future identification through accurate measurement of additional energy saving projects. Through measuring energy and identifying peak periods for cost effective reductions, savings can be realized through M&O by the means of life cycle replacement costs thus reducing capital investment requirements. Metering costs and estimates were derived from the "DOE-FEMP Metering Best Practices Guide". We will be using a combination of Advanced Meters and Standard Meters in the installation. This request meets the Energy Policy Act of 2005 (EPAct 2005) which details the need to meter facilities to reduce their energy use and costs in a cost-effective manner. A conservative estimate of 8% overall utility savings compared to 2008 is based on table 8.1 Metering Savings Ranges (DOE 2006) in utilizing: 1. Installation of Meters "Hawthorne effect" 2. Improving occupant awareness 3. Identification of simple operations and maintenance improvements 4. Managing demand loads per electric rate schedules. We feel in the first year after installation the conservative estimate of 8% is sufficient.		
Milledgeville	Powell, Allen, Boone,Cook, and Central Kitchen	Other/	106	Electrical Metering Upgrades	DMHDD has determined that to monitor electrical usage by individual building location should result in a ten percent saving on power consumption. CSH proposes to install five metering devices on the secondary side of each tranformer to monitor electrical usage.	Human Resources, Department of	$32,231
Milledgeville	Georgia College & State University	Controls/HVAC contols	108	Building Automation and Pipeline Installation Program	Replace existing HVAC control system in Centennial Center, Herty Hall, Maxwell Student Union & Health Sciences West with DDC systems. This will allow more flexibility in the air controls and ranges throughout the facilities. Establish sequences to provide the greatest flexibility as well as reducing energy consumption in the facility. VAV's will be installed in Maxwell Student Union. Replace Pipe insulation at Health Sciences West.	Regents, Board of	$1,099,150

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					The Chiller Plant consists of three 600 ton Centrifugal Chillers & related components that consume energy: chillers, condenser & chilled water pumps, cooling tower & air handler fans. This project would reduce energy consumption for any one of the five components of the system through transferring of energy and controlling the energy use simultaneously while generating colder chilled water. The energy savings would be accomplished by installing VFD units on all energy consuming devices with exception of three 600 ton centrifugal chillers.		
TOT							$1,959,893
Bibb County							**2 ECM**
Macon	Macon State College	Mechanical/Boilers	254	Replace HVAC terminal boxes in two buildings.	The first six buildings on campus, which were built between 1967-1972, were constant volume reheat or an old style of variable air volume reheat. Three of these buildings still have the older system. This reheat requires a boiler being operated in warm weather for reheat. This ECM proposes to replace the terminal boxes and avoid operating the boiler in warm weather.	Regents, Board of	$287,230
Macon	Macon Campus	Controls/HVAC contols	370	Variable Speed Drive Installation	To improve efficiency, active flow control (VSDs) is needed to match the capacity of the system to the actual requirements of the building. The existing HVAC system was installed in 1976. Matching the capacity to the requirements increases the level of comfort for the buildings occupants and saves energy. Air handling units contribute to 24% of utility costs. The units control air and water flow. According to information gathered from past GA Power applications, a savings of approximately 25% can be expected in energy consumption. CGTC will utilize stimulus funds to change out the air handling system and will research the water flow handling for future energy savings.	Technical College System of Georgia	$84,000
TOT							$371,230
Carroll County							**3 ECM**
Carrollton	University of West Georgia	Mechanical/Chillers	263	Chiller Efficiency Upgrade	From the same study mentioned above, The ROW Hall building was identified as a building with a poor efficiency and unreliable chiller. One of the RTAC air cooled chillers removed from the Health and Wellness Center can be utilized in this building providing a 21% increase in efficiency and a	Regents, Board of	$82,500

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					system that can be relied on for another 20 years.		
Carrollton	University of West Georgia	Mechanical/Chillers	286	Chiller Efficiency Upgrade	From the same study mentioned above, The COBB Hall building was identified as a building with a poor efficiency and unreliable chiller. One of the RTAC air cooled chillers removed from the Health and Wellness Center can be utilized in this building providing a 21% increase in efficiency and a system that can be relied on for another 20 years.	Regents, Board of	$82,500
Carrollton	University of West Georgia	Lighting/Fixtures	289	T-12 Lighting Replacement	The University's facilities crew had proposed lighting technology upgrades as a measure to reduce Campus wide energy consumption and several consultants agree. They had identified T-12 technology still in use in the buildings in the Campus Quad, which can be replaced with newer, more reliable and with longer life T-8 technology.	Regents, Board of	$330,040
TOT							$495,040
Chatham County							**15 ECM**
Savannah	Savannah Campus	Lighting/Sensors	163	Campus Wide Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting systems throughout the entire Savannah campus, which consist of six (6) buildings, and has determined that there are significant opportunities for lighting retrofits. The buildings range from 3-30 years old with a wide range of lighting fixtures/components. The facility has completed the first phase of light retrofit to include 80% elimination of incandescent lighting. This phase will complete that effort and incorporate re-lamping, sensors, controls, new fixtures, LED, etc. This proposal includes retrofitting, replacing, de-lamping approximately 3,197 lamps, 926 fixtures and 126 sensors/switches. The Maintenance cost savings will be $678.38 / yr. Photocell control will be incorporated to control new designed dimming ballast (Savannah, GA made) that allows inexpensive dimming control of fluorescents. We propose to retrofit a number of fixtures, particularly in spaces with significant daylighting to this technology. The photo sensor control will detect the ambient light level and adjust, dimming down or even turning off the light fixture if the sunlight lightens a given area. The dimming is slow and not noticeable to the eye. The energy savings will be significant on those fixtures. Occupancy sensors may	Technical College System of Georgia	$9,669

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					turn off lights in unoccupied spaces. Savannah Tech has a number of environments where sensors would be advantageous. Various technologies will be incorporated, simple wall motion. Ultrasonic for bathrooms and ceiling sensors for large spaces. There's no technology of greater efficiency than – off.		
Savannah	Savannah Campus	Lighting/Fixtures	166	Administrative Annex Building Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting system for the Annex buildings and has determined that there are significant opportunities for a lighting retrofit. The building is over 30 years old incandescent lighting. This proposal includes retrofitting, replacing, 105 HID (Magnetic Ballasted High intensity Discharge) fixtures and 45 sensors/switches. These spun aluminum highbays consume vast amounts of energy and release much heat that then must be cooled against (heat load). We propose the wholesale replacement of old HIDs to fluorescent highbays. Note: If both grants, one for the entire campus lighting (Project #188) and this one (Project #191), are granted this Lighting ECM will be omitted, as it is included in the other (Project #188) as well.	Technical College System of Georgia	$34,441
Savannah	Savannah Campus	Building Envelope/Insulation	169	Administrative Annex Building Energy Conservation Retrofit	This proposal is for the installation of foam insulation to the underside of the exposed roof deck (ceiling). The building was constructed in the late 1970's and is not adequately insulated. Installation of foam insulation will insulate and create an air seal. It is an effective "breathing" air barrier that can adjust with the building to maintain a seal against energy-robbing air leakage. Convective air movement inside cavities is virtually eliminated, providing more uniform temperatures throughout the building the result is higher comfort levels and lower heating and cooling cost by as much as 45% annually.	Technical College System of Georgia	$75,662
Savannah	Armstrong Atlantic State University	Mechanical/Heat Recovery	250	AASU Science Center Energy Efficiency Improvements	ECM3: Outside Air Heat Recovery - Rosser International has conducted a study of the Science Center and determinted that a run around loop concept between the existing heating coil for the 3 100% outside air ahu units to the reheat coils on the air terminal devices. With this building being a lab, air flow must be maintained during occupied hours, therefore the required air flow can over cool some spaces and reheat is	Regents, Board of	$92,000

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					required. This will reduce boiler capacity and cooling capacity saving electricity and natural gas.		
Savannah	Armstrong Atlantic State University	Controls/HVAC contols	251	AASU Science Center Energy Efficiency Improvements	ECM4: HVAC Controls Modifications and Upgrades - Rosser International has performed a study and determined more monitoring of the spaces to a single point will aid in maintaining peak performance of the new system and terminal air devices. This will ensure correct and comfortable space conditions are maintained.	Regents, Board of	$345,000
Savannah	Armstrong Atlantic State University	Mechanical/Heat Recovery	259	AASU Science Center Energy Efficiency Improvements	ECM5: Manifolding Exhaust Hoods and Modifying Makeup Air - Rosser International has conducted a study of the Science Center and has determined through past projects "SC Fume Hood Modifications, Phase I" $192K and "SC Fume Hood Modifications, Phase II" $260K" that manifolding fume hood exhaust and adjusting makeup air to the labs with use of occupancy sensors in the lab space and at the hoods themselves can save significant energy while still maintaining a safe and code compliant lab environment. This ECM will convert the remaining labs to meet/exceed the standards set during the pilot projects.	Regents, Board of	$1,097,100
Savannah	Garden City, Ocean, & Colonel's Island Terminals	Controls/Building Automation	283	GPA Facilities - Reduction, Efficiency, and Renewable Energy Project	In Garden City Terminal install site DDC system to control Administration Building, Raes Hall, Container Port, Maintenance, Warehouse 27, Warehouse 83A, Warehouse 83B, Annex 1, and Annex 2 from a central location. Control system to be expandable and web-based. The control system will monitor equipment and alarm as manpower response or comfort conditions occur. This system will allow for smart switching, zone control, and better manage remote structures - a means to manage energy consumption and cost.	Ports Authority, Georgia	$273,120
Savannah	Garden City, Ocean, & Colonel's Island Terminals	Lighting/Exterior	284	GPA Facilities - Reduction, Efficiency, and Renewable Energy Project	At Garden City Terminal install voltage regulating transformers and astronomical time clock to reduce total energy consumption of the container storage area high mast lighting. The reduced voltage will also increase the life of the the light bulbs. This lighting control system will regulate 2100 fixtures, each with 1000 watt lightbulbs, on the 1200 acre terminal. GPA, as a cargo seaport has large container storage areas and this area is not included in the gross	Ports Authority, Georgia	$695,660

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					square footage in the "Section 1: Project Summary" information.		
Savannah	Savannah Campus	Lighting/Bulb Replacement	295	Campus Wide Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting systems throughout the entire Savannah campus, which consist of six (6) buildings, and has determined that there are significant opportunities for lighting retrofits. The buildings range from 3-30 years old with a wide range of lighting fixtures/components. The facility has completed the first phase of light retrofit to include 80% elimination of incandescent lighting. This phase will complete that effort and incorporate re-lamping, sensors, controls, new fixtures, LED, etc. This proposal includes retrofitting, replacing, de-lamping approximately 3,197 lamps, 926 fixtures and 126 sensors/switches. Maintenance cost savings will be $5,456.29 / yr. Relamp: The existing F32 T8 lamps in most fixtures on the campus may be replaced, based on the predominate electronic ballast type, by energy saving F28T8 lamps. The rated lumens of the lamps are divergent by less than 6%. The color rendering index for the F28 lamp is 85, much better than the 75 CRI of the existing lamp population. The rated life of the old aging lamp population is 20,000hr (about 4 years at current burn rates) verse the 24,000 hour rated life of the F28. Often a higher CRI is perceived as more light. It is likely this lamp will seem to put off more light as the higher CRI wavelengths are more usual to eye than the old lamps.	Technical College System of Georgia	$105,348
Savannah	Savannah Campus	Lighting/Other,Re-lamp Incandescent Lighting	296	Campus Wide Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting systems throughout the entire Savannah campus, which consist of six (6) buildings, and has determined that there are significant opportunities for lighting retrofits. The buildings range from 3-30 years old with a wide range of lighting fixtures/components. The facility has completed the first phase of light retrofit to include 80% elimination of incandescent lighting. This phase will complete that effort and incorporate re-lamping, sensors, controls, new fixtures, LED, etc. This proposal includes retrofitting, replacing, de-lamping approximately 3,197 lamps, 926 fixtures and 126	Technical College System of Georgia	$34,032

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					sensors/switches. Maintenance cost savings is $1,529.62/yr. The campus is mostly retrofitted or changed out to T8 lighting. We would like to "mop up" the area missed, which are somewhat substantial. Replacement of existing fluorescent light fixture (if in good working condition as most of the existing fluorescent fixtures are, would be a great waste of money. Retrofitting allows the least waste, the most energy savings, at the lowest cost		
Savannah	Savannah Campus	Lighting/Fixtures	297	Campus Wide Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting systems throughout the entire Savannah campus, which consist of six (6) buildings, and has determined that there are significant opportunities for lighting retrofits. The buildings range from 3-30 years old with a wide range of lighting fixtures/components. The facility has completed the first phase of light retrofit to include 80% elimination of incandescent lighting. This phase will complete that effort and incorporate re-lamping, sensors, controls, new fixtures, LED, etc. This proposal includes retrofitting, replacing, de-lamping approximately 3,197 lamps, 926 fixtures and 126 sensors/switches. The HID (Magnetic Ballasted High intensity Discharge) fixtures, predominately in the Annex building are dinosaurs. The spun aluminum highbays consume vast amounts of energy and release much heat that then must be cooled against (heat load). We propose the wholesale replacement of old HIDs to fluorescent highbays in the Annex. In classroom buildings a modern electronically ballasted HID, dimmable and controllable for energy and daylight harvesting would be better suited for these environs. They can be off or dimmed way back to take advantage of natural daylight much of that time. We propose new LED exits signs for those areas with remaining aged fixtures and LED and Compact Fluorescent fixtures where possible.	Technical College System of Georgia	$104,930
Savannah	Savannah Campus	Lighting/Exterior	298	Campus Wide Energy Conservation Retrofit	Energy & Environment has conducted an energy audit of the lighting systems throughout the entire Savannah campus, which consist of six (6) buildings, and has determined that	Technical College System of Georgia	$7,341

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					there are significant opportunities for lighting retrofits. The buildings range from 3-30 years old with a wide range of lighting fixtures/components. The facility has completed the first phase of light retrofit to include 80% elimination of incandescent lighting. This phase will complete that effort and incorporate re-lamping, sensors, controls, new fixtures, LED, etc. This proposal includes retrofitting, replacing, de-lamping approximately 3,197 lamps, 926 fixtures and 126 sensors/switches. Exterior lighting consist of changing the existing metal halide lamps to a LED fixtures or changing the ballast and incorporating a lower wattage of metal halide. In addition the existing photocells will be replaced.		
Savannah	Skidaway Intitute of Oceanography	Lighting/Office	301	Skidaway Institute Energy Audit Action	The institute proposes upgrading lighting fixtures, ballasts , bulbs in five campus buildings.	Regents, Board of	$25,531
Savannah	Skidaway Intitute of Oceanography	Controls/Building Automation	307	Skidaway Institute Energy Audit Action	The energy audit included a section on expansion of the existing building automation system to better control the building HVAC as well as lighting to save more energy. Also included was a recommedation to implement a summer peak demand control scheme to reduce our peak load, primarily through addition of controls to the drinking water well system. The moptor on the well is the largest single load on campus, by restricting operation in peak times we can reduce the campus peak demand.	Regents, Board of	$18,000
Savannah	Skidaway Intitute of Oceanography	Renewable Energy/Solar	416	Skidaway Institute MCSRIC solar heating system	Installation of an evacuated tube solar collection system for the purpose of heating heating hot water for Marine & Coastal Sciences Building	Regents, Board of	$100,000
TOT							$3,017,834
Clarke County							**7 ECM**
Athens	University of Georgia	Mechanical/Other,Insulation	70	Steam System Improvements - University of Georgia	Replace inslutation, steam traps, and repair steam leaks in 75 existing exterior steam vaults on the UGA campus.	Regents, Board of	$1,100,000
Athens	University of Georgia	Lighting/Fixtures	140	Building Energy Efficiency Improvements - University of Georgia	Replace existing T-12 fixtures with T-8 fixtures	Regents, Board of	$1,045,000
Athens	University of Georgia	Commissioning/Recommissioning/	143	Building Energy Efficiency Improvements - University of Georgia	Retrocommission 14 building to improve performance of HVAC systems	Regents, Board of	$600,000
Athens	University of Georgia	Mechanical/Other,Loop Controls	145	Building Chilled Water Improvements - University of Georgia	Add chillled water controls to optimize the chiller systems for the Vet Med and Riverbend areas.	Regents, Board of	$1,400,000
Athens	University of	Mechanical/Other,Valves and	146	Building Chilled Water	Provide more efficient chilled	Regents,	$325,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
	Georgia	Controls		Improvements - University of Georgia	water valves and controls in the 5 science buildings	Board of	
Athens	Athens Technical College	Lighting/Sensors	180	Energy Efficient Campus Lighting	Athens Tech has identified 12 buildings that will require energy efficient occupancy sensors. These buildings include J100/200/300, (3 connected buildings constructed in 1966 and totaling 53,634 sq ft); I-400 (1966, 12,959 sq ft); K500/K600 (1966, 16,369 sq ft); H700 (1980, 24,234 sq ft); B1000/2000 (2005, 19,223 sq ft); N B&I #1 (construction date mid-1908s, 6,867 sq. ft); O B&I #2 (mid-1980s, 4,357 sq ft); M B&I #3 (mid-1980s, 13,383 sq ft); P JQC (mid-1980s, 8,258 sq ft); F 900 (1995, 32,327 sq ft); E Maintenance (mid-1980s, 5,266 sq ft); and D Auto (1995, 11,934 sq ft). An energy audit revealed that occupancy sensors can reduce energy costs and improve efficiency throughout all fixtures. Athens Tech would like to implement an occupancy sensor that utilizes motion and inferred sensing coupled with lighting timer switches. This would minimize the amount of energy used in the buildings at off-peak hours or when occupants leave a room for a prolonged period of time.	Technical College System of Georgia	$223,046
Athens	Athens Technical College	Commissioning/Recommissioning/	281	Athens Technical College Commissioning	In order to measure and verify the success of implemented programs and target future energy efficiency projects, Athens Tech has identified 12 buildings as a pilot for energy efficient commissioning and retro-commissioning. These buildings include J100/200/300, (3 conected buildings constructed in 1966 and totaling 53,634 sq ft); I-400 (1966, 12,959 sq ft); K500/K600 (1966, 16,369 sq ft); H700 (1980, 24,234 sq ft); B1000/2000 (2005, 19,223 sq ft); N B&I #1(construction date mid-1908s, 6,867 sq. ft); O B&I #2 (mid-1980s, 4,357 sq ft); M B&I #3 (mid-1980s, 13,383 sq ft); P JQC (mid-1980s, 8,258 sq ft); F 900 (1995, 32,327 sq ft); E Maintenance (mid-1980s, 5,266 sq ft); and D Auto (1995, 11,934 sq ft). This process includes an inventory and analysis of existing buildings, monitoring the function of existing equipment, functional performance testing for new equipment, witnessing of various testing procedures and factory start-ups for new equipment, maintenance and owner training, and the creation and review of a systems	Technical College System of Georgia	$244,314

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					manual. This plan will ensure the effectiveness of the other proposed energy efficiency projects and programs identified for the purposes of this grant, and will lay the basis for a comprehensive building commissioning program.		
TOT							$4,937,360
Clayton County							**2 ECM**
Morrow	Clayton State University	Mechanical/Chillers	109	Economizer Installation at Central Plant	Rosser International has conducted a study on existing chiller that provides heating/cooling to 9 buildings and has determined improvement in energy consumption with implementation of the economizer. It will target energy use reduction. Central Plant chiller supplies air to 9 buildings (about 427,300 sq.ft). There will be considerable amount of energy saved.	Regents, Board of	$250,000
Morrow	Clayton State University	Controls/Metering	111	Install Utility Meters (electric, water, and gas) Campus Wide	Installation of individual utility meters for each building will allow us to track energy usage and monitor any spikes in energy or water usage that might hint any problems with electrical equipment or water leaks. Timely problem detection would help to save resources.	Regents, Board of	$91,000
TOT							$341,000
Cobb County							**4 ECM**
Kennesaw	Kennesaw State University	Commissioning/Recommissioning/	151	Energy Optimization Project	KSU's heavy energy use buildings are an average age of 17 years. In order to maximize the mechanical systems efficiency it is necessary to assess the operation of the mechanical systems, focusing on optimizing system functionality, reducing energy waste and improving system and equipment operation by the retrocommissioning process. KSU proposes retrocommissioning 12 buildings.	Regents, Board of	$490,333
Kennesaw	Kennesaw State University	Controls/Building Automation	211	Energy Optimization Project	11 buildings would receive upgraded HVAC controls, sub-metering,lighting controls,water heater controls and utility monitoring for improved energy efficiency through monitoring and adjustment of different systems.	Regents, Board of	$1,145,000
Marietta	Southern Polytechnic State University	Lighting/Fixtures	402	Building Energy Efficiency Improvements	This project presents efficiency improvement opportunities which are measures that we believe have potential for saving energy and reducing energy cost at our facilities at Southern Polytechnic State University We are requesting budget dollars to upgrade our energy management system and building lighting	Regents, Board of	$797,220

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					systems. With the retrofitting of 18,000 light fixtures and the replacement of over 10,000 incadescent bulbs will greatly decrease energy consumption. Another recommended part of our project is the addition to our capability of tracking energy use. This is a key component of an effective energy management strategy. We want to utilize a software tool to perform a more detailed and comprehensive analysis of energy consumption trends. The value of simple comparisons of current versus historical energy data is limited by the number of factors that affect energy use. For example, the energy use for February of this year may vary significantly from that for February of the previous year due to variations in weather, the school calendar, and the total number of days in the billing period. Simply comparing energy use for the current month against a previous or "base year" ignores the potential impact of all of these factors. We are requesting dollars to upgrade our commercial software energy management system so that we can track energy consumption, build a history of that consumption and an individual to monitor consumption during real time usage so key variables including heating degree-days, cooling degree-days, number of days in the billing periods, and an in-school factor determined by the number of actual school days can be tracked to reduce consumption. Our current central metering provides tremendous costs savings to our University, but it does not provide detailed energy use for individual buildings, which is tremendously valuable in identifying the least and most energy-efficient buildings. The buildings which have lost efficiency due to aging equipment or controls could be identified. In order to conduct this type of analysis, it will be necessary to obtain, at the least, monthly readings of electricity consumption for all major buildings. Up grading the energy management is an effective option for reducing electrical energy costs is to reduce peak demand during the summer months. The load profile of a college campus is typically characterized by relatively short periods of high electricity usage during		

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					the hottest days of the year, due to the high demand for air conditioning. Peak load management requires controlling our facility's peak 30-minute demand at all times during the summer months. Any one 30-minute period can set our demand for an entire year, so an automatic system for monitoring demand and taking corrective action is necessary. Institutional Benefits (Environmental, Academic, Student Experience, Measurable, New Technology, Sustainability, etc.): Sustainability Initiatives, academic instruction, student participation/learning, measurable reduction, and technological advances contribute to reducing consumption of natural resources; will effective environmental and resource management. Such initiatives will achieve short and/or long term performance improvements. Using waste minimization, process efficiency, or environmental enhancement campaigns to change/focus organizational culture branding a new image (internally and externally) to improve organizational/ public perceptions in general or to improve organizational demand reducing hard costs through improving energy efficiency, waste reduction, etc. customizing and implementing sustainability programs that achieve the desired outcomes, utilizing integrated planning, marketing, communications, and organizational development skills to influence the spectrum of stakeholders.		
Marietta	Chattahoochee Technical College	Lighting/Ballast Replacement	414	Chattahoochee Technical College Energy Efficiency Initiative	Reduce energy consumption and demand levels by replacing existing magnetic ballasts in light fixtures with energy-efficient electronic ballasts and energy-efficient T8 lamps and installing occupancy sensors in all areas.	Technical College System of Georgia	$158,653
TOT							$2,591,206
Coffee County							**2 ECM**
Douglas	South Georgia College	Lighting/Fixtures	358	Lighting upgrades/retrofits from T12 to T8 flourescent fixtures.	South Georgia College Electrical Department has conducted a thorough survey of campus buildings and determined that eleven buildings still use T12 fixtures. SGC proposes to retrofit those fixtures that are capable of doing so and replace non candidates. This involves approximately 2820	Regents, Board of	$243,966

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					fixtures and ballasts of single to four light fixtures.		
Douglas	South Georgia College	Renewable Energy/Solar	439	Solar heating tie-in to aquatics center indoor pool.	ECM1: Solar Heating of Aquatics Center Pool. South Georgia College has determined that the standing seam metal roof of the aquatics center is an ideal location to install approximately 40 glazed solar panels (4' X 8') that would provide enough hot water to meet at least 50% of the annual heating requirements for the indoor pool. The system would become the primary source of heat with recovered HVAC compressor heat and natural gas as the augmenting sources.	Regents, Board of	$66,000
TOT							$309,966
DeKalb County							**18 ECM**
	GBI HQ	Controls/HVAC contols	60	GBI HQ Chiller Optimization Program	The GBI main and annex chiller plants operate around 7300 hours annually. They collectively consume about 2.8 million KWH of energy, which is approimately $193,200 at $.069/KWH. The plants use about 46.4% of the total annual electricity costs for the 2 buildings, which totals approximately $416,000 per year. The two plants generate about 1.7 million tonhours of cooling. The average as built plant efficiency is about 1.6KW/ton. Demand Flow Optimization would reduce the annual KWH consumption by about 1.3 million KWH as compared to a statisitical year. Using a blended costs of $.07/KWH this yields about $91,000 in annual savings or about a 46% reduction in energy costs for the plant. Savings are generated from improved plant operating efficiencies and reducing AHU leaving air temperatures. Reducing CHWS temperatures in the plant will also provide increased capacity in any areas that need more cooling. The poor efficiency is best explained by the very low operating Delta T on the chilled and condenser water systems, which are about one third of design intent. There is also significant opportunity for improvement in comfort as well as energy reduction. The low Delta T syndrome exhibited in this plant contributes to excess pumping and chiller energy as well as a loss of deliverable air side cooling capacity. Data suggests that a flat plate heat exchanger is used about 600 hours annually in	Bureau of Investigation, Georgia	$322,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					a "Free Cooling" mode when ambient temperatures are cold enough. Except during the coldest weather Demand Flow Plant operation would be more efficient than the current "Free Cooling" mode due to pumping and AHU fan efficiencies. Current Equipment System design information, utility cost data, historical operating logs, historical operating trend data and ton-hour data were supplied by the GBI. The chilled water plant is comprised of the following equipment: Main Plant: (2) York chillers; 300 Ton each (2) Primary Chilled water pumps (2) Secondary Chilled water pumps (2) Condenser water pumps (2) Cooling towers with one fan each The Main Building chillers are piped in a very efficient series configuration with constant volume pumps. However, due to low operating Delta T these efficiencies are lost. This plant also utilizes a heat exchanger for low ambient operation. Annex Plant: (2) Trane chillers; 300 Ton each (2) Chilled water pumps (3) Condenser water pumps (2) Cooling towers with one fan each The Annex chillers are piped in parallel with constant volume primary pumps. This is a decoupled plant with distribution chilled water pumps.		
Atlanta	DCA Central Office	Building Envelope/Roof	77	Roof Replacement	Tip Top Roofers has surveyed the roof and proposes installing a new roof with White Elastomeric Rubberized Roof Coating to reflect 80 % of the sun's rays and provide up to 20% in energy savings.	Community Affairs, Department of	$145,327
Tucker	Georgia Student Finance Authority	Lighting/Fixtures	116	T8 Lighting Upgrade	The Student Finance commission has determined a significant savings in operational funds can be seen in energy useage by replacing the lighting fixtures and bulbs. The upgrade to newer technology will be done by removing the exisiting light fixtures and exchange with current technology. An attempt to upgrade or replace lighting controls to occupancy sensor units will be made to furher reduce energy consumption.	Student Finance Commission	$63,114
Atlanta	Georgia State	Lighting/Other,Bulb, ballast and	264	75 Piedmont Building	Retrofit existing flourescent	Regents,	$127,850

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
	University	fixture replacement		HVAC and Lighting System Replacement and Rehabilitation	fixtures (1,517), tubes and PCB ballasts and replace with 28 Watt T-8 lamps representing a 30% energy savings over existing installation.	Board of	
Atlanta	Georgia State University	Lighting/Bulb Replacement	265	75 Piedmont Building HVAC and Lighting System Replacement and Rehabilitation	Replace existing 32 Watt T-8 lamps with 28 Watt T-8 lamps in575 existing fluorescent fixtures.	Regents, Board of	$7,485
Atlanta	Georgia State University	Lighting/Bulb Replacement	266	75 Piedmont Building HVAC and Lighting System Replacement and Rehabilitation	Retrofit existing incandescent downlights with Compact Fluorescent (CF) screw-in type lamps	Regents, Board of	$2,729
Atlanta	Georgia State University	Lighting/Fixtures	267	75 Piedmont Building HVAC and Lighting System Replacement and Rehabilitation	Retrofit existing 150W porcelain lamp-holders in Mechanical/Electrical Rooms with 26W CF screw-in type lamps	Regents, Board of	$1,025
Atlanta	Georgia State University	Lighting/Bulb Replacement	268	75 Piedmont Building HVAC and Lighting System Replacement and Rehabilitation	Retrofit 150W flood lights in high ceiling with42W CF screw-in type lamps	Regents, Board of	$1,269
Atlanta	Georgia State University	Lighting/Fixtures	270	75 Piedmont Building HVAC and Lighting System Replacement and Rehabilitation	Remove existing incandescent exit lights and replace with LED type fixtures	Regents, Board of	$22,815
Decatur	Decatur Public Health Laboratory	Commissioning/Recommissioning/	390	Public Health Lab HVAC Retro-Commissioning	The Decatur Public Health Laboratory is a BSL-2 and BSL-3 clinical laboratory facility which does sample testing in the divisions of virology, parasitology, bacteriology, chemistry and newborn screening. It also includes a CT-BT emergency prepardness (EP) division. Since the lab was built in 1997 its mission and workload has changed dramatically. Most notably is a 274% increase in newborn screening tests performed, and the addition of the EP division. These programatic changes have included the addition of refrigeration space and high heat output auto sampling equipment such as gas chromatographs and tandem mass spectrometers. For these reasons the retro-commissioning (CxR) process of this building and associated costs will exceed normal market averages and must be inclusive of building automation system upgrades and seperation of critical equipment HVAC needs from the general building HVAC system. Although the CxR design is not complete, an extensive facility audit has been done by a lab commissioning professional, MEP engineer and myself which identifies multiple opportunities for significant energy savings.	Community Health, Department of	$265,000
Clarkston	DeKalb Tech	Lighting/Other,Fixture replacement / Lighting Controls	429	DeKalb Tech Green Retrofit encompassing A, B, C, D buildings	Lighting Upgrades & Controls - DeKalb Tech investigated and sought out professional lighting companies to provide guidance as to payback for complete replacement of all the fixtures and bulbs in the B, C, and D building at the	Technical College System of Georgia	$301,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					Clarkston Campus. Further, investigation was made as to the feasibility of installing a new lighting control system to control each office, classroom, and lab switch independantly (162 in all). Lighting controls for 1/3 of all the circuits (BACnet compliant with relays) will be donated by Triatek corporation, and 1/3 of all the motions sensors will be donated by Kele Corporation. 900 fixtures and over 2000 bulbs will be replaced, and the total kw reduction based upon building usage schedule is over 72kw for the three buildings at full occupancy. Assumptions made were that 80% of lights will be on during normal hours (7am-9pm) and 20% of lights on for night crews (9pm-7am). Weekend light usage was figured at 20% lights on. Total payback period assuming 12 cents per kwh is 7.62 years for just lighting replacement. When lighting controls are included in the payback analysis, 20% figure for night crews reduces to 10% and the weekend percentage reduces to 0% since no classes are held in B,C,D buildings on the weekends. This reduces the period payback to under 6 years. This project is highly leveraged in that partners in our new Building Automation Systems program like Triatek, Kele, Siemens, Distech Controls, Alerton, Waypoint Systems, and others have all made written commitments to donate products in support of this initiative should we be funded. This is one part of a multi-part strategy to significantly reduce energy consumption and also qualify for LEED points in pursuit of LEED Gold Certification for B,C,D which will only be possible should we receive significant funding to augment our efforts. This project is fully designed and ready to be drawn up for submittals.		
Decatur	Decatur Public Health Laboratory	Controls/HVAC contols	433	Public Health Lab HVAC Retro-Commissioning	The lab has a 12 year old Johnson Controls Metasys HVAC automation system which has had no software or hardware upgrades, even though the laboratory has experienced many programatic changes. To enhance energy savings by better control and management of the HVAC	Community Health, Department of	$51,100

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					system, we need to add current technology and control features. These would include power and natural gas usage, boiler and chiller efficency levels, control supply & exhaust static pressures (varible speed drives) and monitor cascades at each biosafety level change. We also need programming parameters in place to automatically bring the lab in and out of night and weekend set-back modes. This single feature can create significant energy savings, but can only be used effectively when paired with the seperation of environments which support equipment which runs after normal business hours such as freezers and tandem mass spectrometers.		
Decatur	Decatur Public Health Laboratory	Mechanical/Motors/VFD's	435	Public Health Lab HVAC Retro-Commissioning	The laboratory has six varible frequency drive (VFD) exhaust fans, but the two correlating supply fans are static drive. The turning vanes have deteriorated such that they are not repairable and replacement costs are equal to that of installing VFDs. The most effective and efficent way to control laboratory air exchange rates is by installing varible frequency drives on the supply fans.	Community Health, Department of	$6,200
Decatur	Decatur Public Health Laboratory	Renewable Energy/Other,Cold water	440	Public Health Lab HVAC Retro-Commissioning	Using a large chilled water coil, located inside the air handler unit, the laboratory uses 42 degree chilled water to supply cool air (55F) throughout the building. During summer months, when outside temperatures and humidity are high, a tremendous amount of condensate is generated from the chilled water coil. Capturing this chilled water condensate and supplying it to the cooling tower will save both electricity and water. It will mix with and further cool water inside the cold water reservoir and create most all of the make up water lost to evaporation.	Community Health, Department of	$11,872
Clarkston	DeKalb Tech - Clarkston Campus	Mechanical/Other,Variable Refrigerant Volume HVAC System & Controls to replace existing Chillers, Boilers, & Unit Ventilators (4 pipe system) and new power monitoring & controls for B,C,D	448	DeKalb Tech Green Retrofit encompassing A, B, C, D buildings	The B,C, and D buildings currently each have a 4-pipe system with 2 Lochinvar 1MBTUH boilers and 1 Trane Series R 70 ton, 2 circuit screw chiller, and approximately 40 unit ventilators per building. The 4-pipe system in each building will be completely replaced by a Daikin VRV system (basis of design) complete with BACnet compliant controls and integrated to the new BACnet trunk off of a Tridium Jace integration panel which is being donated by Waypoint Systems for this project. Each building currently has a Trane Series R 70 ton chiller	Technical College System of Georgia	$276,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					with 2 35 ton circuits. The new VRV system has been designed based on new load calculations related to other ECM measures found in this proposal like window replacements, lighting replacements, lighting controls, etc. The more energy efficient buildings will only require 24 tons of cooling each. That is an immediate 32% reduction in tonnage while realizing an increase to a minimum 13 SEER performance for this on-demand cooling system. This identical system has been applied to the first floor of the ASHRAE building to great success. The system will provide heating and cooling, also allowing for the removal of 6 Lochinvar (Model PBN1000) boilers at 1,000,000 BTUH each. 6,000,000 BTUH of capacity driven by natural gas will be removed from service, and this, coupled with solar water heating installation under another ECM will totally eliminate need for natural gas service to the B,C, and D buildings. In all, over 7,000,000 BTUH driven by natural gas, to include natural gas space heaters will be removed from service pursuant to this ECM. This is advantageous also when one considers that all the boilers have reached the end of their service life and now is an ideal time to consider replacing them with a more environmentally friendly and efficient alternative. DeKalb Tech has a great deal of controls donation commitments of BACnet MODbus compliant devices to support monitoring and verification of performance.		
Decatur	Decatur Public Health Laboratory	Mechanical/Boilers	455	Public Health Lab HVAC Retro-Commissioning	The laboratory operates year round using two 125 hp commercial boilers. During the warmer months the boilers are operating at minimum efficency rates, only supplying domestic hot water for hand washing and autoclave steam. We can achieve significant savings if we install one correctly sized (much smaller) 96% efficency rated boiler to carry the summer load. The two large boilers can then remain off for five to six months out of the year.	Community Health, Department of	$150,900
Clarkston	DeKalb Tech - Clarkston Campus	Commissioning/Recommissioning/	456	DeKalb Tech Green Retrofit encompassing A, B, C, D buildings	Over the last year, we have conducted an internal audit of how our A,B,C, & D buildings use energy. We were shocked at the results. The buildings were set to run 24/7, the outside air damper actuators weren't functioning, many of the three-way unit ventilator controls valves are stuck,	Technical College System of Georgia	$183,500

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					causing overheating and/or overcooling of spaces. No economizer functions were operable, and the control system has fallen into dis-repair. It's clear that a complete retro-commissioning of remaining equipment, and an enhanced commissioing to include new HVAC, renewable power generation equipment, and controls systems should be performed as part of this proposal. Many simple items have been addressed, like run-time of equipment. As part of our review process, we contacted Southface. After looking over the scope of what we wish to accomplish, Southface is comfortable in assisting DeKalb Tech in pursuing LEED Gold ratings for the B,C, and D buildings should we be awarded this stimulus funding for the entire scope of all ECMs. We have included pricing from Brandon Jones of Southface for planning & administration of the project, design work and review, submittal phases of design & construction, and preparing energy models for the buildings so we can establish accurate baselines. We have also included basic and enhanced commissioning through "Working Buildings" to be certain our project performs as expected. In addition, we will be re-commissioning the outside air systems to be certain we exceed the ASHRAE 62.1 standard by 30%. This will also benefit the buildings through allowing an economizer, free-cooling, cycle for the A,B,C, and D buildings. Outside air flow sensing and building pressurization sensors have been committed by Triatek and real-time power analysis will be accomplished through installation of watt-transducers (PowerTrak 9500) on each building. All components selected are BACnet and/or MODbus compliant.		
Decatur	Decatur Public Health Laboratory	Mechanical/Chillers	458	Public Health Lab HVAC Retro-Commissioning	The laboratory contains four small rooms (1,600 gsf) where cooling levels are critical and must be continously maintained. Seperating these rooms off the main air handler & chiller system will enable us to achive greater temperature set back control measures for the remainder of the lab. It also gives us cooling redundancy for our most critical equipment rooms which include the Tigris gas chromatograph-mass spec. our ultra low freezer room,	Community Health, Department of	$57,500

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					the IT server room and the tandem mass-spec. lab.		
TOT							$1,996,686
Dougherty County							**5 ECM**
Albany	Darton College	Lighting/Fixtures	88	Interior Lighting Replacement / Energy Pool Cover	The proposed is to replaced all existing T-12 lighting fixtures with T- 8 lighting fixtures. The majority of our existing lighting fixtures are 30 years of age. We would see a minimum of a $74,500.00 a year reduction in utility fees and provide a better learning enviorment for our students not to mention the aesthetic impact the upgrade would have on the entire facility(s). The current wattage for the existing fixtures are 405.87 kW. The wattage for the replacement fixtures is 132.86 kW. Therefore, replacing these fixtures will save approximately 273.01 kW. At our electricity rate of $0.07 per kWH, we would save approximately $74,500.00 annually.	Regents, Board of	$364,365
Albany	Darton College	Other/	117	Interior Lighting Replacement / Energy Pool Cover	Most do not realize how much energy is used to maintain a indoor pool. Energy Pool Cover will: * Lower energy cost for pool by 37% * Lower water consumption for pool by 39% Install an automatic Energy Pool Cover system that will be deployed durning non-operating hours and at times when pool is not in use. Not only will there be an electrical, gas & water reduction but also a chemicial reduction due to decreased water evaporation.	Regents, Board of	$76,848
Albany	Darton College	Lighting/Fixtures	121	Arena - Fitness Center - Recreation Gym Lighting Upgrade	The proposed is to replaced all Metal Halide fixtures (30-1000 watt - 42-400 watt) in our Physical Education facility. We would see a minimum of a $53,313.00 a year reduction in utility cost and a 27,822 kw reduction.	Regents, Board of	$53,313
Albany	Albany State University	Lighting/Other,Combination of fixture, ballast, bulb, and sensor replacement/upgrades	397	Campus Wide Energy Efficiency Upgrade	Lighting system upgrades will cover buildings campus wide and include bulb, ballast, sensor replacement/upgrade.	Regents, Board of	$625,000
Albany	Dougherty County Campus	Lighting/Fixtures	409	Building Energy Efficiency	ECM1: Lighting upgrades: As a result of energy audits, Albany Tech has already purchased 420 T8 fixtures and proposes a purchase of 1034 additional fixtures to reduce KW usage from 36,350 to 13,086kwh and $128,000 annual savings in energy costs. The replacement of light switches with motion sensitive devices will further reduce costs.	Technical College System of Georgia	$100,960

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					The retrofit of 50 parking lot lamps and the replacemnt of 175 various style exterior lights will reduce usage from these sources by about 50%.		
TOT							$1,220,486
Emanuel County							**3 ECM**
Swainsboro	Southeastern Technical College	Mechanical/Motors/VFD's	139	Replace HVAC units and energy management systems	HVAC upgrades and energy management systems need to be installed according to an energy audit conducted by Ga. Power. We have to control entire building manually to start or stop HVAC systems. A 20,000 to 30,000 sq. ft. building could have only one room occupied and we have to run the entire system. With these replacements and additions we could program zones for occupied or unoccupied zone to reduce energy consumption.	Technical College System of Georgia	$249,000
Swainsboro	East Georgia College	Controls/Metering	204	Energy Use Monitoring Device Installation	Installing meters on each campus building transformer so that each facility's energy use can be monitored closely. This will allow us to perform a realistic energy audit for the campus.	Regents, Board of	$100,000
Swainsboro	East Georgia College	Controls/HVAC contols	208	HVAC Control Modifications	Replace old pnuematic controller with new, energy efficient DDC controllers; replace existing VAV boxes and associated wiring the new, code compliant equipment.	Regents, Board of	$220,000
TOT							$569,000
Floyd County							**2 ECM**
Rome	Georgia Highlands College	Lighting/Fixtures	299	Replace T-12 Lights in Floyd Campus Library	Plant Operations conducted an energy survey of the lighting in the Floyd Library. We propose to replace 475 light fixtures containing 1,138 T-12 flourescent bulbs with high efficiency T-8 light fixtures and adding sensors to the light system to take advantage of daylight harvesting and reducing overall energy consumption in the Library.	Regents, Board of	$46,978
Rome	Georgia Highlands College	Controls/HVAC contols	353	Time Clocks for Air Handlers	Time clocks will be installed on each air handler (9) throughtout the campus. The timers will allow the air handler to be shut off for several hours overnight when the buldings are not occupied.	Regents, Board of	$8,500
TOT							$55,478
Fulton County							**14 ECM**
Atlanta	GWCCA	Lighting/Fixtures	58	Retro-Commissioning	Retrofit all outdated lamps	World	$2,285,600

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				and GWCCA lighting & motion sensor upgrades	and fixtures throughout the campus. This project will assist in getting LEED certification. Reducing operational expenses and consumption by 20% yields the following: 86,556,751.0kwh to 69,245,400.8, reflecting a annual cost savings of $1,117,301. This would result in 1,643 cars being removed from the highway and the planting of 27,257 trees.	Congress Center Authority, Georgia	
Atlanta	Various Locations	Controls/Building Automation	79	GBA- Central Energy Plant - Replacement of 3, 1250 tonchillers with new high efficiency chillers and complete chiller plant demand flow optimization	The Demand Flow Chiller Optimization -- Large savings can be gained by implementing variable/demand flow plant operations schemes along with VFD control of the associated fan and pumping systems throughout the GBA facilities and changes to the operating parameters to greatly reduce the energy usage during off peak and after-hours operations. Much of the needed VFD controlled equipment has been installed with our current ESCO project reducing this implementation costs allowing a much more impressive payback. This new plant and system control logic and sequencing will actually shift the chiller refrigerant cycle to high efficient areas and lower the operating costs to achieve a great return on investment.	Building Authority, Georgia	$1,116,068
Atlanta	Georgia Institute of Technology	Lighting/Bulb Replacement	125	Lighting Conversion Project 1	Over the past several years, Georgia Tech has evaluated various lighting solutions (LED, T8, T5, etc.) in an attempt to reduce the overall electrical consumption of its light fixtures. Through these efforts, the Institute has identified an opportunity to significantly reduce electrical consumption. Experience has shown that Georgia Tech can reduce its electricity consumption by 50% in light fixtures by converting from T12 to T8, recouping the investment in under 18 months. Through this project, Georgia Tech will replace approximately 46,000 bulbs in 12,000 fixtures across 11 buildings at the Institute. This project allows Georgia Tech to retrofit its current fixtures, which contain four T12 bulbs, with two T8 bulbs without diminishing the level of luminosity emitted from the fixtures. Accordingly, the Institute is able to achieve energy cost avoidance of over $450,000 and material savings of $12,000 annually. This allows the project as a whole to achieve a payback period	Regents, Board of	$782,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					of approximately 1.68 years. The Institute has committed to measuring the outcomes of this project as well as future energy projects by investing in a metering system at the building level. The metering system, which the Institute has invested in over the past several years, will be expanded to the buildings highlighted in this project in addition to the implementation of the lighting retrofits. This investment will total $63,000 this year.		
Atlanta	Georgia Institute of Technology	Lighting/Other,Automation	126	Lighting Conversion Project 1	Automated lighting controls allow Georgia Tech to cycle lights in unassigned areas so that energy can be reduced when these areas are not in use. Past implementations at 8 other buildings on campus have identified that electricity can be reduced by 29% through the implementation of automated lighting, yielding $82,000 in annual cost avoidance. These annual avoidances are expected to increase as Georgia Tech can more effectively configure automation settings once the sensors have been implemented. Additionally, replacements of bulbs and ballasts occur 42% less frequently, furnishing material savings of $8,000 annually. Thus, the overall payback period for the project considering energy and material savings is 7.48 years. This project aims to replace controls and lamps for 16,000 fixtures across 18 buildings that will build upon past implementations that Georgia Tech has completed. To this point, the Institute has completed automated lighting at 8 buildings and contracted work for an additional 9 buildings with an investment totaling approximately $500,000. However, funding constraints have restricted Institute-wide implementations of automated systems. Along with the combined automated lighting and T12 to T8 conversion project, this project will significantly expedite the completion of Institute-wide lighting automation in unassigned regions that began four years ago. In addition, Georgia Tech is committed to measuring the effects of its sustainability projects and has devoted $104,000 this year to implementing meters on the buildings involved in this	Regents, Board of	$670,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					project to track consumption savings for this and future projects. These meters will also allow Georgia Tech to educate the community on energy conservation.		
Atlanta	Georgia Institute of Technology	Lighting/Other,Replacement & Automation	127	Lighting Conversion Project 1	Georgia Tech has been transitioning over the past four years to automated lighting controls in its unassigned areas on campus. Currently, there is a large portion the campus' unassigned space that is lit 24 hours day, leading to unnecessary electrical consumption. The automated lighting controls enable the Institute to minimize electricity utilization during off-peak hours, cycling the lights when areas are not in use. As funding has become available, Georgia Tech has implemented automated lighting to reduce the electrical consumption in unassigned regions. Currently, 8 buildings have had automated lighting controls implemented, and an additional 9 buildings have been contracted and are beginning installation. In total, Georgia Tech projects its current investments in automated lighting retrofits to be about $500,000. Additional funding would expedite the Institute-wide adoption of automated lighting controls. This particular project is focused on aggressively expanding the automated lighting initiative to an additional 17 buildings. Furthermore, these 17 buildings also present an opportunity to convert lamps/bulbs from T12 to T8. By combining these two projects, Georgia Tech expects to reduce electrical consumption from lighting in these building by 65%. This yields approximately $525,000 in energy cost avoidance and $25,000 in material savings annually, securing a payback of 2.25 years. In addition, the Institute expects to achieve efficiencies by implementing these projects in tandem that would yield an estimated 10% in incremental savings. Overall the project aims to retrofit approximately 16,000 fixtures with 63,000 bulbs of which approximately 40% will be retrofitted for automated controls. Georgia Tech has also committed $52,000 to measuring the result of this and future projects with the implementation of electrical meters to the buildings	Regents, Board of	$1,227,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					affected by this project.		
Atlanta	2 Peachtree Street Tower Buildng	Mechanical/Pumps/Fans	159	GBA - 2Peactree Facility Energy Conservation projects, 2 Pump/VFD replacements and a High Efficiency Domestic Hot Water Heater project	The current chiller pumping system operation was designed and installed 45 years ago and provides water flow much higher than is required for the equipment needs and has no way of adjusting that flow to the actual demand causing excessive energy usage especially during off-hours operations. This replacement of 2 large chill water pumps and 2 condenser water pumps with new energy efficient pumps fitted with VFD's and BAS controls will allow the water flow to match the needs of the chiller plants thereby allowing for much more efficient system operations and reduced electrical consumption.	Building Authority, Georgia	$493,000
Atlanta	Georgia Institute of Technology	Mechanical/Motors/VFD's	196	Variable Frequency Drive Implementation	Georgia Tech has identified an opportunity to reduce the electrical consumption of its chilled water pumps. Currently, the majority of the Institute's fans, motors, and pumps function at full power when active regardless of cooling requirements, resulting in unnecessary electrical consumption. By implementing variable frequency drives, Georgia Tech will be able to run its chilled water pumps at energy levels less than 100% and more in-line with necessary power requirements. As a result, the Institute is able to increase the efficiency of these drives by 59%, reducing electrical consumption. Georgia Tech has replaced and implemented approximately 20 variable frequency drives in 7 different buildings on campus to this point with approximately $160,000 in expenses over the year and a half life of the project. Additional funding will help the Institute aggressively expand this initiative to 103 pumps in 47 different buildings across campus. With the addition of variable frequency drives to these areas, Georgia Tech expects to achieve $440,000 in annual energy cost avoidance and achieve a payback period of 5.79 years for the project overall. Furthermore, the Institute is committed to measuring the benefits of both this project and future energy efficiency projects. Accordingly, Georgia Tech is investing $191,000 in meters this year to build upon past	Regents, Board of	$2,543,431

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					investments that will allow the Institute to measure energy avoidance and consumption at the buildings affected by this project. This will allow Georgia Tech both to continue pursuing future energy reduction projects as well as educate the community on energy conservation efforts.		
Atlanta	Capitol Hill Complex	Lighting/Other,Parking Garage Lighting Replacement by LED's	226	GBA - Capitol Hill Complex wide Energy Consevation Projects	Parking Garage lighting - Replace outdated and inefficient parking deck lighting with a combination of new LED equipment and low wattage fluorescent systems. This will provide new and innovative lighting for 13 parking garage facilities. Lighting will be replaced and retrofitted to accept LED's and low wattage fluorescent lamps for much improved energy reduction. Some facilities could see as much as a 50% reduction or better in energy consumption.	Building Authority, Georgia	$1,130,000
Atlanta	Capitol Hill Complex	Lighting/Fixtures	230	GBA - Capitol Hill Complex wide Energy Consevation Projects	Can Light Fixture Replacement with LED's - Replace inefficient can lighting fixtures with LED fixtures and retrofit kits. This typically can reduce energy usage from standard light fixture by 50 percent or greater (i.e. a 36 watt can fixture can be reduced to a 12 watt LED lamp with a soft warm white light output that surpasses the CFL light and color rendition. LED lighting has evolved to where it is highly competitive with the light output for standard light output in most can type fixture	Building Authority, Georgia	$1,675,000
Atlanta	Georgia Institute of Technology	Mechanical/Other,Thermal Insulation	253	Steam System Insulation	Georgia Tech has performed infrared flights over the campus and conducted field inspections to identify 60 sites within its central steam system that do not meet energy efficiency standards at the Institute. The work at these sites includes re-insulating pipes in 34 manholes whose insulation has deteriorated due to water damage, replacing steam lines at 6 locations where insulation has diminished, and re-insulating piping at 15 sites within the Holland Plant. The Institute has also identified the necessity to re-insulate and abate approximately 400 feet of pipe at the center of campus, which it has devoted $450,000 of MRR funds this year to correct. Accordingly, the work described above are additional improvements the Institute deems necessary to operate the central steam system according to energy efficiency standards. ARRA	Regents, Board of	$1,416,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					funds would aid the Institute in accomplishing these initiatives in an expedited time frame substantially accelerating the improvements in the efficiency of the central steam system. Currently, the 60 sites identified by infrared flights and field inspections have little or no insulation around pipes. Thus, re-insulating piping would improve the preservation of heat within the system by 90%. The Institute will also be installing condensate meters during this project that will aid in measuring and confirming the environmental impacts of this project. For those projects supported by ARRA funding, Georgia Tech expects to decrease the energy consumption of its central steam system by 41,000 MMBTU's, or 8.3%, which would result in an annual cost avoidance of approximately $347,000. This allows the project to achieve a payback period of 4.08 years.		
Atlanta	Various Locations	Mechanical/Boilers	308	State Facilities Energy Efficiency Retrofit Program	Based on a current mechanical engineering study and evaluation, Georgia Public Broadcasting (GPB) proposes replacing all 5 existing 80% efficient boilers and 2 existing water heaters at Georgia Public Broadcasting's 14th Street, Atlanta, GA headquarters with 94% efficient boilers and water heaters. GPB believes that there may be additional utility incentives that could be applied to this ECM, but has been unable to obtain that information from Atlanta Gas Light, as yet. GPB will continue to seek this information and will provide it separately as an addendum to the Georgia Environmental Facilities Authority (GEFA). Please note: 1. Utility Cost Data is based on Current Rates with no annual inflation included in the simple payback term. 2. Thermal Load calculations are based on ASHRAE Standards using ASHRAE, EPA Energy Star and bin weather data.	Public Broadcasting, Georgia	$218,529
Atlanta	Various Locations	Other/	317	State Facilities Energy Efficiency Retrofit Program	Based on a current mechanical engineering study and evaluation, Georgia Public Broadcasting (GPB) proposes replacing series hot water reheat boxes with parallel fan-powered boxes in the corner offices of the 2nd, 3rd, and	Public Broadcasting, Georgia	$37,950

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					4th floors of GPB's 14th Street, Atlanta, GA headquarters building. GPB believes that there may be additional utility incentives that could be applied to this ECM, but has been unable to obtain that information from Georgia Power, as yet. GPB will continue to seek this information and will provide it separately as an addendum to the Georgia Environmental Facilities Authority (GEFA). Please note: 1. Utility Cost Data is based on Current Rates with no annual inflation included in the simple payback term. 2. Thermal Load calculations are based on ASHRAE Standards using ASHRAE, EPA Energy Star and bin weather data.		
Atlanta	Atlanta Metropolitan College	Lighting/Fixtures	405	Interior Lighting Upgrades	AMC has concluded that 124,000 SF of educational space presents a significant opportunity for lighting retrofit/replacement of lighting fixtures and add lighting control to offices, classrooms and public spaces. AMC proposes to replace, retrofit, remove approximately 6000 lamps, 1300 fixtures and 200 switches. All classroom and public area's lighting circuits will have contactors added and a connection to the BAS will allow scheduling of these systems as required. Preplanning and programming has began for this project.	Regents, Board of	$422,000
Atlanta	Atlanta Metropolitan College	Controls/HVAC contols	421	Chiller Plant Optimization	The College and its BAS provider has conducted a survey of the equipment at the Central Plant and has determined that savings in energy costs, between 20 and 40 % can be achieved with control strategies and equipment upgrades. These upgrades would include writing new programming code for the operation of the chiller plant. Addition of variable frequency drives to primary pumps and condenser water system as required. Replacement of 8ea. 3 way valves at AHU's that have not already been retrofitted. These valves would be replaced with pressure independent valves that would control supply air temperature with out by-passing chilled water. All temperature differential devices would be replaced.	Regents, Board of	$118,500
TOT							$14,135,078
Gainesville County							**1 ECM**
Oakwood	Lanier Tech	Building Envelope/Windows/Doors	452	Efficient Window Upgrade &	Preliminary results from investment grade energy	Technical College	$710,140

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
				Weatherization	audits and energy consultant opinions of Lanier Tech's buildings both indicate that the financial, environmental and energy efficiency ROI from replacing, upgrading and weatherizing windows on the Oakwood and Forsyth campuses – when combined with upgraded lighting (from T12 -> T8 and LED; see other project) – will provide the greatest bang-for-the-buck in terms of energy efficiency improvements, GHG emissions reductions, money savings and jobs created. Lanier Tech proposes to replace almost 1,000 extremely inefficient and degraded windows at the Oakwood campus and Forsyth campus with upgraded, triple-glazed double-soft-coat low-e (0.30) & low SHGC (0.30) windows. In order to measure and monitor the energy savings, efficiency improvements, GHG reductions and money savings, Lanier Technical College has initiated an unprecedented partnership with TRIRIGA, one of the largest and most experienced providers of real estate environmental sustainability solutions and enterprise workplace management solutions in the world. TRIRIGA will provide the TREES energy management and carbon footprint measurement system (see details below) at a deeply-discounted educational/academic rate for the life of the GEFA project development and implementation to Lanier. All of Lanier Tech's utility bills, project costs and environmental savings measurements will automatically be integrated into one dashboard that will streamline carbon disclosure and environmental reporting. Twenty-four sustainability metrics will be used to analyze resource and energy consumption, emissions production and carbon accounting. Carbon footprint reduction over time will be captured and charted in order to validate progress against environmental and financial goals. In addition, Lanier Tech will automate the creation and tracking of critical activities and tasks that accelerate completion of energy efficiency and renewable energy projects.	System of Georgia	
TOT							$710,140
Glynn County							**1 ECM**
Brunswick	College of Coastal Georgia	Lighting/Fixtures	432	LIGHTING UPGRADES AND CONTROLS FOR VARIOUS CAMPUS	LIGHTING UPGRADES THAT WILL CONSIST OF RETROFITTING	Regents, Board of	$660,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
				BUILDINGS	APPROXIMATELY 907 ELECTRICAL LIGHTING FIXTURES WITH MAGNETIC BALLASTS AND LAMP REPLACEMENTS, AND THE INSTALLATION OF APPROXIMATELY 172 OCCUPANCY SENSORS. THE AVERAGE BURN TIME FOR LIGHTING IN THESE BUILDINGS IS 20 HOURS PER DAY, AT AN AVERAGE ELECTRICITY RATE OF $.07/KWH. WITH LESS LIGHTING LOAD IT WILL ALSO REDUCE REQUIRED COOLING LOAD BY 0.5/SF=71 KW. THE FORMULA TO ARRIVE AT THESE CALCULATIONS IS BASED ON A BUILDING SQUARE FOOT AVERAGE.		
TOT							$660,000
Habersham County							**2 ECM**
Clarkesville	North Georgia Technical College	Controls/Other,Computer-based automation system for lights and HVAC at all three campuses	53	NGTC Energy Conservation & Management	North Georgia Technical College will develop specifications and, following the Technical College System of Georgia bid protocols, contract with a building management company to design and install computer-based automation systems for lighting and HVAC control at each of the three campuses. For both Blairsville and Currahee, the system would control a single large building with different zones and usage patterns. Blairsville would also control a single adult education building. For the Clarkesville campus, the system would be used to control 15 buildings, some very large. The new control system would allow the energy manager to monitor energy usage, and to only light, heat or cool spaces as needed. Sensors would be used to detect occupied areas and to adjust to available daylight: both strategies for reducing demand. Using this control system, NGTC expects to cut energy use significantly and save at least $123,000 annually for a simple payback of 2.9 years for this part of the project. NGTC has gathered data from schools that use similar systems, as well as from management system vendors, to determine energy savings projections for this ECM. The $28,000 listed for design and engineering includes $12,000 for commissioning to determine effectiveness. Training for employees will be part of the bid specifications to allow the college to use the system effectively.	Technical College System of Georgia	$354,000
Clarkesville	North Georgia Technical	Lighting/Other,Combination of interior ballast & bulb	216	NGTC Energy Conservation &	In an audit conducted March of 2009, Georgia Power	Technical College	$345,750

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
	College	replacement with exterior lighting upgrades		Management	recommended the college replace highly inefficient lighting fixtures. NGTC proposes to develop a lighting plan to replace lighting at all three campuses. This plan would be the basis for a bid specification package that included an on-site consultant, design development, and installation. This contract would be awarded to an experienced lighting contractor according to Technical College System of Georgia bid procedures. The lighting plan will include replacing T-12 fluorescent fixtures with T-8 fluorescent fixtures and replacing incandescent lamps with compact fluorescent lamps. Lights would also be changed out to improve the usability of a primarily unused 62-year-old building, used for many community events, graduations, and other school activities. The college is already using budgeted funds to replace windows on this building to improve energy efficiency and public use. Where possible, the lighting plan would also mean changing out incandescent exit signs to LED exit signs. In alignment with the CONTROLS EMC, the plan would also use sensors to light only occupied areas and to make adjustments when daylight can be used. The plan would also include changing out fixtures on 191 exterior lights that need updating to improve energy efficiency. Projected savings are $102,478 annually, for a simple payback of 4.9 years.	System of Georgia	
TOT							$699,750
Houston County							**2 ECM**
Perry	Georgia National Fairgrounds & Agricenter	Lighting/Fixtures	136	Lighting System Upgrades and HVAC Remediation	Lighting System upgrade and retrofits -The Georgia Agicultural Exposition Authority performed a detailed evaluation of the lighting systems currently in place throughout 13 buildings and determined there are significant opportunities for electrical energy savings by installing energy efficient fixtures and bulbs and motion sensors. The Georgia Agricultural Exposition Authority proposes converting 900 metal Halides (ranging from 465W-1000W) to 1,071 T8 fluorescence fixtures (221W). It is estimated that these lights will reduce energy consumption by 59% while adding 35% more light levels. Furthermore, these lights burn at 98 degrees vs 1200 degrees, and thus reduces HVAC costs by	Agricultural Exposition Authority, Georgia	$360,411

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					keeping the building "cooler". Additionally 60 motion sensors will also be installed that will allow lights to operate only when there is activity in the area. Another benefit and anticipated savings, although not "energy-related", will be in annual maintenance savings of $9,300 in labor and parts.		
Perry	Various Locations	Building Envelope/Roof	261	Seal Coat Application for Conditioned Buildings Roofs	The Georgia Agricultural Exposition Authority has performed a detailed evaluation and review of the energy efficiencies to be gained through the application of a reflective, elastomeric coating on the metal roofs of eight HVAC conditioned buildings. The coating's properties reflects 85% of the sun's ultra-violet rays, thereby reducing the amount of radiant heat generated and absorbed by the metal roofs. This allows the buildings to become cooler and require less energy in operating the buildings' HVAC system. The Georgia Agricultural Exposition Authority proposes to install this elastomeric coating on the roofs of eight buildings; Reaves Arena (104,517 sqft), Georgia Building (30,775 sqft), Heritage Hall (30,964 sqft), McGill Marketplace (36,660 sqft), New South Arena (19,832 sqft), Roquemore Conference Center (8,820 sqft), Beef/Dairy Arena (15,096 sqft), Cotton Commission and Livestock Offices (34,347 sqft). The cost of installing this coating is approximately $464,000, with estimated annual electrical energy savings of $72,000. The coating application carries a ten year warranty.	Agricultural Exposition Authority, Georgia	$463,665
TOT							$824,076
Lamar County							**1 ECM**
Barnesville	Gordon College	Controls/Metering	122	Gordon College Campus Wide Metering Project	This project includes the installation of 30 electric meters, 20 water meters, 11 irrigation meters, and 21 natural gas meters along with the operator interface, server, and Energy Suite Software. Individual building water, gas, and electric meters do not currently exist for the buildings at Gordon College. Several buildings are on one campus wide electric loop and determining the energy usage per building for the implementation of energy conservation measures where possible is less than accurate. Several buildings are also served by one natural gas master meter and for these buildings, it is	Regents, Board of	$300,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					impossible to determine the individual building's energy usage. The buildings do have a more individual system of water meters but the campus primarily relies on the accuracy of the municipalities meter readings to determine water usage. There have been repeated occurrences of the campus discovering severe discrepancies in the municipalities water usage reports. By metering the building individually and with a real-time metering systems, the actual usage and out of the normal usage for buildings will be established allowing for increased energy conservation. This metering project will further allow Gordon College to establish a real-time baseline of energy consumption and quickly indentify individual buildings that need top priority in reducing energy consumption.		
TOT							$300,000
Lowndes County							**2 ECM**
Valdosta	Valdosta State University	Lighting/Fixtures	236	Plant Operations Building Lighting Upgrades	Lighting upgrades and controls. VSU funded the study and new lighting design with a professional engineer for the plant operations building. The study showed significant savings could be achieved by replacing the metal halid fixtures in the high bay shop areas with flourescent fixtures. VSU proposed replacing the the old fixtures with new energy efficient lighting fixtures as well as replacing light switches with controls that will "cycle" lights when rooms are unoccupied.	Regents, Board of	$50,000
Valdosta	Valdosta Tech	Lighting/Fixtures	406	Energy efficient upgrades to HVAC system, lighting, and roofing for Building 100	This ECM proposes to replace the existing T-12 fixtures with more eneregy efficient T-5 fixtures,	Technical College System of Georgia	$141,000
TOT							$191,000
McIntosh County							**1 ECM**
Athens	University of Georgia - Sapelo Island	Mechanical/Other,Tankless Water Heating	150	UGA Marine Institute Factilities Upgrade	Replace all existing tank type water heaters with tankless. Research has shown that tankless water heating reduces standby heat losses considerably, reducing the energy requirements for water heating by about 30 to 40%. Several of the Siesco RA-28 units proposed (and priced) here have been in use for > 5 years on the island with no problems from hard water, scaling, metal	Regents, Board of	$57,600

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					deposits, etc. The Marine Institute accommodates over 1000 students each year, staying an average of about 2-3 nights, mostly in apartment style housing. Over 1000 researchers visit the institute each year, staying days to months. Visitation is seasonal and sporadic. As expected, hot water use in apartments and the laundry facility shows an identical trend; seasonal and sporadic. Because of personnel turnover typical of remote research stations (short term and seasonal technicians, summer interns, etc.), residential units can stand empty for weeks to months waiting for the next occupant. On-demand water heaters are especially appropriate to the changing use required for operations at the Marine Institute. The capacity to only heat water when required, has the potential for great reductions in energy requirements at all Marine Institute facilities. In addition to adding the Siesco units to all 17 buildings, we will install solar hot water collectors and storage tanks to the Shell Hammock residential complex and use the on-demand units to supplement hot water requirements. These 5 somewhat newer homes are our most continually occupied units, housing permanent faculty and staff. Thus they do not have much turnover or down time. They all have sunny exposures with excellent prospects for full use of solar heating. This additional feature is compatible with our ongoing plans to make the Shell Hammock complex a "Green Living" model on Sapelo Island.		
TOT							$57,600
Meriwether County							**1 ECM**
Warm Springs	Little White Hosue Museum	Other/	246	Office/Visitor Center Lighting and HVAC Upgrades	This project is to upgrade the HVAC and lighting systems at the musum at the Little White House. Since this building must maintain strict museum quality humidity levels theer are opportunities to upgrade the HVAC system to humidify and dehumidify using efficient, state of the art equipment. Likewise, the extensive lighting in the museum could be optimized with a more efficient lighting and lighting control system. The Department's Engineering and Construction Division has estimated that the cost for the lighting upgrade would	Natural Resources, Department of	$74,750

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					be $37,500 to replace the existing lighting with high-efficiency lamps and ballasts and to install lighting controls, such as occupancy sensors. Georgia Power recently conducted an energy audit at the Little White House and etsimated that the proposed lighting upgrades would save 76,289 kWh annually. The mechanical systems at the Little White House would also be upgraded. The Department's Engineering and Construction Division has estimated that the cost for the HVAC upgrade would be $27,500. The same Georgia Power audit estimated that the proposed HVAC upgrades would save 21,755 kWh annually.		
TOT							$74,750
Muscogee County							**2 ECM**
Columbus	Columbus State University	Lighting/Fixtures	278	Building Energy Efficiency Improvements - Columbus State University	Lighting Upgrades and Controls - Georgia Power Company along with Columbus State University has performed a walk-through energy survey of the facility with special interest given to interior lighting. We have determined that significant energy savings can be achieved by lighting retrofits. We propose installing new energy efficient lighting fixtures, as well as replacing light switches with lighting controls that will "cycle" lights when rooms are unoccupied. 11,472 Lighting retrofits and 717 occupancy sensors.	Regents, Board of	$1,747,460
Columbus	Columbus State University	Mechanical/Motors/VFD's	279	Building Energy Efficiency Improvements - Columbus State University	Studies indicate that variable speed drives on motors can reduce energy use about 20%. A variable speed drive can be applied to pump motors, air handling unit fan motors, cooling tower fan motors and chillers.	Regents, Board of	$148,709
TOT							$1,896,169
Peach County							**1 ECM**
Fort Valley	Fort Valley State University	Lighting/Fixtures	419	Lighting Replacement	An audit conducted at FVSU indicated that a significant savings would occur by replacing existing Fixtures. FVSU proposes to replace 1,416 fixtures in Troup, Founders, Bywaters, and Davidson buildings.	Regents, Board of	$100,132
TOT							$100,132
Spalding County							**2 ECM**
Athens	UGA Griffin	Mechanical/Chillers	84	Building Lighting and HVAC Upgrades - UGA Griffin Campus	Melton building HVAC Upgrades proposes replacing 23 reheat terminal units with powered VAV terminal units and replacing building	Regents, Board of	$570,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					pneumatic control with energy monitoring DDC control. Energy use reduction via reduced reheat and forced ventilation load requirements Reduced electrical peak demand charges via limiting peak load capacities Energy use reduction via occupied/unoccupied zone control stations Metered energy usage via DDC monitoring and recording Reheat terminal units (23 ea.) will be replaced with power VAV terminal units allowing a large percentage of return air to recirculate within the controlled zone without being reconditioned or exhausted. Pneumatic controls and operators will be replaced with electronic controls and operators eliminating control air compressors refrigerated driers reducing the electrical usage. Zoning "on demand" user control will be incorporated via the DDC control system requiring only the occupied spaces to be conditioned. Building DDC control will also constantly monitor electric power usage and limit equipment capacities during peak power demand times.		
Athens	UGA Griffin	Lighting/Fixtures	86	Building Lighting and HVAC Upgrades - UGA Griffin Campus	Replace existing T-12 lighting fixtures and incandescent exit lighting with T-8 fixtures and LED exit lighting in 36 facilities.	Regents, Board of	$845,245
TOT							$1,415,245
Sumter County							**16 ECM**
Americus	South Georgia Tech	Lighting/Fixtures	92	Install Energy Efficient Lighting, Mechanical Systems, and Controls	Georgia Power conducted an energy audit in 2008 at the request of SGTC to improve the overall efficiency of college operations. They have recommended, and SGTC proposes the removal and replacement of 2,257 outdated light fixtures in 14 buildings with High Energy Efficient Lighting using a combination of contract, in house and student labor. Lighting engineers from Georgia based Cooper Lighting have been consulted and we have experimented with the installation of some of the most energy efficient lighting products available for classroom, lab, administration and common areas. Products have been identified for all lighting applications to facilitate rapid and successful implementation of this ECM. South Georgia Tech has spent $41,718 in maintenance funds in	Technical College System of Georgia	$375,262

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					preparation for this element of our energy savings plan and these funds are not included in this request. Each replacement fixture proposed uses approximately half of the electricity used by the product it will replace. The newly designed fixtures use the most efficient T-8 and T-5 fluorescent lamps available, solid state ballasts and LED technologies. Significant savings in the maintenance of existing outdated light fixtures is also expected. In addition to energy savings, this project makes an adjustment of our Georgia Power Customer Baseline Rate possible which will reduce our overall electrical utility rate. Georgia Power also indicates that this project clearly qualifies for the Lighting Retrofit energy rebate.		
Americus	South Georgia Tech	Controls/HVAC contols	94	Install Energy Efficient Lighting, Mechanical Systems, and Controls	South Georgia Tech proposes the installation of 50 programmable thermostat HVAC system controls in 18 buildings as recommended by the June, 2008 Energy Survey by Georgia Power. Programmable thermostat controls for heating and cooling will be set to reduce or raise temperatures as appropriate in accordance with building occupancy to conserve energy. They can also be used in conjunction with the Georgia Power Energy Direct program in reducing overall electrical usage during high cost, peak demand periods. The projected return on investment for this ECM is 6 months.	Technical College System of Georgia	$12,500
Americus	South Georgia Tech	Lighting/Sensors	100	Install Energy Efficient Lighting, Mechanical Systems, and Controls	South Georgia Tech proposes to replace conventional light switches with 150 occupancy sensing lighting controls in 18 buildings which will turn off lights when areas are unoccupied. Georgia Power has recommended this ECM as part of a comprehensive energy audit. This has the potential for significant energy savings and has a projected return on investment of 3.1 years. It is also expected to prolong lamp life and reduce maintenance costs associated with lighting.	Technical College System of Georgia	$30,000
Americus	Georgia Southwestern State University	Mechanical/Motors/VFD's	359	GSW Comprehensive Energy Management Program	Install VFD's on larger fan motors and cooling tower fans	Regents, Board of	$20,000
Americus	Georgia Southwestern State University	Controls/Building Automation	360	GSW Comprehensive Energy Management Program	Motion sensors for lighting in several buildings	Regents, Board of	$140,000
Americus	Georgia	Controls/HVAC contols	361	GSW Comprehensive	Expand HVAC control system	Regents,	$120,000

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
	Southwestern State University			Energy Management Program	(including lighting-same system). This is for better control during peak times-Real Time Pricing Rate.	Board of	
Americus	Georgia Southwestern State University	Controls/Metering	367	GSW Comprehensive Energy Management Program	Install metering on all buildings in order. This information will be incorporated into the existing/future energy management system. This information will allow much better controls during peak times as well as vacant times.	Regents, Board of	$120,000
Americus	Georgia Southwestern State University	Building Envelope/Windows/Doors	368	GSW Comprehensive Energy Management Program	Science Building-Replace jalousie windows with double-pane. Possible downsize fenetsration, also.	Regents, Board of	$25,000
Americus	Georgia Southwestern State University	Mechanical/Chillers	387	GSW Comprehensive Energy Management Program	Science Bldg-Abandon 40 year old chiller and connect to new system in Roney Building. The Roney system was oversized to accomodate the Science Bldg, but funds are unavailable for the upgrade. Savings are difficult to estimate without extensive study. Old chiller plus new chiller running at less than design-vs-Efficient Chiller running at design.	Regents, Board of	$152,000
Americus	Georgia Southwestern State University	Lighting/Fixtures	388	GSW Comprehensive Energy Management Program	Replace T12 with T8 in New Conf Center	Regents, Board of	$6,000
Americus	Georgia Southwestern State University	Commissioning/Recommissioning/	389	GSW Comprehensive Energy Management Program	Clean AHU Coils and recommission 7 Buildings. Also included is additional funding to clean misc coils on campus and recommission isolated areas.	Regents, Board of	$209,000
Americus	Georgia Southwestern State University	Mechanical/Chillers	392	GSW Comprehensive Energy Management Program	Replace old inefficient chiller in the Nursing/Media Center.	Regents, Board of	$18,000
Americus	Georgia Southwestern State University	Lighting/Fixtures	393	GSW Comprehensive Energy Management Program	Replace T12 with T8 in Education Building	Regents, Board of	$6,000
Americus	Georgia Southwestern State University	Mechanical/Chillers	394	GSW Comprehensive Energy Management Program	Health Center HVAC upgrade	Regents, Board of	$20,000
Americus	Georgia Southwestern State University	Building Envelope/Other,Window Tinting	395	GSW Comprehensive Energy Management Program	Misc Window Tinting	Regents, Board of	$10,000
Americus	Georgia Southwestern State University	Lighting/Bulb Replacement	396	GSW Comprehensive Energy Management Program	Replace incandescent/fluorescent lights with LED's in Student Success Center/Convocation Hall	Regents, Board of	$15,000
TOT							$1,278,762
Tattnall County							**5 ECM**
Reidsvsille	Georgia, Telfair, Calhoun, & Pulaski State Prisons	Mechanical/Other,PSP Chiller Replacement	316	GSP Bundle	The Department of Corrections at Pulaski State Prison is operating a 300 hp boiler for the sole purpose of running a 590 ton absorption chiller. The original design of the boiler was to use wood chips from local saw mills as free fuel. The wood chips were contaminated with sand causing boiler refactory	Corrections, Department of	$1,074,716

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					problems and eventually the mills were shutdown and there was no fuel supply. Today the boiler runs on natural gas. Burning gas to make steam to run an absorption chiller is very inefficient There is significant opportunity to save energy by replacing this inefficient operation. GDC proposes to replace the absorption chiller with two 300 ton air-cooled electric chillers with high efficiencies. This will enable the 300hp boiler to be shutdown and used as back up steam as needed.		
Reidsvsille	Georgia, Telfair, Calhoun, & Pulaski State Prisons	Mechanical/Other,TSP Hot Water System Redesign	334	GSP Bundle	At Telfair State Prison there are two boilers feeding (one in the summer) the hot water system. An underground hot water supply and return loop deliver water to the dorms where it is used in a secondary loop to heat water in each dorm for supply to showers and lavatories. The hot water loop is 6" and 4" black iron pipe and is corroding from the outside in. Repairs of the HW loop are continuous. Rather than repair the HW loop this ECM is looking to replace the ineffiency loop-to-loop design with stand alone HW heaters per dorm and retire the corroding loop in place. This design will save natural gas, water and substantion O&M dollars. Solution - abandon underground delivery system and install seven smaller electric package boilers at the dorms and admin buildings.	Corrections, Department of	$821,343
Reidsvsille	Georgia, Telfair, Calhoun, & Pulaski State Prisons	Mechanical/Heat Recovery	336	GSP Bundle	Georgia State Prison utilizes no form of heat recovery on the boilers. There are three boilers all if which can have stack economizer installed. Stack temperatures during both low fire and high fire as well as the clearance between the boiler and the boilerhouse roof, suggest that a condensing econimizer can be installed cheaply and with strong energy savings and GHG reduction.	Corrections, Department of	$213,293
Reidsvsille	Georgia, Telfair, Calhoun, & Pulaski State Prisons	Mechanical/Other,GSP Cannery Steam	338	GSP Bundle	Georgia State Prison has a cannery operation to process food for inmate consumption. Steam from the boilerhouse is required 30 weeks per year to run this operation. Steam to cannery is via underground header that is over 20 years old and has lost its insulating integrity as evidenced by poor steam quality at the cannery and no ground frost in winter. Equally important is the fact that no condensate is returned to	Corrections, Department of	$317,965

Project City	Project Location	Category/SubCategory	ECM Record ID#	Project Name	ECM Description	Agency	Investment Cost
					the boiler and all of the energy is lost to the sewer. At least 70% of the condensate is clean and can be retruned to the feedwater system. The cannery uses 25,000 lbm/hr (max) and 5,000 lbm/hr (SS). Replacing the steam header, it jacketed insulation, and the condensate return system will be a high return project with great benefit to the GDC.		
Reidsvsille	Georgia, Telfair, Calhoun, & Pulaski State Prisons	Mechanical/Other,GSP Ngas Distribution System	339	GSP Bundle	Georgia State Prison's natural gas distribution system (down stream of the utility meter) is 20+ yrs old and is leaking into the ground as evidenced by an unaccounted pressure loss between regulator and the load. This is not only a pure waste of natural gas but a safey concern as well. Solution - repair/replace piping as required.	Corrections, Department of	$152,118
TOT							$2,579,435
Thomas County							**1 ECM**
Thomasville	Southwest Georgia Technical College	Lighting/Other,Fixtures and Sensors	300	Lighting Upgrade	Lighting Upgrades and Controls- Southwest Georgia Technical College has conducted an investigation of the lighting systems throughout three buildings and has determined there are significant opportunities for lighting retrofits. Southwest Georgia Technical College proposes replacing existing lighting fixtures with new energy efficient lighting fixtures, as well as replacing light switches with lighting controls that will "cycle" lights when rooms are unoccupied. Southwest Georgia Technical College proposes to replace approximately 3,570 lamps, 1,280 fixtures, and 207 light switches (lighting controls).	Technical College System of Georgia	$489,958
TOT							$489,958
Ware County							**2 ECM**
Waycross	Okefenokee Tech	Controls/Building Automation	66	Okefenokee Tech Energy Efficiency Project	OTC proposes to tie 13 roof-top units and multiple heat pump units into the building automomation software system. This will effect buildings 100, 200, 300, 400, 500, 600, 800, and 1000. The integrated system will allow for programming on-and-off functions of the units as well as better measurement and verification. Additionally, labor savings will be realized due to time saved with the automated shut-off of air conditioners. Upgrades to the controls in buildings 300 and 400 will allow a reduction in energy usage and demand as a	Technical College System of Georgia	$62,000

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					result of automoted controls that allow for monitoring and verification.		
Waycross	Okefenokee Tech	Commissioning/Recommissioning/	67	Okefenokee Tech Energy Efficiency Project	A college-wide balancing study has not been done in 13 years. OTC proposes to conduct a recommissioning study on buildings 500, 600, 100, 200, 300, and 400, 800, and 1000 to 1) assess the competency of the central plant and 2) develop recommendations for modifications. Building modifications over the past decades have changed the function of existing heating and cooling systems.The Commissioning would identify recommendations that will decrease energy consumption and build efficiency, thereby reducing costs. Analysis of the system reveals many problems with air flow that affect efficiency. The duct system is inadequate for the square footage and energy demand. In the 400 building, insullation breaks loose, clogs the coils, and restricts air flow. Buildings 100 and 200, built in the 1960s, have been modified to accommodate growth, but the units are seriously out of balance because they were not properly sized to the areas served. Room modifications, the addition of hundreds of computers to rooms, and the positioning of air conditioning units have created air flow problems. A balancing study would determine the proper CFM for each room and lab and have the units adjusted accordingly.	Technical College System of Georgia	$35,000
TOT							$97,000
Washington County							**1 ECM**
Sandersville	Sandersville Technical College	Lighting/Exterior	260	Sandersville Technical College Exterior Lights and HVAC Replacement	STC's project will replace 178 exterior lights at the Sandersville Center (123), Jefferson County Center (18), Jefferson County CTD Range (11), and the Hancock County Center (26). The purchase of the bulbs and fixtures and the installation will cost $154,901 and generate a yearly electricity cost savings of $18,399. The 21 exterior lights and poles at the Jefferson County Center and Jefferson CTD are rented from Jefferson Energy Cooperative (JEC). The yearly rental from JEC and electricity costs for these poles and lights is $6019.00. Helton Electrical Services estimates the electricity used by these lights to be $2468.43 per year based on the current bulbs and usage being 12 hours per night. Buying the poles and	Technical College System of Georgia	$162,646

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					replacing the lights would cost $2000 each for a total of $42,000. The current exterior light poles will be used for the new fixtures. The new fixtures will house 4 foot long florescent bulbs that use ½ as much electricity as the current fixtures while still emitting the same amount of light. The bulbs will burn an average of 20,000 hours before being replaced. This project will enable Sandersville Technical College's three centers to have the same amount of exterior light in parking lots with a projected 47% reduction in electricity used. The proposed lighting systems are manufactured by Orion Energy Systems. Orion is a leader in energy-efficient lighting systems. The exterior lights offer a whiter, brighter light with mounting brackets that fit all standard poles and allow customers to alter the angle of the light to suit their needs.		
TOT							$162,646
Whitfield County							**1 ECM**
Dalton	Dalton State College	Mechanical/Chillers	434	Chiller Replacement - Pope Student Center	We have reviewed the maintenance of this chiller. We are currently spending approximately $24,000 annually to maintain it. Additional repairs are currently required to maintain it in an operational state. Current calculations determined that the current chiller is over sized and only operating at 68% of capacity. A new stagged chiller will significantly improve the operational efficiency.	Regents, Board of	$336,560
TOT							$336,560
TOT							$63,187,364