

**EECBG Activity Worksheet**

Grantee: City of Newport News Date: 06/18/2009  
 DUNS #: 809755085 Program Contact Email: jgwilson@nngov.com  
 Program Contact First Name: Jerri Last Name: Wilson  
 Project Title: Energy Efficiency Lighting and Retrofit Projects for Newport News, Virginia  
 Activity: 5. Energy Efficiency Retrofits If Other: \_\_\_\_\_  
 Sector: Public If Other: \_\_\_\_\_  
 Proposed Number of Jobs Created: 0.00 Proposed Number of Jobs Retained: 8.89  
 Proposed Energy Saved and/or Renewable Energy Generated: 693500 kwh  
 Proposed GHG Emissions Reduced (CO2 Equivalents): 498.000  
 Proposed Funds Leveraged: \_\_\_\_\_  
 Proposed EECBG Budget: 817,864.00  
 Projected Costs Within Budget: Administration: \_\_\_\_\_ Revolving Loans: \_\_\_\_\_ Subgrants: \_\_\_\_\_  
 Project Contact First Name: Ping Last Name: Yip Email: pyip@nngov.com  
 Metric Activity: Building Retrofits If Other: \_\_\_\_\_

**Project Summary: (limit summary to space provided)**

Project will support the City of Newport News climate change initiative and will reduce fossil fuel consumption. Work will include heating, ventilation and air conditioning equipment replacements and upgrades for several city buildings. In three of the four city buildings chosen for retrofit work, repairs or replacements have already been partially completed. The EECBG work will complete and make all systems whole for optimal energy efficiency. While kilo-watt hours are more difficult to measure for equipment, projected savings will be over 693,500 kilo-watt hours, equivalent to 498 metric tons of carbon dioxide emissions. The work required to complete these projects will create 8.89 jobs. This project will serve the public sector. The total cost for the HVAC retrofits is \$817,864. Newport News City Hall: Built in early 1970's; 163,374 SF; 10 stories w/ one-story Council Chambers and Treasurer's Office. The seven air handling units are original to the building and are at the end of their useful life. Replacing the units with ones having variable speed drive motors that can power down to accommodate seasonal loads will use 25%-30% less energy. With the newer units, there may be an estimated savings per year of 693,500 KWHs, equivalent to avoiding 498 metric tons of CO2 emissions. At the same time, the energy management control system components would be upgraded and tied in to the existing monitoring system. The City currently has funding to replace the three units in the penthouse. EECBG funding will be used to replace the four units in the sub-basement. Cost: \$272,864. Work will be contracted out to local businesses. Pearl Bailey Library: Built in 1985; renovated in 1997; 12,650 SF; one story. Phase One mechanical equipment replacement was completed in late 2007 which included work to replace the condenser unit with a more energy efficient unit. The new condenser can be staged for optimal energy efficiency but the existing air handler can only utilize 50% of the available cooling capacity of the condenser and optimal performance is not being achieved. Phase Two: Replacing the air handler system with one that has a variable speed drive will allow for staging. In addition, replacing the existing boiler will not only achieve better efficiency but will also provide for dehumidification, something the library needs and does not have. Cost to replace air handler, boiler and tie into energy management control system is \$185,000. Work will be contracted out to local businesses. Juvenile & Domestic Relations Courthouse- Recently, several major repairs have been completed on the HVAC system. The duct work was replaced in May 2008. Reheat coils and VAV boxes were repaired and cleaned prior to duct replacement and since this work was completed, air flow has improved and temperatures can be maintained and the building has been put on night setback scheduling. Prior to this work, the building had to be in operation almost 24/7 to maintain acceptable temperatures. To be more complete with repairs and be more efficient, the cooling tower, which has leaks, needs to be replaced and the 14 year-old chiller needs an overhaul. In addition, the roof has endured many repairs and is overdue to be replaced. Additional insulation will be used when replacing the roof, increasing the R-value for the building envelope and a reflective light colored roof will be selected for a cooler roof surface. To do all the HVAC upgrades and to replace the roof will cost about \$220,000. This work will be contracted out to local businesses. Newport News Circuit Courthouse: Built in mid-1980's; 94,000 SF; last interior renovation 2008; 3 stories with basement. The existing gas-fired boilers are original to the building and finding replacement parts is difficult or impossible. New boilers will be more energy efficient and will add to the optimal performance of the building's HVAC system. Cost to replace two boilers and tie into energy management control system: \$140,000. Work will be contracted out to local businesses.

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 Activity: 5. Energy Efficiency Retrofits If Other: \_\_\_\_\_  
 Sector: Public If Other: \_\_\_\_\_  
 Proposed Number of Jobs Created: \_\_\_\_\_ Proposed Number of Jobs Retained: 3.05  
 Proposed Energy Saved and/or Renewable Energy Generated: 206527 kwh  
 Proposed GHG Emissions Reduced (CO2 Equivalents): 148.200  
 Proposed Funds Leveraged: \_\_\_\_\_  
 Proposed EECBG Budget: 280,334.00  
 Projected Costs Within Budget: Administration: \_\_\_\_\_ Revolving Loans: \_\_\_\_\_ Subgrants: \_\_\_\_\_  
 Project Contact First Name: Ping Last Name: Yip Email: pyip@nngov.com  
 Metric Activity: Building Retrofits If Other: \_\_\_\_\_

Project Summary: *(limit summary to space provided)*

Project will support the City of Newport News climate change initiative and will reduce fossil fuel consumption. Energy efficiency work will include lighting retrofits for several city buildings. Work will include changing incandescent lights to energy efficient fluorescent lighting and changing older T12 lamps with magnetic ballasts to more efficient T8 fluorescent lamps and electronic ballasts. In addition, LED light fixtures will replace conventional recessed light fixtures. Exterior LED fixtures will also be used in place of metal halide fixtures for a parking garage and fire station. Occupancy sensors will be installed to enhance energy efficiency in rest rooms, individual offices, break rooms and conference rooms. Expected annual savings in energy is 206,527 kilo-watt hours, equivalent to 148.2 metric tons of carbon dioxide emissions. This project serves the public sector. Completion of these projects will create or retain 3.05 jobs. Justice Center Parking Garage LED Lighting: Since acquiring the 6-story, downtown office building and parking garage two years ago, the City has been renovating the offices and upgrading the inadequate lighting in the parking garage. The concrete and glass structure dates to circa 1968 and no major renovations have been recorded. The total gross area of the office building is 87,461 SF and the 3-level parking garage footprint is 32,636 SF. The parking garage basement lighting has been upgraded with LED fixtures and when compared to metal halide fixtures, the annual savings will be \$6,147 and 76,834 KWHs (55 MT of avoided CO2 emissions). To complete the other two levels will cost \$40,000 and when compared to metal halide fixtures, we will reduce the annual energy consumption by 43,660 KWHs and avoid 31.4 MT CO2 emissions. (Note: EPA GHG Equivalencies Calculator is used for all emissions estimates.)

Juvenile & Domestic Relations Courthouse-Built in 1949; last remodel in 1995; 27,890 SF; 4 stories. Changing T12 lamps and magnetic ballasts in existing light fixtures to T8 lamps with electronic ballasts will reduce the annual energy consumption by 5,985 KWHs and avoid emitting about 4.3 metric tons of CO2. Adding occupancy sensors will save an additional 45,723 KWHs per year and avoid 32.8 MT of CO2 emissions. Replacing the recessed "can" fixtures with LED fixtures throughout the courthouse will reduce 15,852 KWHs per year, equivalent to 11.4 MT CO2.

Total energy savings per year with the lighting retrofit: 67,560 KWHs and 48.5 MT of avoided CO2 emissions. Cost for lighting upgrade, labor and materials: \$101,082.

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 Program Contact First Name: Jerri Last Name: Wilson  
 Project Title: Energy Efficiency Lighting and Retrofit Projects for Newport News, Virginia  
 Activity: 12. Lighting If Other: \_\_\_\_\_  
 Sector: Public If Other: \_\_\_\_\_  
 Proposed Number of Jobs Created: 0.00 Proposed Number of Jobs Retained: 0.00  
 Proposed Energy Saved and/or Renewable Energy Generated: 569400  
 Proposed GHG Emissions Reduced (CO2 Equivalents): 409.000  
 Proposed Funds Leveraged: \_\_\_\_\_  
 Proposed EECBG Budget: 400,000.00  
 Projected Costs Within Budget: Administration: \_\_\_\_\_ Revolving Loans: \_\_\_\_\_ Subgrants: \_\_\_\_\_  
 Project Contact First Name: Everett Last Name: Skipper Email: eskipper@nngov.com  
 Metric Activity: Other If Other: LED Street Lights

Project Summary: *(limit summary to space provided)*

The City plans to replace 500 City-owned street lights with LED replacement fixtures. Each fixture will save an estimated 130 watts per year for an estimated total energy savings of 569400 kwh/year. This is the equivalent of 409 metric tons of CO2 emissions. The work will be performed by existing staff in the City's Engineering Department. This project will serve the public sector.

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Project Title: Energy Efficiency Lighting and Retrofit Projects for Newport News, Virginia  
Activity: 14. Other If Other: \_\_\_\_\_  
Sector: Public If Other: \_\_\_\_\_  
Proposed Number of Jobs Created: 1.00 Proposed Number of Jobs Retained: 0.00  
Proposed Energy Saved and/or Renewable Energy Generated: \_\_\_\_\_  
Proposed GHG Emissions Reduced (CO2 Equivalents): \_\_\_\_\_  
Proposed Funds Leveraged: \_\_\_\_\_  
Proposed EECBG Budget: 259,102.00  
Projected Costs Within Budget: Administration: \_\_\_\_\_ Revolving Loans: \_\_\_\_\_ Subgrants: \_\_\_\_\_  
Project Contact First Name: Reed Last Name: Fowler Email: rfowler@nngov.com  
Metric Activity: Other If Other: Grant Administrator  
Project Summary: *(limit summary to space provided)*

The City is requesting \$259,102 to fund a position for up to 3 years. This position will be tasked with oversight of the Energy Efficiency and Conservation Strategy, grant administration for the EECBG, and with ensuring program compliance with all transparency and accountability requirements. This position will also serve as a contact person and liaison with other local, regional, and State officials in order to carry out the goals of the program. This creates 1 new job. The position will report to the Director of Public Works. This activity will serve the public sector.