DEPARTMENT OF ADMINISTRATION
Environmentally Preferred Purchasing

The Department of Administration continues to promote the purchase and use of sustainable, efficient supplies and products. As the Department progresses with this effort, more of these products are being added to statewide term contracts, agency specific term contracts, as well as awarded through open market bids. For more information visit the Purchase and Contract Web site: http://www.ncpandc.gov/

Solicitations advertised by the Division to Comply with the Session Laws 1993 {G.S. 130A - 309.14(a3)}

Presently, bids advertised in the Division of Purchase and Contract contain a Recycling and Source Reduction paragraph in item #10 of Instructions to Bidders. When developing bid invitation language, requirements and specifications, purchasers are continuing to look at alternative methods and products that result in waste reduction, if their procurement is both practicable and cost-effective.

Recycling and Source Reduction information provided by the contractors on bids received during the 2012 to 2013 fiscal year indicate the sustainable features or criteria of those products. Sustainable attributes include Reduction, More Efficient, More Durable, Longer Lasting, Reusable, Refillable, Repairable, Refurbished, Recyclable, Washable, and Less Toxic than their traditional counterparts. Efficient resource use includes Energy Star for electric energy demand and reduced water consumption.

Refer to the Examples of Sustainable Open Market Awards and the listing of the Statewide Term Contracts with the applicable sustainable features identified.

Table 1 lists the IPS purchase awards by the type and dollar amounts awarded by the Division of Purchase and Contract.

Table 1

IPS Commodity Purchase Awards by Bid Type	Number Awards by Bid Type	Percentage Number Awards by Bid Type	Awarded Dollars by Bid Type	Percentage Awarded Dollars by Bid Type
Agency RFP	303	39%	$130,545,991.49	13.36%
Contractual Services	332	15.76%	$216,139.32	18.45%
Agency Specific Term Contracts	210	9.97%	$60,067,157.76	6.15%
Open Market Purchases	672	31.91%	$57,816,378.08	5.92%
Quotes	255	12.11%	$30,965,673.24	3.17%
Recovery Funds	2	0.09%	$181,901.25	0.02%
Term Contracts	180	8.55%	$471,976,842.42	48.31%
Waivers	152	7.22%	$45,119,701.57	4.62%
Total	2106	100.00%	$976,889,785.13	100.00%

NC E-Procurement @ Your Service

As of July 4th, 2013, the enterprise-wide system has 52,067 registered vendors, and 8.778 users representing 217 entities across the State. This includes state agencies, hospitals and institutions, community colleges, K-12 public schools, universities and local governments. NC E-Procurement @ Your Service continues to contribute to a sustainable environment through significant reductions in hard copy document reproduction (paper, printers and supplies) through the use of electronic business transactions and electronic documents. NC E-Procurement also continues to support State priorities for environmentally preferable products with over 74,720 catalog items clearly marked as "Recycled" of the total 162,933 catalog items, as of October 10, 2013.

Purchasing Compliance Reviews

North Carolina Administrative Code (01 NCAC 05B .1605) mandates that the Division of Purchase and Contract conduct compliance reviews on purchasing practices of all state agencies (institutions, hospitals, community colleges, universities, and state agencies). All compliance reviews, except universities, are conducted utilizing data from the NC E-Procurement System. Electronic data reduces the necessity of conducting most phases of the analysis on-site; thereby increasing efficiency, as well as reducing travel costs, fuel emissions, and operating expenses.

Procurement Training

In January 2013 the Division of Purchase and Contract implemented a *NEW* training program to provide North Carolina public procurement personnel and contract administrators the skills necessary to more efficiently and effectively carry out their duties. The procurement training is specific to the State of North Carolina, developed and delivered by the Division of Purchase and Contract. The new procurement training includes three (3) NEW courses: North Carolina Procurement – Part 1, North Carolina Procurement – Part 2, and Contract Administration. Each course is a one-day instructor-led classroom training integrating case studies and role play activities to apply the information taught. The classes are offered free of charge. The only cost incurred by North Carolina agencies is travel-related expenses. In order to minimize impact to agency business operations and travel-related expenses, the classes are offered regionally throughout the state. For the period of January 24 through October 3, 2013 there were thirty-three (33) procurement and contract administration classes offered with 756 attendees. There are six (6) additional procurement and contract administration classes planned in October and November 2013 with 154 registered students. Thereby, for the period of January through December 2013 there will be 39 procurement and contract administration classes offered with 910 anticipated participants.

In addition to the procurement and contract administration classes, the Division of Purchase and Contract also offers E-Procurement and E-Quote training. For the period of January through December 2013 there will be 22 E-Procurement and E-Quote classes offered, with 240 anticipated participants.

IPS (Interactive Purchasing System) & Vendor Link NC

The Division of Purchase and Contract continues to promote opportunities for vendors to do business with the state through electronic advertisement of goods, services and design/construction in IPS. The entities using this system consist of state agencies, institutions, universities, community colleges, K-12 public schools, and local governments.

Vendor Link NC allows vendors to register to receive electronic notification of solicitations. Vendor Link had 24,901 registered vendors as of June 30, 2013. The system continues to grow with the addition of users increasing to 557 agencies, schools and institutions with 1166 purchasers, who posted 5708 solicitations using the database from July 1, 2012 to June 30, 2013.

EXAMPLES OF SUSTAINABLE OPEN MARKET AWARDS

Clean Air Weld Station – Student welding booths purchased for Rockingham Community College incorporate a low energy air filtration (LEAF) system for welding smoke & grinding dust removal. Contaminated air flow is drafted horizontally to the back of the station for the initial stage of filtration which reduces smoke and dust exposure to the student welder. Energy savings of up to 80% are claimed for the system responsive to the actual welding operation for sufficient airflow by using the Smart Start (automatic start stop), VFD (variable frequency drive), LED lights, high efficiency blowers and premium efficiency motors. Self-contained, closed loop air filtration system also reduces or may eliminate the exhaust of conditioned building air thereby reducing energy demands for the facility. The manufacturer allowed an educational discount of 22% of the purchase price. This is an example of reduced energy consumption and reduced environmental air pollution.

Used Electric Boom Lift – A 2007 boom lift rented by the Department of Agriculture for a four month period was quoted and purchased at $19,500.00. Equipment purchase was determined to be more cost effective than renting based on projected use. A new boom lift would cost approximately $43,900.00, with the purchase of the used lift resulting in a 56% savings. This is an example of reuse of resources.

Used 53' x 102" Hauling Trailers – Ten trailers were purchased for the Department of Public Safety, Correction Enterprises at a cost of $109,000.00 where the estimated price of new trailers would be $282,000.00. Used equipment provided a 61% saving from new. This is an example of reuse of resources.

Trailer-Mounted Solar Powered Message Sign - Eight trailer mounted signs with 3 lines by 12 character matrix displays provide programmable messages for NC Department of Transportation for current and new road construction projects. Signs are designed with a solar charging capability to the primary battery power supply. Amber displays may be remotely operated and interfaced with radar or traffic control applications. Portable solar powered unit includes energy efficient LED lamp matrix and controls.

Used Forms Processing Equipment – A used Bell & Howell forms cutter and burster was quoted for the Department of Revenue to satisfy an urgent need for equipment to aid in the disbursement of tax refunds to NC taxpayers. Device was purchased for $28,423 resulting in a savings of $11,563 compared to new equipment purchase. This is an example of reuse of resources.

New State Fair Expo Building Lighting – The State Fair Expo Building was retrofitted with a quantity of 130 type T8, 32 watt fluorescent high bay fixtures for the Department of Agriculture from state fair receipts. Energy efficient fixtures include sufficient ventilation to keep the 3 electronic instant start, high power factor (90% or greater) ballast cool so the ballast life will not be reduced. In addition the fixtures included a motion sensor with a time delay settings from 30 seconds up to 20 minutes. The lamp reflectors employ a highly tooled shape to give a 95% reflectivity of the fluorescent light. This is an example of the purchase of energy efficient products that are designed long life and to provide efficient area illumination on an as needed basis. .

Latent Master Mobile Fingerprint Station - Mobile fingerprint station was purchased for the North Carolina Justice Academy with grant fund for training courses. Ultraviolet to infrared light spectrum imaging system provides a fingerprint viewer and image capture video system. Reduced chemicals are used, mixed and stored for fingerprint detection and capture. Reduced external illumination requirements also improve energy efficiency and reduce processing time.

Used Freightliner Truck – A used freightliner 2010 Model Cascadia, class B truck was purchased for $59,368, which allowed a $79,180 savings compared to a new 2014 model of the same size and capacity. The used vehicle was determined to meet the user's needs at Johnston Community College at a significant savings. This is an example of reuse of resources.

Recycled Plastic Lumber – An agency specific term contract was bid for recycled sheet stock to cover signage applications needed by the Department of Environment And Natural Resources. Sheet stock is manufactured with a range of 45% to 65% postindustrial recycled HDPE (high density polyethylene). This multi-layered non-porous material resists deterioration from moisture, UV light exposure and is inherently resistant to wood penetrating insects. Material is very durable with a stain resistant surface that also serves to resist permanent markings such as graffiti. This is an example of using recycled materials that are longer lasting in an outdoor environment.

Enforcement Vehicle Light Bars - A three year agency specific term contract was awarded to supply emergency LED type bar lights to the Wildlife Resources Commission. These bar lights offer more functionality (light patterns other than available with strobe lamps), energy efficiency (reduced electrical load on the car's alternator and battery), and significantly decrease maintenance (long life solid state LED displays eliminates lamp replacement due to mechanical vibration). Secondary benefits may include increased life for the lead acid automotive battery and potentially decreased automotive fuel consumption.

STATEWIDE TERM CONTRACTS

As existing term contracts are re-bid and new term contracts are developed, the Division of Purchase and Contract continues to improve the contracts by offering a wide range of sustainable or environmentally friendly products. Examples of the sustainable features of these term contracts are listed below.

- **Air Conditioners, Room, 031A** - Items available through this contract were awarded based on the lowest energy efficiency cost, meeting specifications. The majority of the items awarded are Energy Star Compliant, containing recycled materials and packaging.

- **Appliances, Domestic, 045A –** The majority of refrigerators, washers, and dishwashers covered by this contract are Energy Star Qualified.

- **Automotive, Industrial Parts and Supplies, 060A** - Some products included have recycled materials with 10%-

20% post consumer content.

- **Batteries, Storage, 060B** - Battery casings are made from recycled material (96%). Batteries are exchanged as a core and picked up by the vendor. In addition the contractor will pick up and properly dispose of junk batteries on quantities less than 10. Core (junk) batteries are considered to be an environmental hazard and are otherwise expensive to properly remove.

- **Tire, Automotive, Recapping and Repairing, 060E** – Retread tires extend the life of the original product. The purchase of retreads saves resources used in the production of new tires. The use of retread tires reduces tire disposal. Retread tires cost less than new tires.

- **2013 Models Passenger Cars, 070A** – Cars are available in 4 and 6 cylinder gasoline engines with most flex fuel (E85) compatible. Contract includes a full electric car (Ford Focus) and plug-in hybrid cars (Toyota Camry and Prius C).

- **2013 Law Enforcement Vehicles, 070B** - Cars are typically four door, available in 6 and 8 cylinder engines and some are flex fuel (E85) compatible. According to the Steel Recycling Institute, 67.7% of a vehicle is steel or iron. Of that steel or iron, 26.6% is post-consumer material..

- **Conventional School and Activity Buses, 070C; Conventional Activity Buses, 070D** – Vehicles typically contain approximately 20% post consumer recycled material by weight and 80% of the vehicle by weight is recovered for reuse. Used school buses are usually sold or are used for spare parts.

- **2013 Model Year Trucks, Vans, Utility Vehicles, Crossovers-Conventional Fuels and AFVs, TC # 070G –** All diesel trucks and vehicles are required to additionally operate using B20 bio-diesel fuel. Gasoline fueled vehicles were also bid with flex fuel as an alternative category. Awarded flex fuel vehicles comply with the intent of Senate Bill 2051. Vehicles noted as Flex Fuel or E85 can use both pure gasoline and E85 fuel.

- **Neighborhood Electric Vehicles, 070N** - Neighborhood Electric Vehicles (NEV) are battery operated vehicles that are "street legal" for use on roads with a posted speed limit of 35 MPH or less. There are 14 different NEV models available from this contract from eight suppliers offering the brands; GEM, E-Ride, Columbia, Cushman, Polaris, and Star brand vehicles. The contract vehicles are offered with a price range of $10,232 to $30,123 and include an extended warranty. Because these vehicles do not consume hydrocarbon fuel they produce zero direct emissions. These vehicles are considered good additions to agency fleets to help meet petroleum reduction goals.

- **Golf Cars, 070P –** Electric and gas fueled vehicles are available with two, four and six passenger models. Models are made with components of 85-90% recycled steel, plastic and aluminum.

- **Light Transit Vehicles**, 070U – Vehicles accommodate public transportation needs and are Americans with Disabilities Act (ADA) compliant. Engines meet current EPA emissions guideline. Alternate fuel/engine options include flex fuel (E85), propane and gas/electric motor hybrid engines.

- **Remanufactured Toner Cartridges, 207A** - Currently common use Hewlett Packard and Lexmark cartridges are remanufactured to equivalency with the original OEM performance. New Brother Brand drum assemblies and toner hopper assemblies were also added. Product specifications are being transitioned from mandated construction requirements to the use of product and vendor performance requirements. This is expected to allow a wider variety of brands and models to be covered as requested by the contract users. This contract reduces the number of reusable cartridges added to the waste stream.

- **Ballasts, 285B** – Ballasts of all types are available, including electronic types that are more energy efficient, support variable illumination and reduce electromagnetic radiation. A link is provided to Federal Energy Management Program (FEMP) that illustrates a return on investment for retrofitting with more energy efficient lamps and ballasts. Electronic ballasts contain no PCB's and can be disposed of in the trash. Reduced product shape and size (form factor) also minimizes packaging and metal enclosure requirements.

- **LED Lighting, 285C** – Contract consists of lamps for cove lighting, area lighting, downlights, troffers and wall packs employing LED illumination for energy savings. Packaging is 60% recycled materials. Technology utilizes LED illumination for energy savings.

- **Energy Saving Devices, 285D** – Contract includes T8 size tubular fluorescent retrofit kits, LED exit signs, LED exit sign retrofit kits, occupancy/vacancy sensors, electronic dimmable ballasts, and controls. Products utilize LED illumination and dimmable ballasts for energy savings.

- **Paper, Computer and Labels, 395B** - Computer paper contains from 30% to 50% recycled with 30% post consumer content.

- **Propane Tankwagon, 405A** – Contract vendors have reported 4,194,408 gallons were purchased last year of this clean burning fuel.

- **Oils, Lubricants, Greases, and Antifreeze, 405H** – The following synthetic, bio-degradable, and recycled lubricants were reported as supplied under this contract: Biodegradable Bar & Chain Oil (18 gallons), Biodegradable Two Cycle Oil (11 gallons), Synthetic Motor Oil (1,841 gallons), Biodegradable Hydraulic Oil (945 Gallons), Synthetic Gear Lubricant (16,110 Pounds), Synthetic Automatic Transmission Fluid (2,342 Gallons), and Synthetic Grease (3,068 Pounds). Additional synthetic type oils and transmission fluids have been added to the contract to allow increased service life to reduce consumption and decrease maintenance cycles. The State Surplus Property disposes of waste oil and antifreeze under contract. This year 18,078 gallons were purchased of Diesel Exhaust Fluid (DEF), an aqueous urea solution used in diesel engines to lower nitrogen oxides concentration in exhaust emissions. Nitrogen oxides, like hydrocarbons, are precursors to the formation of ozone and also contribute to the formation of acid rain.

- **Propane Transport, 405K** – Contract vendors have reported 2,218,099 gallons were purchased last year of this clean burning fuel.

- **B-20 Transport, 405L** - B20 blended fuel contains 80% diesel fuel and 20% virgin soy or reprocessed vegetable oil. This means that of the reported 7,350,323 gallons of B20 blended fuel purchased, 1,470,064 gallons were produced from plant mater. This results in a reduction of crude oil consumption.

- **Gasohol, E-10 Transport, 405M** - E-10 blended fuel contains 90% unleaded gasoline and 10% ethanol. This means that of the 4,332,599 gallons of E10 blended fuel reported as purchased, 433,259 gallons were derived from ethanol. This results in a reduction of crude oil consumption.

- **Pipeline Natural Gas, 405N** – Contract vendors have reported 2,398,146 dekatherms as purchased last year of this clean burning fuel.

- **Ultra-Low Sulfur Diesel Transport, 405P** – Contract offers 15 ppm of sulfur content compared to 500 ppm sulfur content on the previous low sulfur diesel contract. Transport loads are over 6,000 gallons per delivery, and are typically used heavily by the Department of Public Instruction and the Department of Transportation. Approximately 26,637,104 gallons were reported as purchased. This will help to provide compliance with clean air mandates.

- **Ultra-Low #2 Sulfur Diesel Tankwagon, 405Q** - Identical to the 405P contract except in form of delivery. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. Approximately 495,834 gallons were reported as purchased. This will help to provide compliance with clean air mandates.

- **E-85 Flex Fuel, 405R** - E-85 blended fuel contains 15% unleaded gasoline and 85% ethanol derived from corn production. This alternative fuel is provided in transport quantities of 6000 gallons or more. This means that of approximately 35,787 gallons of the blended E85 fuel reported as purchased 30,418 gallons were derived from ethanol which reduces crude oil consumption.

- **E-10 Tankwagon, 405S** - E-10 blended fuel contains 90% unleaded gasoline and 10% ethanol. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. This means that of approximately 714,417 gallons of the blended E10 fuel purchased, 71,441 gallons were derived from ethanol which reduces crude oil consumption.

- **Ultra-Low Sulfur Diesel #2 Emergency Transport, 405T** – Contract offers 15 ppm of sulfur content compared to 500 ppm sulfur for the standard diesel #2 fuel. This contract is used in emergency cases when there is a pipeline interruption. The ultra-low sulfur content will help to provide compliance with clean air mandates. No sales were required from this contract during the fiscal year.

- **E-10 Emergency Transport, 405U** – E-10 blended fuel offers 90% unleaded gasoline and 10% ethanol. This contract is used in emergency cases when there is a pipeline interruption. The ethanol blend can reduce crude oil consumption. No sales were required from this contract during the fiscal year.

- **Bio-Diesel Fuel, B-20 Tankwagon, 405V** – B20 blended fuel contains 80% diesel fuel and 20% virgin soy or reprocessed vegetable oil. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. This means that of 236,347 gallons purchased, 47,269 gallons are derived from plant mater. This results in a reduction of crude oil consumption.

- **E-85 Tankwagon, 405X** - E-85 blended fuel contains 15% unleaded gasoline and 85% ethanol derived from corn production. Tankwagon loads are less than 6,000 gallons down to a minimum of 500 gallons. From the approximately 43,681 gallons reported sold of the blended E85 fuel, 37,128 gallons were derived from ethanol which reduces crude oil consumption.

- **Aviation Fuels, 405Y** - Contract includes aviation gasoline (avgas) and Jet A fuels. The aviation gasoline provided has a lower lead content of the fuel. From this contract approximately 8,099 gallons were reported sold. Lead from engine exhaust fumes is classified an irreversibly neurotoxin and the lower lead content gasoline would be less toxic than the traditional formulation.

- **Furniture, Metal, Folding Chairs, Tables, Storage Units, Wood Library Furniture, 420A** - **Furniture, Desks (Wood), Credenzas, Conference Tables, Etc. & Bookcases, Furniture, 425B & C** - Contractors support sustainability through different practices. Mechanical parts can be recycled or replaced, thereby extending service of item. Packaging is recyclable. Products may be ground up into particleboard. Packaging may contain from 15% to 75% post consumer waste and is reusable. Wood, plastic and metal contain recycled post consumer content and are recyclable. Product offerings are using more sustainable methods because they offer a competitive price advantage over those who use all virgin materials. Soy foam in chair seats and backs are now becoming available and is more environmentally friendly because it is made partly from soybeans, a renewable resource.

- **Furniture, Library, Wooden, 420D –** Packaging is recycled. Wood scraps from the manufacturing process are either mulched for recycled materials or converted into energy. Manufacturing may use a water based top coat in wood finishing process.

- **Furniture Contracts, 425A & 425D** - Product offerings are using more sustainable methods because they offer a competitive price advantage over those who use all virgin materials. Soy foam in chair seats and backs are now becoming available and is more environmentally friendly because it is made partly from soybeans, a renewable resource.

- **Bedding Mattress Term Contract, 420E** - Mattresses comprised of innersprings (similar to the type used primarily in the residential and hospitality bedding industries) now require successful evaluation to the 16 CFR Part 1633, the Consumer Product Safety Commission's new mattress flammability testing standard, "Standard for the Flammability (Open Flame) of Mattress Sets". Successful evaluation of products offered continue to require the 16 CFR Part 1632, Standard for the Flammability of Mattresses and Mattress Pads (directed toward cigarette ignition of mattresses). The revised specifications promote increased safety and durability to extend product life.

- **Furniture, Chairs, Ergonomic, 425E** – Fabric and chair cushions may contain up to 100% post consumer recycled content. Packaging contains post-consumer materials, is reusable and recyclable for continued use. Product offerings are using more sustainable methods because they offer a competitive price advantage over those who use all virgin materials. Some manufacturers are now offering soy foam in chair seats and backs as well as recycled wood components. Fabric and chair cushions contain up to 100% post-consumer recycled content with approximately 40% total recycled content for the complete product. Packaging contains up to 100% recycled materials and is recyclable.

- **Metal Cabinets, Lateral, Vertical and Storage, 425H** - Cabinets contain from 10% to 30% recycled content. Corrugated boxes have a minimum of 50% post consumer waste and are recyclable.

- **Industrial, Medical and Specialty Gases, 430A** - Are delivered statewide in reusable cylinders and are exchanged when replacement cylinders are needed.

- **Disinfectants, Janitorial Cleaners, Environmental Cleaners, and Odor Counteractants, 435A –** Numerous environmentally friendly janitorial cleaners are available through this contract that are Certified Compliant to Green Seal GS-37 Environmental Standard For Cleaning Products For Industrial and Institutional Use, dated September 2011, or the EcoLogo Certification Criteria Document CCD-146, Environmental Standard for Hard Surface Cleaners, dated August 2011. These products include General Purpose Cleaner, Environmentally Friendly Neutral Cleaner, Environmentally Friendly Window and Glass Cleaner, Environmentally Friendly Hydrogen Peroxide, and Environmentally Friendly Cleaner Degreaser. Premoistened towelettes are available to provide an alternative for chemicals from being aerosoled or dispensed in the indoor air. Disinfectants included contain various active ingredients and end use concentrations to allow proper selection for limiting contact and exposure to amounts required to be efficacious for specific pathogens targeted. All disinfectants are EPA registered for efficacy of pathogens identified by the NC Statewide Program for Infection Control and Epidemiology within health care related facilities. Chemical dilution control equipment for designated products is supported to improve sanitation quality, deliver accurate recommended product dilution and control costs. Contractors are required to provide the product use training and MSDS sheets.

- **Maintenance, Repair & Operation Supplies, 445B –** Items which were offered under the following contracts are now covered under this contract: Lamps, Large & Specialty (285A), Material Handling Carts/Trucks (560A), Low-Flow Plumbing Fixtures (670A), and Safety Equipment, Eye/Face Protectors (345A). Lamps may contain up to 65% recycled content including glass and mercury. Lamp packaging that may contain 73% recycled content. Some of the lamps are low mercury (TCLP compliant), non-hazardous. Low-flow plumbing fixtures are offered to reduce water consumption.

- **Locks, Locking Devices & Accessories, 450B** – Product metal content includes 26-31% Pre-Consumer recycled materials and 4-6% Post-Consumer recycled materials. Some models support the material and resources credits for Leadership in Energy and Environmental Design (LEED) building certifications.

- **External Defibrillators, 465B** - Defibrillators can be refurbished and packaging materials can be recycled.

- **Incontinent Care Products, Disposable, 475C** - Disposable washcloths (wipes) contain a minimum 50% of fully biodegradable paper (cellulose fibers).

- **Grounds Maintenance Equipment, 515B** – Contract includes, walk behind products/equipment, mowers and lawn & garden tractors, hand held equipment (hand-held type), hand held equipment, tractors, utility vehicles, golf & turf equipment, and other equipment. Equipment is manufactured with typically 20% recycled steel and plastic.

- **LED Vehicle Traffic Signal Modules, 550A** - Traffic signals and crosswalk notification employing the high efficiency light emitting diode (LED) technology consume 90% less energy than conventional signals, while providing greater reliability, longer life, and low-maintenance performance. Signals are certified for ENERGY STAR certification for reduced energy consumption.

- **Traffic Signal Equipment, 550D** - Lenses and signal head hardware are compatible with energy efficient LED lamps. Depending on brand, aluminum components may have up to 85% recycled content.

- **Traffic Cones and Drums, 550F –** Contract includes caution drums and cones with up to 35% recycled content in the plastic body and up to 100% post consumer recycled content for the rubber support base for either product.

- **Trailer-Mounted Solar Powered Flashing Arrow Board, 550G** - Agency specific term contract provides availability of a trailer mounted, solar charged 15 lamp LED array arrow board and related parts for the NC Department of Transportation. Amber lights on panel board are electronically actuated to form various configurations to signal, control, and direct high speed vehicle traffic. Portable solar powered unit includes energy efficient lamps and controls.

- **Office Supplies, 615A** - Contractors are required to the extent feasible and practical, to offer recycled products, including packaging, especially those having post-consumer waste content. Wherever possible and practical, such products should be identified as such.

- **Napkins, Bathroom Tissue & Paper Towels, 640A** – All products on the contract are certified to Green Seal standards GS-1 or GS-9, or Ecologo CCD-084 or CCD-086. Paper products are manufactured from 100% recycled fiber, with 40% to 80% of that recycled content being from post consumer content. Products are manufactured using either elemental chlorine-free or chlorine-free systems. This is an example of the use of recycled materials.

- **Office Paper, 645A** - Various products contain both post consumer recycled content from 100% to 30%, and chlorine free copy paper. Other recycled and virgin paper products including envelopes are supported.

- **Laminators & Laminating Film, 665A** - Some of the film contains 5% post consumer content. Packaging contains 25%-80% post consumer content.

- **Bags, Plastic, Trash, 665B** - Liners contain a minimum of 10% post-consumer or 10% pre-consumer reprocessed copolymer. All the liners awarded were thoroughly evaluated for strength and performance.

- **Ammunition, 680A** - Brass shell casings can be saved and recycled and others can be reloaded.

- **Vending Machines and Money Changers, 740B -** Vending machines were purchased for the Department of Health and Human Services are twice as energy efficient as machines made 5 years ago. Equipment features high-efficiency refrigeration, foam-injected insulation and LED display lighting. Refrigerated versus chilled storage space allocation is adjustable for varied product dispensing. Wireless monitoring systems boost efficiency with 24/7 communication and report diagnostics including amount of product needed to refill unit. This is an example of reduced energy consumption with the reduced cost of service/refill trips on an as needed basis. Packaging, refrigerant and metal components may contain recycled content and are recyclable.

- **Construction Equipment, 760H** – Construction Equipment covers excavators, wheel excavators, track loaders, compact track loaders, wheel loaders, skid steer loaders, backhoe loaders, crawler dozers, crawler loaders, wheel dozers, motor graders, utility cranes, and compactors. Appropriate attachments or equivalent products are included in the contract. Equipment manuals and parts catalogs are provided in hard copy and electronic copies. Engines meet current EPA Tier and emissions guidelines.

- **Forestry Equipment, 760L** – Equipment includes feller bunchers, knuckleboom loaders, forestry swing machines, and harvesters. Appropriate attachments are included in the contract. Equipment manuals and parts catalogs are provided in hard copy and electronic copies. Engines meet current EPA Tier requirements.

- **Tires and Tubes, 863A** - Tires depending on manufacturer may contain from 1.55% to 2.5% of recycled materials based on the product attributes, speed rating and performance criteria.

- **Teaching Equipment, Electricity/Electronics Courses, 924A** - Office paper, cardboard and metal enclosures have recycled content. Documentation may be provided in soft copy instead of hard copy printed materials.

- **Recycling Services for Fluorescent Lamps, Ballasts & Other Mercury Containing Devices**, **926B** – Contract assists agencies and local governments with contracted disposal of discarded electronic products that are diverted from landfill disposal.

- **Electronic Equipment Recycling Services, 926C** – The State of North Carolina requires that its recycled electronics not contribute to unsafe and environmentally damaging processing practices. The purpose of this contract is to assist Agencies in complying with the State's electronic recycling requirements by providing recycling service options for end-of-life electronic equipment, including the collection, de-manufacturing, and recycling of computer monitors, televisions, desktop CPUs, laptop computers, printers, scanners, keyboards and mice, copy machines, DVD players, VCRs, stereo systems, tape players, CD players, radios, telephones, cell phones, readers, network equipment, servers, fax machines, electronic games, and other consumer electronics generated by State of North Carolina agencies and other eligible users. Eligible contract users include county and municipal governments, local education agencies, community colleges, state universities, and other local public agencies or authorities. Some recycled products generate a revenue stream that may be used to pay for the recycling of other products.

Items Aiding Waste Reduction Purchased By State Agencies Through Term Contracts and Open Market Purchases

The following items purchased by State agencies meet the criteria for aiding waste reduction by being reusable, refillable, repairable, more durable, and/or less toxic than their traditional counterparts:

Reusable
Refrigerant Recovery System (filters reusable refrigerant),
Recycled Carpet fiber,
Recycled Paper fiber,
Recycled Content Furniture (not traditional wood),
Printers,
Tire Recapping & Repairing Service,
Uniforms, Wiping Cloths

More Durable
Above-Ground Vaulted Fuel Storage Tanks,
Classroom Furniture, Electronic Lamps & Ballasts,
Vacuum Cleaners, Floor Polish,
Grader Slope Attachment,
Plastic Lumber, Mattresses,
Vertical File Cabinets, Wood Case goods,
Wood library furniture

Energy Star – Reduced Energy Consumption
Audio Visual System,
Changeable Message Signs – Solar Powered,
Domestic Appliances,
Lighting Fixtures,
Room Air Conditioners,
Lamps,
Traffic Signals – LED,
Warning Lights - Vehicles Safety,
Water Coolers

Flow Plumbing Fixtures for Reduced Water Consumption – 0.5 GPM lavatory facet nozzles and 1.5 GPM showerheads support the Governor's water conservation initiative during severe water restrictions throughout the state.

Used - Automobiles and trucks

Refillable
Ammunition - Cartridge Refills,
Batteries - Vehicle & Storage,
Drums – Steel, Fire Extinguishers,
Cylinders for Welding, Medical & Specialty Gases
Fuel Tanks,
Self-Contained Breathing Apparatus

Repairable
Defibrillators, Musical Instruments,
Tire Recapping & Repairing Service

Refurbished/Rebuilt
Medical Diagnostic Equipment & Instrumentation,
Remanufactured Toner Cartridges,
Scientific Equipment, Sewing Machines

Less Toxic
Alternative Fuel Vehicles, Dry Cell Batteries, Electronic Lamps & Ballasts, Fertilizers/Farm Chemicals, Inks for printing (using non-petroleum based inks), Instructional Art Materials, Markerboard Markers, Mattresses, Scientific Products (eliminating Freon), Refrigeration and A/C Equipment

Longer Lasting
Floor Maintenance Machine Batteries, Library Furniture, Aluminum Nuts and Bolts – non-rusting alloys, Fluorescent electronic ballasts permit longer lamp life.

Recyclable
Commodity Packaging, Commodity Metal enclosures & parts, Plastics, Steel & Reinforced Concrete Pipe, Chain Link Fencing, Electrical Wire, Treated Lumber, and Motor Oil – refined, HVAC & Refrigeration Equipment – Refrigerants.

Washable - HVAC Filters, Wiping Cloths