



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

**North Carolina Board of Transportation  
Environmental Planning and Policy Committee  
Meeting Minutes for April 1, 2009**

A meeting of the Environmental Planning and Policy Committee (EPPC) was held April 1, 2009 at 1:00 PM in the Board Room (Room 150) of the Transportation Building. Nina Szlosberg chaired the meeting. Other Board of Transportation members that attended were:

Bob Collier	Conrad Burrell	Marion Cowell
Arnold Lakey	Andy Perkins	Cam McRae
Doug Galyon	Mac Campbell	Gus Tulloss
Lanny Wilson	Nancy Dunn	

Other attendees included:

Julie Hunkins	Angela Person	Len Hoey
Mark Terrell	Joel Setzer	Jay Swain
Mike Pettyjohn	Nancy Anderson	Barry Moose
Daneil Keel	Victor Barbour	Michael Shumsky
Kevin Lacy	Mike Mills	Tim Johnson
C. A. Gardner	Moy Biswas	Bill Carstarphen
Berry Jenkins	Art McMillan	Amy Simes
Scott Slusser	Don O'Toole	Neil Lassiter
Ricky Greene	Katherine White	Beth McKay
Wally Bowman	Greg Burns	Missy Pair
Greg Thorpe	Phillip Ayscue	Phil Harris
Don Lee	Steve Dewitt	Cecil Jones
Tom Norman	Tom Eagar	Laura Godwin

Ms. Szlosberg called the meeting to order at 1:00 PM and accepted a motion to approve the meeting minutes from the March committee meeting. The minutes were approved as presented.

Ms. Szlosberg began the meeting by mentioning that in the world of DOT and Highway contracting, performance contracting means one thing, while in the world of energy and environment, it means a little something different. She noted that the speakers were going to talk about something a little different from the kind of performance contracting that the Board may be accustomed to.

As a nation, there are all kinds of challenges dealing with energy. The resources are running out, and the resources that are available are linked to people that don't care for our nation that much. There is also the issue of the environment and greenhouse gases which are accelerating at a rate much faster than predicted two to three years ago. There has to be something done about this issue. The Legislature required that an energy plan be put in place a few years ago for our State Departments. Within that context, the Legislature also put programs in place to help meet those energy objectives.

Ms. Szlosberg introduced Mr. Len Hoey, Director of Utility Savings Initiative, at the North Carolina State Energy Office.

Mr. Hoey spoke about saving energy within the public sector in the State of North Carolina. The State agencies, the UNC system, community colleges, K-12 schools and local governments (both County and municipal) are all working to save energy. The Utility Savings Initiative was established in 2002, and in that time the new Governor was faced with a budget crisis and appointed a Commission who created utility savings initiative that would save money and manage the energy costs.

In 2007, Session Law 2007-546 was passed that requires all State agencies and Universities to reduce their energy consumption by 20% by 2010 and an additional 10% for a total of 30% by 2015. North Carolina is currently at 12% reduction on a statewide composite basis. New building construction was another issue addressed in the Bill. All new buildings that are constructed for the State have to be built to a standard that is 30% more efficient than a normal code building.

Within the utility savings initiative, many programs are offered. People are helped with utility accounting-- understanding their energy bills, what they are paying for and if they are on the best rate structures. They perform detailed and preliminary energy surveys in state and public buildings free of charge. They offer classes on how to prepare a strategic energy plan. They also help to develop conservation action teams. They have an energy management diploma class and have put around 400 people through the class that is conducted by the Office of Professional Development at NC State's McKimmons Center. The graduates get a diploma that certifies them to work in energy management. They conduct technical workshops about boilers, compressors, chillers, HVAC systems and lighting, which is offered free to people in the public sector.

Performance contracting comes in when realizing that saving 20% of energy on a baseline of 2002-2003 is a wonderful goal -- that it can save you money in the long run. When you look at the State data, our energy costs are rising at twice the rate being saved. Additional costs are being avoided. For example, if you buy a car that gets five miles a gallon better gas mileage and your gasoline jumps from \$2.00 to \$4.00 a gallon, are you going to save any money? The answer would be no to having extra money in your pocket, but you have avoided spending additional money, which is a very important concept as projects are reviewed.

Mr. Hoey continued by explaining that Performance Contracting has its own unique set of acronyms and abbreviations. A Performance Contract, also known as a Guaranteed Energy Savings Agreement (GISA), is a contract let between the owner and the vendor, where the

vendor is an Energy Service Company (ESCO). There are 12 pre-qualified ESCO's in the State. They are vetted and reviewed to make sure they are capable of doing the projects, and the Treasurer looks at the financial statements to make sure they can offer the guarantees that are mandated in the Statutes. Other acronyms are RFP (Request for Proposal), IGA (Investment Grade Audit). The local Government area normally don't like the term "audit" so it is also called a Detailed Energy Survey. M&V (Monitoring and Verification) is critical to a performance contract. This is what determines if you are getting what you paid for. An ESA (Energy Services Agreement) is the final contract. An ECM (Energy Conservation Measure) can also be used as an ECO (Energy Conservation Opportunity).

A performance contract is a "Design Build" type of contract. As such, you do not get the detailed specifications until after you are in the contract. Your contractor does all the design work, as well as the construction and the contracting. Savings and avoided costs are guaranteed. The owner pays for the project over time using the money avoided in the utility budget. An agency, University or the State does not have to look at creating a new revenue stream to pay for these projects. Money is diverted from the utility budget into a reserve account in order to pay for the cost of the project. State agencies require a third party review, monitor and verify the savings. Third parties do this because the capital, on-staff expertise and manpower is not available to oversee the whole project. The advantages of this design-build process is a single point of responsibility. It provides the capital for the project and by guaranteeing the savings; it also provides the method of repayment for the project. All the engineering and project management expertise needed to complete the project is provided and you get guaranteed performance and savings.

The process is not perfect and at times people fail to understand the contract commitments and agreements. The State Energy Office provides assistance with each step of the process, and all documents and steps must conform to General Statutes and LGC Application for approval. It is important that this is done correctly because it is taken before the Council of State to ask for approval of the project, and all of the rules and regulations must be followed. There is a standard RFP template that has gone through the Attorney General's office, so they know what is in it. There is a Standard Investment Grade Audit Contract and the Energy Services Agreement that are all available to assist applicants with projects.

Mr. Hoey introduced then Mr. Mark Terrell, an Energy Management Engineer with NCDOT's General Services Division.

Mr. Terrell stated that he works for the General Services Division, which manages facilities, designs and oversees construction of major facilities. Mr. Terrell noted that he has worked in residential construction, naval facilities command and education in construction and energy management.

He emphasized it is important to understand the vast size facilities within DOT. There are over 2,250 buildings statewide that NCDOT manages -- that is over 6 million square feet and the majority of those are over 35 years old; from an energy management standpoint, it is already evident that there is a need for improvement and upgrades. The findings with DOT buildings is that there has been some neglect with regard to improving or upgrading the structures. As far as

dollar value, the State has been hovering at \$15 million for the whole facilities management program. This also covers traffic services and signaling within each division.

The State mandates NCDOT to conserve 20% in energy by 2010 and 10% in water. Mr. Terrell's job was created in order to present the plan to the State Energy Office to monitor the department's efforts toward the 20% reduction by 2010. A program has been set-up on a three-way approach, and some strides have been made in these three areas.

In the continual rate reviews in accounting, there is a great support group coming from the fiscal unit working under the Mark Foster, NCDOT's Chief Financial Officer. Mr. Todd Honeycutt and his staff, who work with the Utility Unit, have done a good job in giving clear information concerning where water leaks are and how they can get better rates.

There are some funding issues that are keeping NCDOT from reaching the target of 20%. The performance contracting has not been utilized throughout DOT. There is a Waste-Enders program that was established that Mr. Terrell continues to work with; information on this program can be found on NCDOT's Intranet Portal. Here you will find information on what to do to conserve energy and water; there are also links to other websites and tips.

There have been some energy upgrades with the operational staff, different divisions, and at roadside environmental rest stops and welcome centers with efforts to reduce energy and water consumption. Ultimately, we may not make the 20% unless significant capital improvement is made, and that is why this program for performance contracting is appealing, because it gives an avenue of ways to meet the 20% goal.

Overall DOT is at about 16% of the energy goal and about 22% for water reduction, which is very significant. Initially, it is estimated that this accounts for around \$400,000 annually. There has been a four-year avoided cost of \$5.1 million, and adding in the traffic services would be another \$4.7 million, which comes to \$10.4 million in avoided cost that could have been spent if nothing at all was done. That equates to about 204 NCDOT full-time employees saved or 13 to 20 construction or engineering type jobs in the green economy. They have diverted water equivalent to about a thousand North Carolina homes.

The Guaranteed Energy and Performance Contract reduces energy and water consumption and provides cost savings at no initial cost to DOT. General Services is already engaged with the State Energy Office on the first application, which was submitted on February 18, 2009. They are submitting a project to get the downtown Raleigh area Transportation Building upgraded. However, funding is not available right now because the limit of about \$100 million has already been spoken for. However, the General Assembly is considering raising the cap on these funds, which may provide the initial funding for this program. If the funding cap is lifted, then NCDOT may be able to take advantage of this program. If the project goes through, the upgrades are those that you would not likely see because they are located within mechanical rooms.

This Performance Contracting project would involve the Highway Building, Annex and the old Art Museum. They have evaluated major equipment component parts, the age, when they were installed and how long it would last. There is possibility of tightening up the envelope of the

building. Changing out windows that are single paned to be more energy efficient, controlling the heat losses or gains within the facility, replacement of equipment from deterioration would all be candidate project components. There was a study done in 2007 that was paid for by General Services that proved that there are possibilities of energy conservation measures that can be implemented within the complex that will give us a payback of about four to five years and associated accumulative capital cost. To see some successes and to see the type of things that is proposed to do is very exciting. You can find this information at: <https://intranet.dot.state.nc.us/portalint/Home/Teams/tabid/54/Default.aspx>. Click employee information and energy conservation. Mr. Terrell asked if there were any questions.

Ms. Szlosberg mentioned that they created a base-line of three to four years and lock into that energy cost, and the difference between what we reduce by and our baseline is what pays for the capital improvements. It is no money out of our pockets but there is a predictable rate for utility cost at the time of contract. If someone comes in and installs a boiler or fixes a window, it is zero cost to DOT and at the end of the contract the energy cost go down so DOT is reducing the amount of energy used. DOT is locked into a predictable rate of energy consumption and then at the end of the contract we get all the benefits and pay nothing for the capital improvements.

Mr. Hoey answered that that one of the things to look at when determining if a building is a good candidate for a performance contract is that over-time they extend from 5 years to a maximum of 20 years. If you go for a 10 to 12 year contract, you want to make sure your building is not going to be demolished or in six years be in need of completely tearing the insides out of the building and re-work and re-do it. That is not a good candidate for a performance contract. You want to make sure the building will be in existence and the use will remain fairly consistent.

Ms. Szlosberg stated that it seems to meet in a fiscally challenged environment today where there are buildings with 20 years of age or more that we know we have to fix but have no money available, and struggling to fulfill our mission in terms of transportation. Performance Contracting would be a way of getting it done without any capital outlay from the Department.

Mr. Hoey stated that within the performance contracting statutes, there is a \$100 million dollar cap on the amount of performance contract we can enter into. It is currently at \$96 million, which is why DOT's Performance Contract is on hold. They will continue to work and prepare the RFP. There is a Bill in both the Senate and House that hopefully will be signed and passed into Law that will raise the CAP significantly or potentially move the CAP altogether.

Ms. Szlosberg stated that we can be helpful by lobbying for cap lift and do the work to get to mandated reductions.

Mr. Hoey stated that while sitting on the Climate Action Plan and Advisory Group (CAPAG), the Division of Air Quality had to put out a final report under the "Clean Smokestacks Act". Within the report it was mentioned that if you want to eliminate carbon dioxide, don't burn the fuel in the first place. That is what we are doing with energy efficiency. We are not consuming the energy in the first place.

Ms. Szlosberg adjourned the meeting at 9:10 A.M.

The next meeting of the Environmental Planning and Policy Committee is scheduled for Wednesday, May 6 2009 at 1:00 PM in the Board Room (Room 150) of the Transportation Building.

AJP/jh