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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

SHEARON HARRIS COMBINED LICENSE APPLICATION

PUBLIC SCOPING

TUESDAY, JUNE 10, 2008

6:00 - 8:30 EVENING MEETING

HOLLY SPRINGS CULTURAL CENTER

300 WEST BALLENTINE STREET

HOLLY SPRINGS, NC 27540

EVENING PROCEEDINGS

(6:00 P.M.)

MR. CAMERON: Good evening, everyone. My name is Chip Cameron. I work for the Executive Director for Operations at the Nuclear Regulatory Commission, which we are going to be referring to as the NRC tonight. I want to welcome you to tonight's meeting. The subject of discussion tonight is going to be the NRC's evaluation process for reviewing applications for licenses to build and construct new nuclear power plants. We have received an application from Progress Energy to build two new plants at the Shearon Harris site. And it's my pleasure to serve as your facilitator for tonight's meeting, and in that role I will try to help all of you to have a productive meeting.

I just want to spend a couple of minutes on meeting process issues before we get into the substance of tonight's discussion. And I want to talk to you about the format for the meeting, some very simple ground rules and introduce the NRC speakers who are going to talk to you tonight.

In terms of format, the first part of the meeting is going to be the NRC staff giving you some brief presentations which will provide you an overview of the NRC process, what the NRC evaluates when they review

one of these license applications. And we are really going to be focusing more on the environmental review tonight, but we will cover the entire process, and you'll learn all of the things that the NRC looks at on the safety issues and on the environmental issues.

So we're going to do that, and then we'll have time for some questions, if you have questions about the process, we will try to answer them. Then we are going to go to the most important part of the meeting which ties in with the first part in that we're also going to tell you how you in the public can participate in the NRC's evaluation process.

The first part of that participation is going to be us having a chance to listen to any comments, advice, recommendations that you might have for us on what the NRC should consider in the scope of its environmental review in preparing the Environmental Impact Statement. That's going to be the product, the end product of the NRC's environmental review, and that's one part of the decision-making process.

Tonight we are here to listen to your concerns, issues, advice on environmental issues. And the Environmental Impact Statement is a very, very broad document and analysis and it looks at socioeconomic issues as well as your typical environmental issues.

And the NRC is taking written comments on these issues, and the staff will tell you the time schedule for submitting those comments, but we wanted to be here with you personally tonight, to talk to you. And any comments you make tonight will carry the same weight as written comments. And you certainly may hear things tonight from the NRC or from others in the community that will prompt you to submit a written comment. And certainly you can speak tonight and you can submit a written comment if you want to do that.

We are taking a transcript of tonight's meeting and we have Sandra Wise as our court reporter/stenographer tonight. And that transcript will be available to all of you and available to us. It's our record of the meeting and also your record of the meeting. And we're going to be in a listening mode when you're making your comments. And if you wanted to talk, please fill out one of those yellow cards out there. It's not drastically necessary. If you do have something to say, we can just go to you without the yellow card, but it allows us to see how many people we have speaking tonight. And we'll be listening, not responding, unless there's some new information that you might not have that we want to offer on that.

In terms of ground rules, let the NRC

speakers finish their presentations, and then we'll go out to you for questions rather than having questions in the middle of their presentation. When we get to the questions, if you have a question just signal me, and I will bring you this cordless microphone. Please introduce yourself to us, and we'll try to answer your question. I would ask that only one person speak at a time so that we can give our full attention to whomever has the floor at the moment, and also so that Sandra can get a clean transcript.

We want to make sure that we hear from everybody who wants an opportunity to speak tonight, so I would just ask you to try to be as brief as possible. And I'm going to set a three to five minute guideline for the comments that we are asking for. This will hopefully give you enough time to summarize your comments and it will alert the NRC staff to issues that they need to start thinking about in terms of comments. I think we are going to have plenty of time based on the number of speakers, but we do have to be out of this great facility tonight by 9:00, so we are not going to be able as we usually do of running over tonight. So I am going to have to be a little bit stricter perhaps on the comment times.

I would get just a final thing and this is

not -- it's important, but often doesn't need to be said, especially in the south, but just please extend courtesy to everyone tonight. You may hear opinions that you don't agree with, but please extend courtesy to the person who is giving that particular opinion. I just thank all of you for being here to help us with this important decision.

And let me introduce William (Butch) Burton. And he is the Branch Chief of the Environmental Projects Branch in the Division of Site and Environmental Reviews at the NRC. And this is in our Office of New Reactors. Butch is going to tell you a little bit about the NRC, and then we are going to go to the main part of the presentation, which is going to be Dr. Don Palmrose, who is right here. Don is the Project Manager for the environmental review on the Shearon Harris license application. And Don and his staff will be responsible for preparing that environmental review. And Don works for Butch in that particular branch. With that, Butch, are you ready to go?

MR. BURTON: Thank you, Chip. Can everybody hear my okay?

(Audience response affirmatively.)

As Chip mentioned, my name is William Burton. William was my grand-daddy. I go by Butch. I want to

welcome you here. It's hot, and I know all of you could have been at home, pardon the expression, chillin', but you braved the heat and came out. We really do appreciate that.

As many of you know, the NRC's primary mission is public health and safety in the civilian use of radioactive materials. And in keeping with that mission, we have been tasked with reviewing the application that was submitted by Progress Energy for two new units at the Harris Plant. In particular what we're here tonight for is the environmental part of that review. There is also a safety portion, but tonight we're going to be focusing on the environmental portion.

I just have a few introductory remarks basically putting things in context. Dr. Palmrose will be giving the more detailed presentation.

Back in Washington there was a clothing store, and in their advertising they said, an educated consumer is our best customer. And I really like that. I think that really lays out pretty much what are hoping to achieve here this evening. We want to try and educate you about who we are, what we do, how we do it, why we do it. And we're also hoping that you will educate us in terms of providing information that can help us as we pursue this environmental review and the preparation of

the Environmental Impact Statement.

We actually first started this process back in September of last year, before the application was even submitted; where we came down and we sort of introduced ourselves to the community. And in fact, one thing I wanted to do, just a quick show of hands. If anybody was here for those September meetings.

Okay, a few, a few. That's good. I just want to let you know that most of our presentation is going to be very similar to what you saw in September. During that meeting we said that we'd be back once the application was submitted and we started our review, and here we are, just as we promised.

What I wanted to talk about was the purpose of the meeting. Of these four bullets, I think the first and the last are probably the most important. We are really looking to you to provide us input during the scoping process, not just tonight, but throughout the scoping period to help us understand the things we need to be looking at during our review. Things that you find important, and there may be things you may feel are less important, but we need to know that. So we're really hoping that you'll help with that this evening and throughout the scoping period.

Next thing, as I mentioned before, we're

going to talk about who we are, what we do, how we do it and why we do it. We are going to talk about the proposed review schedule and Dr. Palmrose will go into depth in that, and last but not least, how you can participate in this entire process. There are several ways that you can participate, including providing comments during the scoping period, but also applying for intervention during the hearings and several other things that Dr. Palmrose will talk about.

This slide just basically describes all the key players in the process. I'm actually going to start in the far column with Progress Energy, who submitted the application back in February, and the environmental report that was submitted as part of that application is what the environmental team is going to be looking at over the next few months. Coming back to the first column, the different components of the NRC that actually play a role in this process. Starting with the five member commission, who are nominated by the President, approved by Congress for five year terms, rotating terms, the staff members who do the bulk of the heavy lifting during the review. That's us.

There is the Atomic Safety and Licensing Board, which I'm sure some of you have heard of. They're the ones who coordinate the hearing process and play a

very important role. And then also we have the Advisory Committee on Reactor Safeguards.

Both the ASLB and the ACRS are Advisory Committees, those are independent boards or panels that report directly to the commission. The ACRS in particular oversees and reviews the staff's work on the safety portion. But they also hold public meetings and there are opportunities to come and view and participate in some of those activities.

Last but not least is the center column, the stakeholders. Residents of the community, that's you. There are also public interest groups who have a long association with nuclear power and have very strong opinions and help to guide the conversation in terms of important issues. And we're always very fortunate to hear from them, as well as other federal, state, local and tribal agencies and officials, all of which have a stake in this process, all of which we try to hear from to again, help us to identify both the scope of the review and how deep we need to go in particular areas.

So these three columns together I think lay out all the players in the process, and I hope I can make clear to you that you as members of the public are extremely important in this process. We really want to hear what you have to say. We do take it seriously and

we will consider it in our review. So laying that out as the context, I'll turn it over now to Dr. Palmrose.

DR. PALMROSE: Thank you, Butch. As you heard from Butch, Progress Energy is seeking a combined license for two reactors. This combined license is a combined construction permit and operating license with the conditions issued by the NRC.

It's an NRC decision that authorizes the applicant to construct and operate a nuclear power plant at a specific site, in this case, the Shearon Harris site, in accordance with federal law and regulations. Progress Energy submitted the combined license application on February 18, 2008 for two AP1000 reactors to be built at the Shearon Harris site. They proposed that these two new units, units 2 and 3, be built adjacent to the existing unit 1.

There are a number of relevant laws and regulations relating to the construction and operation of a nuclear power plant. The primary law is the Atomic Energy Act. And the key regulations are found in Title Ten of the Code of Federal Regulations. The National Environmental Policy Act, known as NEPA also applies.

The NRC's environmental review of the combined license also includes compliance with statutes like the National Historic Preservation Act, Endangered

Species Act, Fish and Wildlife Coordination Act along with other environmental laws and regulations.

NRC regulations allow combined licensed applications to reference what are called certified designs. These are designs that the NRC have reviewed generically and approved through a public rulemaking.

The AP1000 reactor design was previously certified by the NRC through a rulemaking. The NRC is currently reviewing a proposal to certify a modified version of the AP1000 design, which again would be done through rulemaking.

Progress Energy, like some other combined license applicants, is interested in using this revised AP1000 design and their combined license application referenced this revised design in the event it receives certification. As a result, the NRC's schedule for making a final determination on this design rulemaking will impact the schedule for reviewing the Shearon Harris combined license. So as shown on this slide, there are three components to the staff review. The staff conducts a site specific safety review of design as it would be located at the Shearon Harris site, as well as an analysis of the environmental impact of using the design at that site.

Meanwhile, the staff is generically reviewing the modified AP1000 design to determine if it is appropriate for certification by rulemaking. The rulemaking process includes separate specific opportunities for public notice and comment.

In short, generic issues that are addressed by the design certification that are not unique to the siting of that design at the Shearon Harris are reviewed separately.

This slide provides an overview of the combined license application review process. NRC receives the combined license application from an applicant. The safety review and environmental review are conducted in parallel. The safety review follows the orange path while the environmental review follows the green path.

The safety review complies with regulations to ensure public health and safety. There is also a separate hearing process that will factor in the results of the environmental and safety reviews.

The final step of the combined license review process is the commissions decision. Subsequent slides will present the environmental review process in more detail and discuss the hearing process.

Continuing with the safety review, this slide

outlines some of the areas of our site safety review. These areas include the design of the facility. Again, Progress Energy plans to use the AP1000 reactor design.

Site suitability: This describes how the environmental factors affect the plant design, such as geologic, seismic, hydrologic and such as flooding, hurricanes, tornadoes, et cetera.

Quality assurance: Adequate physical security. We conduct this review in consultation with the Department of Homeland Security, Emergency Preparedness: We conduct this review in consultation with FEMA. Operator training: This ensures that the operators for the potential new units are properly trained to operate the units in a safe manner.

Manny Comar is our lead Safety Project Manager and he also is here to answer any safety review process questions.

The primary purpose of this meeting is to go over NRC's environmental review process and solicit your comments. The NRC environmental review is guided by the National Environmental Policy Act, again more commonly known as NEPA.

NEPA requires federal agencies to use a systematic approach to consider the environmental impact during certain decision-making proceedings. NEPA is a

disclosure tool which involves the public. To this end NEPA requires the gathering of information during a scoping period from you, the public, and evaluating that information to determine what potential environmental impacts need to be addressed. Also in accordance with NEPA, a document known as the Environmental Impact Statement or EIS is required for any major federal action that has potential to significantly affect the quality of the human environment. As you may be aware of, the U.S. Nuclear Regulatory Commission has decided that issuing a combined license for a new reactor is such a major federal action.

As part of the NRC environmental review we plan to evaluate the potential environmental impacts of construction and operation of two new AP1000 units at the Shearon Harris site. The NRC has established a systematic decision-making process to be applied during the environmental review of the combined license. The Environmental Standard Review Plan, NUREG 1555, provides guidance to the NRC staff on how to review the application and how to document our findings in an Environmental Impact Statement. During the environmental review we will also provide opportunities for public involvement during the scoping period, and also the comment period on the Draft Environmental Impact

Statement.

We will clearly document our environmental findings in our Draft and in our Final Environmental Impact Statement for the Shearon Harris project. And throughout this entire review, we will maintain an open and transparent review process.

This slide presents in more detail the environmental review process. For the first step the applicant, Progress Energy, submitted the environmental report to the agency on February 18, 2008. Once the application is submitted, the staff reviews it to ensure that it meets our technical sufficiency guidelines so we can make a decision on whether to proceed in our review.

For the next step, if the decision was made to accept the application, the NRC issues a notice of intent, which notifies the public of the NRC's intentions to develop an Environmental Impact Statement, and to conduct a scoping process.

The notice of intent for the Shearon Harris combined license was issued in the Federal Register on May 22, 2008. That notice of intent initiates the following step, namely the scoping process, during which we identify what the scope of the environmental review should be. This also initiates a public comment period, where you can provide us with your written comments

through July 25, 2008. This public meeting is also part of that process and we will collect your comments here today as part of the meeting transcript.

For the information gathering step, several actions occur. The NRC team will visit the site and the site vicinity to begin its independent evaluation of the information provided by the applicant to ensure that we understand the representations made by the applicant and the technical basis for its positions.

The NRC team will also meet with other organizations; local, state, and other federal agencies, to develop independent sources of information to ensure that we have the confidence in the accuracy and reliability of the information that will be used in the NRC's Environmental Impact Statement. For some issues we may elect to do confirmatory analysis or calculations as part of our independent evaluation. The NRC may formally seek to obtain additional information from the applicant to ensure that the record is complete.

Reflecting on the information that we obtain as part of the audit and the comments that you share with us during the scoping process, the NRC will then develop its Draft Environmental Impact Statement. That document is a draft not because it's an incomplete document, but rather the staff has essentially completed its review,

and now we want to issue it, make it publicly available to allow the public to weigh in on it, and to give us comments as to what they think of the results of the review, and if we need to clarify anything in the document.

The last several steps move the Draft Environmental Impact Statement to the Final Environmental Impact Statement. The NRC will have another comment period in the summer of 2009 time frame. And we'll come back here and have another public meeting such as this, where we invite your comments after we explain to you the results of our review. Once we evaluate your comments, we may decide to modify the Draft Environmental Impact Statement. When we complete that action, we will issue the EIS as a final document, and that document will then be used as one of several different inputs to the hearing process, because our regulations require a hearing for a new reactor application. The final result of the combined license process is a decision by the commission on the application.

I want to use this slide to refocus us on why we are here today. We have come to your community with the hope that you will share with us those environmental issues and values that you believe are important for us to consider as we conduct our review. Since we do not

live in the community, you know this environmental setting better than we do, and you may be aware of environmental concerns that should be considered before the NRC completes its assessment. We are in the early stages of the review, and if you elect to share your insights related to the environmental issues with us, then we believe it will improve our efforts. That is why we are here today.

If you first want to reflect upon the process we presented today, then you will still have the opportunity to share your comments or provide additional comments to us by July 25, 2008. In a later slide we will list how you can send those comments to us after today's record is closed. All comments received during the scoping will be included in the scoping summary report. This document will be available on the NRC website. Comments applicable to the environmental review will also be considered in our development of the Draft Environmental Impact Statement.

This slide is to show that the staff gets its information from a number of different sources. Obviously we get the starting point from the combined license application and from discussions that we have with the applicant, Progress Energy. We are seeking information from you at today's meeting and through the

remainder of the comment period. We will also talk with some of your local, state, and federal officials to get their input, including social service agencies.

Again, the staff will be doing their own independent environmental review, using the sources we have available.

Once we complete the gathering of information, this collection of information will be evaluated and used to develop the Draft Environmental Impact Statement. This slide shows you the review areas where that information will be applied. We will be considering a number of issues including the environmental impacts of the proposed construction and operation of the nuclear power plant here in the area. We will also be considering alternatives to the proposed actions, such as potential alternative sites, and what those environmental impacts would be. We will also be considering possible mitigation measures, which are actions that can be done to decrease the environmental impact of the construction and operation of the plant.

Knowing these are the review areas for the Environmental Impact Statement, we hope you can provide us comments for these specific subjects.

To prepare for the review, we have assembled a team of NRC staff with backgrounds in scientific and

technical disciplines that are required to do this review. In addition, we have contracted with Pacific Northwest National Laboratory (PNNL)to assist us in this review. The NRC team along with the PNNL contractors is comprised of recognized experts on wide ranging topics related to environmental issues in nuclear power plants.

This slide gives you an idea of some of the areas of interest we consider during our review. We'll be considering ecological issues, public health issues, social/economic issues, water use and water quality issues. These are some of the areas we'd like to hear your comments on.

Again, you can submit your written comments for the scoping process through July 25, 2008. We do have copies of the Federal Register notice of intent to prepare an Environmental Impact Statement and conduct the scoping on the table in the front lobby area. The notice describes how you, the public, can submit your scoping comments. The next slide will also share this information with you.

Once the staff has completed the draft Environmental Impact Statement, the NRC will make it publicly available to allow the public to provide comments. The public will have 75 days to provide comments on this Draft Environmental Impact Statement.

This again, in the summer of 2009 time frame, we will have another public meeting to share the results of the review and receive your public comments on this draft. Once we evaluate these comments, the agency expects to issue the Final Environmental Impact Statement in May 2010.

The NRC website, and specifically the Shearon Harris project web page, contains the current information about the schedule of activities. If there is a schedule change, it will be reflected on the project web page. The specific project web page is listed on a later slide.

All oral comments received today will be transcribed. Any written comments we receive today will also be included in the scoping summary report. The address to submit written comments by mail is noted on this slide. We also made available an e-mail address where you can also submit comments. That address is as shown, Harris.COLEIS@nrc.gov. You also can submit your comments in person in our Rockville office in Maryland. This slide will be shown again at the end of the presentation for your convenience.

The hearing process offers another opportunity to have public involvement. The public has 60 days from the publishing of the hearing notice to petition to intervene in the hearing. This notice was

published on June 4, 2008 for a petition deadline of August 4, 2008. Anyone who wishes to file a petition to intervene should give the hearing notice close attention, because it contains important information related to intervention. Please note that in order to file a petition to intervene, you must obtain a digital certificate approval in advance or a waiver from the digital certificate requirement. Instructions for e-filing are in the hearing notice and on the website shown on this slide. It's important not to wait until the last week of the notice period because it may take up to ten days to receive the digital certificate.

I would like to take this time to recap some very important public involvement information. Once more, the environmental review process is beginning and the public comment period for scoping will end of July 25, 2008. Once more, you can participate in the scoping meeting and at the meeting on the Draft EIS. The NRC web page for the Shearon Harris project can help you stay informed on activities related to the project, such as access to the Draft and Final Environmental Impact Statements that discuss our review results. Again, the opportunity for leave to intervene in the hearing process closes on August 4, 2008. Please, note you must receive a digital certificate approval before you file a petition

to intervene. The hearing covers both safety and environmental issues. To obtain more information you can visit the website listed here.

Here are the NRC points of contact for the Shearon Harris combined license application. In addition to myself, I have given you the name and number of Manny Comar, who is our lead safety Project Manager. Manny has the responsibility for the overall coordination of the project as well as the safety review. The application can be viewed on the internet at our electronic reading room at the NRC's website, which is nrc.gov.

The Eva H. Perry Library, the West Regional Library and the Holly Springs Library have been kind enough to give us some shelf space for the environmental report and later the Draft and Final Environmental Impact Statement. If you wish to be on our mailing list, make sure your name and address is provided to one of our NRC staff at our registration desk. This is one way of ensuring that you will be notified of upcoming meetings, and ensuring that you'll get copies of the Draft and Final Environmental Impact Statement.

Thank you and that concludes my presentation.

MR. CAMERON: Thank you, Don and thank you, Butch. And we have a few minutes for questions about the process. Don covered a lot of ground in terms of what

our process considers, and if there is anything we can clear up for you, we will be glad to do that. Any questions?

(No response.)

Okay, we are going go to the comment part of the meeting at this point. And we are going to start out with David Goodwin, and then we will go to James Sauls, and then we're going to go to Professor Lee Craig.

MR. GOODWIN: Good evening. I am speaking on behalf of the Wake County Government. My name is David L. Goodwin. I am the Director of Wake County General Services Administration. I am here to speak on behalf of the County and maybe provide you a little different insight to Progress Energy. We see a different view of Progress and we would like for the community and our citizens to understand that. We in the county manage many facilities for you. Some are popular and some are not. Jails are some of them, courthouses are some of them. Those are things that we have to keep going. Power is required to keep the jail doors shut and things of that nature. We have libraries. We have public safety facilities. We have emergency medical facilities. We have all sorts of facilities that many years ago we just had a few of, and we have a lot of. Over 3.5 million square feet in all of Wake County now. And as a

citizen of Wake County, as an original Wake County-ite, I grew up in Apex, it's just really beyond belief. Our citizenry has grown exponentially and will grow. And to the heart of that is, if we are going to continue to grow, we have to have an infrastructure that grows with us. And at the heart of that, of course, is power.

I would like to share with you a little bit about Progress as it relates to a business partner. We just spoke to that. What a corporate partner they are, and what a community partnership they have brought to us. And so very quickly, just so you'll know, performing arts, of course, is one of the leading beneficiaries of Progress Energy. But in Wake County we have an energy commission; a board of commissioners appointed energy commission. And that commission has produced guidelines that help our buildings be constructed to a very environmentally low effort. This building is one. We have an energy design guideline that this building in partnership with Holly Springs was built under and our energy consumption for the long haul will be much lower because of this energy commission of which Progress has been a member since 1972.

This commission also sponsors an energy camp where 40 rising sixth graders every year participate in energy and energy conservation week-long survey regarding

that type of education. Progress Energy has supported that for 13 straight years as a beneficiary. And so we'd like you to know that.

From a land donation standpoint, we the county have developed this 600-acre tract of land, Harris Lake which is a environmental oriented park or facility for you, our citizens, and that has served us well, as well as our local fire -- volunteer fire departments have been training since the mid '80s in a facility that is owned by Progress Energy. And it is very close to the park.

So from a community partnership, this is just a slice we would like you to know about. There is a broad range of ideas in this room and we respect them all. But also from a personal community interaction point of view. We have a kids museum that was in trouble in Raleigh. Many of you've heard of it. And for whatever reason, the formula didn't work and it was a little sick. And our Progress Energy chair and CEO at the time, now Bill Johnson, took the helm of that local kids museum and really turned it around. It is not something that a government group can do. We need our citizens to get behind museums. We need our citizens to get behind the things that are true to our citizenry. Progress helped us turn that around. We have a different

museum today because of it.

That is just a tiny slice of a perspective. Many of you all have your own perspective, but we want to share ours. Thank you very much.

MR. CAMERON: Thank you, David. James Sauls.

MR. SAULS: Good evening. My name is James Sauls, and I am with Wake County Economic Development. We are here in support of Progress Energy's application for two new reactors at the Shearon Harris site. Wake County Economic Development is the lead group for recruitment of new business and the retention of existing companies. Having safe, reliable, and reasonably priced electricity is a critical component for our continued job creation and for us to maintain a high quality of life that we enjoy in this region.

A few reasons why Wake County Economic Development supports Progress's combined license application:

Electricity is a vital part of our state's infrastructure, as are roads, schools, and water. This area's impressive infrastructure serves as a magnet for businesses and economic development.

Progress Energy's strategy to meet the demands of growth responsibility is a combination of enhanced energy efficiency, investments in renewable

alternative energy technologies, and state of the art power plants.

The planned increase in reservoir capacity accounts for potential drought conditions in the future. By raising the lake level there is increased storage capacity and the ability to limit river withdrawals during times of drought.

The Harris Plant has been in operation for more than 20 years providing a safe, efficient, and economical source of electricity.

Currently the Harris Plant employees approximately 450 people, an additional 200 contractors. Approximately 640 additional people would be needed to operate two new reactors at the site.

Currently the Harris Plant contributes 126 million in personal and property income, and 30 million in tax revenue to the surrounding area.

Progress Energy has an obligation to meet the growing needs of the service area by providing reliable and affordable electricity for many years to come. Thank you.

MR. CAMERON: Thank you very much, James. We are going to go to Professor Craig at this point, and then we will go to Lee Ragsdale and then to Hilda Pinnix-Ragland.

PROFESSOR CRAIG: Good evening. My name is Lee Craig, and I'm a professor of economics at North Carolina State University. I'm here to represent my colleague, Dr. Edward Ericson, who in 2005 conducted an economic impact study of Progress Energy's Harris Nuclear Plant. In addition, Dr. Ericson estimated the economic impact from adding another reactor to the plant, but unfortunately, Dr. Ericson could not be here this evening.

As a college economics professor, I would like to add that I understand that most of you are probably asking yourselves two questions. Will I be able to stay awake during this presentation? And will this material be on the final exam. The answers are, I don't know, and yes.

Currently in its Carolina service area, Progress Energy serves 1.4 million customers. And it is adding an average of 25,000 to 30,000 new homes and businesses per year. Thus by 2026, Progress Energy expects to add 500,000 new customers to its current base. That will put the total customer base at almost two million homes and businesses by 2026. Currently, the Harris facility itself supplies power to more than 550,000 residents and businesses.

In terms of the economic impact of these

figures, my statement tonight will summarize Dr. Ericson's findings as reported in his economic impact statement.

Probably the best way to interpret these findings would be to think of them as an answer to the following question. If this plant had never been constructed or if it were to be closed or otherwise go missing, then how would that absence impact the local economy? The report contains information on at least four economic indicators or answers to this question.

These are: One, the value of economic output; two, employment; three, income, which is largely wages and salaries; and four, state and local tax revenues.

As of calendar year 2005, Dr. Ericson estimates the Harris Plant generated the following economic impacts:

The plant generated roughly 700 million dollars in economic output for the eight-county or triangle region. Please note that all of the figures in this report and the ones that I will cite are adjusted for inflation.

The plant supports more than 2,100 jobs in the region. The plant generates nearly 130 million dollars in personal income. And the report estimates

that the plant generates roughly ten million dollars in indirect business taxes. These are largely sales taxes and another 20 million dollars in local property taxes. Income tax estimates are excluded from the report.

In addition to these current impacts, Dr. Ericson studied the expected economic impact of the construction and operation of an additional nuclear reactor at Harris. Economic impact of the construction phase is substantial. The average additional annual impacts during construction are projected to be as follows:

Roughly 340 million dollars in economic output, 3,500 jobs, nearly 160 million in income, and 14 million in indirect business taxes, and 10 million in municipal and county property taxes.

Once the new facility is fully operational, the report estimates that the combined Harris facility will generate annually, and again as a reminder, these are inflation adjusted figures, 2.2 billion dollars in output, nearly 5,000 jobs, more than 300 million dollars in income, and 27 million dollars in direct business taxes and 30 million in municipal and county property taxes.

I would add one note to these figures. Professor Ericson only studied the addition of a single

reactor. If an additional reactor is constructed then these impacts will need to be revised.

Finally, in concluding my statement, I want to give you a feel for how large these impacts are relative to the size of the local economy. To see this and to take just one example, consider that at current property tax rates in the Triangle, the property value required to generate the 30 million dollars in property taxes, that's the 30 million which I had just cited a moment ago in reference to one additional reactor, is approximately 4.3 billion dollars. That figure would be roughly two and a half percent of the total value of assessed property in the Triangle at the time of the study. Again, that was 2005. Professor Ericson concludes that by any reasonable economic comparison, these must be considered large economic impacts. Thank you.

MR. CAMERON: Thank you very much, Professor. Let's go to Lee Ragsdale. And no one's asleep.

MR. RAGSDALE: Good evening. I'm Lee Ragsdale, manager of power resources at the North Carolina Electric Membership Corporation. We provide electricity to 26 rural electric cooperatives serving over 800,000 meters across the state. The energy needs in North Carolina's electric cooperatives are tracking

the significant growth of our state in the digital age. While all utilities are reviewing alternative fuel resources and implementing energy efficiency and conservation programs, we will need base load generation in the next ten years.

North Carolina's electric cooperatives believe nuclear power is a viable and practical option. Expansion of nuclear units at an existing site may be the only option to provide significant generation. Additionally, concerns regarding carbon emission make nuclear an even more attractive option for base load power.

North Carolina Electric Membership Corporation is a wholesale customer of Progress Energy Carolinas. The Harris Plant is an important part of Progress Energy's energy resources. Providing for the option of expanding that site with additional generation units is prudent in today's global environment of rising energy costs and environmental sensitivity allows for the continuation of emission-free reliable power at the lowest possible costs to the citizens of North Carolina, including our membership.

In a broader context, nuclear power is essential to a balanced portfolio for any energy company, and North Carolina Electric Membership Corporation has an

interest in a nuclear plant, as well as supports the continuation and development of nuclear resources in the state. We support the possible expansion of the Harris Plant and encourage the Nuclear Regulatory Commission to take the steps necessary to allow Progress Energy to move forward in this planning process. Thank you.

MR. CAMERON: Thank you very much, Lee. We are next going to hear from Hilda Pinnix-Ragland, and as Hilda is coming up, after she is done, we will go to Kevin Johnson, Jim Fain and Sasha Weintraub. This is Hilda Pinnix-Ragland.

MS. PINNIX-RAGLAND: Good evening. I am Hilda Pinnix-Ragland, the Vice-President of the northern region for Progress Energy. And I actually happen to be one that is serving from a distribution perspective, the 500,000 customers that we are talking about adding over the next 30 years.

This evening, I wanted to share with you just a brief summary of why we are applying for a license, and why the Harris site is really just an ideal place for two new potential nuclear units.

First, growth. It's actually a good thing. When you think about the states around us and many parts of North Carolina, growth is a great thing. We are growing. Over one hundred people move to Wake County

every day, and that is a good thing. Now with the growth we need to provide electricity, and we're obligated to serve. We want to make sure we provide the electricity that our customers need. Thus, by 2026 or 30 years from now, an additional 500,000 new customers, which is good.

In addition, our homes are larger than they were many years ago, and we use almost 50 percent more electricity than 30 years ago. So we must be ready to meet the needs of our community, making sure that we provide safe, reliable, economic, and environmentally sound energy.

Now, we are looking at many different options, and it won't take just one solution. We have to balance energy or balance solution strategy. That includes first enhanced energy efficiency. And we believe in energy efficiency. Investments in alternative energy and renewables, that's critical. And of course continuing our state of the art power plant.

Even with our commitment to energy efficiencies and renewables, we will still need additional base load generation. And while I would love to say we can conserve our way, it's not going to happen. So we must plan now for the future.

Now, there are four key reasons why the Harris Plant. And it's an ideal site. First, there is

sufficient water supply, and all of us remember the drought. We faced it head on. But I am here to say that we did not have a problem at all operating the Harris Nuclear Plant. And that is a key message. We had adequate power supply for the water component. And no matter which base load generation you select, all of them require some kind of water usage. We have a wonderful lake. And yes, we have discussed raising the lake levels by 20 feet, and it actually includes an additional 4,000 acres to the lake. And we will have the adequate water supply once we do that.

Some of you are wondering about the park. Well, I was actually here when we had the first park. We will make sure we will have a park, a wonderful park, so that all of us can enjoy.

The second key reason for Harris is the transmission capability. We already have it right here. We have the transmission capacity right here on site.

The third is the land. We have an abundance of land. So we have no problems with securing land or buying that property. And finally, it is located, the Harris Plant, it is located adjacent to North Carolina's growing population. The Triangle and the Charlotte area are growing more than any other area. So we are right here where the customer base is. So Harris is ideal. We

believe we have a balanced solution approach, and we are ready to serve it.

And there is one other thing I would like to mention. We have a history, and a great history, of running wonderful nuclear plants. In fact, we have been in the business for 36 years. We have operated an excellent record, for Harris for 20 years. We are very proud of that. We have received recognition from our peers. We have received recognition from the Edison Electric Institute, that occurred in 2006. We were recognized for operational effectiveness, for reliability, for customer satisfaction. We just received an outstanding award from what we call EEI or Edison Electric Institute.

As I close, there is one thing that really -- that I'm really, really proud of, and it's our wonderful employees. I believe we have the best employees in the world, and they are here to handle any task put before them. Thank you.

MR. CAMERON: Thank you very much, Hilda. We are next going to hear from Kevin, Kevin Johnson.

MR. JOHNSON: Good evening. My name is Kevin Johnson. I'm the vice president of the Research Triangle Park. I want to first tell you how proud I am to be here, and also how proud I will feel when I get home,

because I promised my 11-year-old daughter who is in the midst of end of grade testing for Wake County that I would be there to tuck her in tonight. So I appreciate the expediency for which we have engaged in this process. I want to first again thank you for the opportunity. And I would like to kind of take a different approach in terms of our support of Progress Energy and their need to expand the Shearon Harris facility. I want to take this in two different cuts.

One cut is to explain to you what is happening at Research Triangle Park(RTP)today, and then kind of explain to you where we think our growth will occur, and our need to have reliable power for RTP in the future.

First as many of you are aware and I am sure most of you in this room have been to RTP. I will give you a quick snapshot. RTP is a 7,000-acre research and development park. We are the largest research park in the western hemisphere, the second largest research park in the world. The largest research park in the world is in China, at 10,400 acres. So we're right below that number. We have 41,250 employees in Research Triangle Park. We have 172 research companies in the park. We have a capital investment in the park of 2.8 billion dollars and an annual payroll of 2.7 billion dollars. We

are what we are proud to say the economic engine of the Triangle region.

With that being said, what about the future? The future for RTP is predicated on a couple of things. One is available of reliable water. Two is availability of talent. Three the availability of adequate utilities to fund and manage what we think is the most successful economic development experiment in the history of the United States of America.

So what does that number look like? In our market area, what we call the sphere of influence, which is about a five-mile radius around the park, there is a couple of numbers that we like to throw out, and I think justifiably so, in our percentage share of what that number looks like. So first, let's look at one area, what we call a general office market in the Research Triangle sphere of influence.

Our five year projection for growth in general office space is 5.3 million square feet. Our research component of the office is about 1.7 million square feet. Our percentage share of that over a five year period is another 265,000 square feet in RTP on top of the 24 and a half million square feet that already exists in RTP. The research part of that is another 500,000 square feet of R&D space in the next five years.

You're talking about 2026. We are talking about five years from now.

If those trends continue, and there's plenty of land in park, let's not get that confused, we also feel like we will absorb another 500,000 of R&D space. We will absorb in retail space in the park, which is a new component, or an expansion of a component in RTP. Our general market area, five mile radius, is adding another 900,000 square feet of retail in the next five years. Our proportion share of that is another 335,000 square feet in the park.

Apartments: Live, work, play has been a buzz word in this area, and we are beginning to introduce that concept in the Research Triangle Park. What does that number look like? Well, in our five mile sphere of influence, we're looking at another 20,000 dwelling units in the five-miles radius, 20,000 dwelling units. Our share of that is a thousand dwelling units in the park.

In hotel space, we do have a hotel in the park. We are happy about it. But we need another one. We think that we have the capacity to add another 600 rooms in RTP. So that's looking out into the future. I told you about where we are today. I think that this is the right thing to do. We think that in order for us to hit these numbers, which will come one way or the other,

we will have to have the ability to service our needs. Thank you very much, and I hope you have a good evening.

MR. CAMERON: Thank you, Kevin, for taking the time to come down and talk to us. And we're going to go to Jim Fain.

MR. FAIN: Good evening. I never had a college economics professor that didn't put everybody to sleep, so hats off, Doctor. If you couldn't do it, let me take a crack at it.

My name is Jim Fain, and I currently serve as Secretary to Commerce for the State of North Carolina. The mission of our department is to enhance the economic well being and quality of life for all North Carolinians. Of course, there are many measures of success in accomplishing that mission. But two key and easy to understand metrics are quality job growth and increases in ad valorem tax paying investment.

North Carolina's strategy to add well paying jobs and opportunities for citizens is based on consistent investment and education and work force development, augmented by investments in infrastructure innovation and quality of life assets. Our companion strategy to investing in the skill of know-how of our work force, building a knowledge base accounting, if you will, is investment in quality of life and place.

Knowledgeable workers expect and gravitate to places where they can find good schools, park and recreation opportunities, good health care, and a sound environment. For example, they typically want to live where investments and policies reduce carbon and other emissions and the intended impacts on air quality and climate.

Obviously inducing good new jobs and investment depends on many variables, certainly including the availability of reliable and affordable electric power. Further, in my opinion, an appropriate proportion of nuclear generation in our electric power mix is important to meet the growing needs of both employers and the expectations that citizens have for air quality. And in a growing jurisdiction, and you've heard a number of statistics on the growth. In a growing jurisdiction, economic opportunity depends on adequate base load capacity, and that's particularly an important issue in our state, which has been growing rapidly.

Since July 2003 which was the bottom of the recession driven employment decline in North Carolina, our state over that four and about half years, our state has added 416,000 jobs through the first quarter of this year. That's an average of 89,000 jobs per year during that time frame. And in 2007, as measured by the payroll

survey, our state added more jobs than all other states, except Florida, Texas, and California. Generally those new jobs have been in sustainable, well-paying industry sectors and include both commercial and industrial users of power. During this decade, North Carolina's population has grown by about a million residents, or 12.6 percent. And as I think many of you know, in 2006 the state became the tenth largest in the nation, surpassing New Jersey in population.

An interesting aspect of our growth has been in migration. About 70 percent of our population growth has been fueled by the relocation of people from other states and other countries, we believe drawn by, among other things, opportunity and liveability.

The infusion of talent and diversity from this migration has strengthened our economy and helped fuel healthy growths in employment and investment. Clearly, the availability of reliable and affordable power has supported our growth, as has, no doubt, initiatives such as our clean smoke stacks legislation which has encouraged investment in scrubbing equipment.

Now, occasionally in my work I hear arguments that we should limit growth in our state. And in my work I have seen the challenges experienced by areas of our state that had little growth or have been in decline.

That experience underscores for me the importance of healthy growth. Growth enables our communities to develop scale benefits, which enhance the quality of life of our citizens. Growth means better airports, more culture amenities, more shopping and recreation choices, just to mention a few of the possibilities in a jurisdiction that encourages healthy and manages healthy orderly growth.

In conclusion then, I believe that it's strategically important that we add to base load capacity in the state in a timely fashion to sustain orderly healthy growth. Certainly nuclear power must be an important part of the base load mix. In my opinion, it's an excellent vehicle for accomplishing efficient generation of power, certainly at base load scale, in reducing our carbon foot print. Coupled with conservation, in a realistic mix of renewable and other forms of generation, nuclear power helps support our growth, reduce carbon and other emissions, and achieve our national objective of energy self-sufficiency. So I believe more nuclear capacity is good public policy and I certainly support this combined license application. Thank you very much.

MR. CAMERON: Thank you, Secretary Fain. We're going to go to Sasha Weintraub.

MR. WEINTRAUB: Good evening. My name is Sasha Weintraub. I'm the Vice President of the Fuels Department responsible for procuring the coal, oil, and natural gas that we use to generate electricity at Progress Energy Carolinas power plants. What I would like to talk to you about today, real briefly, is the challenges on a global scale as we talk about growth. In places like China, they are building a 500 megawatt coal plant a week to power a city the size of Dallas or San Diego. In places like India, they're putting cars on the street at a record number that's requiring gasoline and oil to fuel those vehicles. Just recently, one of the largest Indian automotive manufacturers, Tata Energy, purchased from Ford, Jaquar and Land Rover brand as they become a more global player.

The challenge for us is the fact that just in the past year, when you look at the fossil fuel prices that we use today to generate our electricity, natural gas has gone up over 64 percent in just one year, crude oil is up over 107 percent in one year, and coal is up over 180 percent in just one year. So across the world as we talk about growth here in Wake County, growth is really occurring across China, India and other countries. In order for us to maintain a balanced solution where we utilize alternative energy, efficiency, and state of the

art power plants, Harris 2 and 3 play a key role in order to allow Progress Energy to help secure our energy future. Thank you.

MR. CAMERON: Thank you very much, Sasha. Our next speakers, we're going to go to Anita Badrock, Liz Cullington and Audrey Schwankl. This is Anita.

MS. BADROCK: Good evening. Thank you. My name is Anita Badrock, and I live and work in Chapel Hill. I work as a recruiter for local area businesses, and I most recently served as the past president of the Chapel Hill-Carrboro Chamber of Commerce. And thank you for the opportunity to come here tonight and sort of give you a finger from our pulse on the western part of the Triangle.

The issue of nuclear power is complicated and very emotionally charged, and I feel like I can speak to that with some personal knowledge. I grew up on a farm in upper South Carolina, and when I was about ten years old, give or take a little bit, Duke Energy built the Oconee Nuclear Power Plant within about five miles of our family farm. We had a siren on our barn roof. We had a radio in our house, and we participated in all of the drills, the information sessions, and things from Duke Energy to educate us. My father was a professor of Spanish at Clemson University, and so we of course

listened and tried to learn as much as we could about nuclear energy.

I am happy to say that after 30 years of studying, our family came from a position of complete opposition to nuclear energy, to become a family that thinks that nuclear energy should deserve a seat at the table when we talk about our energy needs for this century and beyond. I know that this hearing is about the environmental impacts of nuclear energy, and I am sure there are a lot of scientists in the room and members of the Nuclear Regulatory Commission that know a lot more than I do about this.

But I was happy to hear in the presentation that you had, that you talked about the human environment, because I think in Chapel Hill that we've spent a lot of time talking about what the human environment needs. We would define that a little differently. We talk about sustainability and the triple bottom line, and that is the issue of environmental stewardship, social equity, and economic vitality. And we believe that any community can not survive without a balanced presence of all three of those in the community. If you want to see communities that are the most environmentally degradated, look at ones that have pushed economic issues above all else. If you want to see

communities with absolutely no economic vitality and no ability for children to live and work and stay in their own communities, look at communities that have paid no attention to economic issues. So we really believe that anything, whether it be an energy policy or any kind of big development that happens, has to balance all three of those things.

We also believe in flexibility, and we believe that a nuclear power plant has to be part of the discussion when we look at the future. And I want to just give you a couple of examples. One thing, it is amazing how quickly the price of oil has affected the budgets of our governments, of our families. We have seen double digit increases in Orange County for tax payers on their homes because we don't -- and primarily because of the cost of fuel. We have this problem because we didn't keep our options open when we planned this area to think about other ways of getting around. We needed to do that before we needed them. And we are paying a price now. Greenhouse gas emissions. The greenhouse gas emissions that this country puts out is disproportionately affecting people all around the world, and that's happened because we put too much emphasis on using fossil fuels to produce energy. And that has affected our economic vitally and our environmental

stewardship throughout the world.

A sustainable energy plan is nimble and it has options; one that we can utilize quickly when circumstances change, as science advances, as our needs change and as the cost and availability of raw materials change.

Most of us don't think about what it's like to live without electricity. I have a mother that is completely oxygen dependent, and when we had the last ice storm, she quickly became an emergency situation and had it not been for the ability of our family, to be on -- in this case Progress Energy is not even our provider, but had it not been for the ability of our family to be on Duke Energy's special list that we had someone in our family whose life was at stake, my mother could have died. So we really rely on power companies to provide us energy when we need it, on demand, and I believe we need to give our energy companies the tools and flexibility they need to meet that demand for us.

Our utility companies just do not have the option of running out of energy. So I would say that I want a sustainable energy plan for our needs. A sustainable energy plan protects the environment, it promotes social justice and it encourages economic vitality. So first and foremost I think we have to work

on conservation and we have to work on it both as a business community and personally. We have to reduce our energy demands.

Secondly we have to expand and reward the use of renewable sources of energy and do what's needed to make them viable in the market place. And third, we really need to keep our options open, and that includes keeping nuclear energy on the table. If it's done right it has the potential to keep the cost of electricity down, gives expanded and reliable capacity to meet the needs that we have in our community, and we can limit harmful green house emissions. The doing right is the key part, and I know that there are people who are much smarter than I am that will figure out how to make that happen.

A sustainable energy policy, one that balances the issues of environmental stewardship, social justice, and economic vitality by its definition keeps options open and weighs them according to the best and latest knowledge in order to make good decisions. Flexibility on how we produce and deliver electricity is essential for the public safety, for security, and yes for our environmental protection too. All forms of energy production, including nuclear energy, need to be available to the companies that we've tasked to do that.

So I would support Progress Energy's application. Thank you.

MR. CAMERON: Thank you, Anita. Liz, Liz Cullington.

MS. CULLINGTON: My name is Liz Cullington, and I live in Pittsboro, about 14 miles from the Harris site. I didn't learn about this meeting until May 29th, so needless to say, I have not had time to both download and read all 1636 pages of Progress Energy's Environmental Report, let alone the rest of the license application. However, there has been no local publicity about this meeting that I'm aware of, and I did try searching for that on line. And I believe people would need one or two months to digest this amount of information. So you can expect to get only general comments. And it appears that most of them are coming from people recruited by Progress Energy to speak in favor of more nuclear power.

In the past I made detailed comments on the Harris unit 1 license renewal application, and that seems to have been a waste of time also.

Many climate scientists tell us that we only have a few years, possibly as little as 18 months, to take global action on climate changes and its primary causes, including rainforest destruction and man-made

carbon emissions, and to slow down all the feedback mechanisms, such as melting permafrost causing methane emissions, melting Arctic and Antarctica ice, and shrinking glaciers. All of these too have already begun.

Progress Energy claims that nuclear power involves no emissions and is carbon-neutral or carbon free but they go further to argue, not only to the public, but to scientists at a federal agency like the NRC, that a nuclear power plant would actually lower carbon emissions. None of that is actually true.

Nuclear power is not magic, and it can not remove carbon dioxide from the air, and it especially is not going to do that when it is operated in addition to coal plants to meet what Progress Energy says is going to be ever increasing demand. This is important for the public to understand. Progress Energy's plans do not show them shutting down coal plants. Instead they plan for more and more electricity powered by coal and nuclear. They have proposed only a 2-year moratorium on additional coal plants, presumably just long enough for them to get approval for these two new nuclear power reactors, then they apparently will be adding yet more coal plants.

Coal fired power plants are the single most avoidable and concentrated cause of human greenhouse gas

emissions. The carbon dioxide emissions from coal plants are so great that they can wipe out the reductions that individuals and businesses are planning to make.

Even if nuclear were to replace coal, which in this case it won't, that nuclear plant would need to be on line immediately. Instead it's going to be a minimum of ten years, and quite possibly longer.

Even if two new reactors in Wake County were actually part of a solution to global warming, then we would still have to also consider the safety issues, the problem of the long-lived waste, the global shortage of uranium and its increasing price, the problem of water supply for the two new reactors, and the effect of putting an additional five to 20 billion dollar debt onto North Carolina and South Carolina rate payers who are losing their jobs in batches of several hundred to a thousand at a time, and seemingly every week.

But nuclear reactors don't operate in isolation, and just because they don't emit carbon dioxide out of the cooling tower does not make them a carbon-free source of power. The uranium fuel has to be mined, then the ore transported halfway around the world, with the U.S. importing about 85 percent of its uranium, a greater percentage than our imports of oil. Then the uranium ore has to be chemically processed, enriched, and

manufactured into fuel, a process that not only uses lots of energy, but also releases other processed chemicals into the air that contribute to global warming. The nuclear plant itself has to be manufactured, the waste has to be cooled, processed, shipped, and isolated. The entire business would only start actually becoming carbon neutral in about 20 years, which would be in 2038 at the very earliest.

Many other countries, however, are also planning new nuclear plants. Since there's not enough viable uranium for all of these planned nuclear plants, this means the U.S. nuclear plants might in fact be carbon neutral, and they're certainly going to be more expensive to operate.

Water supply for these particular two new reactors at Harris is a vital issue. Several other speakers have mentioned this. Many people think that since four reactors were once planned there, there's bound to be enough lake capacity already for the additional plants. However, during drought conditions, the current reactor has to have water pumped from the lower level larger lake to the smaller higher level reservoir.

Progress Energy plans to raise the level of the larger lake by 20 feet or more since the

environmental report shows a map up -- the level up to 250. But even so, they feel it would be necessary to add a long pipeline to pipe water from that lake from the Cape Fear River. This is because Harris Lake, while already large in appearance, is only fed by very small creeks, not several large rivers like Jordan Lake.

Contrary to what you'd expect, the new reactors are not to be sited next to this larger lake, but north of the smaller reservoir so that the water supply and heat sink required to prevent a meltdown would be the same smaller reservoir for three reactors that currently is not always enough for one reactor. And water supply for the three reactors would depend on two active pumping systems, which would basically depend on off site power from other sources, rather than power from the reactors themselves.

I'd also like to address the section that Progress Energy has devoted in its Environmental Report to why it needs more power plants. Progress Energy is arguing based on NRC regulations that if our local North Carolina Utilities Commission has indicated that Progress Energy may need additional base load power in the future, then Progress Energy does need additional base load power, and nuclear is preferable. However, the data provided to both the state and the Nuclear Regulatory

Commission is all peaking demand data, not base load data. Base load demand is the 24-hour always-on demand for power.

The last of North Carolina's industries are shutting up -- manufacturing industries are shutting up shop, and indeed the planning data filed by our utilities show a dramatic drop in industrial demand. Recently the credit crunch has pushed many national retail chains into filing for bankruptcy protection. So base load demand is more likely to drop in our region overall rather than increase. We are not just talking about Research Triangle Park. We are talking about overall demand in the North Carolina and South Carolina service area for Progress Energy.

With fewer jobs in that area overall, we may still see more retirees moving for instance to North Carolina, but only to the limits of our water supply, which is already stretched to the limit in drought years, and residential customers tend to only increase intermittent peaking demand.

Nuclear power plants must operate around the clock except when shutdown for refueling. It is very dangerous to keep starting them up and shutting them down to meet intermittent demand. They do, however, shutdown unexpectedly which makes them less than a 100 percent

reliable source of power for base load. So a large centralized nuclear plant requires more backup plants than would more smaller, more varied renewable sources. Or just other smaller plants.

If Progress Energy actually wanted to do something about the climate, then they would need to shutdown their coal plants and put the money they plan to put into two new reactors into reducing energy demand and increasing our energy efficiency.

The best, cheapest, and fastest way to lower carbon emissions from the electricity sector is to reduce wasted electricity, upgrade existing buildings and appliances, and educate the public about the importance and urgency of slowing down runaway climate change, including quite probably us having to make life style changes and just stop living like we have eight more planets at our beck and call, just for us Americans.

Clearly Progress Energy has stopped arguing that wind and solar don't work, which they used to do. Instead they have dredged up some slightly dotty claims such as the ones that a concentrating solar plant or wind farm is really much uglier than a nuclear reactor, and that the land that the wind farm or solar plant would be sited on would be just ruined forever. They claim that these other sources have the same small environmental

impact as a nuclear reactor, even though wind and solar do not require fuel, don't involve constant mining and waste disposal, don't require and then pollute a water supply and can't meltdown and permanently contaminate up to half the east coast.

Progress Energy has its highest peak demand in summer, and that occurs in the late afternoons of the hottest, sunniest days, when air conditioners, fridges, fans, and grocery store coolers and freezers are all running full tilt. Yet this is exactly when the most solar power could be generated.

Even though centralized solar concentrating plants using parabolic troughs have been safely operating in the U.S. for fourteen years, Progress Energy claims that this technology is still at the demonstration stage. By that standard, so is the uniquely designed Shearon Harris Plant, unit one. But more importantly, the new Westinghouse AP1000 reactor has no full scale operating prototype anywhere in the world. In fact, the design is still going through revisions that one NRC Commissioner has called substantial in a public speech.

Given the impossibility of evacuating the Apex, Cary and Raleigh downwind areas in a timely manner, where the population has increased exponentially since the 1960s when the site was first proposed, we would

prefer not to be among the first guinea pigs for this still experimental new reactor design.

It is important for members of the public to understand that when a group of power companies approached Westinghouse for a new reactor design back around 1990, the utilities wanted a plant that would be cheaper and faster to build, and easier to operate. This wasn't because of concern over global warming back then. Increased safety in the design would also mean fewer unexpected shutdowns. But between the first prototype and now there have been many safety compromises because utilities like Duke and Progress Energy were stuck on the idea of a 10000 megawatt reactor, not a 600 megawatt reactor.

MR. CAMERON: Excuse me Liz, we appreciate all the information but --

MS. CULLINGTON: Four lines.

MR. CAMERON: Four lines, beautiful

MS. CULLINGTON: -- not a 600 megawatt reactor. Perhaps one reason was so that they could utilize existing sites and tell the locals, we already have approval for four reactors at that site. The fact is that Progress Energy does not have approval. It's proved by the fact that we are here today, neither from the NRC, nor from the state. And they have not proved

that they need over 2000 more megawatts of power plant, nor that new nuclear reactors are the least environmentally harmful, or least cost, option.

MR. CAMERON: Thank you. Audry.

MS. SCHWANKL: Good evening everyone. My name is Audry Schwankl, and I live in Pittsboro. I'm a citizen of North Carolina. My husband and I live on a small homestead in Pittsboro with our four children. We are also foster parents. I don't work. I am a stay-at-home mom right now. I will tell you that about two years ago I heard about the possible expansion of Shearon Harris. I didn't know anything about the plant except that it was close by and it scared me to death. I said over my dead body will they expand the nuclear power plant, and that was based on my knowledge of the waste that is produced by the nuclear power plant. We can talk about economics, we can talk about the great things that it can do for our community now, but the fact of the matter is that the legacy that we are going to leave when we are gone and our kids are gone and our grandkids are gone, and all their grandkids are gone and all their grandkids are gone and so on and so forth.

According to David Flemming, who wrote an article about nuclear power plants that was saying basically that they aren't a viable option, said that he

showed the scientific sort of formula of how radioactive material disintegrates or becomes harmless to humans, that it would take for the half-life, that means for half of it to degrade to an acceptable place for us as human beings to have contact with it, basically the time for that is the age of the earth. So that's what we're producing in order to fuel our homes and our dreams and everything else that is great and was mentioned by so many folks here tonight. Because what you're saying is true. We have a very high standard of living and that standard of living is getting higher and higher, and we need energy to fuel that. But this is what we're really producing. This is our legacy with nuclear power.

One thing I'll have to say about Progress Energy that I absolutely love and adore, and it was stated by Mr. Goodwin, is their community partnership. You see the name everywhere. I mean they're helping in all kinds of ways, they are involved, they want to get involved with communities. They want to show people that they are concerned about the community. I have participated in many of the things that they have been behind, and I love the theater and I go to the Progress Energy place in Raleigh and take my daughter to see the Nutcracker and saw a great production of Man of Lamancha last year. They do wonderful things that way.

However, when it comes to producing energy, when it comes to nuclear power plants, I don't believe they do that great a job. For two years now, I have been studying the nuclear power plant there and listening to what people have to say about the safety issues there, and well, they have been out of compliance with fire safety for 15 years. That is a fact. And that is not changing any time soon, because the NRC is allowing them more time for studies. So basically okay, the plant's 20 years old and it's finally going to be made safe, supposedly. So when we talk about safe, reliable, affordable energy, I can't jive with that. The Harris safety record should disqualify the building of any new nuclear power plants as far as I'm concerned. If the old ones couldn't be maintained correctly, how can we trust them with new untested power plants?

They're not affordable. Everybody knows that nuclear power plants would not be built if it weren't for the subsidies from the government, and you know the tax payers are basically holding it up. Wall Street is not behind it. They're not going to loan money for any nuclear power plant, unless it's backed up by the government. So financially, it's not a good bet. It's something that could fall apart in the middle. It could be under construction for five years, which by the way, a

plant takes between five and 15 years to come -- so it's finally ready to produce power. So for the folks that we're talking about, the economic growth here in the Triangle in the next five years, it ain't going to be ready. It's just not going to be there. It's going to take ten, 15, 20 years to get this thing on line. And it may stop in the middle. It may not even come to completion. And all the money that has going into it is going to be paid by the folks that are paying their electric bills. It's just going to be a huge economic burden, a billion dollar loss for our economy.

So also when we're talking about the lowest cost option, we have a choice here. We are facing global warming. According to the scientific community, it's a reality. And if we squander our money and time on nuclear power plants that aren't going to be on line for ten to 15 years, and that's way beyond where the point of no return happens, if we're saying okay, we're going to put our money there, you know, that's not -- that's possibly not even going to come to fruition. And as far as lowest cost, when we're talking about the waste that is produced by these nuclear power plants, we have to come up with the money to store this stuff for eternity. That's not low cost. That's the most expensive kind of power that could ever possibly be produced.

I've also come into some knowledge that there's actually a glut of energy in the Southeast right now. There are 60 power plants that could be used to produce all of this energy that we need to support economic growth and that are not being fully exploited at this time because they want these nuclear power plants to be built so that we can possibly sell to maybe somewhere else, right. I don't believe the plants are necessary, and also energy efficiency, better building models, conservation. I think conservation could play a very small part, but our personal conservation. We've got to look to industry for the real conservation, for the real decisions, right, real change making decisions.

I've written notes down next to each speaker, and I just wanted to address some things for each one, and I think I've gone through most of them.

MR. CAMERON: Audry, I am going to have to ask you to just sum up for us if you could please.

MS. SCHWANKL: Basically, I believe that the construction of two new nuclear plants, reactors here at Shearon Harris, it would be an example of Progress Energy impeding our transition to truly safe and efficient energy, which we have the capability to produce here in North Carolina. It just squanders the resources needed to slow the global warming and to put us on the path of

true safe and efficient energy. Thank you.

MR. CAMERON: We're going to go to Bob Funderlic and Sol Cammarata, Barry Porter and Shirley Hubert.

MS. HUBERT: She just said it for me.

MR. CAMERON: And you're Shirley Hubert. So let the record show that Audry Schwankl said it for Shirley Hubert. Thank you. And this is Bob Funderlic.

MR. FUNDERLIC: I'm one of those professors again over at that really, really good university, best in the Triangle. I think it's the same place that the economist is from. I have been to Chapel Hill as well, six times, I think. That is a scary 'place.

I am a professor emeritus at NC State. I am not sure they want to claim me. I came there in '86 as department head of computer science. Before that, I was at a national laboratory and was chief computational scientist on energy problems. The person at the desk in there suggested that I talk about something. Somebody was saying they only learned about this thing today or something, but I did too, 1:30. But it was in the newspaper.

Anyway, there was talk about professors putting people to sleep. I have to tell you though, that I'm an expert in keeping you awake. The proudest

teaching evaluation I got is this guy said, this guy could be a stand up comedian, but if I wanted that I'd watch Seinfeld.

What I'm going to do is just, like some of my students do, plagiarize. Finally, I have no conflict of interest. I suspected a good many -- supposed to have respect right? Anyway, I don't have any. I don't work for Progress Energy. I don't want to work for them. I don't even have any a salary. I don't work for a salary. I think it's important, by the way, that people do mention their conflicts of interest.

What I'm going to do is just read for you an e-mail that I got August of last year from a colleague who I worked with at a national lab, and he's at some famous institute, but he's like me. They don't like for him to speak much. They want to keep his name secret. So I guarantee you he is very good. He's a global warming type person. He thinks that Al Gore is his patron saint and he's just absolutely on the side of global warming, as I am too. I mean, I don't want global warming. I would like to do something about that. I think the nuclear business is the way to do that.

Burt sent me this message, and he said, you're right about the reactors. We should all be driving electric cars, which we could plug in every night

to recharge them with nuclear generated electricity.

The most famous of all environmental guru's, James Lovelock, argues that reactors are our only chance of preserving civilization through the coming catastrophe. In his latest -- by the way, if you want me to send you references on all this, just give me your e-mail address and say something in the subject line that doesn't have the word bigger in it. My spam thing doesn't do so good.

In his latest book the Revenge of GAIA, somebody must know that what that is, I don't, points out that it would take 58,000 windmills to replace one nuclear power reactor. I know you guys argue about this. We heard the word kilowatt come up quite a bit today and it never said per hour or what it was. So you can argue that maybe this is someplace where there isn't any wind, or you can say the nuclear reactor was bigger than the state, or something like that. But I give you the reference. 58,000 windmills to replace one nuclear reactor.

He has also written a four-page article about this in the Reader's Digest, and I'm not a fan of the Reader's Digest either, which I have attached. So I can send you that article. You can find other stuff about it on his webpage. It's www.ecolo.org/lovelock. Just like

you'd expect, the word love lock, L-O-C-K.

The French get 80 percent of their electricity from reactors. They are way ahead of us. They are just like they are -- Burt's a controversial guy too -- just as they are on health care. We are a nation of very stupid people. I shudder to think about what's going to happen when we are faced with the first year of world-wide crop failures caused by climate change. Maybe we can just drink all of the alcohol that we converted from corn.

I am intrigued by your new interests in the hazards of coal-fire power. It's incredible -- I have to tell you about this. The Bullrun Steam Plant in Oak Ridge, a big tall smoke stack, they give out free car washes within ten miles. Those things aren't any good. I think the people for WARN, I think there's some people here from WARN, they are the ones responsible for that coal plant that's going to go up in the foothills of the Smokey's. They should have been arguing for a nuclear plant.

Gives free car washes to get rid of the fly ash from the local power plant. I hope that I moved to Nebraska Avenue before any permanent damage was done to our lungs. It's going to be hard to try to put those coal mine guys out of business, but we had better start

by trying right now. That's it.

MR. CAMERON: Thank you very much.

MR. FUNDERLIC: I hope I didn't go over my time.

MR. CAMERON: No, you didn't You were fine. You were informative and entertaining. Thank you, professor. Sal Cammarata, that's a hard act to follow, Sol.

MR. CAMMARATA: You took my first line away. Good evening and thank you for allowing me to speak tonight. My name is Sal Cammarata. I live in Cary with my wife and two children who are six and eight years old. When my wife and I moved to the Triangle back in '96 we thought we had missed out on all of the opportunity that came with the growth in this area in the '90s. As we all know now, this area has continued to grow and has continued to be envied by cities around the world.

Even though with this growth comes some increase in traffic and congestion, this area continues to be an outstanding community to live, work, and raise a family. As I look at my neighbors and friends, I see people who have prospered from the growth, and it is important to all of us that this growth is sustained. Many of us know from experience that the prosperity of a community can change quickly and we don't want our

children to be part of a slumping local economy.

When I go to the gas pump or read the morning paper I say to myself, there's got to be a different way. How can we sustain our growth while at the same time reduce our dependence on oil and coal? I believe that nuclear power is the most cost effective means, and one that has proven to be also safe.

I would also like to give some insight on working with Progress Energy. Although I would have no reason to discuss nuclear power with them, my company owns and manages commercial real estate, and I've had many dealings with people at Progress Energy. The people at this company are forward thinking professionals, with integrity and a commitment to customer service and safety. Recently, I was asked by my company to promote energy savings and create an energy saving task force. When I approached the utility companies for assistance, Progress Energy was the first and only one to step forward and offer assistance. Based on this community's need for sustained growth with a movement away from coal and oil, and my knowledge of Progress Energy as a Raleigh based company, I would ask that the commission support the application by Progress Energy. Thank you.

MR. CAMERON: Thank you, Sol. Barry Porter.

MR. PORTER: Does that mean I'm the last one?

MR. CAMERON: Yeah.

MR. PORTER: Oh, great. I'm the guy standing between everybody going home.

MR. CAMERON: You're not the last one. We have some repeat speakers from this afternoon. So go ahead.

MR. PORTER: Good afternoon. My name is Barry Porter. I'm with the American Red Cross. I'm the regional director for the Red Cross in this area. You know the mind can absorb what the seat can endure. How many of you are tired of sitting? So what I'd like to do, part of my relationship with Progress Energy, when I looked at, why would I come and talk. It's because we're part of that social network in the community that benefits from the fact that we all pay energy bills. You know, I don't understand how many times things work in my community. I really don't understand how they collect the trash and what they do with it. I don't understand how the energy comes on necessarily. I've toured power plants before and turned on my light switch and the light switch works, and my wife is happy when the air conditioning comes on in the 100 degree heat. The same way many of you probably never thought about how the blood supply gets there, how safe it is, how reliable it is, and how unlikely you are to contract AIDS from a

blood transfusion, but how likely you are to die from a ruptured spleen from an accident on Interstate 40. So from that we all learn about who we are as a community and what we can contribute.

So I would like to teach you a little bit about change. We've had a lot of good professors speak this evening, that kept us awake and if you had fallen asleep, I would have slipped a needle in it and gotten a pint of blood. So here's what I'd like you to do. This is an audience participation moment. What I would like you to do is take your hands and act as though you're in church and fold them almost in prayer. What I would like you to do is look at them, and those of you who did it correctly, that means you put your left thumb on top, would you please stand and take a load off your seat for a moment. So if you did it correctly and have your left thumb -- so look around the audience. Half of you couldn't even get that simple assignment correct.

Now, those of you that are still standing and those of you who are seated, I want you to participate in a change exercise. I want you to take your hands apart and put them together the opposite way and give me a response to that exercise.

MR. _____ : It's wrong.

MR PORTER: It's wrong. How does it feel?

Odd, but notice that half the people sitting in the room did it exactly opposite you did it. Those of you who are standing may have your seat back. Notice what I did when I made my statement. First of all I put a value statement on it, didn't I. I said if you did it my way, you did it what? The right way. How did that make any of you feel that did it the wrong way?

MR. _____: You were wrong.

MR. PORTER: I was wrong. He must be an engineer. Is that true? See.

So from that change, then when we introduce change into any environment it's difficult for us to manage and to cope. Even with that simple, some of you said it's weird, it feels wrong, it doesn't feel right. I'm not expert at all in any of the subject matters that have been talked about tonight. I am concerned about the future of my community, the future of sustainable resources. But I also know that I interact with on many occasions the leadership of people at Progress Energy. I know they too are concerned about sustainability, family, environment, quality of life issues. None of us would probably wanted a hundred years ago for them to build a power line within a hundred yards of our house because of the fear that thousands upon thousands of people would die from electric shock. But when we introduce change

into a world that's changing all too rapidly, it's frightening and it's fearful.

But I'm glad that we have the support as an organization like the Red Cross of the people and the power behind the people at Progress Energy. They contribute money, time and blood to my organization that helps the quality of life in our community. I don't know what the right solution is because I'm not smart enough and qualified enough to ever make those decisions, but I hope that we have people like those of you on the staff of the NRC making effective decisions in a changing world, the changing climate and the changing environment that will help us sustain our quality of life, leave a legacy that is not destroying the environment, and at the same time adapting ourselves to change. I appreciate the opportunity to speak on behalf, I appreciate the financial support of not only the corporation but the employees of Progress Energy who take time from their daily schedule to stick their arm out and let me stick a needle into it. Those of them who make contributions in their internal campaigns for financial support that support the social network of the community in which we all enjoy living. Thank you for your time.

MR. CAMERON: Thanks, Barry. No one is going to fall asleep while you're still in the room. We are

going to go to Nina Cann-Woode at this point and then to Bill Hummel.

MS. CANN-WOODE: I spoke in the first session, I just want to follow up my comments with the same statement I suppose. My name is Nina Cann-Woode and I speak today on behalf of The Clean and Safe Energy Coalition. We support the construction of new reactors at Shearon Harris by Progress Energy and are actively engaged in generating a public dialogue to educate others about the ways nuclear power enhances American's energy security and economic growth, and helps improve the environment.

Our nation is addicted to electricity and that addiction will only grow in the future. U.S. Department of Energy estimates that our electricity demand will increase 25 percent by 2030. As technology advances, our economy expands, and our population increases, our need for energy will grow. Consider that today all renewable sources produce two percent of our electricity, while nuclear power accounts for 20 percent, that's one out of every five homes and businesses in the United States. And here in North Carolina, nuclear power provides over a third of the state's energy needs.

The reality is, we will require more from a variety of sources in the years ahead. A wise energy

policy recognizes the virtue of diversity and in that diverse plan, nuclear energy is a critical component. As we approach the hot summer months, it is important to recognize that nuclear power plants have a proven record for performance in severe weather conditions, including drought. Given extreme temperatures, it will continue to operate safely. In fact, nuclear plants here in the southeast were critical to meeting electricity demand during a two-week heat wave in August of last year, and posted an average daily capacity factor of more than 98 percent.

Consider the facts, nuclear energy is clean. It is the only large scale emissions resource of electricity that we can readily expand to meet our growing energy demand. We all have a shared stake in American's energy future. Now is the time for our country to support nuclear energy as a means to generate electricity with a clean, safe, and dependable source of power. Thanks.

MR. CAMERON: Thank you very much, Nina. And Bill, do you want to talk to us? Okay. This is Bill Hummel.

MR. HUMMEL: Thank you for indulging me. I suppose I'm the last speaker, so I'll be brief. As he said, my name is William Hummel. I'm also speaking on

behalf of the Clean and Safe Energy Coalition. CAS Energy is a grass-roots organization dedicated to informing the public of the benefits of the nuclear technology. Our coalition's comprised of over 1600 individuals, state legislaters, federal employees, and organizational members. It's lead by our two co-chairs, the former governor of New Jersey and EPA administrator, christy Todd Whitman, and the founder of Green Peace and former leader, Dr. Patrick Moore.

Nuclear already provides 20 percent of the United States electricity, and with electricity demands expected to increase by 25 percent nationally by 2030, the United States needs more nuclear energy if it wants to keep up with our growing energy needs. Conservation alone won't meet our growing needs. A diverse mix of energy sources will serve us all best. However, as we look down the road, we should promote an increase in the use of nuclear energy as it is environmentally clean and a reliable path to take in meeting our country's energy needs.

Nuclear energy is clean. The environmental impact of nuclear plants is far lower than many other types of power generating plants.

Nuclear energy is safe. In fact, the United States Bureau of Labor Statistics has shown that it is

safer to work at a nuclear power plant than in the manufacturing sector or even in the real estate or financial industries.

Additionally, you would have to live by a nuclear power plant for more that 2000 years to get the same amount of radiation exposure that you would receive from a single diagnostic medical X-ray. With rising energy costs a concern for every American, nuclear energy is an affordable and reliable economic choice for electricity. Nuclear power has the lowest production costs of all the major sources of electricity. Nuclear plants are the most efficient on the electrical grid, and their costs are more predicable than many other energy sources.

But most importantly, a nuclear plant makes a good neighbor. It supports high paying jobs directly at the plant, generates additional jobs in the community where it is located, and contributes by helping to build good schools, good roads, and civic improvements. It is with this that the CAS Energy Coalition wholly supports Progress Energy in their application for additional reactors, and I thank you for your time. Have a wonderful evening.

MR. CAMERON: I think it's that time to turn it over to our senior manager, Andy Campbell to close out

for us. Did we catch everybody? I think that we did.

MR. CAMPBELL: So everybody has had an opportunity to speak. It's 8:00. We will close out a little bit earlier than we would have. But I do appreciate people -- some people came back and people who were able to make it out tonight. I do want to thank the town and the city government, Holly Springs, for providing this wonderful venue for this meeting, and providing us the opportunity to be here tonight and to get your comments.

Our purpose here as we've said repeatedly through tonight's meeting, is to get information from you, to get input from you. And as we've pointed out, you can still provide comments if you didn't want to speak tonight. If you know other people who want to provide comments, they can e-mail to us. They can send them by regular mail until July 25th.

Also there are sources of information on the NRC's website. If you go to the NRC's public website and look up new reactors, you can get all of the information on the Harris combined operating license, the application, and get information on the AP1000 design certification REV 16. All of that information is available. You can get information on how to participate in the hearing process. So again, I want to thank

everybody. In particular I want to get the names right, but I do want to thank Cassie and Emily for helping us set this all up. We really appreciate your help. And Barry Jaked who helped us with the audio/visual and the great sound in this facility. Again, this is a great opportunity for us. We will be back in a year to talk about the Draft Environmental Impact Statement and get your input on that. In the meantime, have a great evening and thank you very much.

(The meeting was concluded at 8:04 p.m.)

Wake County
Economic Development

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June 10, 2008

"Wake County Economic Development supports Progress Energy's Combined License (COL) for two new reactors for the Shearon Harris site. Wake County Economic Development is the lead economic development group in Wake County and is responsible for the recruitment of new business and the retention of existing companies. Having safe, reliable, and reasonably priced electricity is a critical component to our continued job creation and for us to maintain the high quality of life that we enjoy in this region."

Some of the reasons WCED support Progress Energy's Combined License (COL) application are:

- Progress Energy has operated nuclear power plants safely and efficiently since 1971. The company's plants are consistently among the top performing plants in the world.
- Electricity is vital part of our state's infrastructure, as are roads, schools and water. This area's impressive infrastructure serves as a magnet for businesses and economic development.
- Progress Energy has not built additional baseload generating plants since the Harris Plant came on line in 1987.
- Progress Energy's strategy to meet the demands of growth responsibly is a combination of enhanced energy efficiency, investments in renewable and alternative energy technologies, and state-of-the-art power plants.
- The planned increase in reservoir capacity accounts for potential drought conditions in the future. By raising the lake level, there is increased storage capacity and the ability to limit river withdrawals during times of drought.
- The Harris Plant has been in operation for more than 20 years, providing a safe, efficient and economical source of electricity.
- Currently the Harris Plant employs approximately 450 people, and an additional 200 contractors. Approximately 640 additional people would be needed to operate two new reactors at the site.
- Currently the Harris Plant contributes $126 million in personal and property income and $30 million in tax revenue to the surrounding area.
- As population and demand for power grows, Progress Energy has an obligation to meet the needs of its service area.
- Progress Energy has an obligation to meet the growing needs of its service area by providing reliable and affordable electricity for many years to come.

James Sauls
Project Manager
Wake County Economic Development

STATEMENT TO THE NUCLEAR REGULATORY COMMISSION
ON
THE PROGRESS ENERGY SHEARON HARRIS COL APPLICATION
JUNE 10, 2008
HOLLY SPRINGS, NORTH CAROLINA

Thank you for the opportunity to share some thoughts about the combined license application by Progress Energy to add two reactors to the Shearon Harris site.

My name is Jim Fain and I currently serve as Secretary of Commerce for the State of North Carolina. The mission of our department is to "enhance the economic well-being and quality of life for all North Carolinians." There are many measures of success in accomplishing this mission, but two key and easy to understand metrics are quality job growth and increases in ad varorem tax paying investment. North Carolina's strategy to add well-paying jobs and opportunities for citizens is based on consistent investment in education and workforce development – augmented by investments in infrastructure, innovation and quality of life assets.

Our companion strategy to investing in the skill and know how of our workforce – building a knowledge-based economy – is investment in quality of life and place. Knowledge workers expect and gravitate to places where they can find good schools, parks and recreation opportunities, good health care and a sound environment. For example, they typically want to live where investments and policies reduce carbon and other emissions and the attendant impacts on air quality and climate.

Obviously, inducing good new jobs and investment depends on many variables – certainly including the availability of reliable and affordable

electric power. Further, in my opinion, an appropriate proportion of nuclear generation in our electric power mix is important to meet the growing needs of employers and the expectations that we citizens have for air quality. And in a growing jurisdiction, economic opportunity depends on adequate base load capacity – and that's particularly important in this region and in our state which have been growing rapidly.

Since July, 2003 the bottom of the recession-driven employment decline in North Carolina, our state has added 416,000 jobs through the first quarter of this year. That's an average of 89,000 jobs per year during that time frame. In 2007, as measured by the payroll survey, our state added more jobs than all other states except Florida, Texas and California. Generally, those new jobs have been in sustainable, well-paying industry sectors and include commercial and industrial users of power. During this decade, North Carolina's population has grown by about a million residents – or 12.6% - and in 2006, this state became the tenth largest, surpassing New Jersey in population. An interesting aspect of our growth has been in migration – about 70% of our population growth has been fueled by the relocation of people from other states and other countries – we believe drawn by opportunity and livability. This infusion of talent and diversity has strengthened our economy and helped fuel healthy growth in employment and investment.
Clearly, the availability of reliable and affordable power has supported our growth, as no doubt, have initiatives such as our clean smokestacks legislation which has encouraged investment in scrubbing equipment.

Now, occasionally I hear arguments that we should limit growth in our state. In my work I have seen the challenges experienced by areas of the state that have little growth – or have declined. And that experience underscores for me the in importance of healthy growth.

Growth enables our communities to develop scale benefits which enhance the quality of our citizen's lives. Growth means better airports, more cultural amenities, and more shopping and recreation choices, just to mention a few of the possibilities in a jurisdiction that encourages and manages healthy, orderly growth.

In conclusion, then, I believe it's strategically important that we add to base load capacity in the state in a timely fashion to sustain orderly, healthy growth. Certainly nuclear power must be an important part of the base load mix. In my opinion, it's an excellent vehicle for accomplishing efficient generation of power and reducing our carbon footprint. Coupled with conservation and a realistic mix of renewable and other forms of generation, nuclear helps us support growth, reduce carbon and other emissions and achieve our national objective of energy self-sufficiency. I believe more nuclear capacity is good public policy and I support this combined license.

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Comments for NRC Environmental Scoping Meeting
Progress Energy Combined Operating License HAR-2, HAR-3
Environmental Report, Holly Springs Cultural Center, June 10, 2008

My name is Liz Cullington and I live in Pittsboro, about 14 miles from the Harris site.

I didn't learn about this meeting until May 29th, so needless to say I have not had time to download and read all 1,636 pages of Progress Energy's Environmental Report, let alone the rest of the license application.

However, there has been no local publicity about this meeting, and people would need one or two months to digest this amount of information, so you can expect only general comments and most of them from those people recruited by Progress Energy to speak in favor of more nuclear power.

In the past I made detailed comments during the design approval of the Westinghouse AP1000 reactor that Progress Energy is proposing to use at the Harris site, comments on math and logic errors that were totally ignored in the final rule. I also made detailed comments on the Harris unit 1 license renewal application and that seems to have been a waste of time also.

Many climate scientists tell us that we only have a few years, possibly as little as 18 months, to take global action on climate change and its primary causes, including rainforest destruction and man-made carbon dioxide emissions, and to slow down all the feedback mechanisms, such as melting permafrost causing methane emissions, melting arctic and antarctic ice, and shrinking glaciers. All of these too have already begun.

Progress Energy claims that nuclear power involves "no emissions" and is "carbon-neutral" or "carbon free" but they go further to argue, not only to the public, but to scientists at a federal agency like the NRC, that a nuclear power plant would actually "lower carbon emissions." None of that is actually true.

Nuclear power is not magic, and it cannot remove carbon dioxide from the air, and it especially is not going to do that when it is operated in

addition to coal plants to meet what Progress Energy says is going to be ever increasing demand. This is important for the public to understand. Progress Energy's plans do not show them shutting down coal plants, instead they plan for more and more electricity powered by coal and nuclear. They have proposed only a 2-year moratorium on additional coal plants, presumably just long enough for them to get approval for these two new nuclear power reactors, then they will apparently be adding yet more coal plants.

Coal fired power plants are the single most avoidable and concentrated cause of human greenhouse gas emissions. The carbon dioxide emissions from coal plants are so great that they can wipe all the reductions that individuals and businesses are planning to make.

Even if nuclear were to replace coal, which in this case it won't, that nuclear plant would need to be online immediately. Instead it is going to be a minimum of 10 years, maybe more.

Even if two new reactors in Wake County were actually part of a "solution" to global warming, then we would still have to also consider the safety issues, the problem of the long-lived waste, the global shortage of uranium, the problem of water supply for two new reactors, and the effect of putting an additional $5 to $20 billion debt onto North Carolina and South Carolina ratepayers who are losing their jobs in batches of several hundred to a thousand at a time, and seemingly every week.

But nuclear reactors don't operate in isolation and just because they don't emit carbon dioxide out of the cooling tower does not make them a carbon-free source of power. The uranium fuel has to be mined, then the ore transported half way round the world, with the US importing about 85% of it's uranium, a greater percentage than our imports of oil.

Then the uranium ore has to be chemically processed, enriched and manufactured into fuel, a process that not only uses lots of energy but also releases other process chemicals into the air that contribute to global warming. The nuclear plant itself has to be manufactured, the waste has to be cooled, processed, shipped, isolated. The entire business would only start becoming carbon neutral about 20 years in 2038 at the very earliest. Many other countries are also planning new nuclear plants. There is not enough viable uranium, meaning that these new US nuclear plants might probably never be carbon neutral at all, and are going to be very very expensive to operate.

Water supply for these particular two new reactors at Harris is a vital issue. Many people think that since four reactors were once planned there, there is bound to be enough lake capacity for the plant. However, during drought conditions, the current reactor has to have water pumped from the lower level, larger lake to the smaller, higher level reservoir.

Progress Energy plans to raise the level of the larger lake by 20 feet or more. But even so they feel it would be necessary to add a long pipeline to pipe water to that lake from the Cape Fear River. This is because Harris Lake, while already large in appearance, is only fed by small creeks, not several large rivers like Jordan Lake.

Contrary to what you'd expect the new reactors are not to be sited next to this larger lake, but north of the smaller reservoir, so that the water supply and the "heat sink" required to prevent a meltdown, would be the same smaller reservoir for three reactors, that currently is not always enough for one reactor.

I would would also like to address the section that Progress Energy has devoted in its environmental report to why it needs more power plants. Which is Chapter 8.

Progress Energy is arguing, based on NRC regulations, that if our local North Carolina Utilities Commission (NCUC) has indicated that Progress Energy MAY need additional baseload power in future, then Progress Energy DOES need additional baseload power, and nuclear is preferable.

However, the data provided to the NCUC and NRC, is all <u>peaking</u> demand data, not <u>baseload</u> data. Baseload demand is the 24 hour always-on demand for power.

The last of North Carolina's industries are shutting up shop, and indeed the planning data filed by our utilities show a dramatic drop in industrial demand. Recently, the credit crunch has pushed many national retail chains into filing for bankruptcy protection. So baseload demand is more likely to drop in our region rather than increase.

With fewer jobs we may still see more retirees moving to North Carolina, but only to the limits of our water supply which is already stretched to the limit in drought years, and residential customers tend to only increase intermittent peaking demand.

Nuclear plants must operate around the clock except when shut down for

refueling, it is very dangerous to keep starting them and shutting them down to meet intermittent demand. They do however shut down unexpectedly, which makes them less than a 100% reliable source of power. So a large centralized nuclear plant requires more backup plants than would more smaller more varied renewable sources.

If Progress Energy actually wanted to do something about the climate then they would need to shut down their coal plants, and put the money that they plan to put into two new reactors, into reducing energy demand and increasing our energy efficiency.

The best, cheapest and fastest way to lower carbon emissions from the electricity sector is to reduce wasted electricity, upgrade existing buildings and appliances, and to educate the public about the importance and urgency of slowing down runaway climate change.

Clearly Progress Energy has stopped arguing that wind and solar don't work, instead they have dredged up some dotty claims such as the one that a concentrating solar plant or wind farm is uglier than new reactors, and that the land they are sited on is ruined forever. They claim that these sources have the same "small" environmental impact as nuclear reactors even though wind and solar don't require fuel, don't involve constant mining and waste disposal, don't require and then pollute a water supply and can't meltdown and permanently contaminate up to half the east coast.

Progress Energy has its highest peak demand in summer, and that occurs in the late afternoons of the hottest sunniest days, when air conditioners, fridges, fans and grocery store coolers and freezers are all running full tilt. Yet this is exactly when the most solar power could be generated.

Even though centralized solar concentrating plants using parabolic troughs have been safely operating in the US for fourteen years, Progress Energy claims that this technology is still at the demonstration stage. By that standard so is the uniquely designed Shearon Harris Plant. But more importantly, the new Westinghouse AP1000 reactor has no full scale operating prototype, in fact the design is still going through revisions that one NRC Commissioner called "substantial" in a public speech.

Given the impossibility of evacuating the Apex, Cary and Raleigh downwind areas in a timely manner, where the population has increased exponentially since the 1960s when the site was first proposed, we would

prefer not to be among the first guinea pigs for this still experimental new reactor design.

It is important for the public to understand that when a group of power companies approached Westinghouse for a new reactor design back around 1990, they wanted a plant that would be cheaper and faster to build, and easier to operate. This wasn't because of concern over global warming. Increased safety in the design would also mean fewer unexpected shutdowns. But between the first prototype and now there have been many safety compromises because nuclear utilities like Duke and Progress were stuck on the idea of a 1000 megawatt reactor, not a 600 megawatt reactor, and perhaps one reason was so that they could utilize existing sites and tell the locals "we already have approval for four reactors at that site."

The fact that they don't is proved by the fact that we are here today. They don't already have approval, either from the NRC or the state NCUC, and they have not proved they need over 2000 more megawatts of power plant, nor that new nuclear reactors are the least environmentally harmful, or least cost, option.