Official Transcript of Proceedings

NUCLEAR REGULATORY COMMISSION

Title: North Anna Power Station, Unit 3 Combined License Public Scoping Meeting

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Date: Wednesday, April 16, 2008

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1	UNITED STATES OF AMERICA
2	NUCLEAR REGULATORY COMMISSION
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4	PUBLIC SCOPING MEETING
5	COMBINED LICENSE APPLICATION
6	+ + + +
7	WEDNESDAY,
8	APRIL 16, 2008
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10	MINERAL, VIRGINIA
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12	The Public Meeting was convened at the
13	Louisa County High School, 727 Davis Highway, Mineral,
14	Virginia, at 7:00 p.m., F. "Chip" Cameron,
15	Facilitator, presiding.
16	
17	NRC STAFF PARTICIPATING:
18	F. "CHIP" CAMERON
19	RICHARD RAIONE
20	ALICIA WILLIAMSON
21	THOMAS KEVERN
22	ANDY KUGLER
23	RENEE HOLMES
24	RICH EMCH
25	NILESH CHOKSHI
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1	JOHN FARMER	
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3	SPEAKERS: (CONT.)	
4	PETER BEAMENT	
5	KENNETH BALL	
6	EUGENE BROWN	
7	MARK PIERSON	
8	DONAL DAY	
9	ELENA DAY	
10	BETTY BLACK	
11	MIGUEL AU CLAIR-VALDEZ	
12	LISA STILES	
13	DALE JONES	
14	DOUG SMITH	
15	J.R. TOLBERT	
16	PRATT CHERRY	
17	MICHELLE RICHMOND	
18	VICKY ANN HARTE	
19	JOE MONTAGUE	
20	DENNIS SCHAIBLE	
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P-R-O-C-E-E-D-I-N-G-S

(7:03 p.m.)

FACILITATOR CAMERON: Good evening, everybody, and welcome to the public meeting tonight.

My name is Chip Cameron, and it's my pleasure to serve as your facilitator for the meeting tonight, and in that role I'll try to help everybody to have a productive meeting.

And our topic tonight is the NRC -- the Nuclear Regulatory Commission -- we'll be using the acronym NRC, but we're here to talk about and listen on issues related to the NRC's evaluation process, specifically the environmental review that the NRC conducts on making a decision whether to grant a license for -- to build and operate a new reactor. And we do have an application in from Dominion to build and operate a new reactor at the North Anna site.

And I just want to spend a couple of minutes on some meeting process issues before we go to the substance of tonight's discussion. And I'd like to talk about the format for the meeting, some very simple ground rules, and to introduce the NRC speakers who will be talking to you tonight.

In terms of the format for the meeting, I

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like to describe this as a two-part meeting. And the first part is to give all of you some background, some context, on what the NRC looks at when it evaluates a license application like this, and particularly how you can participate in the NRC's evaluation process.

And we have a couple of NRC speakers to give you some information on that, and then we're going to go out to you for a short round of questions before we move into the second part of the meeting. And that second part of the meeting gives us an opportunity to listen to all of you, to your advice, to your recommendations on what the NRC should look at when it conducts its environmental review -- what issues should be looked at, what alternatives, and that's why this is called a scoping meeting.

What should be the scope of the NRC's environmental review? And that environmental review culminates in a document called an environmental impact statement, and the staff will be telling you more about that.

They will also be telling you that we're going to be taking written comments on these issues, but we wanted to be with you tonight in person to talk to you. And any comments that you give us tonight will carry the same weight as a written comment.

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And during this second part of the meeting when we ask all of you to come up here, those of you who have signed up to speak tonight, the NRC is just going to be in a listening mode. We won't be responding, unless there's an issue that comes up on which there is new information that would be useful for you to know, and that will be probably rare, but there may be a time when we just ask one of the NRC staff to offer some information for you.

In terms of ground rules for the meeting, when we get to the question period after the staff presentations -- and I would just ask you to hold your questions until the two short presentations are done -- just signal me and I'll bring you this cordless microphone. And if you could introduce yourself to us and ask your question, we'll try to answer your question.

And if you could keep it to a question and save your comments for the comment part of the meeting, that would be appreciated. And I would ask that only one person speak at a time, whoever has the — whomever has the cordless mic, and two reasons for that. The most important, obviously, is so we can all give our full attention to whomever is speaking.

And, secondly, we are taking a transcript.

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Our stenographer is Doug Turner -- I hope I got that correct -- back there. And we want to make sure that he can get a clean transcript, he knows who is talking. And that transcript will be available to anybody who wants to see a record of what transpired this evening.

And when we get to the second part of the meeting and we go to comments, I'm going to have to ask you to be brief, because we have probably 50 people tonight who want to talk. And from past experience, that is going to take us a while. And it passes fast, but time passes fast because there is always interesting comments and commenters.

But we will have to move along with alacrity, and I'm going to ask everybody to try to sum up their presentation, to do this in three minutes. It's a three- to five-minute guideline, but -- so I'll have to be a little bit strict on that, so that we can get out on time.

We'll be able to stay past the end of the meeting, if necessary, the end of the meeting that was noticed at 10:00. But we do have to be out of the school, because of the school restrictions, at 11:00. So we'll be wrapping up then.

If you want to amplify on your comments,

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you can do that in the written comment period. So I just would ask you to try to be brief.

Final comment is that you are going to hear a lot of opinions possibly that you disagree with tonight, and I would just ask you to extend courtesy to the speaker and respect the person who is giving that comment, even though you might disagree with it.

Let me introduce our speakers tonight. We have Richard Raione right here, and Richard is the Chief of the Environmental Projects Branch in the Division of Site and Environmental Review in our Office of New Reactors.

And Richard's staff are the ones who supervise the preparation of the environmental reviews when we get an application for a new reactor. So Richard is going to speak to us at -- first, and give you some background on the NRC.

And then, we're going to go to one of Richard's key staff people, Alicia Williamson, who is right here. And Alicia is the Project Manager for the preparation of the environmental review on the Dominion application, and she'll be talking to you about specifics of the environmental review and also will give you an overview of the entire NRC review process, including the safety review.

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And with that, I just thank all of you for coming out tonight. We realize that this is a solemn anniversary down in this part of the country, and so thank you for being here and giving your time and your comments tonight.

And with that, Richard, would you want to talk to us? Thank you.

MR. RAIONE: Well, thank you, Chip, for that introduction.

I'd like to start the evening out by saying thank you all for taking the time out of your personal schedules to meet with us and share your views on the North Anna project. Can everybody hear me okay?

Okay. I want to thank all of you for the time that you are taking to help us fulfill our important responsibilities under the National Environmental Policy Act, otherwise known as NEPA. We have had some valuable discussions already during the open house and hope that we have helped you better understand why we are here tonight and what we might accomplish. I expect that your comments will help us have an effective meeting this evening.

Tonight we're going to be presenting some information on the application for a new power reactor

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to be constructed and operated at the North Anna project site. As Chip indicated, my staff is responsible for managing the environmental review that has to be conducted before the NRC can make a decision on the application.

We work closely with our safety counterparts in our Division of New Reactor Licensing, who manage the safety review and the overall schedule for the NRC. At this time, I'd like to introduce Mr. Tom Kevern. He is our Safety Manager for this particular site.

Some of you may be familiar with NRC and its processes and participated in the North Anna early site permit review. An early site permit, also referred to as an ESP, is NRC's approval of a site as suitable for construction and operation of new nuclear units. An early site permit review examines both the safety and environmental topics.

early site permit review at North Anna and approved an early site permit for the North Anna site in November of last year, November 2007. In addition, some of you may have attended the new reactor licensing public information meeting held back in October of 2007. In that meeting, we informed you about the opportunities

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that you would have to observe or participate in the work of the NRC, if we were to receive an application to construct and operate a new reactor from Dominion.

We identified several tracks, including safety review, inspection activities, formal hearings, as well as the environmental review back then. In October, we wanted to share with you information about what the combined license is. And as you know, in the government we have acronyms for everything —otherwise referred to as the COL.

We also identified what you could expect as far as the NRC's role in reviewing the application and how one could get involved in the process. During all of the early site permit and new reactor licensing public meetings, we have also stressed that this is your home and your community.

agencies grant approvals, the proposed project will have more of an impact on you than anybody else. We recognize that. As you will hear from our staff tonight, the NRC did receive an application in November of 2007 for a combined license at North Anna. After the staff determined the application was acceptable for docketing, we began a review of the combined license application in February of this year,

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February '08.

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Slide 2, please.

The purpose for tonight's meeting is to give you the opportunity to share with us comments on what you think we should consider in the the environmental review when develop NRC's we environmental impact statement on the North Anna combined license application. This is a scoping meeting, which is part of the scoping process, that helps shape what matters we should consider when we undertake this type of review.

We will describe to you how we perform our review. You will hear that we have a well-structured review process, and our review team is staffed with nationally-recognized experts in all of the environmental disciplines. We will also talk about how various stakeholders, including you as members of the public, can participate in this process.

As we conduct our review and develop our environmental impact statement, or, if you prefer, EIS, we will be meeting with a number of agencies locally and at the state, tribal, and federal level, to obtain information about the region and the potential effect of the project.

And you will hear that later in our

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review, after we issue the draft environmental impact statement, we will come back into your community, and we will explain the analyses that we performed and our preliminary conclusions. And we will ask you for your comments on our work.

We also will give you some information about the schedule for our environmental review, and let you know how you can submit comments if you do not plan to provide comments here tonight.

Then, finally, we will get to the most important part of tonight's meeting, which is for us to take comments on the scope of the environmental review for the North Anna combined license application. In other words, it's going to be a time for us to listen to you. That's why we're really here.

So with that as my effort to set the stage for this meeting, let me thank you again for allowing us to come into your community and for you taking this effort to meet with us and share your views on the potential environmental issues associated with this project.

With that, Alicia Williamson, our Environmental Project Manager for the North Anna combined license environmental review, will now

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describe our process for reviewing a combined license application with a focus on the environmental review.

FACILITATOR CAMERON: Okay. Thank you. Thank you very much for those comments.

I just -- before Alicia talks to all of you, I just wanted to introduce you to a senior NRC official who is with us tonight who will be closing out the meeting for us, and that's Nilesh Chokshi, who is right here. And he's the Deputy Division Director of the Division of Site and Environmental Review where Richard's branch is, and where Alicia works.

Alicia?

MS. WILLIAMSON: Thank you, Chip. Thank you, Richard.

I would also like to extend my thanks to everyone for taking time out to attend this meeting tonight.

Next slide, please.

I would like to start the presentation by identifying the key participants who have influence on the NRC licensing process. Of course, the Nuclear Regulatory Commission, or the NRC; members of the public, in terms of these meetings; and any written comments we receive also have influence on the process; stakeholders, including federal, state, and

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local government officials and agencies; and, finally, the applicant, in this case Dominion Virginia Power.

I will refer to them tonight as just "Dominion."

Next slide, please.

Combined license. What exactly is a combined license, also commonly referred to as COL? It is a combined license to construct and operate a new nuclear powerplant in accordance with the law and regulations. The primary laws are the Atomic Energy Act and the National Environmental Policy Act, while the key regulations are in Title 10 of the Code of Federal Regulations.

Dominion submitted an application to the NRC on November 27, 2007, for a combined license for one reactor at the North Anna site located here in Louisa County, Virginia. Dominion proposes to build the additional unit, or Unit 3, adjacent to the existing Units 1 and 2.

Next slide, please.

This slide presents the three primary reviews for the North Anna combined license -- a site-specific safety review, a review of the environmental impact, and, finally, the staff is reviewing the ESBWR design to determine if it is appropriate for certification by rulemaking.

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Now, NRC regulations allow combined license applications to reference what are called "certified designs." These are designs that NRC has reviewed generically and approved through a public rulemaking process. The ESBWR reactor design is currently being certified by the through a NRC rulemaking.

Dominion, like some other COL applicants, is interested in using the ESBWR design, and the COL application references this design in the event it gets certified. I would like to note the design rulemaking process includes specific opportunities — excuse me, separate and specific opportunities for public notice and comment.

As Mr. Raione described earlier in his presentation, Dominion received an early site permit from the NRC in November of 2007. Much of the environmental review for the combined license will be based on the findings in the early site permit.

Next slide, please.

This slide presents the big picture overview of the combined license review process, which involves two parallel paths -- the safety review, shown here along the top portion of the diagram using the orange arrows, and along the bottom portion of the

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diagram, using the green arrows, is the environmental review process.

Finally, you will notice the brown arrows indicating the notice for hearing and hearing, which is actually in the middle of the diagram. I know those colors might be a bit difficult to see. Each graphic in the oval shape indicates the document is available for public review.

Next I'm going to describe all of these processes, beginning with the safety review.

Next slide.

This slide outlines some of the areas of our site safety review. Mr. Raione introduced Mr. Tom Kevern earlier. I won't ask him to stand up again, but he is the person in charge of this portion of the review.

Some of these areas in the safety review include the design of the facility. As I mentioned, North Anna plans to use the ESBWR reactor design. Site suitability, this describes how environmental factors, such as flooding, hurricanes, and tornadoes, can affect the plant design. Quality assurance. Adequate physical security, which we coordinate with the Department of Homeland Security. Emergency preparedness conducted in consultation with FEMA or

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the Federal Emergency Management Agency, and, finally, operator training.

This is to ensure that the reactor operators for the potential new unit are trained in operating the unit in a safe manner.

Next slide, please.

The environmental review, which is the subject of today's meeting, is guided by the National Environmental Policy Act of 1969, which we commonly refer to as NEPA. NEPA is the federal statute which requires that all federal agencies follow a systematic approach in evaluating potential environmental impacts associated with major federal actions which have the potential to significantly affect the human environment.

The NRC has determined that environmental impact statement, or EIS, is required for issuing a combined license. In addition, the Commission has determined combined that applications referencing an early site permit will prepare a supplement to the early site permit EIS. This will be the case for the North Anna environmental review.

NEPA, and our supplemental environmental impact statement for the combined license, are

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disclosure tools. They are specifically structured to involve public participation and obtain public comment. This meeting facilities the public participation in our environmental review.

Next slide, please.

Dominion was granted an early site permit for the North Anna site in November of 2007. As the NRC considered the early site permit application Dominion submitted, the staff prepared this environmental impact statement, "The North Anna Early Site Permit EIS."

If you would like a copy of this document, we do have electronic copies available at the NRC display tables in the back of the room. Well, actually, out in the hallway.

Now, many of the environmental issues related to the construction and operation of an additional unit at North Anna was analyzed and resolved in the early site permit EIS. Therefore, the environmental review for the combined license application for North Anna Unit 3 will tier off the early site permit EIS.

The process of incorporating analysis previously conducted into a supplemental document is known as tiering. For the North Anna COL

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environmental review, the NRC staff will tier off, or incorporate by reference, the early site permit EIS analyses into the supplemental EIS.

The scope of the combined license supplemental EIS will focus on environmental issues not analyzed or unresolved. An example of an environmental issue not analyzed or unresolved in the early site permit EIS is need for power. A need for power analysis was not conducted for the early site permit review, because NRC regulations do not require a need for power assessment for an early site permit.

For issues that are evaluated and resolved -- excuse me. For issues that were evaluated and resolved in the early site permit EIS, the staff will not reevaluate these issues unless new and significant information is discovered.

New and significant information is information that could call into question conclusions previously reached in the early site permit review. As part of our regulations, Dominion was required to research and disclose all new and significant information discovered since publication of the early site permit EIS.

As part of our review, we will audit these records, as well as perform an independent search for

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new and significant information. During our environmental review, new information may be revealed. It may not be significant. However, if new information is determined to be significant, then its potential effects would be evaluated and disclosed in the supplemental EIS.

An example of an environmental impact with new and significant information -- and will be reevaluated in the supplemental EIS -- is transmission lines. Dominion determined that changes to the transmission lines are needed to support additional power produced by the proposed Unit 3.

Next slide, please.

This slide is a presentation of the detailed steps we will take for the environmental review. Dominion submitted the environmental report for the combined license to the agency on November 27, 2007. Next, the application was evaluated to ensure that it met our technical sufficiency guidance and was docketed -- excuse me, accepted and docketed by the agency.

Once this decision was made by the NRC, we issued a notice of intent on March 14th to notify the public of the agency's intentions to develop an environmental impact statement and to conduct scoping.

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Scoping is the process of providing all stakeholders outside the NRC an opportunity to provide information regarding issues and impacts the NRC should consider during the NEPA review.

The notice of intent also initiates the scoping public comment period. The scoping comment period for the North Anna project began on March 14th, and it ends on May 16th. This public meeting also serves as an opportunity to provide comments, because it is being transcribed.

The next step in the environmental review is the environmental site audit or site visit. Members of the NRC environmental review team have been at the North Anna site and in the site vicinity this week to conduct an independent evaluation of the information provided by Dominion in the environmental report.

Also, we are searching for new and significant information on the issues resolved during the early site permit. And, finally, we are searching for new or unresolved issues.

For some issues, the NRC may seek to obtain additional information from the applicant to ensure that the record is complete. This step is called request for additional information, or RAIs.

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Now, after reflecting on the information that we obtained at the site audit, and the comments received during the scoping period, the NRC will develop its supplemental draft environmental impact statement. That document is a draft not because it's incomplete, rather because the public has not yet had the opportunity to comment on it.

With the publication of the draft supplemental EIS, this initiates another comment period. We will then come back to Mineral and have a public meeting explaining the results of our review and collect comments on the draft environmental -- supplemental environmental impact statement.

After we evaluate comments on the draft supplemental EIS, we may decide to modify it. Once we complete that action, we will issue the supplemental EIS as a final document. That document will be used as one of several different inputs to the formal hearing process, which I will provide a few more details on in just a moment.

Our regulations require a hearing for all new reactor applications. The result of the combined license process is a decision by the agency on the application.

Next slide.

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The environmental review is biq information-gathering time for us. This slide shows the various sources that we use. The key point that I would like to make is that the staff's supplemental EIS is an independent evaluation. So although we are starting with the applicant's environmental report and the early site permit, we are investigating information from many other sources.

Next slide, please.

To conduct the combined license environmental review, we have assembled a team with backgrounds in the necessary scientific and technical disciplines. The NRC has contracted with Pacific Northwest National Laboratory, or PNNL, to assist us in preparing the supplemental EIS.

The NRC team, along with PNNL contractors, is combined of nationally and internationally recognized experts on wide-ranging topics related to environmental issues and nuclear powerplants. This slide gives you an idea of some of the areas we will consider during our review.

New and significant information regarding subject matter such as these shown is what we would like to hear your comments on.

Next slide, please.

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This slide shows where we are in the environmental review. The application was received on November 27, 2007, and notice of intent initiating the scoping comment period was published on March 14, 2008. We are currently in the middle of the scoping public comment period. It is scheduled to end on May 16th.

We expect to address all public comments received during the scoping comment period in the scoping summary report set to be issued in September of 2008. We plan to issue the draft supplemental EIS in December of 2008, come back and present our results and take comments on the draft in a public meeting in February of 2009, and, finally, issue a final supplemental EIS in December of 2009.

Next slide.

As I stated a few minutes ago, the deadline to submit comments on the North Anna combined license environmental review is May 16, 2008. And there are several ways you can provide comments.

You can provide comments today during the comment period of this meeting. You can send your comments via regular mail, if perhaps you are not ready to give us your comments tonight. And you can also send us a comment via e-mail at the e-mail

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address that we have specifically set up for the North Anna review, which is northanna.colaeis@nrc.gov. You can also submit comments in person at the NRC headquarters in Rockville, Maryland.

All comments received, including ones received during tonight's meeting, will carry -- will be excluded -- excuse me, will be included in the scoping summary report and carry the same weight.

Next slide, please.

NRC regulations require a hearing for any new reactor licensing application. The result of the combined license process is a decision by the agency on the application. An opportunity for public involvement is available in the hearing process. The public has 60 days from March 10th, which is May 9, 2008, to petition the NRC to intervene or become a party to the hearing process.

This petition to intervene must be filed electronically, and you must obtain a digital certificate of approval in advance, or a waiver from the digital certificate requirement. Please allow a minimum of five business days to receive this digital certificate.

Detailed instructions for e-filing are on the NRC website listed on this slide and described in

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the hearing notice. If you would like a copy of the hearing notice, please feel free to check with the NRC staff members, and also there should be some on the display tables out in the hallway.

The hearing covers both safety and environmental issues. And in the last -- in recent -- the last few days, there has been an update regarding the hearing process for North Anna. I'd like to have Mr. Kevern now come up and just give us a brief overview of what is happening.

MR. KEVERN: Thank you. Real brief update. As Alicia mentioned, the -- we published on March 10th in the Federal Register the notice of hearing and opportunity to petition to intervene in the North Anna combined license formal hearing.

We are issuing a supplement to that notice. The purpose of the supplement is to improve the availability to the public of information that is referenced in the North Anna application, and specifically that is going to be documentation related to the ESBWR design certification application, and the North Anna early site permit.

So in this notice that we expect to be -is likely to be published in the Federal Register on
Monday, this coming Monday, you'll see various

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references, improved references to website, and identification of the documentation that is -- was previously identified in that notice of March 10th, but is now -- more extensively identifies members of the public that we think will have better access and improved availability for that information that is referenced in the North Anna application.

Thanks.

MS. WILLIAMSON: Next slide.

I would now like to take this time to recap some very important public involvement information. The scoping public comment period ends on May 16, 2008. After the draft supplemental EIS is complete, the public meeting on the draft will be held here in Mineral sometime in February of 2009.

The opportunity for petition to intervene in the hearing process closes on May 9, 2008. Please keep in mind you must receive a digital certificate of approval before you can file a petition, and that the hearing covers both safety and environmental issues.

Finally, the last bullet shows the NRC web page dedicated specifically to the North Anna combined license project. This website can help you stay informed of all the activities related to the project, including any changes to the schedule and access to

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the draft and final supplemental EISs that will document our environmental review results.

Next slide, please.

And, finally, this slide identifies me as your primary point of contact at the NRC for the North Anna combined license environmental review. It also has Mr. Kevern, the safety and lead licensing project manager's contact information. Mr. Kevern has the responsibility for the overall coordination of the project, in addition to the safety review.

Next, it identifies where documents related to the North Anna environmental review may be found in the local area, including libraries located in Mineral, Hanover, and Fredericksburg, just to name a few.

I will close the presentation by saying if you wish to be on the environmental review mailing list, make sure your name and mailing address, or e-mail address, is provided to one of our NRC staff members manning the registration desk out front. This is one way of assuring that you will be notified of upcoming meetings, and that you will get copies of the draft and final supplemental EIS.

With that, I would like to say thank you again to each and every one of you for coming out

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tonight, and I will now turn the microphone back over to our Facilitator, Mr. Cameron.

FACILITATOR CAMERON: Okay. Thank you very much, Alicia.

We have time for questions on the process.

Let's go right away over to Paul, and if you could
just introduce yourself to us.

MR. GUNTER: My name is Paul Gunter. with Beyond Nuclear, Washington, D.C. You know, could somebody just give me an explanation of how with regard to the opportunity to process works particularly with intervene regard on __ to That closes out on May 9th, environmental review? while the draft environmental impact statement comments close out on May 16th.

So could somebody explain to me why the, you know, issues involving the environmental — potentially involving the environmental impact statement are closed out to an opportunity to intervene because the closeout of the intervention date precedes the closeout to the filing of comments on the DEIS. Is that clear?

FACILITATOR CAMERON: I think it is, Paul.

And we'll go back to you if we don't get you the information that you need. Now, this is -- as I

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understand the way the process usually works is that the initial intervention period is designed to focus contentions on what the applicant submitted, and the NRC does its safety and environmental review after that.

And then, when those documents are available, there is an opportunity for people to file contentions on those documents. And, Renee, do you want to offer anything on that score? Or any of our environmental project managers? I think that that's the way it works. Do you want to add anything, Alicia? And then, we'll go back to Paul, to see if that --

MS. WILLIAMSON: No. Chip pretty much -- I mean, I'll just reiterate what you said, is the fact that the contentions -- or, excuse me, not the contentions, but the opportunity to file a contention or intervene in the hearing is based on the information provided in the environmental report, which is the applicant's document -- that is correct.

And that's mainly what that is geared for, so that's why it doesn't necessarily -- they are not -- they don't overlap, or they're not the -- well, they do overlap, but they're not the exact same time periods.

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The scoping period is separate from the hearing process, in that we are -- the scoping period is used to give the opportunity for the public to give us comments on the environmental review and what they have concerns about or issues about in terms of the environmental report as well, but it is for us to evaluate.

While the hearing is for information that you all have concerns about, but that you want the Board -- or, excuse me, the Atomic Safety and Licensing Board to look at and evaluate, you want the -- and the Commission to look at, not necessarily -- well, the staff will look at it, but that it's not -- that's why it is pretty much -- it doesn't overlap.

I think maybe -- Andy Kugler, I don't know if you would like to embellish a little. Mr. Kugler actually worked closely with the early site permit process. He was actually a PM at one time on the early site permit process, so he has the historical knowledge on the early site permit proceeding. So maybe he might be able just to give us a little more.

FACILITATOR CAMERON: Okay. It may be more of the same explanation, but we'll repeat it a third time. But, Paul, why don't you go ahead and elaborate.

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MR. GUNTER: Yes. Let me just -- let me just ask Andy, is it possible that, as the result of broadening the scope in an EIS, that follows closing out of the opportunity for intervention, that new information that might disclose that the application was inadequate, the environmental report was inadequate, that that new information is closed out from an opportunity to address in the hearing, because it doesn't come out until after the notice of hearing and the 60-day time table is closed?

FACILITATOR CAMERON: Okay. Go ahead, Andy.

MR. KUGLER: Well, first of all, the rules are based on the contentions that are being submitted by somebody who petitions to intervene -- are based off of the application, both the environmental portion and the safety portion of the application.

If at any time after the opportunity to intervene has passed new information becomes available under any process, whether it be our scoping process or any other process, there is the option within the rules to submit what's called a late-filed contention. It does have a different set of criteria to be admitted, and I believe the reasoning is that if you're reviewing the environmental report or the

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safety analysis report submitted by the applicant and you see that something is missing, or inaccurate, then that's what the Board is asking you to -- or what the opportunity to intervene is asking you to provide as contentions that are proffered to us.

So I think the reasoning is that you would be able to determine, based on the application, whether something is missing or something is not correct. But if new information does become available, there are mechanisms to submit contentions afterwards.

FACILITATOR CAMERON: So you will not be foreclosed under the -- yes, but the -- if you look at the criteria, if it -- the situation you described, it should meet the criteria. And we have -- not so speak now, but Renee Holmes is right here. Renee? From our Office of General Counsel. And, Paul, if you could talk later or call her and get a clarification on that.

Let's go to this gentleman over here.
Yes, sir.

MR. REMMERS: Ken Remmers. I just had three short questions. One, in the combined operating license, does the Atomic Licensing and Safety Board Panel review it, and then it goes on to the Commission

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for approval? And the second one was: is Dominion submitting any other combined operating licenses that you're reviewing at the same time as this license? And, thirdly, is the scoping report going to be available to the public?

FACILITATOR CAMERON: We can -- Alicia, do you want to address the first question about what -- the role of the Commission vis-a-vis the Licensing Board and the staff? Okay. And then, we'll go on to the other two. I think they're probably yours.

MS. WILLIAMSON: Okay. The answer to your first question about the Atomic Safety Licensing Board, yes, sir, they will be reviewing the combined license application. Yes, sir, and they will give their recommendations to the Commission, and then the Commission will then render a decision.

Actually, the -- I can also answer the last question regarding the scoping summary report. That is a publicly-available document that you will be able to access. And I think I said it comes out in September timeframe of 2008.

FACILITATOR CAMERON: And as far as you know, does any of the NRC staff know if there's anything else from Dominion?

MS. WILLIAMSON: No.

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1	FACILITATOR CAMERON: No?
2	MS. WILLIAMSON: We do not have any other
3	notices of intent or letters of intent from Dominion
4	about any additional reactors.
5	FACILITATOR CAMERON: Okay. Thank you,
6	Ken.
7	Yes, Allison? Go ahead.
8	MS. FISHER: Does the
9	FACILITATOR CAMERON: This is Allison
10	Fisher.
11	MS. FISHER. Allison Fisher. Does the
12	scoping report, does that let people know whether or
13	not their comments are going to be included within the
14	EIS? Or how do they know that their comments are
15	being addressed?
16	FACILITATOR CAMERON: Go ahead, Alicia.
17	MS. WILLIAMSON: The scoping summary
18	report will let you know yes, is the answer to your
19	question. It will let you know whether or not your
20	information will be evaluated in the EIS. Yes, it
21	does. Yes.
22	FACILITATOR CAMERON: And does it explain
23	why a particular comment for example, let's say a
24	comment is outside the scope of the environmental
25	review?

MS. WILLIAMSON: Yes. We will provide an 2 explanation if it is outside of the scope of the 3 environmental review and tell you why. FACILITATOR CAMERON: Okay. MS. WILLIAMSON: Okay? FACILITATOR CAMERON: And will it be sent 6 7 out to all of the people who are here? MS. WILLIAMSON: No, it will not be sent 8 out to everyone here. Only if you provide us your 9 10 information, we will then send you a copy of the 11 report. And you can also -- I know some folks don't 12 want us to send things to them, because they get tired of all the documents that we send them sometimes. You 13 14 can always call me, and I will send it to you if you -- particularly, everyone knows it's coming out in 15 September of 2008. 16 In addition to that, you can also check 17 our website periodically. I think that we might have 18 copies or -- of the link there where you can get a 19 hold of it as well. 20 21 FACILITATOR CAMERON: But if Allison, for 22 example, gave us her name and address --23 MS. WILLIAMSON: Yes. 24 FACILITATOR CAMERON: -- tonight, she 25 would --

MS. WILLIAMSON: Or her e-mail.

FACILITATOR CAMERON: Or e-mail. Or anybody else.

MS. WILLIAMSON: Yes.

FACILITATOR CAMERON: Okay. Anybody else before we go on to listening to all of your comments? Oh, Paul.

MR. GUNTER: Could you give us a time table on when we can expect to see the design certification on the ESBWR? What's your anticipated release date?

FACILITATOR CAMERON: And did we explain what that acronym meant? And how many megawatts? Tom? Okay. If you could just -- for people who might not understand this design certification, could you just give us a few words on that?

MR. KEVERN: Certainly. General Electric-Hitachi submitted an application for the ESBWR design in the fall of 2005. It was docketed. We have been going through the detailed review since that time. The current -- I'm going to have to waffle just a little bit, because I don't know the exact date, but the current expectation is that the staff's review would be complete and it would -- the recommendation would go to the Commission for their decision in the

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approximately mid-2010 timeframe.

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The ESBWR is a boiling water reactor advanced design, approximately 1,500 to 1,600 megawatts electric, depending on where you're measuring the electrical output, whether it's internal or to the grid. So between 1,500 -- 1,500 and 1,600 megawatts electric.

Did that answer your question, sir?

FACILITATOR CAMERON: Go ahead. Yes, go ahead. Follow up.

MR. GUNTER: Thank you for indulging me on this. So, again, we have a situation where the certification will follow the closing out of the opportunity for intervention. So you have, I imagine, lots of requests for additional information still out unanswered with regard to this design.

yet the -- again, And we have the situation where the opportunity to raise those questions, to address those issues that are open, with regard to the safety issues -- and, again, this might not be in context of the -- this particular session, but, you know, it just seems that these are things that should be finalized before the public is closed out to an opportunity to raise these things in a legal format. That's all.

FACILITATOR CAMERON: Anyone on the staff want to address this aspect of the design that is going to be finalized after the notice for petition to intervene?

Renee, can you tell people how those issues, if there are issues identified there, how those will get into the hearing?

MS. HOLMES: Sure. First of all, this — the opportunity to intervene is based on what the applicant gives us. It's not based on our review. It is not based on the design certification. If, in fact, during that process there is new and significant — not just new information, it has to be significant also — that comes out, there is always an opportunity for the public to participate.

The NRC wants everyone's input, you know, in terms of how -- and how we get it is determined by the regulations. And there is always an opportunity for you to comment, but, realistically, the regulations -- we would never go any further in any licensing process if we had to wait for every other process that is already ongoing or is being done by another group within the agency to be completed.

But you do have plenty of opportunities, and there are plenty of individuals, as well as

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organizations that have participated in the process, after perhaps times for filing a notice to intervene in the hearing have been filed.

So you do have more opportunities, but realistically the whole idea of getting behind, you know, combined operating licenses -- one of the reasons behind it is, you know, to do things a little faster, simplified, and still safe and still meeting all of the regulatory and statutory requirements.

If we were to wait two years before we even went to the next step, I think some of the -some of our regulatory mandates from our Commission might not be met also. But there is plenty of time and opportunity for everyone to -- if there is indeed new and significant information.

FACILITATOR CAMERON: And I guess the license application references the design, and that would be the design as finally approved. And if there were implications of that final design approval for site safety or environmental issues, those issues would not be foreclosed from someone raising those particular issues.

But it is a -- it is on its surface confusing, and it looks like issues are being closed out. So thanks for raising that issue. I don't know

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if we completely explained it to you.

Yes, ma'am. Can I -- let me squeeze in here and give you this microphone. Here you are.

MS. CRAWFORD: Thank you. My name is Barbara Crawford. I'm sure you're not going to tell me that this design certification is a foregone conclusion, correct? Not until it's done. So what happens if it's not certified? Does Dominion have to start all over?

FACILITATOR CAMERON: I don't want to reach conclusions as the Facilitator, but you can't use a design that's not certified. Tom, do you want to amplify on that for us? This is Tom Kevern, Safety Project Manager.

MR. KEVERN: The point that Chip made is absolutely correct. The North Anna combined license application references the ESBWR design. The ESBWR design is currently being reviewed by the staff. You cannot issue a combined license for a design that does not exist.

So if the certified design is not -- or, I'm sorry, if the ESBWR design is not certified, then there would not be a combined license that referenced that design. That would be applicable to North Anna as well as the half dozen other applicants that either

already have or are pending that we anticipate combined license applications from.

MS. CRAWFORD: Then, Dominion would have to start all over?

FACILITATOR CAMERON: Why don't you just repeat that question so the transcriber --

MR. KEVERN: So the question was: does that mean Dominion has to start all over? That's the applicant's choice or option. They would not be able to have a -- under the circumstances you just described, they could not get a combined license for an ESBWR plant, because the ESBWR design was not certified. So whether they choose some other option or what they do is their choice.

FACILITATOR CAMERON: All right. Let's take one final question, and then move on to comments. Do you want to add anything? Oh, okay.

For everyone's information, you should know that, unlike the evaluation of the license itself, which is done in an adjudicatory hearing, its litigation, the approval of -- the certification of designs is done through a rulemaking process where a proposed rule will be issued and comment comes in, NRC staff evaluates those comments and decides whether to approve the final design. It's a rulemaking. So it's

a different process.

Yes, sir.

DR. BRYAN: I'm James Bryan, Dr. James Bryan. And I'm concerned about what happens with concerns about safety. I submitted several concerns with the -- during the first edition of the environmental impact statement, and got an answer for it but it really doesn't -- doesn't satisfy my concerns with your evaluation of the possibility of severe accidents.

How is this resolved if I get back an answer that's fairly lengthy? I have 22 pages of documents for you, but it doesn't really answer my safety concerns. Where can I go with this? Is it —who is the final authority?

FACILITATOR CAMERON: The first thing you have already done, which is to submit a comment. If you look at this draft environmental impact statement that the staff is going to be working on, you still have the same concerns, you can submit comment there. You can also file a petition to intervene in the hearing that we're talking about.

You can take the usual steps that are open to anybody in terms of the political process, and those are the two -- commenting on the new draft EIS

1	and filing a petition for leave to intervene are
2	probably the best routes, I would imagine, on that.
3	DR. BRYAN: Now, will this be the third
4	draft IES EIS?
5	FACILITATOR CAMERON: It will be the
6	second.
7	DR. BRYAN: I've already got two.
8	FACILITATOR CAMERON: Oh, okay. Second
9	supplemental? Okay.
10	DR. BRYAN: And when will this be
11	available?
12	FACILITATOR CAMERON: When is your
13	schedule, Alicia?
14	MS. WILLIAMSON: December of 2009. But if
15	you have comments I'm sorry? Oh, the supplemental
16	EIS for the COL will be available December of 2009.
17	But if you have comments that you you can also
18	submit them through the scoping process as well. So
19	it's not just for on the draft supplemental EIS.
20	You can also submit them again on the scoping, which
20	You can also submit them again on the scoping, which is the period we're in right now.
	is the period we're in right now.
21	
21	is the period we're in right now. FACILITATOR CAMERON: So you should really

example, statistical concerns are not really adequately addressed, how would I address that? Is this written out someplace where it's easily available and clearly available, what the -
FACILITATOR CAMERON: Do we have our

FACILITATOR CAMERON: Do we have our process online about submitting comments on the scoping and draft EIS? Is that somewhere that's written in the regulations?

MR. EMCH: When you're talking about -hello, I'm Rich Emch. I'm a Senior Health Physicist
with the Nuclear Regulatory Commission. Sir, I'll
tell you what, let me give you my card here, because I
have some connection to the review process, the
subject area you're talking about -- severe accidents,
I assume. Severe accidents?

DR. BRYAN: Yes.

MR. EMCH: Okay.

DR. BRYAN: That's my main concern.

MR. EMCH: I'm guessing, from what you were mentioning a moment ago, you are not satisfied with some of the statistical evaluations, like core damage frequency, that sort of thing. Okay. And I'll tell you what, I'd be happy to speak with you after we finish the meeting a little bit more about that, if you'd like. So --

DR. BRYAN: And do you have a procedure --2 if feel like your statistics Ι are 3 inadequate, how would I address that? I'm sure we can get you in MR. EMCH: 5 touch with the right people, so that you can bring that to their attention. Yes, sir. 6 And I'd be able to do this DR. BRYAN: before some final deadline? 8 9 MR. EMCH: Yes. 10 In other words, it seems like DR. BRYAN: 11 we're being hit with kind of a moving target, that 12 we'll be given a revision, but we have to get our comments in before the revision. 13 14 FACILITATOR CAMERON: I'm not sure what you mean by you have to get your comments in before 15 the revision. This is scoping period. You can submit 16 -- the comments that you submitted originally, you can 17 submit them now. The staff will look at those 18 19 comments. 20 There will then be a draft EIS, and I 21 think the staff said December of 2009. It's really 22 December of 2008. You can submit those comments again there. You can talk to Mr. Emch to get a better 23 24 understanding, or his colleagues, to get a better

understanding of why the staff response was such as it

was to your comments.

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If that can occur before the end of scoping, then you may want to go back and revise those original comments and submit them again. Okay? And you can also file a petition to intervene in the licensing proceeding. Okay.

MR. EMCH: Thank you.

FACILITATOR CAMERON: Thank you, sir.

Okay. We're going to go to the public comment part of the meeting. And it's not only important for the NRC to hear your comments, but also important for all of those here in the audience and the community to hear your comments.

And as I requested before, if you could try to be as brief as possible, and we're going to be using the three- to five-minute guideline, so that we can get through everybody tonight.

I'm going to go to Senator John Watkins, Senator in the Virginia Legislature.

SENATOR WATKINS: Mr. Cameron, thank you very much. And to the staff and management of the NRC, I particularly appreciate the opportunity to make a comment here this evening.

My name is John Watkins, and I'm with the 10th Senatorial District in Virginia. It includes the

counties of Amelia, Powhatan, most of Cumberland, Chesterfield, and Goochland, which borders Louisa County, the location of the North Anna power station.

I also have part of the City of Richmond, and part of the County of Henrico.

I have also had the opportunity in my service in the legislature to represent Virginia on the Southern States Energy Board, of which I serve currently as the Co-Chairman of that Board. That Board represents the energy interest of some 16 states, including Virginia, in the southeastern United States.

Recently, the Southern States Energy Board produced a report that was entitled Nuclear Energy: The Cornerstone of Southern Living Today and Tomorrow. And as co-chairman of that Board, I want to call this report to your attention. I think it is an important report and one worthy of reading, and I will be submitting it electronically for the record as a part of this proceeding.

Some of the points that the report makes I wish to reiterate at this point. One is that the Southeastern Region depends on this reliable nuclear energy low-cost source of electricity for 20 percent of its power. While this source provides

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approximately 35 percent of the electricity that is used here in Virginia, nuclear energy makes a tremendous positive contribution to our economy and to our standard of living here.

Some of the key points that are in this report that are particularly relative to this third nuclear generating station in North Anna -- there is a need for a substantial amount of new generation capacity here in this state. Recent estimates call for an additional 4,000 megawatts within a decade in order to serve the needs of Virginia.

The southeastern region is a well-balanced mix of energy resources that help maintain reliable service and act as a hedge against price volatility and supply interruptions. It is important that we expand generation capacity and that we maintain the diversity of these sources.

The existing nuclear facilities in our region have an outstanding safety record, and the new reactor designs like those that are being proposed promise to be even safer than the current designs. The economic simplified boiling water reactor, or ESBWR, as has been talked about earlier, was pioneered by General Electric. It has been selected for the new unit at North Anna. It is a third generation plus

design that already has proven itself in many Asian -in several Asian countries. It exceeds the safety
criteria set by the NRC for existing boiling water
reactor designs by more than 100-fold.

In the interest of energy security and to minimize environmental impacts, nuclear must continue to play a major role in supplying electrical energy through upgrades in life extension of existing facilities and existing units.

It is interesting to me to note that Dominion has taken the effort and has put forth the effort to have its currently licensed units extended -- each of them, each of the four units -- for another 20 years.

The Virginia Energy Plan, of which I was a part in drafting and getting passage of in the Virginia Legislature back in 2006, calls for the needs of nuclear energy here in Virginia as an important capacity. Utilities are encouraged to take advantage of the reforms and incentives that have been put in place at the federal level.

Dominion is to be commended for having already obtained the early site permit, the ESP, and for applying under the new combined licensing for a new unit here at North Anna. There are few power

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generating technologies that have as little adverse environmental impact as nuclear plants. It produces none of the Greenhouse gas emissions associated with fossil fuels, nor does it generate any of the highly regulated pollutants such as sulfur dioxide and nitrogen oxides.

The adverse impact of the new unit on Lake Anna will be minimal. Dominion has already committed to install a \$200 million cooling system to that new unit, so that the power station will not increase the temperature of the water it feeds into the lake.

The Virginia General Assembly has gone on record by putting incentives in for the production of new nuclear generation plants here in Virginia, and it has been supported and endorsed by Governor Kaine. I want to encourage the NRC to move forward with these necessary permits for a new nuclear unit here at North Anna power station, so that this option is available to help provide the energy that we need to sustain Virginia's economy and Virginia's environment.

And I thank you for the opportunity to be here.

FACILITATOR CAMERON: Thank you. Thank you very much, Senator.

We're going to go next to Willy Harper.

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MR. HARPER: Thank you, Mr. Cameron. My name is Willy Harper, and I'm Chairman of the Louisa County Board of Supervisors. I appreciate the opportunity to address you.

After getting here this evening, I learned that a former Board Chairman is going to speak, the County Administrator is going to speak, and the Economic Development Director is going to speak, so I should be able to be real brief with you, if you will.

But, obviously, Louisa County's involvement with Dominion goes back to the days when it was Virginia Power back in the late '60s when they built this. And so through the years we've had the opportunity to work with Dominion in many instances, some of those involving environmental issues, and we can go back to when we negotiated or worked with them in the development of an onsite alternate means of spent fuel storage, various fish kills perhaps through times where they've helped us to understand the causes behind it, what not, and have helped us with the development of Louisa County's shoreline management.

Based on that commitment from Dominion Power, and their willingness to come to the table and talk to us on occasion, and also their willingness to sit down when we do have issues and work them out, the

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Louisa County Board of Supervisors has unanimously voted to support Dominion's application for a combined license for Unit 3. Thank you, sir. FACILITATOR CAMERON: Thank you. Thank you very much. Lee Lintecum? I'm sorry if I didn't get that right. MR. LINTECUM: It's close enough for government work. FACILITATOR CAMERON: Yes. (Laughter.) MR. LINTECUM: My name is Lee Lintecum. I'm the County Administrator of Louisa County. people have never seen that name before, so they don't know what to do with it. (Laughter.) The Board, at its April 7th meeting, went on record, as Mr. Harper referred to, supporting the combined permit for Dominion. But at the same time, it wanted to express some concerns it had, and I have a detailed letter I will submit regarding those concerns. But I just want to briefly go over what those concerns are.

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Springs Road, which is a two-lane road. And with the construction that is going to happen, and with the -- and then afterwards with the additional workers that we're going to be able to enjoy, the question is, you know, is that road adequate enough to handle the traffic that's coming?

And we have more development coming in that area, as it is -- Lake Anna is one of the growth areas in Louisa County, and we're going to have to face these problems. Obviously, the state currently is not in a position to help us with roads, so we're having to try to figure it out ourselves.

The second issue has to do with our school population. We're getting ready to build our fourth elementary school, and when it's built it will already be full. So we're wondering about this influx of new people, about how to play catch up in our school construction, and what may be available to help us on that.

The third concern we have is that, since it is a growth area, we're going to have to some day figure out how to get the public water supply in that area, and what the availability of or the tributaries that make up Lake Anna or Lake Anna as a possible water source, we would like to discuss those with

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Dominion.

Dominion -- I've had conversations with Dominion. We'll be meeting with them next week to address these issues. But the Board felt that it needed to go on record supporting it. We realize that this plant, if it's constructed, will be a real economic boom for Louisa County. But you have to get there first, and getting there sometimes causes us problems of playing catch up, which can be very expensive.

But, again, the Board does support the combined license. Thank you.

FACILITATOR CAMERON: Thank you for those issues, Lee. And we're going to go to Jack Wright at this point. Jack, are you here? Oh, there he is. All right.

MR. WRIGHT: Yes. My name is Jack Wright, and I'm the former Chairman that Mr. Harper referred to, but currently a member of the Board, but I'm speaking tonight primarily, though, as a private citizen, since we have already had adequate spokesmen for the county.

One of the issues that -- concerns I have, and I think everybody does, we have -- there will be a shortage of energy, and I think Senator Watkins

adequately covered that, so I'm not going to touch that, because I think he has made that very eloquent to us -- the need for power.

The second area that has been touched on a little bit is safety, and after 43 years in the property and casualty business, that is a very key thing to me and a thing close to my heart with safety. And with this -- and I'm not presumptuous enough to tell you how to do your work. I'm convinced that you will do it thoroughly, and I'm comfortable with how you approach it.

And one of the things I will say -- that from a safety standpoint, you can make all the regulations you want to, but unless you have a total commitment from the organization involved, from the top down, it's worthless.

And I will say, based on my experience with Virginia Power or Dominion Power -- and I've been on the Board -- this is my eleventh year on the Board, and with that they have a firm commitment -- I have seen it demonstrated time and again, they are totally committed to have the best safety program they can possibly have. And I strongly support this application.

Thank you, sir.

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FACILITATOR CAMERON: Okay. Thank you, Jack.

Our next three speakers -- we're going to go to Toney Rigali, Bob Gibson, and Jack Manzari.

Toney?

MR. RIGALI: Good evening. My name is Toney Rigali. I'm the President of the Virginia State Building Construction Trades Council of the State of Virginia. I represent thousands of construction workers all over -- from this county, throughout the State of Virginia.

And I'm here tonight in support of Unit 3.

I worked at Unit 1 back 35 years ago as an apprentice. I served my apprenticeship at that unit.

And what that unit offered me was a trade for the rest of my life. I've supported my family for 35 years. And what I'm here tonight to speak on is this is going to support -- once this project starts, it's going to support young kids that want to get in a trade, to learn a trade, which it can support them the rest of their life for their families.

I got laid off over there in 1982, and that was sad because I had to travel out of town. But I was happy; it taught me a trade. And other things -- other issues, too, economic issues. I'm just going

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to spend just a few times bringing up on that.

North Anna 3 could -- is an economic engine for Louisa County and the Commonwealth as a whole. And Dominion -- if Dominion were to build this new nuclear unit at North Anna, the company would expect a workforce for more than 3,000 construction workers, and that's pretty much what it took when I was over there, and would require permanent workers of 750 high-paying permanent workers that were created for the station's operation.

The power station currently provides employment for more than 900 people. Roughly one-third of these employees live in Louisa County, while the rest live in Richmond, Fredericksburg, and Spotsylvania County.

The additional unit at this station would provide low-cost, reliable energy for Virginians, while at the same time will provide good jobs for the hard-working men and women in this region. And I would like to thank you for allowing me to speak on this tonight.

FACILITATOR CAMERON: Okay. Thank you very much, sir. How about Bob, Bob Gibson?

MR. GIBSON: I'm Bob Gibson, Economic Development Director for Louisa County. Since Mr.

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Wright said the county was already adequately represented, I'm not sure I should speak, but I would like to add a few points to our previous speaker concerning the economic value of the current Dominion North Anna and the third reactor.

In direct revenue, North Anna pays Louisa County each year approximately \$11 million. And since its inception, it has paid Louisa County over \$230 million of direct revenue. The third nuclear reactor will add millions more dollars to that, and if you really want to see the impact just look at our new schools and our fire trucks and police cars and the services that this revenue provides our county.

The second point I'd like to make is, like our previous speaker said, 300 -- approximately 300 of the 900 workers live in Louisa County. The average salary of these workers is \$60,500. That equates to an annual payroll of Louisa County citizens of over \$18 million.

The new reactor is going to employ 750 people. If the same ratio applies, that means 250 of these jobs will go to Louisa County citizens, and with the same average payroll that's an additional \$15 million annually of payroll in Louisa County for Louisa County citizens.

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Taken together, that is over \$33 million of payroll within Louisa County, and keep in mind this money changes hands several times before it leaves Louisa County, so which will mean several million dollars more of additional indirect revenue for the county.

And, third, I would like to again bring out the point that a previous speaker made of the 3,000 construction workers coming into Louisa County. You know, the word "surge" is kind of popular these days in the United States, but this is going to be an economic development surge for the county, because these workers are going to get paid and probably a pretty good salary, and they're going to rent homes, they're going to buy homes, they're going to buy groceries, they're going to buy automobiles and trucks and every other type of retail purchase in our county. So this is going to mean additional revenue for our county.

And I guess the final thing that I want to leave with you -- and I want to say this as strongly as I can -- that Dominion North Anna is the most important economic development project in the history of Louisa County, more so than the railroads in the 19th century or the interstate highways in the 20th

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century. This is the most important economic development project in the history of our county.

Thank you.

FACILITATOR CAMERON: Thank you, Bob.

Jack? Jack Manzari? Oh, there he is.

MR. MANZARI: You did great with my name, and we really appreciated what Bob said. My name is Jack Manzari. I'm a retired physician, and I'm a director of the Louisa County Chamber of Commerce and am representing them this evening.

We support the construction of North Anna Unit 3, with its associated cooling tower. The United States, and Virginia in particular, has an everincreasing need for electric power. In order to maintain our economic prosperity, we must continue to develop new sources of energy -- electricity -- as well as conserve as much as possible. This new unit will help in meeting that increased need.

I would also compliment Dominion in its efforts to educate the public on conservation, which is a very important issue. Nuclear energy has been used safely throughout the world, and Dominion has lived up to all of the safety standards required of them.

Nuclear energy seems to be the best

vehicle to produce energy in that it does not produce any of the Greenhouse gases associated with other fossil fuel generation.

The North Anna power station has also been -- had a positive impact on the county. I don't think I could add anything to what Bob just said. However, the county has benefitted economically from the -- through the increased tax base and increased numbers of employees.

We support the development of the new unit on the basis of the need for electricity, which is safe and has a positive impact on the country in general and the county specifically.

Thank you for allowing me to speak.

FACILITATOR CAMERON: Thank you very much, Jack.

We're going to go next to Ken Remmers,

Jerry Rosenthal, and Paul Gunter. Ken?

MR. REMMERS: Good evening. My name is Ken Remmers, and I am the Water Control or Water Quality Chairman of LACA and President of Waterside Property Owners Association. Some of you may see me around. I and my teams go out and measure the water quality of the lake all over the lake, both the warm side and the cold side. And I have a few what I

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consider to be some new significant information I want to talk to you about tonight, just four items.

The first one is now that the economically simplified boiling water reactor has been selected by Dominion, the issue of cooling the third reactor can now carefully be reviewed. The once passthrough cooling was rejected in the EIS ESP because of the water temperature. It heated the lake up too much.

The current proposed cooling is a combination of wet/dry cooling tower, which introduces significant evaporation of the water in Lake Anna reservoir, up to 16.6 million gallons a day of water in the maximum water conservation mode.

Several state agencies -- DGIF, VDEQ, Division of Water Resources, DCR, and many other public sources such as the Lake Level Task Force Committee, which is a group of organizations and associations around the lake -- LACA, FOLA, LABERA, and many other businesses around the lake -- have objected to this high evaporation rate. It takes away the water in the lake very significantly.

A new fresh look at cooling technologies needs to be performed, specifically the hybrid cooling process, will only remove up to one-third of the heat of the entire system during the hot humid days. The

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other two-thirds will be done by wet cooling with large evaporation -- the 16.6 million gallons a day.

In contrast, dry cooling technology would consume only about 5 to 10 percent of that amount. Despite this enormous water savings, most of the cooling for new powerplants primarily use wet cooling. This is because on hot days dry cooling can lead to increased turbine back pressure that prevents a plant from generating at its full rated capacity.

This problem is compounded because the hot days are precisely when the electric demand is the highest. The hot day performance problem with a dry cooled unit can be alleviated by using a technique such as small water supplemental cooling as needed. One such method is recommended by PIER Energy-Related Environmental Research -- to introduce a small amount of water spray in the cooling tower inlet stream where it evaporates and cools the air, and such studies have shown that reducing the inlet air temperature, even by a few degrees, can maintain much of the plant's output during hot hours.

This is just one of many dry cooling examples which are currently being used in the USA and worldwide. No such studies of dry cooling were performed in the ESP EIS, because the PPE did not

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define this specific reactor design.

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Second item -- plan 3 was considered in a stand-alone condition. No consideration was made for the alternative of installing additional water conservation measures to the existing power reactors of Unit 1 and 2, to compensate or mitigate against the significant, adverse, incremental impacts caused by Unit 3.

Judge Karlin of the Atomic Licensing Safety Board Panel stated that some of the oncethrough cooling water from Unit 1 and 2 could be diverted to the cooling tower used for Unit 3. While this diversion would be small, it would offset some of the impacts of Unit 3.

He rejected NRC staff position that such an offset per se is unreasonable under NEPA. stated there is no dispute that the NEPA alternative analysis is the heart of the environmental impact statement. When a company operates in an existing facility and emits pollution and/or has environmental impacts, it is common for regulators to at least consider, and sometimes impose, additional environmental controls existing units on as tradeoff.

Judge Karlin stated, "It seems to me that

creative nuclear engineers and environmental scientists, if properly motivated, might very well propose a realistic offset or mitigation measures that could be applied to the preexisting reactors at the same site." This is significant new information.

Third item -- the NRC's report on the North Anna early site permit water budget model, lake WHTS, in 2005 for Lake Anna January of is insufficient, and significant new information can come from an update water budget model. This study was performed before the change in the cooling technique to wet/dry cooling hybrid systems, and only looked at once passthrough and totally wet cooling.

The study should be redone to include hybrid and totally dry cooling systems. Once again, this study indicated that the travel time for the water to circulate from the discharge, all the way back to the intake of the plant, was not available for this study. This critical information should be collected at least in the waste heat treatment facility, so that accurate predictions can be made on that study.

The study does not address temperature. In response to a question by NRC, Dominion stated on a long-term basis the average temperature of the cooling

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lake, due to the reduced lake level from Unit 3, has been estimated to be less than one-tenth of a degree Fahrenheit. The so-called long-term effects is not where the problem exists. The hot summer months need to be evaluated for temperature change.

No calculations were provided by Dominion. The calculation for was only estimated. summertime period should be performed by Dominion, and independent calculations done by NRC. Unit 1 and 2 will heat the water, less amounts -- less amounts of water faster, and return time for recycling will be shortened during the problematic hot summer months. This temperature needs to be investigated carefully.

And, finally, Dominion has proposed a new waste heat treatment facility for Unit 3. This is new and significant information. The effluent would be discharged into the waste heat treatment facility of Lake Anna. The current waste treatment facility for Units 1 and 2 already discharge into the lake, and we would oppose a new discharge.

Why can't the current treatment plant support the new Unit 3? Is it up to capacity already?

Is the size of the proposed new waste treatment plant larger than needed? Or would it replace the Units 1

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1 and 2 treatment plant? Why can't new techniques be 2 used where the effluent is not dumped into the lake? 3 Thank you very much for your attention. 4 FACILITATOR CAMERON: Okay. Thank you. 5 Thank you, Ken. MR. REMMERS: And I've got a copy of my --6 FACILITATOR CAMERON: Good. And we'll make a copy of this, and then we'll put it on the 8 9 transcript. 10 Jerry? This is Jerry Rosenthal. 11 MR. ROSENTHAL: Thank you. There is a lot of stuff that's going on. Lake Anna Civic Association 12 and the Friends of Lake Anna and a lot of people right 13 14 around the lake are doing a great job of dealing with water issues. And I think, again, not much needs to 15 be said. 16 One thing that we haven't talked about 17 here is our CO2 impact. And everybody keeps saying 18 this is a carbon-free source of energy. 19 There are no 20 carbon-free sources of generation. Zero, none. boring to hear them say, "This is carbon-free," so 21 22 let's get on with it. You want to go? Hit a site ieer.org, and 23 24 it will tell you pretty much where the carbon is.

When you pour concrete, you make carbon.

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There is a

lot of concrete that goes into the plant. A quick study should be done showing how much is being used after one year, three years, five years, 10 years. Show how much carbon is put in before one little kilowatt comes out.

We can also do a CO2 impact just of this process. How many NRC people drove down here? How much paper is being used? We ought to know. This is part of our carbon end stuff.

Let's look at the economic review. When we talk about the cost of nuclear power, it is not just Dominion's cost. Taxpayers -- every time somebody in the nuclear industry opens their mouth, they want to put their hand in your pocket and take it out with your money. It's taxpayer money.

So let's add it all up. Let's find out where all these costs are. We've got the utility cost, we've got the fed cost, we've got waste, we've got high-level waste, we've got low-level waste. We've got insurance, we've got subsidies. Let's add it up, so that we can have a true site.

Again, it's right there on the web. Go to IEER.org, pick it up. You'll get some good information.

Another thing we have to look at is our

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good old friends, the NRC. How have they been doing? What are their responsibilities? What has been their record? What are they responsible for? Well, they're responsible for low-level waste. What's the record? Pretty bad. Zero out of eight. No low-level sites selected. North Anna doesn't have anywhere for the low-level waste to go, and they want to put more here.

High-level waste -- 1982 is when it started. Ten years behind at this date, estimated 20 years behind and it's not ever going to open. Where are they going to put the waste? They don't want to talk about this.

And independent sources -- NRC talks -- oh, safety. We talk about safety. One of the safety rules that the NRC has put for Louisa County, they are to distribute KI, potassium iodide, in the event of an accident. Our potassium iodide has expired 18 months ago. It has been brought up. Where is the NRC? Distributing this. These are the safety concerns of this organization?

We don't have the mandatory items right at our hand. Let's use some real independent sources when they're getting information. PNNL is -- it's a joke organization. Let's get some independent organizations in here to do some real work to get the

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information to the NRC and move forward.

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The NRC's goals are the adequate protection of human health and safety, to promote the common defense and security, and to protect the environment. They're not doing a very good job, and we all know it. We need to sit back, take a deep breath, and use some good common sense.

Thank you.

FACILITATOR CAMERON: Okay.

(Applause.)

Thank you, Jerry.

We next have Paul Gunter.

MR. GUNTER: Thanks, Chip. My name is Paul Gunter. I'm Director of the Reactor Oversight Project with Beyond Nuclear at the Nuclear Policy Research Institute in Takoma Park, Maryland.

I'd like to start out by saying that the EIS -- I think one of the primary purposes of the EIS is to provide a clear, reasoned, and transparent costbenefit analysis. And so we believe that this EIS should include a full range of cost estimates for the projected construction of the ESBWR, rather than hold those costs as propriety information.

So I think that it's vital, and particularly in terms of providing public credibility

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to this whole process, that the EIS -- first of all, take a look at the fact that since the early site permit process was completed, that the cost projections for nuclear power have gone up by about 300 to 400 percent.

Right now, the latest estimate that we've seen was provided in discovery documents as a result of Florida Power and Light disclosures to the Florida Public Service Commission where now we're looking at projected costs of anywhere from \$5,500 per kilowatt to more than \$8,000 per kilowatt hour for new nuclear construction.

So if you convert that to about a 1,500 megawatt reactor, that is anywhere from between \$6 billion to \$12 billion for a new reactor. Clearly, this should be taken into consideration in terms of the cost-benefit analysis.

We would fully concur with Jerry's comments with regard to radioactive waste. The EIS particularly needs to include the fact that -- and assume that there will be no available repository for the full operating lifetime of this reactor, this proposed reactor, and to consider the consequences of onsite storage in perpetuity there on Lake Anna.

This would also apply to -- again, to what

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Jerry pointed out, was that as of June 2008, South Carolina will be closing the Barnwell low-level radioactive waste facility to Virginia, and so the EIS consequently, since there are no other sites, I believe it's the responsibility of the EIS to fully account for the consequences of onsite storage of low-level -- so-called low-level radioactive waste.

I would also like to address the issue in context of emergency planning. It was brought out earlier that this is a high growth area. That growth affects emergency planning. And, clearly, one of the concerns that we have, again supporting what Jerry said, but amplifying on it, Congress passed in 2002 a public law which requires the distribution of potassium iodide out to 20 miles.

So Jerry's point that it's not being provided out to 10 miles currently is amplified by the fact that the Nuclear Regulatory Commission and the Department of Homeland Security have not complied with the Congressional law as it provides to the Bioterrorism Protection Act.

We have ongoing concerns with regard to security issues, in particular the fact that there is -- we will be watching very closely the design certification process in context of a new rulemaking,

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which you might be aware of, that new designs that have not been certified will be required to address aircraft impact hazards analysis as a result of the 9/11 crash.

Now, the ESBWR will have to go through that process, although the criteria have not been established at this point. However, the North Anna sites 1 and 2 have been exempted from any reanalysis on aircraft impact hazards analysis, so our concern is that the EIS should fully address the consequences of an aircraft attack, a crash, on Units 1 and 2 and its impact on the safe operations of Unit 3.

Thanks.

FACILITATOR CAMERON: Thank you. Thank you very much, Paul.

Our next three speakers -- James O'Hanlon and Charles Trible and Kenneth Moore.

MR. O'HANLON: Good evening. Thank you.

My name is Jim O'Hanlon, and I'm here tonight in support of the construction operating license for North Anna Unit 3.

I retired from Dominion Resources in 2003 after working for the company for 13 years. At the time of my retirement, I was the President and Chief Operating Officer of Dominion Energy, where my

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responsibilities included all aspects of operations and management for nuclear, fossil, and hydro generation plants, as well as the gas transmission and storage systems.

My earlier positions with Dominion included Senior Vice President and Chief Nuclear Officer for four -- five years, Vice President of Nuclear Operations, and Vice President of Nuclear Services. Prior to joining Dominion, I had various positions in operations engineering and management for both the utility industry and the United States Navy.

Nuclear power is a safe and effective way to generate reliable energy. As is already mentioned, this additional unit at North Anna would generate more than 1,500 megawatts net of electricity, enough power to -- enough energy to power the equivalent of 375,000 homes.

Safety is Dominion's top priority. At North Anna power station, safety is planned into all work activities. Safe work practices are reinforced through training and continuous improvement measures. The Nuclear Regulatory Commission, the Institute of Nuclear Power Operations, and the World Association of Nuclear Operators, gives North Anna station high marks in safety.

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The Nuclear Regulatory Commission oversees every aspect of operation at North Anna power station and has two resident inspectors working at the station daily to ensure that the station is operating safely at all times.

Not only would the reactor -- the third reactor at North Anna provide safe and reliable energy, it would do so while protecting the environment. The new reactor at North Anna will not increase the temperature of Lake Anna.

After concerns were raised by -- of the potential thermal impact of a new reactor, Dominion committed to change the design to include cooling towers. The NRC reviewed a number of environmental issues during the early site permit process and addressed them satisfactorily in the environmental impact statement.

During the EIS review period, Dominion worked with the NRC, state agencies and other stakeholders to resolve those environmental issues. There is no need to revisit these issues again during the COL process.

In closing, let me say that Virginia needs a balanced strategy moving forward to meet our increasing energy needs, while at the same time being

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mindful of the environment. The third unit at North

Anna is a key component of this responsible and

balanced strategy.

Thank you for the opportunity to speak. FACILITATOR CAMERON: Thank you, Jim.

And this is Charles -- Charles Trible?

MR. TRIBLE: Hi. My name is Charles Trible. I am a retiree from Virginia Power. I'm also a CPA and an attorney. I'm here tonight in support of the third unit at North Anna/Lake Anna.

I think it is important to support energy development right here in Virginia to ensure that electric service remains affordable and reliable. As Dominion's lowest cost source of baseload electricity, nuclear is important to the economic well being of Virginians and to the economy of the Commonwealth.

North Anna power station, as has been stated, has paid over \$230 million in taxes to Louisa County, and I am informed that the taxes would more than double after this third unit goes into operation.

With respect to environmental impacts, I'm certainly no environmentalist as such. I don't have the training in that area, but I do note that the site has already been approved and that nuclear units have already been operating here for over 30 years. The

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transmission lines are already in place to move the power, so there is no need to build additional transmission.

There is less thermal impact, of course, from nuclear than any other source of fuel. With respect to the growth in the Commonwealth as being an environmental impact, when I started with Virginia Power in 1984, that winter we just reached 10,000 megawatt hours as a peak load. Last fall, last summer, we reached almost 20,000 megawatt hours as a peak load, so we doubled from '84 to '07.

The projections indicate that we will double again by 2030. That's 40,000 megawatts. Now, we all talk about conservation and, you know, I've got some of those little lightbulbs that burn less energy, and I tend to cut off lights when I leave rooms, like I was taught. But at the same time, we can't get there with conservation. We can help, but we can't get there. We've got to have additional energy.

There was a conference in Washington a couple of weeks ago, and there was a piece in the Richmond paper, and let me just quote briefly from that. It says Representative John Dingell, Democrat, Michigan, Chairman of the House Energy and Commerce Committee, and I quote, said, "The future of this

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country is dark without nuclear power."

And he went on to indicate that the cost of the oil that we are buying abroad by 2030 will equal \$8.5 trillion. Now, this is money that is going outside the United States instead of staying here.

Nuclear power is vital, it's much cheaper than the alternatives, it's already here, it has been safe for 30-some years here in Louisa County, and I understand that the GE new ESBWR design is even more efficient. This is a critical investment, because it will provide increased generating capacity while not producing any greenhouse gas emissions in a time when carbon regulations are inevitable. Nuclear is a key component of a balanced energy strategy moving forward.

Thank you for the opportunity to comment.

FACILITATOR CAMERON: Thank you for those comments. Next is Kenneth, Kenneth Moore?

MR. MOORE: Good evening. My name is Kenneth Moore, and I'm here in support of the continued -- combined operating license for North Anna 3.

In my career at Virginia Power, which extends for over 30 years -- and I retired in 1998 as the Vice President of Fossil and Hydro Services -- I

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had a number of assignments. But one of the early ones when I first came to work for the company was on the site selection and licensing of the North Anna Reservoir.

I had a number of other assignments, mainly in construction, but a later assignment was, ironically, on the original North Anna 3, which was, of course, subsequently cancelled.

As a registered engineer in Virginia, and a former executive of Dominion, I would like to point out several reasons why the combined operating license ought to be supported. First, Virginia is in a deficit as far as generating capacity is concerned. The generation gap is projected to be about 4,000 megawatts by 2017, and that goes well beyond already significant ability to import power from other states.

In order to keep Virginia's growing energy needs and keep rates stable, we surely need to have a strong investment in baseload energy sources within the Commonwealth.

Secondly, through the early site permitting process, the NRC conducted a thorough review of the environmental impact a new nuclear unit would have on the North Anna site, and determined that a new reactor can safely be sited and operated in a

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way that will have minimal effect on the environment.

A new reactor at North Anna will not have a significant impact on Lake Anna. In response to concerns raised by the Department of Environmental Quality and local citizens, as you have already heard, Dominion committed to install a \$200 million plus cooling system that will allow the temperature of the lake not to be affected, not even in the company-owned waste heat treatment facility, the cooling lagoons that are adjacent to North Anna.

Nuclear generation in general, and North Anna in particular, will of course help protect the environment. Nuclear is the only baseload source available at a reasonable cost to produce reliable power without significant greenhouse gas emissions.

Lastly, I would like to point out what others have already said, and I certainly experienced in construction not only at North Anna but in other sites around the state, construction will -- and operation of this unit will really continue to be a Godsend to the area in general, and to Louisa County in particular. So North Anna plays a particular role in Virginia's economy overall, and Dominion -- and it's Dominion's lowest cost of baseload generation and will continue to be for the foreseeable future.

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84 Thank you for the opportunity to let me comment tonight. FACILITATOR CAMERON: Yes. Thank you, Kenneth. Could we go to Larry Ellis, James Bryan, and Kelly Taylor? Good evening. My name MR. ELLIS: is Larry Ellis, and I'm here tonight to also speak in favor of the combined operating license for the third I retired from Dominion reactor at North Anna. Virginia Power in 1997 after working there for over 35 years.

At the time of my retirement, I was Senior Vice President of Power Supply and Planning. Prior to that, I was Senior Vice President of Energy Services and Senior Vice President of Power Operations and Planning.

At one time or another in these capacities, I was responsible for the operation of the company's bulk power supply system, the planning for future generation and transmission to meet future customer load, the operation of the company's fossil and hydro generating facilities, and the acquisition of power from non-company suppliers.

Since my time with the company, the

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state's energy needs have continued to grow due to Virginia's growing economy and population. is projected that Dominion's Virginia service territory will require an additional 4,000 megawatts in the next decade. The state currently is the second largest importer of electricity, second only to California. Because 30 percent of the electricity currently used is imported, Virginians in Virginia are more vulnerable to price volatility in the electricity market.

In order to keep rates stable, there is a significant need for investment in a diverse mix of generation within the state. Nuclear energy is an important part of this energy mix, because today it is Dominion's lowest source of baseload electricity.

Not only will the third reactor at North

Anna provide affordable baseload power, but it will do

so in a safe, environmentally acceptable manner.

As we have already heard tonight, the NRC has already approved -- conducted a very thorough review of the environmental impact a new nuke unit would have on North Anna -- at North Anna through the early site permitting process.

The NRC has determined that a new reactor can be safely sited and operated in a way that will

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have minimal impact on the environment. As part of the early site permit environmental review process, Dominion agreed to build a cooling tower instead of using once-through cooling from Lake Anna. Dominion has indicated -- demonstrated that it is a good neighbor by changing its plans for cooling so that no additional heat will be placed in North Anna -- in Lake Anna. The company has embraced policies technologies, worked hand in hand with protecting our environment, and at the same time they continued to demonstrate that this third unit at North Anna will continue to implement those policies. Thank you for giving me the opportunity to comment in support of the COL tonight. FACILITATOR CAMERON: Thank you. Thank you for those comments. Mr. Bryan? Dr. Bryan? This is James Bryan, right? DR. BRYAN: Right. I am Dr. Bryan, Dr. James Bryan. I'm not a statistician. I'm not a nuclear scientist, but I have done some work science, and I'm concerned about some aspects of this proposal.

I spent a good bit of time looking at

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graduate students' research and research proposals, and I seem to have a knack at putting my finger on stuff that just didn't make sense. And, in fact, I've done this in several different countries, and even in languages I didn't understand very well. And this, to me, is just as glaring as anything I've run into anywhere.

When I read about the risk assessment of severe accidents in the environment impact statement prepared here, and specifically in Table 518, which I think was renumbered, but it's -- it was reviewed somewhat in response to public comments on that section in Volume 2, Section 3.14.3, Severe Accidents.

And here I quote, "A severe accident without loss of containment for an advanced boiling water reactor is estimated to have a core damage frequency of 1.34 times 10^{-7} ." That is 1.34 of the severe accidents in 10 million years.

Now, how in the world are you predicting 10 million years from here? It just -- it's -- my algebra teacher, when I was in ninth grade -- and this was quite a few years ago -- said, "You can't extrapolate way beyond your data."

And I found this true when I did my master's degree. I found this true when I did my

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doctorate. You can't extrapolate like this. What are you doing thinking about 10 million years from now, and there is a likelihood of 1.34 accidents, severe accidents, in the proposed plant.

I object also to the using two decimal points. It gives an illusion of -- that you know what you're doing. And I have to say these two decimal points do not give any additional information. You don't have any idea, even to -- even to an order of magnitude, and to put in 1.34, this is -- this is a problem we've got in this country.

Right now, we have a problem of wishful thinking replacing careful observation, and it's exacerbated by a lot of money going beyond desired decisions, it's exacerbated by a lot of political control where political people come and overrule the careful scientific observations in many different fields of science.

And I believe that we have -- this is just too important an issue to let wishful thinking replace careful analysis. And I'm afraid that's what has been happening here. It's -- I'm not a statistician, but this just does not make sense, to have this type of extrapolation from the data.

Now, looking a little further at the same

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data, there is another problem. And that's that when they do their analysis they leave out Three Mile Island. And if you read the explanation for it, Three Mile Island Reactor Number 2 is left out of the data set, and this accident -- this absence, I thought it was an accident.

But they answer -- Three Mile Island,
Unit 2 is not among the current generation reactors
included in preparation of Table 522, because it is no
longer in operation. Well, do you want to make your
basis of thinking the elimination of your most
significant accident? That's scary. That's scary.

I propose this does not rise to the level of science. This is in the area of fantasy and wishful thinking, and it's dangerous.

My third concern about the safety issue is the human error problem. And within the reports, the NRC says that they are taking into consideration human error. Human error has been the problem at Chernobyl, it has been the problem at Three Mile Island, it has been the problem in Japanese reactors. And one of the main human reactors — one of the main human errors has been when they have neglected to do the safety checks, the analyses that they needed to do.

Now, you may say, "Oh, this is Russia.

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This is Japan. This is not the United States." Well, right this month we have got airlines not being inspected when they needed to be inspected. We all know about that. There may be some people in this room that have been grounded for it. Fortunately, no one has been damaged by it, as far as I know.

But leaving out the safety inspections

But leaving out the safety inspections that are mandated has been a worldwide problem, and it has not been absent here in the States either.

You've got to pay more attention to human error. It's a human characteristic. It's just as part of us as breathing, is that we make mistakes. We try to take shortcuts. We try to do things the easy way. When there are safeguards, we figure out ways to make it — to overlook them. And this has to be part of a solid safety analysis is human error.

Thank you very much.

FACILITATOR CAMERON: Okay. Thank you.

Kelly?

(Applause.)

And then, we're going to go to Rebecca Fawls and Michael Stuart.

MS. TAYLOR: Thank you for the opportunity to speak here this evening. My name is Kelly Taylor.

I'm here representing myself. I'm a private citizen

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and a resident of Louisa County.

I'd like to point out to -- as the NRC knows, and to members of the audience, that when you talk about rising fuel costs, the rising cost of concrete, the rising cost of metal, and you talk about the skyrocketing expenses that are involved in building a potential North Anna Unit 3, those same skyrocketing costs would apply to any baseload energy that you want to put in.

It would be the same if you were trying to build a fossil station, coal station, whether it was an oil station or natural gas. Those expenses are going to be the same regardless of what type of fuel that you decide to put in. So while you're selecting what kind of fuel supply for the electricity you are going to use, I appreciate the fact that Dominion has selected nuclear for this county for the upcoming generations, because of its decreased carbon dioxide emissions and because of the cleaner air that is a result for myself and my family.

When you talk about opposing a new discharge effluent path into the lake, that you don't want to put the water back in the lake, it seems to me contradictory if you're going to say that and then talk about water balanced studies, and so on and so

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forth. If you're not going to put the water back in the lake, what are you going to do for it? What are you going to do with it?

You're going to increase how much water you're taking out of the lake. And if the water is clean enough and meets the government's standards and the EPA standards and the state standards, in all the studies that are done, why wouldn't you put the water back in the lake so that we can use it for the water table, so we can use it for the downstream effluence? Why would you just randomly say, no, don't put this water back in the lake, and somebody else figure out what to do with it. It is not a consistent argument, or it doesn't -- it doesn't sound that way to me.

For those who wish studies to be redone because the water balance studies don't account for the improved cooling design for the decreased evaporation rates for the reduction in heat that is trajected back into the lake, then I would submit that you are asking to spend money for no benefit, since the increase -- since the improved design is actually more conservative than the one that the studies were done for.

For those who would talk about the difference between the long-term cooling versus the

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short-term cooling in the summer months when the cooling is most critical, I would submit that I like using the power the other 350 days a year, and I would appreciate the fact that the plant goes in so that it's available for use whenever we need it. And if there are periods in the summer months where we have issues meeting those, I would say the long-term benefit will override those short-term concerns.

When we talk about a balanced energy portfolio, and we need diverse sources, we need the renewables, we need to do more conservation, we need to maintain the fraction of our power that comes from nuclear because of its low CO2 emissions. We need to not replace that with something that is more damaging to the environment than nuclear is.

I would also submit to you that the long-term studies that talk about the increase in baseload use in Virginia probably do not account for another move that we really need to make, which is more electric vehicles. That doesn't figure into any of the baseload studies. So if you want to replace what we're using in foreign oil with electric vehicles and things that are battery-powered, that's going to be a significant increase in what our baseload power needs are nationwide.

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And that has to come from nuclear. now at the next opportunity for nuclear to replace more of the foreign oil and more of the national security issues that we have, because those electric vehicles are going to be using the extra power. I really appreciate the fact that Dominion is considering nuclear for the county, for my family, for my environment. I particularly appreciate the fact that it is Dominion that's doing it, because they demonstrated concern already а for the environment, they have demonstrated a concern for the local issues over water evaporation, local issues for heat rejection. They have already increased their expenses in redesigning the cooling towers. And I thank them for the opportunity to benefit from this as the whole county has benefitted. And I thank you for the chance to speak tonight. FACILITATOR CAMERON: Okay. Thank you. Thank you, Kelly. (Applause.) Rebecca with us? There she is. Rebecca and a guest I guess, huh?

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MS. FAWLS: Hi. My name is Rebecca Fawls.

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I'm speaking on behalf of the North American Young Generation in Nuclear, the Virginia section. I am also speaking as a wife, a mother, and a lifelong resident of Virginia.

I'd like to start off talking about a Nuclear Energy Institute study that looked at the economic impact of North Anna power station on the State of Virginia. North Anna generates more than \$710 million in economic benefit to the state. This includes approximately \$11 million in property tax for the surrounding counties, which enables the counties to provide excellent educational facilities and staff, and other public works for everyone in the county, not just Dominion employees' families.

The study also shows that this nuclear facility's electricity production cost was 1.38 cents per kilowatt hour in 2006. This is considerably lower than the coal, natural gas, and renewables whose -- when the renewables cost was \$4.37 per kilowatt hour.

I bring these points up because it has been recently reported that the country may be in a economic downtrend, and possibly a recession. Virginians should be concerned about our jobs and our electricity costs. Currently, Virginia is an overall energy importer. Nearly half of the electricity used

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in Virginia is generated in other states.

Over the next 10 years, Virginia will need to add an additional 4,000 megawatts of capacity in order to keep up with demand. This electricity can either be generated here in Virginia, bringing our state closer to energy independence, or it can be imported. Either way it will be needed.

North Anna Unit 3 would generate an additional 1,520 megawatts. Building a new nuclear powerplant will bring approximately 2,000 jobs during construction and provide approximately 600 permanent high-paying jobs. The new nuclear powerplant would also increase tax revenues to the surrounding counties and Virginia as a whole. An added benefit would be the ripple effect on the economy, such as housing, restaurants, and manufacturing for the state.

The GE-designed ESBWR has multiple backup safety systems with automatic safety features. It is a low carbon energy source with a small ecological footprint. To make the same amount of electricity from a wind farm as a nuclear powerplant, it would take up to 200 square miles. And a solar plant would take 75 square miles, where a nuclear powerplant would take approximately one square mile.

In summary, nuclear power provides many

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economical benefits, such as maintaining low electricity costs, increased tax revenue, and providing job stimulus here in Virginia. Nuclear power has been proven to provide safe, clean, and reliable power, and it is an important part of our balanced energy mix in Virginia.

Thank you.

FACILITATOR CAMERON: Thank you. We're going to hear from Michael, Michael Stuart, at this point.

MR. STUART: Hi. My name is Michael Stuart. I live inside the ten-mile EPZ -- that's emergency preparedness zone in nuclear talk -- for North Anna Power Station over in Beaverdam. That's where I live, in Beaverdam. North Anna Power Station is in Mineral.

I am here today to speak about the need for power. Let me start by making it clear that Virginia is the second largest importer of electricity in the United States. The only state that imports more electricity in the United States is California.

Does anyone wonder where the electricity is coming from that is lighting up the room that we are in, that is powering the microphone that I am speaking into right now? Well, that's where my graph

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comes in.

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Here is where it is coming from. First take a look at the number. That's 73 billion kilowatt hours, 73 billion thousand-watt hours. And about almost two-thirds of that is derived from coal and oil and gas. I've got oil and gas out separate here because we import that, a lot of it anyway. And over here in the green section, that is about one-third of our energy. Thirty-seven percent is from nuclear.

Now here is the classroom participation part. How many people think it would be great to have more renewable energy in the United States?

(Whereupon, there was a show of hands.)

MR. STUART: Me, too. How many people think the conservation is a great idea?

(Laughter.)

MR. STUART: Me, too. So how many people think it would be great if we could reduce our dependence on foreign oil, coal, and gas?

(Whereupon, there was a show of hands.)

MR. STUART: Me, too. Okay. Now I'm going to show you another graph. Okay. This is today. This is that same pie chart, but now it's a stack chart.

As you can see, according to the U.S.

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COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701 Department of Energy projections, we're going to need to increase our energy production by about 50 percent in the coming years.

And the increase is necessary due to population increases. That's due to greater reliance on electronics. And it doesn't even account for the electric vehicles that Kelly was talking about earlier.

As you can see, even if we hopefully build North Anna unit 3 and, by some miracle, this little blue part right here, we implement a 15 percent renewable portfolio standard, we still have this gap up at the top.

Now, there's a lot of people in this audience that want to get rid of coal and they want to get rid of oil and gas and they want to get rid of nuclear. And that leaves nothing. If somebody cut the lights out, that would be a great, dramatic effect right now, but that's okay. As you can see, it is highly unlikely.

Now, we can meet our energy demands of a growing population, support a shift to plug in electric hybrid vehicles while reducing our dependence on coal, foreign oil, and gas. We can't do it all. That's why we need unit 3 as soon as we can get it.

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100 So, please, NRC, do a good job in reviewing this application and get this thing approved so we can start putting out some clean energy. FACILITATOR CAMERON: Okay. Thank you. Thank you, Michael. (Applause.) FACILITATOR CAMERON: Let me go to Lou

FACILITATOR CAMERON: Let me go to Lou Zeller, Allison Fisher, Eleanor Amidon, and Vanti Nguyen. I'm sure I got that wrong. Lou, please?

MR. ZELLER: Thank you. My name is Lou Zeller. And I am the Science Director with the Blue Ridge Environmental Defense League. And I am here tonight to talk primarily about seismicity.

We will be submitting written comments before the close of the comment deadline, but we found that, of course, many people may know that North Anna's nuclear reactor is built on stable ground that Virginia Electric Power Company, now Dominion, was the center of a decade-long struggle, which ended in two nuclear reactors being built on top of an earthquake fault.

In fact, the Department of Justice in the 1970s in this action, which resulted in a fine, found that VEPCO and its consultants knowingly and willfully filed false statements of material fact with the

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Atomic Energy Commission and conspired to conceal from the public and the Board the existence of a fault underlying its nuclear reactor site.

I hold in my hand here North Anna 3 combined license application part 7 departures report.

Departures report is variances of plant-specific deviation from one or more of the site characteristics design parameters terms and conditions of the early site permit or from the site safety analysis report.

I picked out a few of these. There's a long list of them, including annual thyroid dose and liquid effluent releases and gaseous pathways. But regarding the radiological exposure, the variances requested by Dominion say, "distances to the closest receptors had changed." People are living closer to the plant.

They also say with regards to groundwater flow, "maximum hydraulic conductivity is larger than the ESP value." The groundwater is moving more quickly. A table on page 2.3 in the document says, "3.4 feet per day was assumed under the ESP. It looks like it's 9.9 feet per day hydraulic conductivity," for which they are requesting a variance.

Regarding seismicity, vibratory ground motion, the variance requested says, "Unit 3 does not

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fall within the ESP and the site safety analysis report. The data show the top of competent rock under unit 3, seismic category 1 structures is higher than assumed for the ESP."

The Nuclear Regulatory Commission has responsibility in this matter under 10 CFR 51.105, also under appendix A to part 100, which describes the type of inquiry necessary for the Nuclear Regulatory Commission to determine site suitability with regard to geologic stability and seismicity.

I guess more important and also relevant in this matter is the Fifth Amendment to the Constitution of the United States, which says that no person shall be deprived of life, liberty, or property without due process of law. I would submit to you that an accident caused by a foreseeable event cannot be construed as due process.

Thank you.

FACILITATOR CAMERON: Thank you, Lou.

And Allison?

MS. FISHER: As Chip said, my name is Allison Fisher. I am with Public Citizen. I want to thank you for the opportunity to address some of the issues that should be considered in the environmental impact statement for North Anna's unit 3.

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Based on a lot of the comments that we have been hearing tonight, it seems that we are at a critical time in the debate on our energy future. I know coming from D.C., it certainly is a big issue at the national level but I think perhaps even more so on the state level because what we have seen is that some states are actually taking a greater leadership over our representatives in D.C. in establishing and implementing clean and sustainable energy strategies.

So I want to focus the bulk of my comments on the potential for clean and sustainable energy in Virginia, but first I would like to point out that, you know, the clean and sustainable criterion is certainly the most important, but it is not the only thing that we should be considering in our energy future. And to this extent, you know, we hear a lot about the need for energy independence. And it's been raised a couple of times already tonight.

And in Virginia, this is interesting the way it is playing out is the claim for energy independence currently is being lauded by those seeking to extract uranium from the enormous deposit that has been identified in Virginia, in Pittsylvania County.

The basis of this claim is that we do

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currently import about 70 percent of the uranium we use for fuel, for fuel in our reactors from abroad, from countries like Canada and Australia and some of the former Soviet Union states.

So, then, to mine it here in Virginia, I suppose it would help us reduce our dependency on foreign sources of energy. I would say that it probably does not reduce our addiction to oil, as it has been brought up here tonight.

As far as I know, we are not using uranium in our tanks at this point. But certainly it would bring up uranium. It would bring it back into our economy in the form of both mining and milling.

What is interesting is that Virginia is going to be the only state in the country that is witnessing firsthand the cause and effect of nuclear expansion. Here in Virginia we have both a proposal for a new reactor and a corporation challenging the state's moratorium on uranium mining.

Because of this unique experience, I think residents in Virginia are going to be able to see just how unclear nuclear power is. And also due to this unique circumstance, the environmental impact statement, whose main purpose is to establish a cost-benefit analysis of the project to determine if

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the environmental costs outweigh the stated benefits, should consider the effects of nuclear expansion and how it relates to the booming speculation on uranium. And these should be present in the environmental impact statement. The NRC should fully review the impacts of mining and milling within the scope of the EIS.

Secondly, just a note. The scope of the EIS also considers alternatives to the project. This includes a no-action option. And this goes back to the first statement I made. I mean, obviously the alternative question is paramount here in Virginia. It asks the following. If not this reactor, how will Virginia meet its energy needs or we can pose it another way. Do we even need to assume the risk associated with the new reactor and mining in order to keep the lights on?

I appreciate the graph that was just up here a few minutes ago. And I saw what was trying to be projected. I think what that was speaking to was not potential for renewable energy here in Virginia. It was talking about the political will and the utility's will to implement those kind of technologies.

So, to address these questions, the EIS

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should consider that Virginia's choices are not limited to new nuclear or coal. In fact, it is technically and economically feasible for a diverse mix of existing renewable energy and efficiency technologies to completely need Virginia's electricity needs over the coming decades.

renewable resources These could be effectively and reliably harnessed and without dioxide producing carbon or carbon emissions, radioactive waste, or relying on mining a finite resource.

According to the National Renewable Energy Laboratory data in a Virginia Center for Coal and Energy Research study, Virginia's electricity needs can be fully met in the coming decades by wind, solar, advanced hydroelectric power, and geothermal heat pumps.

Then the EIS should include a full examination of the following data from the NREL study. First, Virginia's wind potential comes over 104 million megawatt hours. That is over 92 percent of Virginia's total annual electricity consumption.

Virginia's PV solar potential is 25,000 megawatts by 2025, which would generate over 46 million megawatt hours annually. Right now that's

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about 41 percent of Virginia's electricity use.

And then, finally, geothermal heat pumps could also be used in Virginia to reduce the energy used for heating and cooling billings by 30 to 60 percent. So it's not just turning off your lights, and it's not just putting in those newfangled light bulbs. There's some other stuff out there that could be implemented.

So regarding these technologies and for the purposes of the EIS, an analysis should consider cost comparison, ratepayer savings, and certainly job creation, which is another issue that has been broached here by several of the presenters.

And there are plenty of studies that are showing that these technologies are bringing just as many jobs and just as many opportunities into communities and without the risks associated with nuclear power or coal. Alleviating us from these technologies is not going to shut down the economy, I assure you.

So, just again, you know, or the choices our utilities are making for us are critical. And we really cannot afford economically as well as environmentally to continue on this business as usual path.

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And I think that, when all things are considered, what we will see is nuclear power is not the cheapest. It's not the safest. And it's certainly not the cleanest.

Thank you.

FACILITATOR CAMERON: Thank you, Allison.

We are going to go next to Eleanor, Eleanor Amidon, and then to Vanti.

MS. AMIDON: My name is Eleanor Amidon. I am a member of the Charlottesville Center for Peace and Justice. I want to call attention to one very serious problem. The storage of spent fuel rods has never been adequately solved.

Radioactive material will continue to be active for thousands of years. Regarding human health, exposure to radioactive material will lead to the increase of many types of cancers. Nobody wants radioactive waste stored in their territory.

Yucca Mountain is geologically unstable. The people of Nevada don't want radioactive materials stored there. The people of Virginia do not want radioactive materials stored at Lake Anna. To me it makes no sense to continue building nuclear reactors and adding to this glaring problem until there is a satisfactory solution to the radioactive waste storage

problem.

Thank you.

FACILITATOR CAMERON: Thank you very much.

And Vanti?

MS. NGUYEN: Good evening. My name is Vanti Nguyen. And I am with the People's Alliance for Clean Energy. The truth is that life is sacred. No one in this room can deny that, even government officials and industry scientists.

The truth is that it is also fragile and that we are participants in its mysteries of only one of the many species on the planet and that the only thing that makes life worth living for us is the love and the creativity we experience in our relationships with each other within the whole world community.

The fundamental questions that have meaning for us as humans are questions of value and of ideas about human nature and human destiny. All discussions of nuclear power and the abstracted debate going on in this room are not based on the conditions for human well-being and for plenary health and survival but on an illusion of mastery and control, on a pretense of russianality, and on an acceptance of the demented nuclear logic as normal.

The result is that you are unconsciously

compelled to entrust the future of all of life to a technology that is grossly out of scale with our experience as biological beings and with our capacity to grasp its implications.

Industrial civilization confuses money with fulfillment, standards of living with quality of life, and painful cancer deaths with the natural death that comes as the closing of life.

But this confusion is only a blip in the history of evolution. The proverb says no matter how far you have traveled down the wrong road, you can still turn back. So even at this point, you can still give up the illusion that nuclear power is a sane energy consideration.

You can allow into your consciousness that radioactives cannot be isolated from the environment and that they forever damage the DNA of not only humans but of all living things. And you can turn your considerable talents and your healthy ambitions to life-enhancing projects, utilizing solar, wind, and wave energy to creating real and not bogus safety and security and to safeguarding the intensity of our relationship with future generations and with the whole of the natural world.

Thank you.

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(Applause.)

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FACILITATOR CAMERON: Thank you very much.
Thank you.

Our next three speakers are Burt Marshall,

John Farmer, and Peter Beament. This is Burton.

Thank you. My name is MR. MARSHALL: Marshall. a professional engineer Burton Ι am registered in the State of Virginia. And I employee Dominion, after retired of 33 However, I do keep an eye on what is going on in the energy markets around the country. And I am here to speak in support of the combined operating license for unit 3.

Right now Virginia is facing a significant shortfall of electricity of about 4,000 megawatts in 2017. With today's volatile energy markets, we can no longer afford to rely on imported power for Virginia's needs. If built, unit 3 would make us less dependent on electricity produced outside the state. And it will also provide nearly a third of that shortfall in 2017.

Dominion is one of the nation's most experienced operators of nuclear reactors. The company's four nuclear power stations have a capacity to produce 5,726 megawatts of emissions-free

electricity.

Not only will this facility be a safe and reliable addition to Virginia's energy portfolio, but it will do so while being mindful of the local environment.

While I was Manager of Water Quality at Dominion, the 316(A) temperature study of Lake Anna was completed and approved by the regulatory agencies. The company has agreed to change their water cooling design to a closed loop, hybrid system, instead of an open system, to minimize thermal impacts on Lake Anna.

Dominion has been a good corporate citizen at the North Anna site since the first unit was built in 1978. And I expect the company will continue to uphold the environmental responsibility throughout the life of this reactor.

I had other economic benefits that others have already mentioned. So I will just close by saying that this is a great opportunity for Virginia. We need to seize the opportunity to build this third unit and provide more economic benefits to Virginians and Louisa County.

Thank you for hearing my remarks.

FACILITATOR CAMERON: Okay. Thank you. Thank you, Burt.

And this is John Farmer.

MR. FARMER: Thank you very much.

I am John Farmer. I am a retired employee of Virginia Power. During my time with the company, I served in several areas, the last being manager of transmission and distribution projects. Our responsibility in this job was to site, permit, and construct transmission lines. These lines connect the power station with the substation that served the customers, be they governmental, residential, or industrial.

Dominion has experienced tremendous growth in the last several years, which is going to require additions to all the systems that it operates: the generation, the transmission, the distribution.

You have heard and I won't repeat the dependency on imported power, the need for additional power. North Anna right now contributes 17 percent of the power generated and used by Dominion customers. Of course, the new unit will increase this. And this station is strategically located between two very high growth areas in the company.

This is a source for base-loaded power, which can operate at a very low cost and will enable us to keep electric rates within a reasonable amount

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of charge at which probably inflation increases. Cost is going to go up, but this would in my view reduce the increase in electric power.

You have heard about the number of jobs provided. You have heard about the taxes that will be generated. This is a win-win situation for everyone in Virginia. It provides low-cost energy, emission-free with respect to greenhouse gases, and a safely operated plant.

So thank you for allowing me to make these comments.

FACILITATOR CAMERON: Thank you, John. We're going to go to Peter.

MR. BEAMENT: My name is Peter Beament.

And I am a retiree from Dominion Resources. I was the first station manager at North Anna. And I worked on the nuclear side of the company for 28 years, at CBMPA, and Surry Power Stations. And I would like to comment in favor of this new reactor.

And I don't plan to say very much of this because it has already been said about the necessity of the energy and the simplified boiling water reactor design with its combination of passive safety, simplicity, operation, reliability, economics, and the fact that it has no impact on the waste heat

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treatment. That's all been said.

I would like to comment, though, on one point. And, in closing, we have talked about base load. Base load means a lot of generation when it's needed. And the alternatives are offered of conservation, solar, wind energy, and tidal energy.

Now, the problem is that when the wind doesn't blow and the sun doesn't shine, then base load is needed for reliability of the system as a whole to provide our customers. And conservation has a limited application in favor of an increase in population and customer demand.

Thank you.

FACILITATOR CAMERON: We have some professors of engineering with us tonight: three from Virginia Tech and one from UVA. I think we will go to Kenneth Ball, then Eugene Brown, then Mark Pierson and then to William Hall.

MR. BALL: Good evening. My name is Ken Ball, and I am the L. S. Randolph Professor and head of the Department of Mechanical Engineering at Virginia Tech.

We are leading a task force at Virginia

Tech to establish a nuclear and radiation engineering

and science program in accordance with our mission of

teaching, research, and outreach. I have almost 20 years of experience in research and service in the area of nuclear engineering and science, including public policy related to nuclear waste, weapons, and security.

Prior to coming to Virginia Tech, I was a professor at the University of Texas at Austin and Chair of UT's Nuclear Reactor Committee. I was responsible for the safety of the research reactor facility and its operations and ensuring independent oversight of all of its related activities.

experience include My research nonproliferation issues surrounding weapons-grade plutonium and special nuclear materials and response preparedness and to terrorism attacks involving weapons of mass destruction, such as dirty bombs and nuclear devices.

I am a member of the American Nuclear Society and the American Physical Society. And I am also a fellow of the American Society of Mechanical Engineers and a registered professional engineer.

Virginia Tech's new nuclear engineering and science initiative has a strong support of the campus community, administration, faculty, staff, and students. Our new program will be very broad in

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scope, ranging from traditional areas, such as nuclear power generation and nondestructive testing and evaluation to nuclear medicine, both therapeutic and diagnostic, and material science and engineering.

It involves multiple colleges, the Colleges of Engineering, Science, Veterinary Medicine, Agriculture and Life Sciences, Natural Resources, and even Liberal Arts and Human Sciences, as well as the joint Virginia Tech-Wake Forest School for Biomedical Engineering and Science.

Scholars and researchers recognize the importance of nuclear and radiation science in many fields and technologies vital to society and also recognize that the benefits far outweigh legitimate concerns about safety, security, and the environment.

The Virginia Tech College of Engineering is taking the lead on campus in the development of new programs in nuclear science and engineering. My colleagues Gene Brown and Mark Pierson will provide more detailed information about these programs.

As a department head, I would like to emphasize the widespread interest in our new nuclear program among our alumni, students, and their parents throughout the Commonwealth of Virginia.

Almost every day, we receive inquiries

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about our nuclear program and the opportunities that it presents. If you simply Google the key words "nuclear" and "Virginia Tech," you will see hundreds of hits for links to sites related to our recent activities in nuclear engineering and science.

Our initial course offerings in nuclear engineering have been filled to room capacity as students are very quick to recognize the career opportunities that exist in the field. The nuclear renaissance is real and is generating considerable excitement nationwide.

Virginia Tech was one of the first universities to publicly announce its intention to reestablish a nuclear program about two years ago. But even in that short period of time, many other universities have followed our path and are establishing new programs throughout the nation.

The Commonwealth of Virginia and its citizens have much to gain by supporting nuclear energy initiatives, and we are well-positioned to be at the forefront of technological leadership in this area, which will have far-reaching implications for Virginia's economy.

One of my current responsibilities is to represent Virginia Tech on the board of directors for

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a new consortium of universities, citizens groups, and economic development partnerships and industry called SUNRISE. That's the Southeast University's Nuclear Reactors Institute for Science and Education.

Virginia Tech is a charter member of SUNRISE, which functions with the strong support and cooperation of our nation's Department of Energy laboratories; in particular, Oak Ridge and Savannah River national laboratories.

SUNRISE is dedicated to supporting nuclear science and technology development. SUNRISE provides a framework to support the growth and training of the new generation of specialists who can advance and protect our nation's critical infrastructure.

Together SUNRISE partners will advance the level of technical achievement and research and workforce development in the United States and will lead the nation in innovation spurred by research and education.

Prestigious universities in the Southeast United States, such a Georgia Tech, recognize the enormous opportunities that exist in nuclear technologies. The citizens of the Southeastern United States, the States, will benefit from cheaper, cleaner power production as a majority of new nuclear reactors

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will be built in the Southeast.

For Virginia to remain in a leadership position is important to support the nuclear power industry as they are key partners and the largest employers of the graduates of our nuclear programs.

In conclusion, I would like to voice my strong support for the combined operator license application submitted by Dominion Nuclear Power for North Anna Power Station unit number 3.

As a citizen of the Commonwealth of Virginia and also a father of four teenagers, I believe that ensuing that the electric power supply is sufficient to meet the future requirements of the Commonwealth in an efficient, cost-effective, and environmentally responsible manner is vital for our future prosperity.

As a researcher, engineer, and scientist,

I believe that nuclear reactors and nuclear power
generation must be included in our nation's energy
portfolio and that nuclear power generation is
extremely safe and environmentally sound.

Thank you for providing me with this opportunity to express my opinions and support nuclear power.

FACILITATOR CAMERON: Okay. Thank you.

Thank you.

We will go to one of your colleagues now. Gene?

MR. BROWN: Good evening. I am a professor of mechanical engineering at Virginia Tech and have taught courses related to energy conservation for almost 40 years. Along with my colleague Mark Pierson, who will be speaking next, I am currently managing Virginia Tech's relationship with a nuclear industry cluster in Lynchburg.

This involves nearly \$750,000 in nuclear energy research supported by Virginia's Department of Housing and Community Development and the responsibility for the development of a statewide program in nuclear engineering education.

I am a member of the American Nuclear Society and a registered professional engineer in the Commonwealth of Virginia. Nuclear energy is a key ingredient in the Virginia energy plan, which calls for a 20 percent increase in the in-state production of electrical energy by 2017 and the simultaneous 30 percent decrease in the level of greenhouse gas emissions by 2025.

According to remarks made by Steven Walsh,
Chair of Governor Kaine's Energy Policy Advisory

Council, conservation and renewable energy targets will only get us halfway to this target. Research in the use of clean-burning coal-fired power plants and nuclear energy is clearly needed to make up the difference.

Nuclear energy now represents the nation's and Dominion's least expensive source of electrical energy. The need for increased in-state energy production along with the need to reduce greenhouse gas emissions requires serious consideration of the installation of new nuclear power plants, such as North Anna's unit 3, which, of course, is the topic of this meeting.

Virginia is not the only state which has realized this. After 27 years with no nuclear power plants built, the NRC has received a request to build and license 50 new reactors in the past 2 years. Designing and building these facilities will require large numbers of trained professionals, who are in short supply because of the aging nuclear workforce and because of the limited number of nuclear engineers produced by the small number of nuclear engineering programs in existence today.

Times have changed. And now the nuclear industry is in a period of resurgence, resulting, in

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part, from fears of global warming and the related need for carbon-free electricity production.

In the words of Steven Walsh, Chair of Governor Kaine's Energy Policy Advisory Council, Virginia's universities have cut back on nuclear programs over the past few decades. Now is the time to turn this back.

In 2006, Virginia Tech was given the opportunity to do exactly this with an economic development grant provided by the Department of Housing and Community Development to Region 2000.

Region 2000 comprises the 2,000 square mile area incorporating Amherst, Bedford, Appomattox, and Campbell Counties, the Cities of Lynchburg and Bedford, and the Town of Alta Vista.

In 2007, in response to encouragement provided by Region 2000, the Mechanical Engineering Department at Virginia Tech developed a distance learning nuclear engineering graduate certificate program. In the first year of offering courses, the program has attracted 220 graduate students and is now delivered by the Commonwealth graduate engineering program throughout the state.

In addition, our newly announced undergraduate nuclear engineering certificate program

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has attracted 40 students. We have an aggressive plan to grow Virginia Tech's engineering program in the future.

Our long-term vision is to grow our present certificate program into an undergraduate minor in nuclear engineering and eventually to establish a School of Nuclear Science and Engineering, which will offer M.S. and Ph.D. degrees in nuclear engineering and science in collaboration with our College of Science and our sister departments in the College of Engineering.

engineering. I enthusiastically support the building of North Anna's unit 3 and the other 14 proposed nuclear power plants in the United States but the secure and affordable source of electrical energy, which they promise, and the opportunity that this offers to universities like Virginia Tech to provide the workforce and the technological advancements which will make this promise a reality.

Thank you very much.

FACILITATOR CAMERON: Thank you.

And Mark Pierson?

MR. PIERSON: Good evening. My name is Mark Pierson. I am a research associate professor

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with nuclear engineering programs in the Mechanical Engineering Department at Virginia Tech.

I am also a retired U.S. Navy commander, having spent the majority of my 23-year career in nuclear-powered submarines and related assignments, including a tour at the naval reactors headquarters in Washington, D.C.

I am also a member of the American Nuclear Society and a member at large on the Executive Committee of the local Virginia Section of the American Nuclear Society.

I am here today to speak in favor of Dominion's application for a combined license for North Anna Power Station unit 3. The environmental impact of this nuclear power plant will be significant but in a positive way. Let me explain.

2006. nuclear Τn power provided approximately 19 percent of the electricity in the States and about 38 percent within Commonwealth of Virginia. For the U.S., the remaining electrical generation sources come from coal, at 50 percent; natural gas, at 20 percent; hydroelectric, at 7 percent; oil, at 2 percent; and, finally, from all other renewable energy sources combined, geothermal, solar, wind, and biomass, at only 2

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The North Anna Power Station unit 3 reactor plant would provide about 1,500 megawatts of electricity. For comparison, this is equivalent of about 750 to 1,000 wind turbines, more than twice the size of the world's largest wind farm.

Additionally, wind turbines have an average output of only about 30 percent of the maximum power capacity, only providing electricity when wind it. speeds are able to support Thus, they consistently provided the same electrical power generation as North Anna unit 3 require about three times as 2,000 many wind turbines or to 3,000 turbines.

I contend the environmental impact of one modern state-of-the-art nuclear reactor is much less than the impact of 3,000 wind turbines covering 100 acres per turbine or over 300,000 acres total.

Additionally, on a hot, steamy, windless day, when power loads from air conditioning are at a peak, wind power is not available. However, North Anna unit 3 would be online providing 1,500 megawatts electricity all day.

If we compare a nuclear reactor to solar generation, it would take at least 12,000 acres of

solar rays to produce a maximum electrical power output equivalent. But, once again, solar is not always available, especially at night. And the average output is only 20 percent of the maximum capacity. Thus, over 60,000 acres of solar rays would be needed to consistently produce the same output as one nuclear reactor.

Of course, the largest solar farm currently planned to be built would only yield about 80 megawatts of electricity and at an estimated cost of about half a billion dollars.

Note also that most solar facilities are being built in the western United States, in the desert, where there is no snow and ice. Thus, on an overcast snowy and icy day on the East Coast during a peak heating load, solar power is not available. However, North Anna unit 3 would be online providing 1,500 megawatts of electricity day and night.

Why I applaud renewable sources, such as solar and wind, and believe that we must continue to build more of these kinds of plants, the point I am making is that they just cannot keep up with the current growth in electrical demand compared to other electrical generation sources, such as nuclear.

Additionally, the size of their footprint

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leads to an environmental impact that could be much greater than that of a new state-of-the-art nuclear power plant, such as North Anna unit 3.

Let us look at electrical generation costs. Since the year 2000, nuclear power has surpassed coal as the cheapest method of electricity production.

We do admit these costs are based on the current fleet of nuclear power plants, which have long since paid off most of their capital costs. However, since global warming has become an issue. There will come a time soon in this country where we will have some sort of a carbon emission cap and trade program in place.

Under this scenario, the cost of generating electricity from new nuclear plants will be much slower than the cost from other sources, such as coal or natural gas. This is because nuclear power plants have zero emission of carbon dioxide during production of electricity.

In fact, nuclear power provides the largest source of emission-free electricity, making up over 73 percent of the total emission-free electrical general in the United States. The other primary source of emission-free electricity, at 24 percent, is

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hydroelectric. However, hydroelectric capacity in this country is about tapped out.

To put all of this in perspective, it is estimated that the new North Anna Power Station unit 3 would reduce greenhouse gas emissions by the equivalent of taking 1.5 million cars off the road compared to conventional power production sources.

In this discussion, it must be noted that every method of electrical power generation has its advantages and disadvantages. Nevertheless, I personally believe that if one looks at all of the facts associated with nuclear power generation, that its advantages by far outweigh any disadvantages, especially in the environmental arena.

Regardless of what opinions others may conclude in this regard, we still face the serious issues of both global warming and that of providing a secure energy supply to meet U.S. demand. We will need to use all of the technologies available at our disposal, such as renewable energy sources, clean coal technology, nuclear energy, nuclear fusion, reduced auto emissions, conservation efforts, et cetera.

While we, similarly, cannot rely solely on nuclear power as an only resolution, we also cannot ignore it as a necessary part of the solution. Thus,

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I fully support Dominion's combined license application for the North Anna Power Station unit 3 as a first step in the battle of fighting global warming.

Thank you.

FACILITATOR CAMERON: Okay. Thank you.

And is our other professor here from University of Virginia? We're going to go to Elena.

Okay. We are going to Donal Day, and then we are going to go to Elena Day. Donal?

MR. DAY: Thank you, Chip. My name is Donal Day. And I am here as a member of the Piedmont Alliance for Clean Energy. While I didn't bring my CV, just let me tell you that I am a faculty member, I have been for more than 20 years, a nuclear physicist in the Institute of Nuclear and Particle Physics at the University of Virginia. And I oppose this application.

I believe the entire process is flawed.

And I will give you a few reasons, some of which have already been pointed out by Paul Gunther and Jerry Rosenthal.

One of the main problems I have is that this whole process is being run by the NRC. And I think we have to question its competency to regulate this industry. We only have to remember Davis-Besse.

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is Davis-Besse а reactor in which corrosion due to poor water chemistry came within a millimeters of revealing the reactor reactor building. And when this was exposed, the NRC reacted and ran around the country, finding, in fact, that this corrosion had occurred at many reactors, including North Anna. And the only reason a disaster was averted wasn't because of the NRC but, rather, because of different corrosion rates at different reactors around the country, also the question of national security.

If you go outside here, you see thousands of dollars worth of glossy material about national security and supporting force on force at the reactors. Well, if you go to You Tube, you will find videos of reactor guards sleeping on duty. And this is an industry. This is a responsibility of the NRC.

So I wonder how this review is going to account for these sleeping guards, for the failure of the NRC to do its job; or, in fact, for Dominion. I mean, these corrosions at the reactor facilities were under the eyes of the safety watchdogs hired by, paid for by Dominion or elsewhere at Davis-Besse by other reactor operators.

And one of the biggest problems I also

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have -- and it has been pointed out by others, but this application is really due to the failure of imagination and not only the failure of imagination but also the lust for the easy handouts being promoted by the current administration in Washington. And I might add these may disappear in the near term.

This is not a vision for the future. It's trying to keep the past current. Nuclear power technology is an old technology. It's an old technology that belongs in the past.

Let me also point out that nuclear power leaves two-thirds of the energy it produces at the plant before one watt goes down the wire. So to the new students at Virginia Tech, I think the professors are going to have a hard time explaining to them why they're promoting an industry that dumps two-thirds of the energy at the site before it delivers one watt to somebody's hot water tank that needs a very low form of energy in order to accomplish the task.

This is hardly a program for a rational and sustainable energy future. It is time for us to think creatively and to think outside the box. The future is not nuclear. It's not 1,000-megawatt or 1,500-megawatt plants located in outlying areas. It's production matched to the needs.

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Most of the energy used in your home is a very low-quality. It is a crime to take electricity and to heat your home. It is a crime to use electricity and to heat your hot water. This is a mismatch.

You're taking the highest form of energy and using it for a very low-grade use. And to suggest that we need more nuclear power to do similar tasks is, in fact, I think irresponsible. More so our energy falls on the surface of the Earth in one hour than the entire humanity uses in a year. It's time for us to get creative, and it's time to think outside the box.

Let me also point out to all of these people who talk about the windmills only producing when the wind blows and solar only producing when the sun shines.

Dominion operates one of the largest pump storage facilities in the world because not all of the time they run their nuclear power plant, people are using the energy. They pump water uphill and store it very effectively and run it downhill. There is no reason that that same technique can't be used for wind or for solar.

Thank you very much.

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FACILITATOR CAMERON: Thank you. Thank you, Donal. Thank you.

Elena?

MS. DAY: I'm just going to be very brief.

I think that the environmental impact statement has failed to address the consequences of what might well be permanent storage of high-level waste at Lake Anna in the irradiated fuel water pools as well as in dry casks.

The high level waste continues to accumulate. And the new nukes will be generating more waste. And, as we have heard, Yucca Mountain is not likely to be open any time soon. And, furthermore, Yucca can only accept waste generated by nuclear power plants that is generated before 2010. It will be used up by the waste that is produced by 2010.

So Dominion continues to bet that this high-level waste is going to go somewhere else. So I feel that this is irresponsible for Dominion as well as the NRC to entertain construction of new nukes when the high-level radioactive waste -- and now since Barnwell is also going to close in June 2008, the low-level radioactive waste issue remains unresolved. In fact, recently a week ago in California, the legislature of California denied the nuclear industry

to be able to site any new nuclear plants in that state unless the waste issue is resolved.

How much low-level waste does Dominion plan to store on Lake Anna shores? These are my concerns. This should be addressed in the EIS. How many dry casks does Dominion plan to site on the shores of Lake Anna? How will it be expanding water storage capacity for spent fuel? Will construction of more pools physically disturb lake water? Will more waste increase the possibility of accident in the irradiated fuel pools?

And if and when a repository for high-level waste is licensed, how will the waste be transported safely along what routes? And is an evacuation plan included to safeguard residents in Louisa and along transportation routes in Virginia? Are water pools and dry casks accumulating on the lake targets for terrorist attacks? Will additional storage be adequately protected?

I'm also concerned about the hazards of tritium exposure. And we also note that this tritium is routinely released into the lake and into the atmosphere. How would Dominion and the NRC act to limit tritium releases?

Both Dominion and the NRC must continue to

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study and make public the effects of tritium exposure on humans and flora and fauna who live in and around the lake and downstream.

I am outraged that Dominion continues to discharge water without an upper temperature limit into Lake Anna's cooling lagoons. Dominion's activities are not in compliance with the federal Clean Water Act, which protects surface waters of the United States. And, indeed, the waters of Lake Anna are surface waters of the United States.

The ill effects of high water temperatures in Lake Anna have been well-documented. It's irresponsible again for Dominion and the NRC to continue with an application to site new nukes on an already environmentally and hydrologically stressed watershed. And soon you're going to find us humans competing with the nuclear reactors for water, for our sustenance.

Finally, we are again facing the very real possibility of uranium mining and milling in Virginia, which Allison spoke about. There are uranium deposits not only in Pittsylvania County but in Orange, Madison, Fauquier, and Culpeper Counties.

The drive by Dominion and other nuclear utilities to build new reactors has made uranium

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mining attractive once again after a 25-year ban in our state.

Mining and milling of uranium have never been attempted in а wet climate like ours. Furthermore, the history of mining and milling of uranium in our western states is one of high cancer The radioactive tailings love to continue to rates. disburse their radioactivity as the wind blows. the uranium fuel cycle from start to finish leaves a huge carbon imprint, a footprint, or whatever.

In fact, it takes two coal plants at Paducah, Kentucky to run the facility that processes the uranium into fuel rods. So, regardless of the claims of the industry that building nukes to save us from greenhouse gas emissions and global warming, you know, it's not true that uranium cycle from start to finish leaves a huge carbon footprint.

I think Dominion's plans for nukes will only associate it with the defoliation of our pristine rural Virginia counties if mining is allowed in the Commonwealth. It is time for Dominion to stop its quest for new nukes and, instead, commit to programs of conservation, efficiency in conjunction with renewables as they come on line.

I think this is possible. The R&D for

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renewables is minimal. Come on now. The handouts for 2 nukes are gross. And Dominion has plenty of money and plenty of power in the Commonwealth as well. FACILITATOR CAMERON: Okay. Thank you, Elena. 5 We are going to go to Betty Bush and Miguel And then we are going to go to Lisa Stiles, 6 Dale Jones, Doug Smith, and Barbara Crawford. And 8 this is Barbara Bush. MS. BLACK: Hello. I am Betty Black. 9 I'm speaking for --10 11 FACILITATOR CAMERON: How did I get that? MS. BLACK: Not Bush. I am speaking this 12 evening as a representative of the Piedmont Group of 13 14 the Sierra Club, which has over 1,200 members residing in central Virginia. 15 Sierra Club is opposed 16 construction of a new reactor at the North Anna Power 17 Station. We believe that the on-site storage of 18 19 radioactive waste poses unreasonable environmental and security risks for the people of Virginia. 20 21 Building new reactors will increase these 22 risks and leave our children and grandchildren with a horrible burden. The North Anna Power Station already 23 24 threatens the water resources of this region.

One, water temperatures have reached as

high as 106 degrees Fahrenheit in the Lake Anna cooling lagoons and 93 degrees in the main lake. There are no limits on these water temperatures. The human brain eating Naegleria fowleri amoeba was found in both the main reservoir and the cooling lagoons. This same amoeba caused deaths in Florida, Texas, and Arizona last summer. It proliferates in water around 86 degrees and thrives especially well at 95 degrees and above.

Let's see. This is the third. PCBs have been found in Lake Anna, resulting in a fish consumption advisory by the State Health Commissioner.

Four, a major clam die-off occurred last year, but no study has been conducted by a certified -- I can't read that -- matacologist. Does anybody know what that is? Malacologist -- okay -- to determine the health of the muscles and clams in Lake Anna.

Lake Anna is the smallest body of water in the eastern United States that provides water for cooling a nuclear power plant. The two operating reactors are putting a tremendous strain on the water resources of central Virginia, particularly during times of drought. Additional reactors will threaten the water that Virginians use for drinking,

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1	agriculture, and recreation. They will put increasing
2	pressure on the ecosystem of the York River watershed.
3	I'm almost finished. We support the legal
4	appeal that has been filed in state court by the Blue
5	Ridge Environmental Defense League and the People's
6	Alliance for Clean Energy. Permits for new reactors
7	should not be considered until this issue has been
8	resolved.
9	The NRC should take the advice of the
10	governing bodies of the City of Charlottesville and
11	Spotsylvania County when they passed resolutions
12	calling for a moratorium on the construction of any
13	new reactors.
14	Thank you for listening to my comments.
15	FACILITATOR CAMERON: Thank you, Betty.
16	And did you say you are from Sierra Club?
17	MS. BLACK: Yes.
18	FACILITATOR CAMERON: Is that Sierra Club?
19	Okay.
20	MS. BLACK: I'm sorry.
21	FACILITATOR CAMERON: Thank you. No.
22	That's fine. Well, now that I know that Barbara Bush
23	isn't here what? Thank you. Thank you, Paul. And
24	this is is it Miguel Valdez?
25	MR. AU CLAIR-VALDEZ: Close. I am Miguel
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Au Clair-Valdez. I am from Charlottesville. I have two points I would like to address. They have been touched on.

The first is as a neighboring city council just down the road, there was a resolution signed and sealed on December 17th. And I would just like to read the most germane section. And that is, "Now, it is resolved therefore, that the City of Charlottesville shall petition the Commonwealth of Virginia to create a mandatory renewable portfolio standard for public utilities and, further, to place a moratorium on new coal-fired power plants, such as proposed for Wise County and expansion of existing nuclear power plants, such as proposed for North Anna until there has first been a significant expansion of investment in energy conservation and efficiency efforts and development of renewable energy alternatives."

The other thing I would like to speak about that has been discussed is the water issue. Last October the Virginia Department of Environmental Quality reissued the 316(a) variance to Dominion, which permitted the utility to continue to dump water used to cool the nuclear generating units at Lake Anna, which have been discussed. There has been

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reference to the cooling lagoon, reaching temperatures of 106 degrees Fahrenheit.

Now, as a retired administrative law judge, it would seem to me that if we go with the same standards that the applicants used when they first came in, we are missing the point.

I can't imagine that Dominion came in and say, "You know, we've got this great cooling system. We're going to have 106-degree Fahrenheit water in our cooling lagoons." I can't imagine they said that.

So they have proven, in fact, that there are some real suspect operations in terms of what they are doing. So if the NRC again uses this neutral kind of standard with somebody who already has one strike against them, they're missing the boat.

They've go to say, "Look, the applicant has not performed satisfactorily in the past. The stakes are so high we are actually going to have a presumption against them." And until they can come up with convincing evidence to the contrary, they're not going to get a pass from us.

The other thing is that this temperature is in violation of the Clean Water Act since Lake Anna, as has been pointed out, is surface water of the U.S.

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Now, I'm part of the People's Alliance of Clean Energy. Also we heard Lou speak from the Blue Ridge Environmental Defense League. Three residents of Louisa have petitioned, have filed suit against that decision of reissuing 316(A) and hopefully will be successful. We are confident about that.

But, in the meantime, I am concerned about the condition of the quality of life. And the drought conditions in the past summer decreased the level, the lake levels, as well as downstream flow. Another reactor would simply increase the need for cooling water. More hot water will be released in the lake, which will increase evaporation and further decrease lake levels as well as downstream flow into the North Anna and Pamunkey Rivers.

I have canoed in those rivers. I would really like the opportunity to be able to continue to do that, to have my children do that and my grandchildren to do that. And the only way that can be guaranteed is for the NRC to make sure that they protect that natural resource and not provide it for wasteful, inefficient, and consumptive new and old nuclear units.

Thank you.

FACILITATOR CAMERON: Thank you, Miguel.

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Thank you. Yes. Thank you. That would be great. Thank you.

And now we are going to hear from Lisa, Lisa Stiles.

MS. STILES: Hello. A lot of us have been here before. I noticed as I was preparing my remarks I had to change every year how many years I have worked in the nuclear industry. This year is 13. The original one in 2005 was 10.

My name is Lisa Stiles. I live in Henrico County. I am a nuclear engineer with degrees from the University of Missouri-Rolla and the Massachusetts Institute of Technology and, as I said, have been in the nuclear industry for 13 years.

I am also the President of the International Youth Nuclear Congress. IYNC was formed in 1998 and is a network of young professionals in over 50 countries with the goals of developing new approaches to communicate the benefits of nuclear power, promoting the peaceful uses of nuclear science and technology and transferring knowledge from today's leading experts to the next generation.

IYNC supports the expanded use of safe, clean, and reliable nuclear power as part of a balanced energy portfolio that will serve the world's

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growing energy needs while minimizing the impact to our environment.

IYNC supports Dominion's combined license application and NRC's detailed review process that solicits public participation and ensures that all safety, licensing, and environmental issues are resolved prior to the majority of the capital investment to build is made.

Two issues not addressed in the early site permit are detailed in chapters 8 and 9 of the COL application. And those are the need for power and evaluations of the alternatives. Clearly the need for 4,000 megawatts of new generating capacity, with 2,000 of that being base load, is well-documented and validated by the PJM Interconnection Corporation.

Also, the evaluation of the alternatives available to meet future energy needs show that to best meet Virginia needs, nuclear must play a large part. Those items and the others considered as part of Dominion's ESP permit successfully fulfill the environmental portions of the licensing regulations. In fact, Dominion's ESP license is an example of how well the licensing process is working.

When the local community voiced its concern over escalating water temperatures on the hot

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side of Lake Anna, Dominion revised its application to include a closed hybrid cooling system. I would like to add here that one of the benefits of the hot side is I can still go swimming in the middle of November.

Given that success story of the licensing process, I find it ironic that the new talisman of anti-nuclear groups appears to be water consumption and drought. Unfortunately, they have been successful in getting media outlets to carry their erroneous message that nuclear power plants are particularly vulnerable to shutdowns during periods of high temperatures and drought. In fact, nuclear power plants are among the most reliable power options during extreme weather conditions. But let me set up the overall picture.

All power plants that use steam to turn a turbine and a generator shaft rely on water. Ninety percent of our electricity is made this way: with coal, natural gas, and nuclear plants. But the amount of water actually consumed is small relative to the amount of power produced and is very small compared to other uses.

Electric power generation accounts for only about three percent of freshwater consumption in the U.S. The largest portion, 80 percent, is used for

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irrigation. And the next largest consumption is for residential use, at seven percent.

There is nothing unique to nuclear power plants about the possibility of reducing electricity production because of decreased water levels in a drought or a severe heat wave. Whether this happens depends on what is constrained in local, state, and federal permits and the assumption of flow rates, temperatures, and water levels used in the safety analyses.

In the few recent cases, the nuclear plants have had to reduce power. It was not because they have had trouble operating. It is because they are ensuring they meet the conditions of their licenses and permits.

And there are many things that recent claims and stories didn't mention, such as though the last August heat wave is often mentioned, most stories fail to point out that during the hottest weeks, the nation's nuclear power plants were running at 98 percent capacity factor.

During California's heat wave in 2006, in which 60 people died, San Onofree and Diablo Canyon nuclear power plants were running at full output. On the other hand, the capacity factor for the state's

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wind farms was an abysmal four percent.

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This performance for wind turbines during a heat wave is not unusual. According to the Energy Information Administration, capacity factors for wind farms are always the lowest during the hottest months of the year.

Other widely touted alternatives have problems, too. Hydroelectric and thermal solar use more water per megawatt hour produced than nuclear. The already low efficiency of solar photovoltaics drops even further at high temperatures. And we certainly don't want to depend on being able to grow corn, sugar, or switch grass, or anything else during a prolonged drought.

The single largest nuclear facility in North America is in the middle of the desert does suffer Arizona. And it not from any drought-related simply setbacks because water conservation was built into the design.

In fact, nuclear power plants are one of the best alternatives if we are looking at a future of higher temperatures and lower water levels because they can be designed to minimize water usage and can also be modified later if conditions drastically change; hence, the number of new plants being proposed

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with wet and dry cooling towers and older plants being retrofitted with helper cooling towers.

Consider the other end of extreme weather. When the Northeast United States get hit with several blizzards in a row and the trains carrying fuel can't get through, and natural gas prices are through the roof, and all the while the nuclear power plants are humming along better than ever, I just find it hard to believe that conservation, solar, wind, corn, and switch grass are going to save the day.

Just like nuclear power, they all have their place in a diverse energy portfolio. They all have their pros and cons. But none alone is the answer to our energy and environmental problems.

With that, I come back to what has become my mantra, that as citizens of this nation and the world, we need to evaluate all energy technologies with the same set of objective criteria, whether they relate to lifetime emissions, economic issues, -- I started making notes as the speakers were going on -- waste streams, or environmental footprints.

When we consider all of those criteria objectively, then we need to thoughtfully deploy all our energy technologies so we meet the needs of all members of society, especially those that are

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disadvantaged and minimize the impact to our environment. Ιf we do that thoughtfully and find that we need all energy carefully, we will technologies, including nuclear.

As one speaker put it, nuclear is not the cheapest or the cleanest. In this country, that would be hydro. But, in addition to the limit imposed by the number of adequate sites for hydroelectric power, consider that per-kilowatt hour produced, as I said before, hydro consumes much more water than nuclear. And as far as safety, far more people have been hurt or killed by dam breaks in this country than by nuclear power plants.

What I am saying is that there is no one energy technology that is safest, cleanest, and cheapest. We have to thoughtfully maximize the benefits and minimize the risks of each one to solve our energy and environmental problems.

I was going to end here, but then I started taking notes with all the other speakers. So I just wanted to make a few small points. Dr. Bryan, is he gone? Darn it. I was going to let him know. He mentioned that Three Mile Island is considered as a reference case in either the ESP or the COL, wherever he had his comment. And I wanted to tell him that

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Three Mile Island was а PWR, pressurized water 2 reactor. The reactor we 3 are proposing or 4 Dominion is proposing here is ESBWR, a boiling water What happened at Three Mile Island can't 5 reactor. happen at a boiling water reactor. 6 Life cycle emissions. Oh, well. Am I 8 getting short on time? If I had time, I wanted to life cycle emissions analysis: 9 address the real 10 nuclear waste compared to other energy technologies; 11 government support compared to other technologies; 12 radiation sources and benefits; Davis-Besse; energy security versus energy independence; the real story on 13 14 the Duke enrichment facility; how the waste heat treatment facility really works; and, of course, the 15 circle of life, but I think I have to end here. 16 Thank you. 17 (Applause.) 18 19 FACILITATOR CAMERON: Okay. Thank you. 20 Thank you, Lisa. 21 And Dale, Dale Jones, and then Doug Smith and Barbara Crawford. This is Dale Jones. 22 23 MR. JONES: Hi. My name is Dale Jones. I 24 have a residence right on the edge of the Lake Anna. 25 I thank you very much, Dominion.

I am President, current President, of the Lake Anna Boating and Recreation Association. Lake Anna Boating and Recreation Association has concerns that the proposed cooling towers for the third nuclear reactor at Lake Anna will create an additional adverse impact when lowering the lake levels, lower lake levels when compared to the safety and welfare of the estimated 500,000 boating and recreation enthusiasts that live at and visit the lake.

Lake Anna has hundreds of stumps and boulders that were not removed prior to the hurricane filling the lake. When the lake level starts to decline below the 250-foot level, many hazardous conditions are created. The reduced water level has already caused numerous boating accidents on the lake and from these submerged objects. During the drought in years 2002 and 2007, I observed from my pier as many as 10 or more boating mishaps a week.

Unsafe low water conditions cause many of the people that previously boated here to look elsewhere for the boating recreation. This causes a negative impact on our local business community. Many Lake Anna businesses rely on the sales that are made in the spring, summer, and fall months. The low water condition affects real estate, construction, marinas,

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dock builders, restaurants, banks, fishing guides, boat sales, repair shops, et cetera.

The business owners that we had personally spoken to -- and we haven't spoken to all of them -- have all concurred that the low lake levels will adversely impact their businesses.

According to Dominion Resources, a proposed wet/dry cooling system will remove up to 24 million additional gallons of water from the lake per day except when they are in the water conservation mode. In the conservation mode, they will evaporate 16 million gallons of water a day. This would cause the lake water level to drop more than 12 inches of water annually.

During the past ten years, we experienced several periods of drought that reduce the lake levels from the requisite 250 to below 245 feet level. During the drought in 2007, the lake level dropped 3 and a half feet. Further adding to the problem is a requirement of dumping a minimum of 26 million gallons of water per day from the lake to supply the businesses located below in Hanover County.

Presently there are over 40 million gallons of water being removed daily from the lake over the dam. And the lake is still below 250 feet.

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A comprehensive study should be completed to evaluate the amount of water that is flowing into the lake when drought conditions prevail. Obviously for the last 8 years, there has been insufficient water flow to maintain the 250-foot level during the critical summer months.

The consumption of an additional 24 million gallons of water a day only aggravates an already serious condition. If the proposed cooling towers are to be used, then consideration must be given to other options to conserve and/or send water back into the lake for environmental concerns and public safety as the lake was originally designed.

This is required to help facilitate the needs of the nuclear power plant, control water for usage in Hanover County, provide safer boating conditions on the lake for recreation, and ultimately help restore and promote business for all of the communities.

The Lake Anna Boating and Recreation Association recognizes and appreciates the many benefits that are derived from the Dominion Resources, including construction of the lake. Many of our members, friends, and neighbors enjoy employment, which we have seen here tonight, a lot of them. They

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have enjoyed home ownership and business due to their presence.

In the past, we have considered them to be a good neighbor and would expect that in the process of planning for future business expansion, Dominion Resources would be considerate of the needs of the public and continue to help maintain a healthy lake condition, as promised, rather than purposely destroy them. The maintenance of the 250-foot water level will only help ensure the continued success as well as others in the community.

Now, outside the written paperwork, I would like to make a point. This summer we are going to educate probably about 40 people in the use of personal watercraft. I don't know how many of you people are boaters, but a boat that is traveling 35 to 40 miles an hour and hits a solid object and stops suddenly has a terrible force in throwing people over the side of the boat and the front.

Probably half of these people we are going to educate are going to be kids, children around 15 or 16, 17 years old. They have no idea what to expect that is going to hit them three inches below the water.

To give you an example -- and it's kind of

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graphic -- in the year 1982, while boating in the Patuxent River in southern Maryland, we happened to see a boat hit -- actually, we didn't see it hit it because it was buried three inches below the water -- a telephone pole. How it got there we don't know. The boat flipped, went up in the air, exploded, decapitated the driver, and the son was never found.

That's just an example, an extreme example, of what we could expect with all the conditions that might happen when this water level drops. I think we need to look at the situation and make sure that we correct it.

Thank you.

FACILITATOR CAMERON: Thank you. And this is Doug, right, Doug Smith? Okay. Then Barbara Crawford, and then we are going to go to J. R. Tolbert and Pratt Cherry if Pratt is still here. Go ahead. Sorry.

MR. SMITH: Thank you, Chip.

I am Doug Smith. I am a resident of Louisa County. I own property on the Lake Anna waterfront. And I am Vice President of the Lake Anna Civic Association and Chair of their Lake Level Committee.

LACA promotes water safety, monitors water

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quality, and advocates the interests of residents and users of Lake Anna. LACA supports the proposed third unit at Lake Anna. We believe it is good for the community, the State of Virginia, and the country.

The new unit will bring 750 new jobs to the local area, additional tax revenues, and reduce the dependence on foreign oil, providing enough electricity to provide 375,000 homes.

We applaud the NRC in its review of the environmental impacts as a part of the early site permit process. However, we have concerns about the impact of the operation of the third unit that we would like the NRC to focus on in the development of the new supplemental environmental impact statement.

First, in order to support the operation of a new unit and 750 workers hired to operate and maintain it, Dominion plans to build a second waste treatment plant to locally process human and other wastes. The treated effluent of that plant, like the effluent from the existing waste treatment facility, would be dumped into Lake Anna at the discharge canal.

Lake Anna is not a free-flowing stream.

The added nutrients from the effluent will remain in the lake and accumulate over the years. The build-up of nitrates can produce algae blooms that produce fish

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kills and encourage plant growth, such as Hydrilla, that can choke entire bays.

An alternative system that would store the effluent and use it to water grass or wooded areas is available. It is currently in place in the Town of Louisa and is planned for the golf community called Cutalong on Lake Anna.

We ask the NRC to review the cumulative impact of dumping sewage effluent into Lake Anna. This is legitimate because it is an unresolved issue in supplement number 1. And, as far as I can tell, we have never looked at the accumulated effect of the dumping of the sewage effluent.

We would like Dominion to consider an alternative method and include the existing sewage treatment facility effluent so that no effluent is dumped into the lake at all.

Second, low water levels on Lake Anna expose safety hazards to thousands of recreational users of the lake, create increased erosion along the shoreline, and damage wetlands and other aquatic life.

Every effort to mitigate these impacts should be carefully considered. We ask the NRC to focus its attention in the combined operating license and environmental impact statement on the impact of

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low water levels on the lake, its users, and its ecosystems.

The third unit will consume 16 million gallons a day in the water conservation mode, resulting in the loss of 1.4 inches of lake level per month. If the third unit were operating this last year, the lake would currently be 15 inches lower. Its low point last fall would have been an additional nine inches, making this more than four feet below normal.

The existing environmental impact statement assumes one drought every 20 years. We have had 2 official droughts and reached the drought condition of 248-foot level on the lake in 5 of the last 8 years. Clearly the water level modeling is suspect.

The ESP EIS claims that wetlands impact is small because as much wetland is created as is destroyed, but is silent about the impact of what appears to be an almost annual reduction to the 248-foot level.

The NRC should review modeling done in the environmental impact statement to incorporate new actual data and do further analysis of deviations from the 20-year averages.

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Additionally, inflow assumptions have not been field-verified and should be reviewed. Dominion has developed new data, including actual surveys of a portion of the wetlands on the lake. We ask that NRC carefully review and use this new data to determine if it alters its earlier impact assessment. Additional steps can and should be taken to mitigate low water level impact on safety, erosion, and ecosystems on the lake.

In summary, the Lake Anna Civic Association supports the third unit, but we have concerns that should be addressed in the environmental impact statement. We are concerned about the dumping of sewage effluent into the lake and the impact of low water conditions on safety, erosion, and aquatic life.

We ask the NRC to review long-term impact, and we ask Dominion to consider a new alternative to include the dumping of effluent. We are concerned about the impact of low water levels. New information is available to better estimate low water level impacts, and steps can be taken to mitigate those impacts.

We ask the NRC to focus its new efforts on reviewing the modeling assumptions made on water levels, performing further analysis of impacts on the

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lake and considering potential mitigation efforts. 2 Thank you. 3 FACILITATOR CAMERON: Okay. Thank you. 4 And thanks to the civic association also. 5 Barbara? And then we're going to go to J. R. Barbara, Barbara Crawford? 6 MS. CRAWFORD: Yes. My name is Barbara I live here in Louisa County, about six 8 Crawford. miles from the nuclear power plant. 9 10 Before I give my comments, a gentleman by 11 the name of George Heino prepared a statement for And he was injured this afternoon, I don't 12 tonight. think seriously, but he is unable to walk. 13 14 asked me to read his statement into the record. "As you are well aware, Virginia has been 15 in drought conditions for some time. This has been 16 true at Lake Anna, where water levels have been down 17 from 2 to 5 feet in 5 of the past 8 years, 3.5 feet 18 19 this year. "The majority of docks at Lake Anna only 20 21 have three feet of water. When water levels are down 22 two feet, the lake becomes unusable for the majority of homeowners. 23 "Dominion is now proposing unit 3, which, 24 25 per their documentation, will double the drought cycle

and increase its length from 21 to 40 days. Of course, this occurs when the lake is most used in the summer months.

"Up to 24 million gallons a day will be extracted from the lake." I think he means via the proposed unit 3 cooling through evaporation.

"Dominion, VEPCO, was allowed to build lake their reactors as long as the provides Their proposed design will limit that recreation. Other impacts are unsafe water significantly. conditions, which occur at low water levels; boating hazards; shoreline stabilization issues; impact wetlands; and impacts to business and home values. These issues have fallen on deaf ears. The solution is simple. Although it may cost more, it will ensure Lake Anna continues to be a major state attraction.

"Dominion has proposed dry cooling for potential unit 4. If this were used for unit 3 also, then these major issues would go away. This type of cooling is used in other countries. So we can use it here. We cannot control Mother Nature, but we can control what we do to the lake.

"Your support in ensuring that these issues receive due consideration before it's too late is requested."

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FACILITATOR CAMERON: Okay. Sorry. Не 2 didn't get hurt here, did he? MS. CRAWFORD: Do you mean at this meeting? FACILITATOR CAMERON: Yes. MS. CRAWFORD: All I know is something 6 happened to his knee and he can't walk. 8 FACILITATOR CAMERON: Okay. Well, go Go ahead, Barbara. 9 ahead. 10 MS. CRAWFORD: Normally at these meetings 11 Harry Ruth speaks for the Friends of Lake Anna. 12 is, fortunately for him, out of the country right now enjoying vacation. 13 His statement on behalf of Friends of Lake 14 Anna has been e-mailed to appropriate parties. 15 Ιf there's anyone here who did not get a copy of it and 16 wants a copy of that statement, if you will see me 17 after the meeting, I will e-mail a copy of his 18 19 statement to you. Okay. Based on my analysis, it's clear to 20 21 me that the environmental impact statement, which is 22 prepared as part of the early site permit, needs to be 23 revisited because there have been significant changes and there are critical issues that were not considered 24

or were dismissed as not relevant.

First of all is the on-site storage of spent fuel rods. This environmental impact statement assumes the existence of a federal repository somewhere in this country where all the spent fuel rods can be sent. It gives the example of Yucca Mountain.

Now, you folks from the NRC know that Yucca Mountain is not going to open. I mean, you know it. There's not going to be a Yucca Mountain. Probably reactor number 3 if it's ever built will be decommissioned before there's even a federal repository.

So to only deal with the storage of spent fuel rods as if it's going to be shipped somewhere as dealing with a fairy tale. And you really need in the new impact statement to deal with how you are going to store the spent fuel rods on site at North Anna, not just for reactor 3, but, you know, how are you going to deal with all of that waste that is sitting there?

There are 104 operational reactors in this country today assuming that Millstone is back on. Some of you may have heard Millstone is a nuclear power plant in Pennsylvania that is also owned by Dominion that had an accident last week. And I don't know whether it's back online.

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You know, last month we celebrated if that is the right word. We acknowledged the anniversary of Three Mile Island. And I found it ironic that Three Mile Island made the news almost exactly on the anniversary date. They had a security lapse.

You know, we should not pretend that the nuclear industry is entirely safe. We need to keep our eyes open, and we need to ask you, the Nuclear Regulatory Commission, to be the watchdogs we need you to be.

Another of my major concerns is the lack a mass evacuation plan of sort of in any environmental impact statement. I was born in the shadow of Three Mile Island. Now, granted, when I was it wasn't there yet. during born, But that near-catastrophic incident, my folks were still there. They were not evacuated.

The NRC decided that in the interest of national security, the citizens of central Pennsylvania were written off as collateral damage. I want to believe that that is no longer the policy of the NRC.

I want to believe that there is a plan to get us the heck out of here as fast as possible in the event of a terrorist attack, either on the reactors,

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on the pools of spent nuclear fuel rods, on the dam.

I would like to believe that there is a plan.

And I bring this up whenever we have a meeting. I bring it up in front of the Board of Supervisors. I bring it up in front of the NRC. And I to date have heard nothing.

Now, we finally have sirens that most people can hear. And that is a big improvement. In the last couple of years, when that siren is practiced, it knocks you right out of your socks, and that is terrific. But nobody knows when we head for the hills, get as far away from here as possible. How quickly are all the roads going to be two lanes going one way away from Louisa County?

And I don't have to say it, I'm sure. You know, we need the cooperation of all the surrounding counties, from Hanover; Goochland; Fluvanna; Albemarle; Orange; Spotsylvania; Caroline; and, of course, the Cities of Fredericksburg and Richmond and Charlottesville.

I mean, is there cooperation in this plan?

Does this plan exist? And why doesn't the environmental impact statement talk about it? I think we have a right to know. I feel very strongly about that.

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1	FACILITATOR CAMERON: And are you ready to
2	wrap up?
3	MS. CRAWFORD: No.
4	FACILITATOR CAMERON: Okay.
5	MS. CRAWFORD: Oh, come on. I listened to
6	all those retirees and all those professors from Tech.
7	(Laughter.)
8	MS. CRAWFORD: And you're not going to
9	hush me up. You're not going to hush me up
10	(Applause.)
11	MS. CRAWFORD: because they didn't come
12	here
13	FACILITATOR CAMERON: Well, let's come on.
14	Let's go.
15	MS. CRAWFORD: They didn't come here to
16	talk about what this meeting is about
17	FACILITATOR CAMERON: Okay.
18	MS. CRAWFORD: new and significant
19	changes.
20	FACILITATOR CAMERON: And I have a
21	recommendation for you on emergency planning, too. We
22	have one of our experts back there: Bruce Musico.
23	Bruce? Anybody who wants to talk emergency planning,
24	please talk to him.
25	MS. CRAWFORD: I would love to.
11	

1	FACILITATOR CAMERON: Okay.
2	MS. CRAWFORD: Please don't run away when
3	the meeting is over.
4	(Laughter.)
5	MS. CRAWFORD: I'll chase you.
6	FACILITATOR CAMERON: You're not getting
7	out of here tonight, Bruce.
8	MS. CRAWFORD: I'll chase you.
9	FACILITATOR CAMERON: Okay. Go ahead.
10	MS. CRAWFORD: Okay. All right. I'll
11	move right along.
12	FACILITATOR CAMERON: Okay.
13	MS. CRAWFORD: Central Virginia and
14	especially Louisa County is notoriously drought-prone
15	and water-poor. And Lake Anna is already struggling
16	to sustain reactors 1 and 2 and protect those who
17	live, work, and recreate on and around the lake.
18	Dominion based its location of the power
19	plant on the assumption that there will be drought
20	every 20 years or so. In fact, we have had three
21	major droughts in the past nine years.
22	We are currently experiencing a drought
23	that began last May that is now 11 months old and
24	shows no sign of abating. There are predictions from
25	the weather experts that this drought will continue

throughout the spring and summer.

Lake Anna's lake level has dropped in excess of two feet in five of the past years. This fact alone suggests that the environmental impact statement needs to be revisited.

The NRC needs to stop passing the buck to the State of Virginia and deal with our water crisis. You can't ignore it anymore. The previous EIS gave this issue short-shrift, stating if there is a water problem, it is Virginia's problem. Well, maybe it is Virginia's problem, but for you to say that all the DEQ has to do is tell Dominion to take one or more reactors offline, does it make sense to build another reactor? Does it?

If your solution to water problems is, oh, the DEQ can tell Dominion to take a reactor offline, I mean, come on. It's not going to happen. We're going to continue to have these water problems.

The proposed third reactor will contribute to further low levels at the lake, contrary to Dominion's repeated statements that the hybrid cooling system will not use additional water. According to Dominion's own numbers, the proposed cooling system will cause up to 24 million gallons of water to evaporate every day.

Again, given that Lake Anna is struggling to sustain two reactors, that the ongoing low water levels are causing all sorts of problems for the people who live and work at the lake as well as the many people of the county and beyond who use Lake Anna for boating, fishing, swimming, et cetera, does it really make sense to build another reactor there?

The previous EIS, environmental impact statement, looked at the three counties bordering the lake plus Henrico County -- and that is where Ms. Snipes lives, right? -- I wonder if that is why they don't get Henrico -- and the City of Richmond and Fredericksburg.

Considering that the water that flows over the dam goes into Hanover County and that Hanover County is dependent on that water for sewage treatment plans, private businesses, such as Big Bear Paper Company and King's Dominion, and the health and recreational uses of North Anna and Pamunkey Rivers, I would argue that the new EIS should take a close and hard look at the impacts on that county.

The LLCP, or lake level contingency plan, is a fragile and contentious balance between Louisa County and Hanover County and reflects the competing needs for water.

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1	It is important to remember that the lake
2	was not just built for Dominion to use to cool its
3	power plant. The enabling legislation set forth very
4	clearly that Lake Anna was also created as a
5	recreational lake for the public to enjoy. One use is
6	no more important than the other. And one use; for
7	example, cooling the reactors, cannot be allowed to
8	destroy the lake's other use: its recreational use.
9	You will hear from others tonight or you
10	have probably, I guess, heard from others tonight
11	about the serious problems being encountered right now
12	in the lake because of the lake levels, blah blah
13	blah.
14	FACILITATOR CAMERON: Okay. And, Barbara,
15	I am going to have to ask you to sum up because you
16	have been going longer than most.
17	MS. CRAWFORD: Okay. Well, I talked for
18	three people
19	FACILITATOR CAMERON: Well, yes. Usually
20	we
21	MS. CRAWFORD: for Harry, for George,
22	and for myself.
23	FACILITATOR CAMERON: only let someone
24	talk for one. But it was fine to read that statement.
25	But could you just sum up for us

1	MS. CRAWFORD: Sure.
2	FACILITATOR CAMERON: so we can get
3	everybody else on? Thank you.
4	MS. CRAWFORD: Sure. It's important to
5	bear in mind that when Lake Anna was created, neither
6	Dominion nor any governmental body, whether federal,
7	state, or local, in any way discouraged the public
8	from purchasing land and building homes around the
9	lake. I would argue that there, therefore, exists a
10	responsibility to those homeowners to protect them
11	from the adverse impacts of the power station.
12	Okay. There is misinformation in here.
13	It is in my written statements. We have three housing
14	developments going up there plus three businesses that
15	are going to use a lot of water. You have the
16	information in your hands, and you put down that there
17	was nothing planned. I don't understand how that can
18	happen.
19	Right now Dominion has been ordered to do
20	an IFIM study. That stands for in-stream flow and
21	incremental methodology study.
22	FACILITATOR CAMERON: Okay. Barbara, can
23	we just enter that into the record?
24	MS. CRAWFORD: Okay. Just one more thing.
25	One more thing. When you guys were here in October,

1 you represented to us that, in fact, you would send pills to 2 potassium iodide the Department the 3 And I brought it up to Board Supervisors. I want you to bear in mind we don't have our pills. I think the NRC needs to look at its 6 7 of distributing the potassium iodine pills because we need them. It's part of a level of safety 8 9 that you promised us. 10 FACILITATOR CAMERON: Thank you, Barbara. 11 MS. CRAWFORD: Yes. FACILITATOR CAMERON: And this is J. R. 12 Tolbert. Thank you. 13 14 Is Pratt here? Okay. Great. Go ahead, J. R. 15 MR. TOLBERT: Excellent. My name is J. R. 16 I work with Environment America. 17 Tolbert. promise that I will be brief because I know there are 18 19 a couple of more people who need to speak. The interesting thing that I just wanted 20 21 to bring up is the fact that we have talked a lot 22 about CO2 emissions and the global warming effects of nuclear power. And a lot of people have stood up and 23 24 said that nuclear power doesn't have a net carbon 25 emission, a net carbon imprint.

Let me back up just one second and just say science has already demonstrated that global warming is real. It's affecting us right now. And it's an issue that we have got to take action on immediately. To avoid the worst consequences, we need to stabilize emissions of pollutants within a decade and decrease those pollutants by 80 percent by 2050.

I am just suggesting that nuclear power is not the best way to decrease emissions. It's important to recognize those emissions from cradle to grave. From the point where we begin to take action on mining the uranium, we are making an environmental imprint. Okay? So we have to take that into account when we're considering nuclear energy.

Furthermore, not just a process of the mining of the uranium, but you have to enrich the uranium, the construction of the reactor, the disposing of the waste, which has been pointed out over and over, -- we don't really have a way to dispose of that waste right now -- as well as any changes to the transmission line that would occur.

I know that someone has stood up here and said that there don't have to be any changes to the transmission line, but listening to our introduction this evening, I heard that Dominion has said that we

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will have to change the transmission line. So that's something that needs to be considered.

There are alternatives out there, though, that are not anywhere near as expensive as the nuclear energy is and have lower CO2 emissions than nuclear energy.

If you look at wind power, which everybody has bashed wind power a lot tonight, there is a very interesting study from March 2007 from the Oxford Research Group that just compares the carbon emissions of nuclear power to the carbon emissions of wind power. And, at its best, nuclear power has 4 grams per kilowatt hour more of carbon emissions than wind power and 44 more grams of carbon emissions per kilowatt hour at its worst. So that's one thing to consider.

What do we need to consider? We need to be considering ways to look at energy efficiency. Energy efficiency is a realistic reliable way to do it. And we can decrease our energy consumption by 20 percent and be able to have no net cost to the economy as well as we need to shift to renewable energy.

And, to wrap up, I would say don't just look at the cost of building the plant. Look at the true cost associated with it. Taxpayers are what fund nuclear energy. You fund it when the money comes out

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of your check every week from the federal government taxes. You fund it when you have to buy the power from the utility company. You are what's funding nuclear power. And look at the true cost to people.

So when you are doing this cost-benefit analysis, peel back more than just the look at what the cost is and the economic benefit for the local community and compare what would it be if we didn't have the massive subsidies that are paying for the nuclear energy right now.

Thank you very much.

FACILITATOR CAMERON: Thank you, J. R.

And we have a few people left. And we are really running up into the time when the facility is going to close. So I am just going to have to ask you to try to give us your best brief shot on this.

And this is Pratt. Then we are going to go to Michelle Richmond, Vicky, Joe Montague, Delbert Horn. Then we have a couple of people. Go ahead, Pratt.

MR. CHERRY: My name is Pratt Cherry, and I live in Henrico County. I have worked in the nuclear industry for 25 years. And I represent the Nuclear Advocacy Network. The Nuclear Advocacy Network is a grass roots initiative for the nuclear

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energy industry.

This organization was started just 6 weeks ago. And already more than 2,500 members have joined from across the country. Our members are nuclear advocates for the nuclear energy industry and are willing to take action and voice support for this industry when given an opportunity in a public forum such as this.

I am going to skip a lot of information that has been iterated previously but saying that the nuclear energy is a clean, safe, reliable energy source. It is an important component of a diversified energy portfolio. It is this industry that fuels the American business and industry in this country. There will be excellent job opportunities with the development of North Anna unit 3.

And I want to wrap up by saying that the Nuclear Advocacy Network supports North Anna unit 3 and what it can contribute to the Commonwealth of Virginia.

Thank you very much.

FACILITATOR CAMERON: Okay. Thank you, Pratt. Nuclear Advocacy Network. Okay.

And Michelle Richmond? All right. Go ahead.

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	MS. RICHMOND: GOOD evening. My name is
2	Michelle Richmond. I am with the Clean and Safe
3	Energy Coalition, otherwise known as CASEnergy. Led
4	by our national co-chairs, Christine Todd Whitman,
5	former EPA Administrator and former Governor of New
6	Jersey; as well as Dr. Patrick Moore, co-founder and
7	former leader of Greenpeace, the coalition boasts
8	1,500 members, individuals, and organizations across
9	the nation. And we locally support nuclear energy as
10	well as the construction of new reactors and are
11	actively engaged in generating a public dialogue to
12	inform others about the ways nuclear power enhances
13	America's energy security, growth, and development.
14	North Anna has been a reliable generator
15	of electricity for Virginia for many years. And we
16	hope it will continue to do so for many more in the
17	future. We support the NRC's recommendation and a
18	continuation of the licensing process that would lead
19	to new construction at Virginia.
20	Thank you so much.
21	FACILITATOR CAMERON: Thank you, Michelle.
22	Do you want us to put that in the record?
23	MS. RICHMOND: Yes. I'll give you a clean
24	copy.
25	FACILITATOR CAMERON: Okay. Great. I

think we have Vicky and then Joe Montague and Delbert.

Did he give up? Okay. Vicky? And anybody who is remaining -- and I'll call off the rest of the names.

If you have a written statement, we'll put that in the record.

Go ahead, Vicky.

MS. HARTE: Hi. I'm a representative of Women in Nuclear Global and a 24-year resident of the Town of Louisa. Our organization is supporting approval of Dominion's combined operating license and supplemental environmental impact statement.

We are a worldwide association of individuals focusing on women working professionally in various fields of nuclear energy and radiation applications. Our vision is to make the public aware, especially women, of the benefits of nuclear and radiation applications.

While many of our members are employed in the nuclear energy sector, a lot are a part of research, medicine, agriculture, health care, sterilization, and research on decreasing low-carbon emissions, and creating from nuclear energy. We promote and advance the peaceful use and public view of nuclear technology.

On a scale of zero to 10, 35 percent of

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women -- this is over the world -- opinion leaders rated their knowledge of nuclear power as a level 2 or lower. We have found the most effective way to communicate with women is through education by women. WIN Global has determined that marketing efforts only increase women's distrust of the industry.

With women controlling 80 percent of the consumer dollars spent in North America and with the distress in the industry, this is the most significant hurdle that must be overcome in order to open the minds of women to nuclear energy.

The public perception of nuclear is that there is a growing recognition that nuclear power is the only large-scale generation source that will significantly lower global greenhouse gas emissions.

There is a flyer that I have seen here in Louisa that doesn't say who it's from, but on it, it has one or two residents in the County of Louisa will have cancer. And 50 percent of those one out of 2 will lose the battle and die.

Now, I have lived here for 25 years. And I could tell you that half of the people that I know have not gotten cancer and a quarter of them are not dead.

So this type of information is being

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distributed in the country. And mostly the places I have seen it is where women participate more. And that is because one of the scare tactics. Women, our concern is on our families.

So we look at it from a more emotional view than the technological view. And when flyers like that are distributed throughout the county, you can imagine what people think. Now, they also do not say anything about the surrounding counties that are also on Lake Anna. It just talks about Louisa.

So in the nuclear industry, two-thirds of the world's radioisotopes are used for nuclear medicine and 75 percent of the world's cobalt-60 is used to sterilize 40 percent of the world's medical supplies.

Areva, which is a French nuclear cycle, has achieved carbon neutrality in 2007. Research indicates that with no global carbon control, emissions will triple by 2110.

Should the world act as one to impose a tax on carbon dioxide emissions, that tax might have to increase as high as \$800 per ton of carbon. The ultimate goal of this research is to create an energy-agriculture economy model containing full linkages with the environmental impact, including

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feedback.

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So my final message is that radiation is a part of our life. If used in the right way, it is beneficial. Nuclear industry cares for the environment and all of its activities. It can make an important contribution towards a sustainable energy supply for the future of the world and, in particular, Third World countries.

FACILITATOR CAMERON: Okay.

MS. HARTE: That is it.

FACILITATOR CAMERON: Thank you.

MS. HARTE: You are welcome.

FACILITATOR CAMERON: Thank you very much.

Joe, Joe Montague?

MR. MONTAGUE: Thanks. My name is Joe Montague.

As was mentioned during the introduction this evening, acronyms and metaphors are quite popular and well-used in the context of nuclear power. For example, the term "SCRAM," while describing a well-practiced and regimented procedure for safely controlling a potentially dangerous situation, is often cited as representing the supposed inherent risks and used metaphorically to describe what we should do.

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There are a few acronyms and metaphors that have arisen out of the so-called environmental movement as well. Some appear to be strongly rooted in the land of fruits and nuts. For example, while watermelons appear green on the outside, closer examination often reveals a core that, in addition to being rather seedy, is opposed to the socioeconomic and political systems upon which a free society is based.

At the tremendously overblown risk of exposing myself and the others in this room to the hazards of an unshielded, albeit natural source of radioactive potassium, let's look at another fruit and its associated metaphor: the banana.

This has been used to describe someone who, rather than simply espousing the more local not in my backyard, or NIMBY, philosophy advocates that nobody build absolutely nothing anywhere near anything.

However, to express my support for the plans to construct and operate a safe, economical, reliable, proven asset to the overall energy mix used to make electricity, I would like to also say banana:

Build a Nuke at North Anna.

(Laughter.)

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MR. MONTAGUE: Thank you.

FACILITATOR CAMERON: Okay. All right.

Dan Penn, Bill Murphey, Mark Paul, Dennis Schaible,

Todd Flowers, Gary Muller, anybody. Murphey? Okay.

Come on up. And your name is?

MR. SCHAIBLE: Dennis Schaible.

FACILITATOR CAMERON: Okay. And then we have Mr. Murphey. Okay.

MR. SCHAIBLE: I'll take the first page of boilerplate and put it there. And I must admit at first I am a shareholder in Dominion Resources. And I am a founding member of the Friends of Lake Anna and responsible for giving it its name.

And so I support the power plant on two fronts, but I will have to say I have one overriding concern. And that is that North Anna is supplied by one of the smallest bodies of water supporting a nuclear power plant. And if we add an additional more than 50 percent, unless Dominion has figured a way to suspend the laws of physics and chemistry, we are going to have hotter water, we are going to have less water, and we are going to have lower levels in the lake.

Now, a lot of this can be mitigated by keeping the water levels higher, allowing less water

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to go out over the dam, et cetera, and I would recommend that the NRC require Dominion to come up with proven solutions to the low water conditions before the permits are issued.

That's it. Thank you.

FACILITATOR CAMERON: Thank you.

(Applause.)

FACILITATOR CAMERON: Mr. Murphey?

MR. MURPHEY: Hi. My name is Bill Murphey. I am a resident here along the lake. Everybody has been talking about problems. I would like to talk about a solution.

One of the problems has been the idea of the low level of the lake and the small input into the lake. One of the solutions lies in what Louisa County is already doing. That is getting water from the James River and bringing it over to Zion Crossroads.

What we would like to do is recommend that NRC work with the many other entities that are involved in the water and have the makeup water for the third unit piped over from the James River. Pipes are going to go all the way to Zion Crossroads.

Already have heard about one of the county commissioners bringing water up into the center of the county. What we are saying is for Dominion and Louisa

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County, Fluvanna County, and the James River Authority, along with NRC, work to have the water makeup brought in from the James River.

FACILITATOR CAMERON: Thank you. Thank you, Mr. Murphy. We will put that on the record.

Gene, do you want to say anything to us?

This is Gene Grecheck from Dominion.

MR. GRECHECK: Thanks, Chip.

It's been a long day. And I am not going to stand here and reiterate everything that you have already heard tonight. I do want to thank everybody, particularly those who have stuck it out here all night. It does really demonstrate a certain level of interest and a level of commitment to resolving the many issues that we have here.

So, again, I do appreciate everybody here. I sat here. I've taken notes all night on many of the comments that you have made. And, again, I just want to remind you that, you know, we have been doing this for a long -- I have been in charge of this project since the beginning. You know, we went through the ESP process, and now we are in this.

We did respond to public concerns before about temperature. And I can assure you that we have done everything that we know how to do in a practical

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sense to mitigate the effect of a proposed unit on the lake. And we are obviously always continuing to look at additional features.

Again, thanks for coming out tonight. And let's look to the future.

Thanks, Chip.

FACILITATOR CAMERON: Okay. Thank you, Gene. And thank all of you for your patience. I think we got to everybody who signed up, at least those who are still here.

I want to ask Nilesh Chokshi, who is our Senior Manager for the NRC, to close the NRC's meeting out tonight for us. Nilesh?

MR. CHOKSHI: Well, thank you. And I wish that there were more -- it's so late -- people here so I can thank everybody who participated, but I think it is not only taking time but also actively participating in this meeting and providing diverse perspectives, comments, and concerns. That's why we came here.

And I think, as all of you know, that this is an open and participatory process that is very vital for us to carry out our responsibilities under the NEPA to develop our prepared environmental impact statement for the proposed action.

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So I think I want to close this with reminding you of two important deadlines, which Alicia had emphasized in her presentation. The comment period for environmental scoping comments ends on May And the deadline to file a petition to 16th. intervene is May 9th. And, finally, I think if you take the feedback forms, which are outside, and mail it to us with your comments, that would be great on this, feedback on the conduct of this meeting. So, once again, thank you. And those who

participated, I think it, once again, shows the value of this participatory process. Thanks.

(Whereupon, the foregoing matter was concluded at 11:11 p.m.)

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