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UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

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PUBLIC MEETING

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DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CONSTRUCTION PERMIT FOR THE KAIROS HERMES TEST REACTOR

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WEDNESDAY

NOVEMBER 16, 2022

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The Public Meeting convened via Video Teleconference, at 7:00 p.m. EST, Brett Klukan, Facilitator, presiding.

NRC STAFF PRESENT:

BRETT KLUKAN, Region I, Facilitator

BEN BEASLEY, NRR

PEYTON DOUB, NMSS

TAMSEN DOZIER, NMSS

KEN ERWIN, NMSS

ED HELVENSTON, NRR

DONALD PALMROSE, NMSS

LYNN RONEWICZ, RES

ALSO PRESENT:

TRACY BOATNER, East Tennessee Economic Council

WILLIAM CULBERT

CARMEN DeLONG

RANI FRANOVICH, The Breakthrough Institute

ELIZABETH HARM, The Energy, Technology and Environmental Business Association

PETER HASTINGS, Kairos Power

ALYSSA HAYS, University of Tennessee

JIM HOPF, Citizens' Climate Lobby

PHILIP HULT, Generation Atomic

CHRISTINE MICHAELS, Oak Ridge Chamber of Commerce

GRANT MILLS, University of California Berkeley

RYAN PICKERING, Mothers for Nuclear

MICHAEL RUSSELL

JIM SKELTON, Tennessee Chamber of Commerce and Industry

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P R O C E E D I N G S

7:01 p.m.

MR. KLUKAN: So without any further ado, everyone, thank you for coming tonight and welcome. My name is Brett Klukan. Normally, I serve as the regional counsel for Region I of the Nuclear Regulatory Commission. But tonight I will be serving as the in-person facilitator for this meeting. In that task, I will be assisted by Lynn Ronewicz, who you just heard on Teams, who will be virtually facilitating via the Microsoft Teams app.

As we were just discussing, this meeting tonight is being recorded and transcribed. As such, to help us get a full and clear accounting of the meeting, please stay on mute if you're on the phone or on Teams and are not speaking. We would also ask you please keep your electronic devices silent and any side discussions to a minimum while you are in the room.

It would also help us out greatly if, when it is your turn to speak, if you could identify yourself by your name and any group affiliation, if you so choose.

During the meeting, for those of you participating via Teams, all meeting attendees will

have their microphones muted and their cameras disabled. When we get to the limited question and answer session regarding process, as well as the comment portion of the meeting, those of you on Teams can use the raise your hand function, which is usually up in the right-hand corner of the Teams app and, I think, roughly, the same space on if you're participating via the browser, to let Lynn know that you would like to make a comment or to pose again a question during the limited process question-and-answer period.

Those of you on the phone, and I think we have a couple, can you *5 to raise your hand? That is *5. Once our Teams facilitator, Lynn, enables your microphone, you will then have to unmute yourself, so it's like a two-way door. We unlock one side of it, you have to unlock the other, so that you can then ask your question or pose your comment.

For those who are participating via phone you can unmute yourselves by pressing *6. Again, that is *6.

For those of you attending in person tonight, if you would like to offer a comment this evening and have not already done so, there are these blueish cards, I'm going to call that blueish. We're

not going to waste anymore time to come up with a better color description of the card. There are cards outside. Please put your name on it, and then an NRC staff member will come up and bring it to me to let me know that you, as a member in the in-person audience, would like to make a comment during the comment section, okay?

For those of you on Teams, please limit your use of chat to technical problem-solving questions. I can't hear, I can't see the slides, whatnot. We're not using that as a mechanism to collect comments this evening, okay? So it's there, we've left it on, in case, like, oh, no, where did everything go, I can't hear anything anymore, whatnot. And then someone, one of the NRC staff members who's monitoring the chat will hopefully be able to solve your problems.

If you're having any trouble with the slides and they're not advancing for you, the slides can be found in NRC ADAMS at ML22311A553, or it would just be easier to go to the NRC website, go to the public meeting page, scroll down to today, and they're under the meeting notice and they're linked there, okay?

Now, just some basic ground rules. I ask

you adhere to simple decorum. We respect each other, and if someone is speaking that you don't interrupt them. Simple stuff.

With that said, threatening gestures or threatening statements will, under no circumstances, be tolerated and will be cause for immediate ejection from the meeting. Never had to do that, and I hope tonight is not a first.

If you have something you'd like to give to the empaneled NRC staff -- there is no one standing behind me so I don't know why I did that motion -- please give it to me.

One last item. You know, we're hoping that you fill out the public feedback form which you can find online. Tami will also be willing to send one to you. We don't have any paper copies with us, but there are alternative ways of getting you one of those forms.

Emergency restrooms are just out the doors behind you. The restrooms are off to the left.

Now, so that people on Teams can see your faces, I would ask the NRC staff members who will be speaking tonight to get up to this microphone and then say their name and their job position.

MR. BEASLEY: Good evening. I'm Ben

Beasley, and I'm the project manager for the review of the Hermes construction permit application.

MS. DOZIER: Hi. My name is Tamsen Dozier, Tami Dozier, and I am the environmental project manager for the environmental review of the Kairos Hermes construction permit application.

MR. DOUB: Good evening. My name is Peyton Doub. I'm the deputy environmental project manager and the technical lead for the draft EIS.

MR. KLUKAN: Any other staff members in the room who would like to avail themselves? Okay. I'm now going to turn to those NRC staff members participating online. If you would like, please unmute yourself and say, you know, introduce yourselves at this time.

MR. ERWIN: Hello, everyone. My name is Ken Erwin. I'm the branch chief responsible for the environmental review, New Reactors Branch, and my branch is responsible for review of this application. Thank you.

MR. KLUKAN: Anyone else?

MR. PALMROSE: Hi. I'm Dr. Donald Palmrose. I'm a senior reactor engineer in the branch with Ken Erwin.

MR. KLUKAN: Thank you very much. Any

other NRC staff members who would like to be introduced at this time?

MR. HELVENSTON: Yes, hi. This is Ed Helvenston. I'm an associate project manager for the Kairos Hermes review.

MR. KLUKAN: Thank you very much. All right. Going once, twice, all right. All right. Thank you, everyone. I'm now going to turn it over to Tami to start the NRC's presentation. So thank you again.

MS. DOZIER: Thank you, Brett. And like Brett, I'd like to welcome everyone tonight. I'm glad to see this turnout, so thank you for coming. For this meeting, for participating, as we present to you our draft environmental impact statement for the Kairos Hermes construction permit application review.

As Brett stated, I am Tami Dozier, the environmental project manager. And presenting here with me tonight, as you saw, is going to be Peyton Doub, the team lead or the technical lead for the environmental impact statement, and Ben Beasley. As Ben stated, he is the overall project manager for this review and then the lead reviewer for the, I'm sorry, the lead project manager for the safety review of the Kairos Hermes application.

So next slide, please. So first I'd like to describe our agency for those of you that may not be familiar with the NRC and our mission. The NRC's mission is to protect the public health and safety, promote common defense and security, and protect the environment by regulating the civilian use of radioactive materials. It is important to note that the NRC does not promote nuclear power. We are an independent federal agency with our headquarters in Rockville, Maryland.

Next slide, please. So what are we going to cover here this evening? Well, the first thing we're going to do is to give you a little background and a description of the NRC's review process for a construction permit application and where we currently are in that process. We will be giving you a brief description of what Kairos is proposing to build here in Oak Ridge. Ben will then come up and share with you an overview of the safety evaluation that his team is currently working on that runs parallel to the environmental review and where you can go to find more information about that process.

So during our presentation this evening, my colleague, Peyton, will present a summary of the environmental evaluations that are discussed in the

draft environmental impact statement, or EIS as we will commonly be referring to it tonight. He will present the environmental review team's preliminary recommendations regarding the Commission's decision on whether to grant a construction permit to Kairos.

We will wrap up our presentation by summarizing the various ways that you can provide comments to us regarding the draft EIS. We wish to gather your comments and then take those back with us and consider those as we prepare our final document, and that is the main reason we are here tonight. Your comments help us ensure that we have a high-quality document as we evaluate the federal action that is being proposed, which is the Commission's decision on whether to issue the construction permit.

Next slide, please. So this is a map of the Oak Ridge area, and the large orange area in the center is the city limits of Oak Ridge. Just to the southwest on the other side of Interstate 40 is the city of Kingston, and not far to the northeast, not shown on this map, of course is Knoxville. The proposed site for the Hermes is shown by the star here in the southwestern corner of the area that is encompassed by the city of Oak Ridge. This is just to give those of you not familiar a perspective of

where in Oak Ridge the site is. And as the slide says, it is on a site in the East Tennessee Technology Park.

Next slide, please. Kairos proposes to build the Hermes on land formerly owned by the Department of Energy, or DOE. This site was formerly occupied by DOE Buildings K31, K33, which were both part of the Oak Ridge Gaseous Diffusion Plant, which ceased operations in 1986. Both buildings have been demolished, and the land has been released for industrial reuse, which can be seen in the photograph here.

Next slide, please. So what is a construction permit? Well, it's just like it sounds: it's the NRC's authorization for an applicant to proceed with construction of a nuclear facility. However, it is important to remember that, after the facility that is proposed by Kairos is built, should they receive their permit, an additional application and an NRC review of a final design is needed for an operating license that would approve the operation of the facility. There are two aspects to the NRC's review that must be completed to inform the Commission's decision on whether to issue the construction permit, a safety review and an

environmental review.

Next slide, please. So here we see an overview of the construction permit review process. This step-by-step approach is how our agency meets its obligation. Along the bottom line, I'm sorry, along the top line is how we meet our obligation under the Atomic Energy Act, the safety review. And the bottom line shows how the NRC meets its obligation under the National Environmental Policy Act, or NEPA as we refer to it. And that's shown along the bottom line. The rectangle shape boxes show NRC activities. The ovals indicate times throughout the process that the staff's findings are documented in publicly available documents, such as the safety evaluation report and the environmental impact statement. And note that the starburst areas are places where you, as members of the public, have been and continue to be involved in the process.

In this meeting tonight, we will focus on the environmental portion of the construction permit review. Oh, I'm sorry. I forgot to say that, on the far right, you will see that, at the end of the process, the results of the staff's environmental review and safety review are presented at a mandatory hearing in front of the Commission, and that precedes

the Commission's decision on the application.

And so tonight, we will be focusing on the environmental portion of the review and where we are in our process, and that is soliciting comments on our draft EIS. But before we present a summary of the environmental review, I'm going to ask Ben, the overall project manager for the NRC review and the lead for the safety review, to give a brief description of what Kairos is wanting to build and an overview of the safety process.

MR. BEASLEY: Thanks, Tami. Good evening again. So go to the next slide, please.

So Kairos is proposing to build a 35 megawatt thermal test reactor that will demonstrate key technologies in their fluoride salt-cooled high-temperature reactor, which is leading up to future commercial development. So the reactor fuel is a high-assay, low-enriched uranium in tristructural isotopic, or TRISO form, that is embedded in graphite pebbles. The reactor is a pebble bed reactor, and you can see the illustration of it, and I want to point out that that is not an illustration of the test reactor, that is more of a design for their commercial firm. But it illustrates well the principle of the pebble bed where the molten salt

flows up from the bottom through the pebble bed. The pebbles are buoyant in the molten salt, and so they float to the top. And at the top, there are pebble extraction machines and the salt pumps. And so I chose this illustration over the other illustrations just to illustrate well how the reactor works.

So as I mentioned, the reactor coolant is a molten salt. It's a mixture of lithium fluoride and beryllium fluoride, which we refer to as FLiBe. And the pebbles are injected at the bottom of the reactor. They do float in the FLiBe, as I mentioned, and then the extraction port for the test reactor is at the center on the top of the reactor.

The reactor is moderated and reflected with graphite. It is compact in size. The test reactor is about 10 feet in diameter and 16 feet high. And the safety features of this design include operation at near atmospheric pressure, large thermal inertia, a slow transient response, the TRISO and the FLiBe retention of radionuclides are also important factors there, and the NRC staff is conducting our review considering the safety significance of the various systems in this design.

So next slide, please. So the NRC performs safety reviews for test and research

reactors in accordance with NUREG-1537. So, again, this is not a power reactor, so the set of rules are slightly different. And we follow NUREG-1537 for this review. Areas of the review, and this is just a partial list, include the facility site characteristics, a review of the preliminary design of the facility, a review of preliminary analyses for operation and possible accidents, and we assure that they have a good quality assurance program. Operational programs, like operator training and security and emergency preparedness will be provided to the NRC for review as part of the operating license application.

Kairos submitted its Hermes construction permit application in September and October last year in two parts, and the NRC accepted the application for review and began its detailed review at the end of November last year, November 2021. And to clearly document our safety findings and support an open and transparent process, we will document our safety review in a safety evaluation report. That report is expected currently to be finalized next summer. There will be public versions available before it's finalized so that we can present our safety findings to the Advisory Committee on Reactor Safeguards, and

that should happen next spring.

So that is what I had to say. Turning it back over to Tami.

MS. DOZIER: Thank you, Ben. Next slide, please. So the National Environmental Policy Act, or NEPA, requires federal agencies to apply a systematic approach to evaluate the impacts on the environment of federal actions, and major federal actions, such as issuing a construction permit for a test reactor, NEPA requires agencies to document their evaluation in an environmental impact statement.

So as we talked about earlier, a construction permit does not authorize the operation of a nuclear facility. However, the environmental impact statement does evaluate the impacts from building, operating, and decommissioning the project that Kairos proposes in its application.

Next slide, please. So shown here is the time line for the Kairos environmental review where we took the bottom row of the previous flow chart and we have oriented it vertically. And then we've also presented the dates off to the right of the key milestones of our review. And as you can see from the arrow, we are currently in the public comment

process phase. The 60-day comment period on the draft EIS began on October 7th, and we will remain open until December 6th.

Once the comment period is over, the staff will review all the comments that we receive on the draft EIS, and that includes anything you want to share with us here tonight during the comment period. So based on the comments that we receive, we will adjust our analysis, as needed, to finalize the EIS, and our current schedule is to issue the final EIS in the summer of 2023. The comments and the responses on the draft EIS will be included as an appendix in the final environmental impact statement.

So before I present more information on how to provide comments, my colleague, Peyton Doub, is going to talk a little bit more about the draft EIS and some of the evaluations that were conducted and the anticipated environmental impacts. Peyton.

MR. DOUB: Thank you, Tami. My name is Peyton Doub, and I am an environmental scientist and ecologist in NRC's Environmental Center of Expertise. I've worked with Tami as the deputy project manager and technical lead on the draft EIS. I wrote several sections of the EIS and coordinated input to the EIS from other subject matter experts.

Oh, next slide, please. This slide shows most of the resource areas that we considered in the draft EIS. The draft was prepared by a core team of subject matter experts. It used a scoping process conducted earlier in 2022 to identify those environmental resources and issues that are most relevant. Most of the team comprises NRC staff subject matter experts in the Center for Environmental Expertise. The NRC also contracted with the Pacific Northwest National Laboratory to provide specific specialized services. The core team can access other specialized expertise as necessary in the Center of Expertise and with the laboratory.

The team recognized from the outset that Hermes was a small project proposed for a previously industrialized site whose potential environmental impacts could be successfully addressed using a shorter, more focused EIS than those commonly prepared in the past for licensing new nuclear facilities. Following recent direction from the federal Environmental Improvement Steering Council and Council on Environmental Quality, the team tailored the length and complexity of the EIS to reflect the low potential for significant environmental impacts.

For example, the team recognized that the Hermes project does not call for building intake or discharge structures in surface water bodies. The EIS, therefore, does not include a lot of information on aquatic biota. Because Hermes is proposed for an existing industrial park with existing infrastructure, the EIS does not evaluate potential environmental impacts from building off-site infrastructure, such as roads and utilities or transmission lines.

The team also streamlined the organization of the draft EIS. As an example, the team combined the discussion of the affected environment, direct and indirect impacts, and cumulative environmental impacts into a single chapter, thereby reducing redundancy.

Next slide, please. This slide shows how impacts to the environment are characterized in the draft EIS. Even though, as Tami stated, the draft addresses only an application for construction permit, the team did consider the potential environmental impacts from the Hermes project over its entire life cycle, including construction, operations, and decommissioning. NRC will supplement the EIS as necessary should it receive

subsequent licensing applications for Hermes.

The draft EIS classified impacts into three categories of significance, small, moderate, and large, as shown on the slide, to express environmental impacts using consistent terms. The draft drew a unified significant conclusion for each environmental resource evaluated. That conclusion considered direct, indirect, and cumulative impacts to that resource.

Next slide. The team concluded that the potential environmental impacts to each resource would be small. In other words, the team concluded that the Hermes project would not potentially result in any significant environmental impacts. The team recognized that the project would be small with a short operating life and low usage of resources. The project would be built on a vacant lot in an existing industrial park serviced by existing roads and utilities. Its water demands would be met by municipal water supplies and sewer infrastructure or by trucking water in and out and would not require building intake or discharge structures to rivers, lakes, or other surface water bodies. The project would be confined to previously disturbed environmental lands.

The applicant proposes to use best management practices to control erosion, stormwater, and fugitive dust. Noise levels would be consistent with the existing industrial surroundings. The applicant would comply with all applicable health and safety regulations and be protective of radiological and nonradiological human health.

Radiological impacts would be bound by past NRC analyses protective of human health and the environment. The project would generate only low quantities of waste, and transportation of the waste would comply with NRC and U.S. Department of Transportation regulations. The project would also meet NRC requirements regarding postulated accidents.

Next slide, please. The purpose and need of the Kairos Hermes project are to demonstrate a specific new nuclear power generation technology. The team used a systematic process to identify a range of reasonable alternatives meeting this purpose and need that we could evaluate in the draft EIS. As required by NRC regulations, the draft EIS also evaluated in detail a no action alternative under which the Hermes project would not be constructed or operated. The team determined that, because Hermes is proposed as a test reactor for specific

technology, alternatives involving different fuels or technologies would not meet the purpose and need and, therefore, would not be reasonable alternatives.

The team reviewed a systematic process used by the applicant for evaluating possible alternative sites for the Hermes project. That process identified two sites for detailed evaluation: the proposed site here in Oak Ridge and a site near Idaho Falls, Idaho. The draft EIS, therefore, evaluates an alternative whereby the applicant would build and operate the Hermes project at the site near Idaho Falls termed the Eagle Rock site. The team did not identify any opportunities to reduce environmental impacts from alternative layouts for the Hermes project on the proposed site.

To summarize, the alternatives evaluated in detail in the draft EIS include a no action alternative, the proposed action of building the Hermes project here in Oak Ridge, and an alternative involving building the Hermes project on the Eagle Rock site in Idaho.

Next slide, please. The following slide compares the team's conclusions regarding the significance of potential environmental impacts from the range of three reasonable alternatives evaluated

in detail in the draft EIS. As you can see, the potential impacts from the proposed action and the no action alternative, to all environmental resources would be small. The potential impacts to most environmental resources from the Eagle Rock site alternative would also be small, but the potential impacts from that alternative to land use and visual resources, ecological resources, and historic and cultural resources would be moderate. Building the Hermes project at the Eagle Rock site would introduce visible industrial features to an existing rural setting and could potentially disturb subsurface archeological resources, as well as habitat for protected species.

In contrast, building the Hermes project at the proposed site at Oak Ridge would introduce the new industrial facilities to an already established industrial setting and disturb only lands that have already been disturbed by past industrial development.

The draft EIS concludes that there are no environmentally preferable or obviously superior sites or other alternatives for the Hermes project, as proposed.

Next slide, please. In Chapter 5 of the

draft EIS, NRC staff made a preliminary recommendation to the Commission that the construction permit for the Kairos Hermes test reactor be issued. This recommendation is considered preliminaryuntil we evaluate your comments on the draft EIS. This recommendation is based on information provided in Kairos's construction permit application; consultations with federal, state, tribal, and local agencies; the staff's independent review; public comments; and the assessments that are summarized in the draft EIS. This recommendation is also based on the conclusion by the review team that no alternative site would be environmentally preferable.

This recommendation is only for the environmental portion of the review. As mentioned earlier, there are two aspects to NRC reviews associated with a construction permit application, an environmental review and a safety review. The safety portion of the review is ongoing and will be documented in a final safety evaluation report.

With that, I would like to turn the presentation back to Tami who will proceed in discussing how to access the draft EIS and how to submit comments. Thank you for your time.

MS. DOZIER: Thank you, Peyton. Next slide, please. So we have a variety of ways that you can obtain copies of the draft EIS or additional information. You can contact Peyton or myself at the contact information that is shown on this slide. And if you don't have a pen that you can write this stuff down, please make sure you have -- we have copies of the slide presentation out front. Just make sure you can get a copy of it and take it home with you, and you'll have it there.

And I also recommend that everyone visit our project web page that is listed in the second bullet on this slide. That is a good one-stop-shop for information about this review, both the safety and environmental. Also, another place that has a copy of the draft EIS, a hard copy, is the Oak Ridge Library has been kind enough to give us shelf space, and they have both the draft EIS and they have the Kairos environmental review there, as well. I'm sorry. The Kairos environmental report, as well.

And so if you want to be on our mailing list, please make sure that we have your name and email address on the sign-in sheet that's out front. If you didn't get a chance to fill that out, please make sure that you sign that on your way out. And

also, as Brett said earlier, if you would like to provide feedback for this meeting, not on the review but on this meeting tonight, please let either Peyton or I know and we will, either at the contact information here or tonight, and we will make sure we will send you a copy of that form to send back. Those feedback forms are sent back to another entity at the NRC.

Next slide, please. So here are the ways that you can submit your comments on the draft EIS. First of all, as Brett said, you may provide comments by speaking during the comment portion tonight. We wouldn't be considering the question and answer portion as a comment, and Brett will make sure that you will know when we're actually receiving a comment from you, as Brett will describe.

Other ways to submit comments are via email or regular mail to the addresses that are shown here. And, again, hard copies of these slides are out front if you want to make sure to take that and submit a comment in writing later.

Please remember that the end of the 60-day comment period is December 6th.

That concludes our presentation. Thank you again for your time. We look forward to hearing

your comments. Brett.

MR. KLUKAN: All right. Thank you, Tami. Much appreciated. So as Tami mentioned before we venture into the public comment portion, we're going to engage now in a limited process question and answer session. And what do I mean by limited? I mean the scope of the questions is both limited to the NRC process, particularly the environmental review process, how the process works, if you have any questions with respect to that.

Now, if you have technical questions, here is what I would advise you to do is either catch one of the NRC staff after the meeting, you know, after we conclude and ask them then or pose it in the form of a comment during the comment portion of the meeting. But right now we're just looking for questions on the process.

And the other way it's limited is I'd like to keep the majority of our time focused tonight on receiving comments on the DEIS.

So with that said, does anyone have a process question in the room? I know that one individual indicated that they had a question. If that's a process question, please come up now to the microphone. If not, then we'll hear from you during

the comment section.

You just happened to stand up at the -- I was like you're not going the right direction, sir. The card is William Culbert. Okay, all right, great. Is it a technical question or a process question? Why don't you come up and ask it, and then we'll figure it out? And, again, state your name before you begin. Thank you.

MR. CULBERT: Yes, William Culbert. I'm an Oak Ridge resident, native, environmental engineer in the past. But reading The Economist and they were talking about modular reactors that they didn't mention a specific advantage that a liquid sodium type, like this Hermes had, and that it could, since it operated a little higher temperature than many of the other designs, that it could be used to generate hydrogen directly from the heat, which is currently generated with electricity now from fossil fuel sources predominantly, and this, of course, could be shipped anywhere and used in a fuel cell to generate electricity.

So just maybe a comment on that, somebody -- and there's huge amounts of venture capital I've seen recently going toward this thing. So is that sort of an added advantage? I mean, I don't know

anything else about it than reading that.

MR. KLUKAN: Okay. No, thank you for that. Ben, did you want to --

MR. BEASLEY: Sure. So that's not specifically part of our review right now, but, yes, that is an advantage of high-temperature reactors. You still, to produce the hydrogen, you still have to use electrolysis, but when you do it at a higher temperature it's much more efficient. So that is an advantage of high-temperature reactors.

Also, you know, they can be used for process steam, for district heating, or industrial processes. And so those are the advantages of high-temperature reactors over other reactors that don't operate at as high a temperature.

And I just want to clarify one thing. You mentioned liquid sodium. So this is a molten salt reactor, it's not a liquid sodium reactor. And so just to make that distinction. You know, and that's fine. But the molten salt reactor, this design is a high-temperature reactor.

MR. KLUKAN: All right. Thank you very much for that question. We appreciate it. Any other process questions in the room? Again, state your name before speaking. Thank you.

MS.A. HAYS: Alyssa Hays, University of Tennessee. Can the NRC give any examples of some of the moderate impacts to the Eagle Rock site?

MR. DOUB: The Eagle Rock site in Idaho Falls, Idaho is a greenfield site that's currently used for grazing and agriculture, and it contains natural sagebrush vegetation that is an important habitat for the sage grouse, which is a bird species that is declining in population. It is a greenfield site, so there's going to be losses of natural habitat, which is not going to occur at this [Oak Ridge] site.

Also, there is the potential for disturbance of surface and subsurface archeological resources because the site, the soils have never been graded or compacted before as they have at this site. And it is a rural setting, so it would involve introducing an industrial facility into a landscape setting that is predominantly rural and pristine. Those are the main differences.

MR. KLUKAN: And thank you for the question, and thank you, Peyton. If you would like to ask a process question online, again, we are just seeking process questions at this time, please raise your hand at this time. If you're participating via

phone, please press *5. That is, again, *5.

So give people here a second or two, and then, Lynn, please let me know if anyone has their hand raised.

MS. RONEWICZ: Sure, Brett. So far no -- oh, yes, one hand raised. Just a moment. So Jim Skelton has a question. I've unmuted him.

MR. KLUKAN: Jim, whenever you're ready, please feel free to go ahead. And, again, state your name before beginning.

And, Jim, you have to unmute yourself in Teams, as well. So there should be a button at the bottom of the screen potentially or towards the top that looks like a little microphone. There's a slash through it right now. Hit that, and that should allow you to start speaking.

MS. RONEWICZ: And if you have any difficulties, if you want to post in the chat if that doesn't work. Okay. It looks like he's taken his hand down. He may have changed his mind. Okay. No other hands raised, nothing in the chat.

MR. KLUKAN: All right. We will then begin with the -- no other questions in the room. Okay, all right. We will now begin with the public comment portion of the meeting. I like to begin with

elected officials, whether at the tribal level, at the federal level, the state level, the county level, or the local city level.

So if there are any elected officials who would now like to make a public comment in your elected role or representative of an elected official, please do so now. Anyone? Okay.

All right. Then we will start with our first speaker. And, again, what we're going to do here, because this is a hybrid meeting, as we've demonstrated, we're going to jump back and forth. So I will go with one person in the room and then one person online until we exhaust either of the two lists, okay? I have about eight or nine speakers right now to go through, and then we'll see what Lynn has online.

We're going to start in the room first, and it's going to be Rani Franovich, Rani Franovich. Whenever you're ready, please come to the microphone.

MS. FRANOVICH: Can everybody hear me? All right. Thank you, Brett, Tami, all my former colleagues at the NRC. It's good to be here.

Good evening to you all. I am Rani Franovich. I am a senior policy advisor for nuclear energy innovation at the Breakthrough Institute, and

I present this comment on behalf of the Breakthrough Institute, which is an independent 501(c)(3) global research center that identifies and promotes technological solutions to environmental and human development challenges. We advocate for appropriate regulation and licensing and oversight of advanced nuclear reactors to enable the timely deployment of safe, innovative, and economically-viable clean energies. We believe nuclear, new and advanced reactors, represent critical pathways to climate mitigation and deep decarbonization. The Breakthrough Institute does not receive funding from the industry.

I appreciate the opportunity to offer comments on the NRC's draft environmental impact statement for the Hermes test reactor. The domestic and international dialogue on nuclear energy has evolved over the last decade with increasing support for civilian nuclear power from scientists, environmentalists, scholars, activists, thought leaders, and policymakers from both political parties. Russia's invasion of Ukraine has accelerated this evolution.

When Congress passed the Nuclear Energy Innovation and Modernization Act of 2019, or NEIMA,

it mandated that the NRC modernize and streamline nuclear licensing and other regulatory procedures commensurate with a new generation of smaller, safer reactor technologies that rely on a variety of fuels and fuel cycles. I encourage the NRC staff to make maximum use of the generic environmental impact statement, or the GEIS, for advanced reactors. Generically evaluating and characterizing the much smaller environmental impacts of next-generation nuclear power plants significantly reduces review schedules and costs for the applicant.

I commend the NRC staff for publishing the Hermes draft EIS six weeks ahead of schedule. It's my understanding that the project manager actually sacrificed some personal plans to get it done, and I appreciate her efforts and dedication.

I was pleased to see the NRC staff's characterization of the environmental impacts in Section 5.3.2, which describes the relationship between local short-term uses of the environment and maintenance and enhancement of long-term productivity. An excerpt from this section reads as follows: quote, while the uses of and impacts on environmental resources would be minimal over the short term, the long-term benefits from

implementation of the Hermes project could be substantial. Operation of the Hermes facilities could help demonstrate the commercial viability of the Kairos power fluoride salt-cooled high-temperature technology and may generate data helpful in future commercial deployment of the technology. Successful future deployment of the technology could help the United States develop another economically-viable source of energy and help the nation meet its climate change objectives.

And I want to emphasize this next quote. These are all the same quote. Use of the technology may help the United States meet its climate change goals with less reliance on more land-intensive energy generation processes, such as large complexes of solar photovoltaic cells or wind turbines that require large commitments of land and have a greater potential for aesthetic impact on landscapes and seascapes and physical injury to terrestrial or aquatic wildlife, end quote. That entire few passages came from the staff's EIS, draft EIS.

This is a relevant and appropriate consideration, and it is consistent with the Energy Reorganization Act of 1974, which acknowledges the benefits of nuclear energy to, quote, meet the needs

of present and future generations; to increase the productivity of the national economy and strengthen its position in regard to international trade; to make the nation self sufficient in energy; to advance the goals of restoring, protecting, and enhancing environmental quality; and to assure public health and safety, end quote.

So that's the good news. However, there is room for improvement of the EIS. It starts with the recognition that NRC's issuance of an operating license or construction permit is a necessary major federal action to demonstrate an option that mitigates global warming, health effects of fossil alternatives, and threats to the nation's energy security. However, public health and safety are undermined when the federal government takes no action, takes no action, takes too long, or charges the applicant excessive review fees that disincentivize rapid deployment of safe new nuclear technologies.

I and other stakeholders commented during the NRC scoping meeting on March 23rd, 2022 that the environmental impact of constructing and operating the Hermes test reactor should be considered and weighed against the more significant environmental

impacts and health effects associated with alternative energy technologies that might supplant nuclear energy generation, primarily fossil sources that emit carbon dioxide. However, it appears that the NRC staff did not apply this comment in its review of the no action alternative presented in Section 1 in Table 4-1.

Section 4.1, quote, no action alternative, end quote, includes the following excerpt, and I'm quoting: None of the environmental effects described in Section 3.0 of this draft EIS would occur under the no action alternative, but, because Section 3.0 characterizes all potential environmental impacts of the proposed action as small, any environmental benefits from selecting the no action alternatives or the no action alternative instead of the proposed action would be minimal. I beg to differ.

The NRC staff's characterization of the no action alternative as environmentally beneficial fails to consider the lost benefits of the Hermes project discussed in Section 5.3.2 of the draft EIS. There are no environmental benefits to the no action alternative. Rather, this alternative is detrimental to society's interest and realizing the

benefits of clean, safe, base load capacity from nuclear generation.

As a former member of the NRC staff for 30 years and a branch chief over both safety and environmental reviews for power reactor license renewal, I am very familiar with the NRC staff's characterization, it's a longstanding characterization, of the no action alternative as somehow environmentally benign. Careful examination of this superficial assertion reveals a flawed paradigm. It fails to consider the pressing concerns about the public's general welfare. For example, as long as energy demand outpaces supply and fossil alternatives are available, failure to license, construct, or operate a safe, emission-free nuclear power reactor is absolutely detrimental to society.

The no action alternative perpetuates global climate change, degrades environmental quality, harms human health, and undermines national energy security. This substantial impact to the local, national, and global community needs to be duly considered in all environmental reviews undertaken by the NRC and reflected in their environmental impact statements, including the final EIS for the Hermes test reactor.

In closing, I reiterate my appreciation of the opportunity to submit this comment. I also commend the NRC staff's timely release of the draft EIS for comment and their thoughtful consideration of the substantial long-term benefits from implementation of the Hermes project. The Hermes reactor is a vital step toward proving the safety and security of commercial deployment of larger-scale reactors of its design. These power reactors will advance the nation's clean energy goals, enhance environmental quality, and supply reliable electricity to the transmission grid.

As I mentioned earlier, the Breakthrough Institute receives no funding from the nuclear industry. We represent the public's interest. On behalf of the Breakthrough Institute and in light of the urgent public interests, I strongly encourage the NRC to more fully and holistically examine and characterize the substantial adverse impacts of taking no federal action, not just for the Hermes test reactor but for all major federal actions involving any reactor, any nuclear power generation, from either the currently operating fleet or future generations of nuclear technologies.

Thank you again for this opportunity to

comment on the NRC's draft EIS for the Hermes construction permit application. Thank you, Brett.

MR. KLUKAN: Thank you very much. Lynn, we're now going to see if anyone has a comment online. So, again, if you are participating online and you'd like to pose a comment, please raise your hand or press *5 if you're participating via phone.

And, Lynn, let me know if we have anyone queued up.

MS. RONEWICZ: Yes, we do have Jim Hopf, and I've allowed his mike, so if you'd like to unmute.

MR. KLUKAN: Jim, whenever you're ready, please feel free to unmute yourself and state your name before beginning your comment.

MS. RONEWICZ: Jim, are you able to unmute yourself? And if that doesn't work, you could post in the chat. We do have two others with hands raised.

MR. KLUKAN: All right. Jim, I apologize, but, again, if you are having technical difficulties, post about it in chat. There are ways we can get around it if you can't unmute yourself. There might be some workarounds --

MS. RONEWICZ: Okay. I'm looking. It appears that there is maybe a message in the chat.

No, I think not. Should I go to the second person with their hand raised?

MR. KLUKAN: Yes, Lynn, please, yes.

MS. RONEWICZ: That is Jim Skelton, and, Jim Skelton, you are able to unmute yourself now.

MR. KLUKAN: Whenever you're ready, Jim, please feel free to unmute yourself and begin your comment, starting with your name, please.

MS. RONEWICZ: And if that doesn't work, and I'm really not sure what is going on, I do show that, you know, it's lit up, you know, but I'm not sure what the problem is. We have Ryan Pickering is the third person with their hand raised.

MR. KLUKAN: Let's go to Ryan. And I think, Jim and Jim, we'll try to figure this out. You know, if necessary, what you can do is post your comment in the chat and we'll read it out loud. But let's try to get you to be able to unmute yourself.

Let's go with Ryan, Lynn.

MR. PICKERING: Okay. I was able to unmute using the Teams browser on my computer. So my name is Ryan Pickering, and I'm a volunteer with Mothers for Nuclear. And I wanted to state that, given the presentation, I agree with the NRC staff's recommendation to approve the environmental impact

statement. And, you know, my understanding is this test reactor is not going to produce actual electricity, but it is going to produce intellectual learnings and also regional leadership for the local community and, overall, is going to help America's understanding of what this technology can do. And given that the health and environmental benefits of the community are considered in full, we should also consider the economic benefits, given, you know, especially given the energy crunch today.

So, you know, lots to be excited about here, and I appreciate the NRC, their early completion of publishing the draft. So, you know, I think that's something to be commended in these times. And, you know, we all need to work quickly and efficiently to bring good, clean energy to the grid, and so I appreciate everyone's work and I support moving forward. Thank you.

MS. RONEWICZ: Thank you. And if I might just say I think Jim Hopf was able to unmute himself. Might we just hear from Jim Hopf real quick?

MR. KLUKAN: Sure. Jim, whenever you're ready, unmute yourself and say your name before beginning your comment. Hopefully, I did not just curse us. You there, Jim?

MS. RONEWICZ: It shows his mike is available, but I'm not sure.

MR. KLUKAN: Okay, all right. Well, we will figure this out for both Jims. Next, we're going got go to Peter Hastings. Peter Hastings, whenever you're ready, please come to the microphone.

MR. HASTINGS: Thank you. Peter Hastings, Vice President, Regulatory Affairs, for Kairos Power. We are the applicant for the Hermes test reactor.

This may sound a little bit like cheerleading. It's not intended to. I think these comments are -- clearly, I'm in support of the action, but they're important in the context of the environmental review.

So first of all, we want to commend the NRC staff on an efficient and thorough review. We appreciate their efforts. We've worked very hard with the NRC staff to try to move the review along, both on the environmental side and on the safety side as quickly and as efficiently as possible. We'll continue to work with the staff to address any issues that might arise as a result of public comments on the EIS, to the extent that that support is requested and needed.

We're also working with the rest of the industry and with NRC as collaboratively as possible to help identify efficiencies in the review process, both on the applicant side and on the regulator side, so that our positive experience in terms of the timely and efficient review and that we've received so far becomes the norm and not the exception for future applications going forward. So that's the first comment.

Some of this has been said before, but I'll reiterate it. We plan to build and operate the Hermes low-power demonstration reactor in Oak Ridge to demonstrate our capacity to deliver clean, safe, and affordable nuclear heat. Construction and operation of the Hermes test reactor is a step toward the commercialization of this life-saving technology, and that's what the mission of this unit is all about. And it's in furtherance of our company mission, which is to enable the world's transition to clean energy with the ultimate goal of dramatically improving people's quality of life while protecting the environment.

The timing of this meeting is, by sheer happenstance, coincident with meetings that are taking place at the UN Climate Conference where the

IPCC, along with several other domestic and international bodies, have recognized the critical importance of nuclear energy in combating climate change.

If you'll indulge me for a minute, I've got a quote that I think is really on point here, and this comes from a Scientific American article in 2013. It's a little long; forgive me. The question is not just one of nuclear energy but of our responsibility toward our fellow human beings and future generations. What would our grandchildren say if they knew we had such an awesome source of life-giving energy at our disposal and failed to make sensible use of it? The liberation of entire populations from the shackles of poverty and ignorance has been one of the triumphs of the human experiment, and it's largely been possible because of the twin pillars of harmonious systems of governance and technological breakthroughs of which energy must rank at the very top. If we deprive similar populations of the biggest chance they have to relive this transformation, we will have failed in our basic obligations to each other. That's a really powerful and important quote, and it underlies everything that we're doing.

So returning to this specific proceeding, we selected Oak Ridge as the site for Hermes based on a combination of regional workforce capabilities; proximity to highly-capable local collaborators, such as Oak Ridge National Laboratory, Tennessee Valley Authority, and others; and the infrastructure and characterization data available for the selected site. We appreciate the support we've received from the local community since announcing our plans to deploy Hermes at the East Tennessee Technology Park.

In addition to substantial engagement with the NRC staff, both in advance of the application submittal and since, we've also held a number of local community events to try to keep our neighbors apprised of our status. And if you care to stop by our table on the way out, we can give you a pointer to our virtual open house that is worth a visit if you haven't seen it before.

In closing, I want to point out that the Oak Ridge site has a rich legacy as part of the Manhattan Project in having helped save the world, and that's not an exaggeration. We look forward to building on this legacy to enable the next generation of clean, safe, and affordable advanced reactors for the U.S. energy markets around the world to, once

again, help save the world. Thank you very much.

MR. KLUKAN: Thank you. So Jim and Jim, I have made you presenters online. That's why I stepped away from the podium for a little bit. So try -- well, Lynn, you pick a Jim, and let's try --

MS. RONEWICZ: Yes, I will let you know. Jim Skelton was able to unmute, so he posted in the chat. So Jim Skelton, you can please go ahead.

MR. SKELTON: Thank you for that. Hello. Good evening. I'm Jim Skelton, Director of Member Services and Programs for the Tennessee Chamber of Commerce and Industry. The Tennessee Chamber serves as the primary voice of business and manufacturing interests in Tennessee on major employment and economic issues facing public policy decision-makers. We are also the state affiliate for the U.S. Chamber of Commerce, the National Association of Manufacturers, and the American Chemistry Council.

Please accept these remarks on behalf of the Tennessee Chamber in support of Kairos Power and its construction permit application for its demonstration reactor to be built in Oak Ridge, Tennessee. This exciting project also includes two other significant partners in our state, the U.S.

Department of Energy's Oak Ridge National Laboratory and the Tennessee Valley Authority.

Oak Ridge enjoys a global reputation as the, quote, unquote, city of firsts for its many groundbreaking contributions to energy, national defense, medical science, super computers, and so many fields. And we're excited that Kairos is committed to locating this next generation demonstration nuclear facility here in Tennessee.

I will close by thanking the Nuclear Regulatory Commission for holding this public forum to hear from stakeholders and our community and for this opportunity to comment. Thank you very much. And apologies again on the earlier glitch.

MR. KLUKAN: No worries. Thank you for participating.

MS. RONEWICZ: And this is Lynn. If I could just real quick, the other Jim has not had success, but we do have one more hand raised, Philip Hult. And I have unmuted him, so I'm just wondering, Philip, are you able to -- yes, it looks like Philip will speak, and then we can go back to who's in the room after Philip.

MR. KLUKAN: All right. Thank you, Lynn. Philip, whenever you're ready.

MR. HULT: Yes. Hello. My name is Philip Hult, and I am a volunteer with Generation Atomic, a nonprofit nuclear advocacy group. And I just want to thank the NRC for their fine work of both the presenters today, who have done a great job of really concisely explaining the process that we're going through and where we're at, and then also to the hard work of those who have worked to prepare and review the environmental impact statement and give us this draft. I'm very pleased with the outcome and the results. I think it represents a well-considered position.

And with that said, I recommend that the NRC move forward and hope to see the EIS approved. Thank you.

MR. KLUKAN: Well, thank you very much, Philip. We appreciate it.

Lynn, I'm going to then proceed forward with people in the room. If anyone else does raise their hand, just chime in after a speaker to let me know, okay?

MS. RONEWICZ: Perfect. Thank you.

MR. KLUKAN: All right, great. Carmen DeLong. Carmen DeLong, whenever you're ready.

MS. DELONG: So thank you to the NRC.

I've had the pleasure of working with the NRC on many, many projects, and I just want my Oak Ridge residents to know that they are an outstanding regulator. Every time I've had to talk with anyone at the NRC about anything, and usually it's Chapter 15 postulated accidents, they're just exceptionally knowledgeable, very well organized. They have excellent processes, and they're ahead of industry on knowledge transfer. You know, we're being hit pretty hard in commercial nuke by the silver tsunami, a lot of people retiring that are taking that knowledge with them. But the NRC has been ahead of industry on implementing knowledge transfer programs. Some 15 - 20 years ago you guys started doing that; I can't remember. I'm getting old.

The question I have is really as an Oak Ridger. Oak Ridgers are smart people, and they're pro-nuclear power. But recently I was working at Diablo Canyon Nuclear Power Plant, and I volunteered on the emergency preparedness team. And it's quite an involved evolution. You do have to do drills a couple of times a year at least, and it's quite an involved evolution and it's taxing on municipalities to have dedicated staff and resources, police and whatnot.

Understanding that this is a 35-megawatt system and, therefore, the source term is considerably smaller than a 2,000-megawatt system, NRC is still concerned with consequences. So I'm pretty sure it is going to be a requirement, 10 CFR 50.54(q) maybe -- am I right -- to have an emergency preparedness program. And although the EPZ is going to be a lot smaller, that's still going to be a requirement.

So my question as an Oak Ridger who is concerned about all things Oak Ridge and Oak Ridge budgets is have we, are we already planning on making sure -- PG&E would pay for municipalities to be prepared with their emergency preparedness program. They would pay. They paid for buildings, resources. They paid for those budgets that the cities would need in order to coordinate with the plant's emergency preparedness program.

So are we already working with Oak Ridge to make sure Oak Ridge has the budget and the resources to be able to provide a healthy emergency preparedness program?

MR. KLUKAN: Thank you. So, again, we're going to treat that as a comment on the EIS, but thank you for raising that and then presenting

that to the NRC staff.

Again, Lynn, let me know if anyone pops up online.

MS. RONEWICZ: Yes, we have, we don't have any new hands, but, Jim Hopf, we'll try again. Like you said, he's now a presenter. So, Jim Hopf, do you want to try one more time? But we have no other new hands.

MR. KLUKAN: Whenever you're ready, Jim.

MS. RONEWICZ: It looks like you should be able to speak, Jim, now. Jim, it shows that you're clear to speak. If you can hear, please go ahead. Okay. He's not sure what the problem is.

I think we'll just move back then. Nobody else on the phone at this time, and maybe we can try once more afterwards.

MR. KLUKAN: Jim, what I would suggest, having dealt with this problem in the past, is I know this is, like, I'm telling you turn it off and turn it back on again, but please disconnect from the meeting and then join again. I recognize that's, like, the last thing you want to hear when you're having technical difficulties, but sometimes it actually does work.

So next we're going to move to our next

speaker in the room, Charles, I think it's Burger. You have no comment? Okay. Thank you very much.

We're next going to move to Alyssa Hayes. Alyssa Hayes.

MS. A. HAYS: Alyssa Hayes, University of Tennessee. So according to the recent 2022 Global Carbon Budget paper, the world has about less than ten years to decarbonize enough to prevent us from reaching the 1.5 degrees Celsius limit, and populations are growing and energy demand is growing. So we should be using every tool, every carbon-free resource that we can in order to prevent that from happening. Nuclear energy is critical to the global decarbonization effort, so I am ecstatic to see Kairos and others beginning to renew American contributions to these vital technological developments.

The Hermes research reactor will validate technical concepts and provide assurance to us, the members of the public, ahead of any commercial endeavors. Additionally, this reactor cannot be sited in a better place. The proposed location in the East Tennessee Technological Park is in a brownfield released for industrial use. It's not able to support residential use, it's not released

for agricultural use. This is the best thing that we could be putting on that land. The facility also will not be releasing any byproducts whatsoever into the local water supply. So these decisions truly minimize any environmental or health risks.

So keeping this brief, I'm a resident of an environmental justice community in North Knoxville, Tennessee. And as a young woman of color, I support the construction of the Kairos Hermes reactor. Thank you so much.

MR. KLUKAN: Thank you. Next, we're going to go with Tracy -- so this begins the portion of the meeting where I start to mispronounce your names -- Tracy Boatner. It was luck, but thank you. So whenever you're ready.

MS. BOATNER: Hello. I am Tracy Boatner, and I'm the President of the East Tennessee Economic Council here in Oak Ridge. And I wanted to thank the NRC and to let everyone know that, after reviewing the draft EIS, the East Tennessee Economic Council agrees with the NRC's assessment and fully supports the recommendation to site the Hermes reactor here in Oak Ridge, Tennessee. And we believe that there's no better place to site this Hermes project. The innovative, clean nuclear energy

technology was born here, and we just look forward to supporting Kairos Power and the Hermes project here in Oak Ridge. Thank you.

MR. KLUKAN: Thank you very much. Next, we're going to turn to Michael Russell. Michael Russell.

MR. RUSSELL: Yes, I'm Michael Russell. I'm a resident here of Oak Ridge, and I'm speaking just for myself and my family. And we've been here for 12 years and put our children through school here through the Oak Ridge systems.

And I did want to commend the staff for the excellent job in putting together the draft EIS, and I also want to commend Kairos for their excellent community engagement. This has been a series of activities where they have involved community folks. I, for one, have lived in a couple of areas that were predominant not-in-my-backyard scenarios, including Southern Nevada and Southern California. And so I did want to, as far as supporting the application and the environmental impact statement draft to agree with the conclusions and the recommendations thus far.

And I also want to commend our young students who show up and engage and go Vols.

MR. KLUKAN: Thank you for your comments. We're next going to turn to Elizabeth Harm. Elizabeth Harm.

MS. HARM: I admire people that can keep it short without notes. My name is Elizabeth Harm, and I am the Executive Director of ETEBA, the Energy Technology Environmental Business Association. We are a nonprofit trade association with over 200 members across the country, and I am proud to be here tonight representing this organization.

We are enthusiastic about Kairos's plans to bring the Hermes low-power demonstration reactor to the heritage site. Kairos's plan will build on Oak Ridge's long nuclear legacy and industry that ETEBA is proud to support. We believe that Kairos will leverage proven technologies to enable our country's transition to clean energy right here in East Tennessee.

We would like to thank the NRC for their hard work on this EIS, for the opportunity for interested stakeholders to share public comments, and what they've outlined here tonight, which we believe will benefit East Tennessee while continuing the mission of developing important science and national security work for the United States, an Oak Ridge

tradition. Thank you.

MR. KLUKAN: Thank you. Next, we're going to turn to Christine Michaels. Christine Michaels.

MS. MICHAELS: Good evening. I'm Christine Michaels, President of the Oak Ridge Chamber of Commerce and also an Oak Ridge resident. And our organization supports NRC's preliminary recommendation to issue the construction permit. We appreciate the NRC's thoughtful consideration of the site and its prior industrial use and your determination of a small impact.

We encourage the NRC to look favorably on what we believe is a key part of the country's nuclear future. The Hermes reactor offers the potential for meeting our energy needs while also meeting carbon reduction goals. It also extends the world class research reputation of Oak Ridge and draws additional highly-qualified technicians and energy experts to our area. The creation of construction jobs, as well as permanent high-quality jobs is most welcome.

Kairos also gives us further economic development potential for attracting companion industries.

We encourage you to make a favorable

decision and an expedited one to issue the construction permit. Thank you.

MR. KLUKAN: Thank you very much. Lynn, so I have exhausted my list of cards. Do we have any hands raised online or has Jim been able to rejoin us?

MS. RONEWICZ: Well, we have a new hand raised, but I think Jim may have dialed in. So I think Jim's mike is open, so, if he could go ahead, and then afterwards we have Grant Mills after that.

MR. HOPF: Hello?

MR. KLUKAN: Jim?

MR. HOPF: Hello, can you hear me?

MR. KLUKAN: Yes, we can hear you, Jim.

MS. RONEWICZ: We sure can.

MR. HOPF: Go back to the old technology, right? The telephone. Okay. All right.

Hi. My name is Jim Hopf. I'm a member Citizens Climate Lobby, a grassroots organization that's mainly concerned with climate change. I would just like to express my appreciation for the support and the efforts to move this project forward and the timely completion of this draft EIS.

It is clear that the net environmental impact of this project will be overwhelmingly

positive. Deployment of advanced nuclear reactors will replace fossil fuel-powered for heat generation that is vastly more harmful in terms of both climate and public health impacts. Firm, clean sources like nuclear will be needed in the future to back up intermittent sources and ensure grid reliability.

By producing high-temperature heat, the Kairos reactor will also be able to serve industrial process heat applications that would otherwise be difficult to decarbonize. Also, more specifically, you know, an industrial site that's already industrial and where past nuclear activities have been performed is an ideal and very appropriate location for an advanced reactor demonstration project. Thank you.

MS. RONEWICZ: Jim, thank you so much for your patience. We really appreciate that.

Brett, we have one more hand raised, if that's okay. Grant Mills. And he's unmuted, so he can just unmute himself.

MR. MILLS: Thank you. Is that working?

MR. KLUKAN: Yes, it is, Grant.

MS. RONEWICZ: Sure is.

MR. MILLS: Thank you very much. My name is Grant Mills, and I'm a nuclear engineering student

at the University of California Berkeley. I'd like to thank the NRC team and Kairos for their efforts in producing this environmental impact statement and in their efforts to share it with the public.

Given the results of this statement and the vast potential of advanced nuclear reactors, I, too, believe that this project should proceed and in the same efficient and deliberate manner that it has been thus far.

Thank you all for your time. I really do appreciate this presentation.

MR. KLUKAN: Thank you very much. So would anyone else like to make a comment in the room this evening? All right. Going once, going twice. I feel like I should bang something, but I don't have anything.

Okay. Lynn, do we have any other hands raised online at this time?

MS. RONEWICZ: We don't. We'll give it maybe 30 - 40 seconds to see if anybody has anything.

MR. KLUKAN: And, again, if you are participating via phone, hit *5 to raise your hand, *5 to raise your hand. And while we're waiting, I'll just say I never really get to see the back of my head, and I'm continually disoriented by whatever

this is. What is this Pomeranian there? I've been waiting to make that joke all evening.

All right. Lynn, do we have anyone raising their hand?

MS. RONEWICZ: No, no hands raised. Thank you.

MR. KLUKAN: All right. With that, I'm going to turn it over to Tami then to close us out. This meeting, again, you can go online to look for public feedback forms on the NRC's public meeting page, the same place you went to find the link for this meeting, or you can email or request it from Tami, as well, if you'd like a copy sent to you.

So with that, thank you very much for your patience with us this evening as we've gone through some technical glitches. I really appreciate it. So have a good night.

And I'll turn it over to Tami.

MS. DOZIER: So this is actually a question for Brett, for you and Scott. So we will dismiss the meeting in the room, but the virtual we keep going until nine in case people show up virtually. Is that how we'll be doing that? Right, correct, yes.

So what we will be doing, Lynn, I guess

is that we will dismiss the people in the room and that we will keep the virtual line open for anyone that joins and wants to make a comment.

So, first of all, I wanted to thank everyone that attended. Our attendance has been good. I appreciate everyone that came out. I don't know if people realize it. Our hybrid meeting where we're doing both bringing people in virtually and also people in the room through an outside entity that we have engaged with, and thank you for your work to help this go smoothly. The NRC has been doing that a little bit, but our particular group, this is new for us. This is the first time, I believe, I could be mistaken, but I believe this is the first time we've actually done that particular, this particular scenario for a licensing review. So we were, in our group especially, this was new, so we were not sure what to expect. So thank you very much for driving out and being with us in person because a lot of work does go into setting these meetings up, and so it's appreciated very much for your participation.

The comments that we've received tonight, the constructive criticisms and all of the rest, help us to make a better document, so we appreciate that.

Thank you again.

I would like to introduce, we had a couple of NRC staff maybe a little bit shy at introducing themselves. So I'm going to embarrass them just really quickly and introduce them. Scott Burnell, Office of Public Affairs in the back. John Pelchat, our regional state liaison officer, is here. And then a gentleman that I won't embarrass him by asking him to give his applause, but he is one of our new staff members at the NRC and his task, one of his first tasks joining us was to set up a public meeting, and he has done 90 percent of the logistics for tonight and arranging with the facility here all of the things, and he was basically brand new at the agency. And so his eyes have been big. So Brian Glowacki who is standing there back at the door, so that is the future of NRC, ladies and gentlemen, right there. So good job, Brian.

So thank you. With that, thanks again for coming, and you are dismissed. Lynn, we'll hold it open, I guess, on the phone in case we get some people. And I'll check back with you at 9:00.

MS. RONEWICZ: Sounds good.

(Whereupon, the above-entitled matter went off the record at 8:31 p.m.)