BRIESE: OK. Let's get going then. Good afternoon and welcome, everyone, to the Executive Board. My name is Tom Briese. I represent the 41st District. I serve as Chair of the Executive Board. We'll start off having members of the committee and committee staff do self-introductions, starting on my far right with Senator Clements.

CLEMENTS: Rob Clements, District 2.

BOSTAR: Eliot Bostar, District 29.

TREVOR FITZGERALD: Trevor Fitzgerald, committee legal counsel.

AGUILAR: Ray Aguilar, District 35.

LOWE: John Lowe, District 37.

VARGAS: Tony Vargas, District 7, the heart of south Omaha.

RIEPE: Merv Riepe, Legislative District 12, southwest Omaha and the good folks of Ralston.

BRIESE: Also assisting the committee is our committee clerk, Sally Schultz, and our committee pages, we have one page. We have Francie Heeren from Omaha, who's a political science and sociology major at UNL, and Maggie Massey from Omaha who is a political science major at UNL. Go ahead and stand over there if you would. Thank you. And we were just joined by-- go ahead, Senator Geist.

GEIST: Senator Geist, Susanne, whatever, anyway, District 25.

BRIESE: Very good. Thank you. This afternoon we'll be hearing two bills and we'll be taking them in the order listed outside the room. On the tables near the entrance, you will find green testifier sheets. If you're planning to testify today, please fill one out and hand it to Sally when you come up. This will help us keep an accurate record of the hearing. Please note that if you wish to have your position listed on the committee statement for a particular bill, you must testify in that position during that bill's hearing. If you do not wish to testify but would like to record your position on a bill, please fill out the white sheet near the entrance. Also, I would note the Legislature's policy that all letters for the record must be received via the online comments portal by the committee by noon the week day prior to the hearing. Any handout submitted by testifiers will also be included as part of the record as exhibits. We would ask

if you do have any handouts that you please bring 12 copies and give them to the page. If you need additional copies, the page can help you make more. Testimony for each bill will begin with the introducer's opening statement. After the opening statement, we'll hear from supporters, then from those in opposition, then from those speaking in a neutral capacity. The introducer will be given an opportunity to make closing statements if they wish to do so. We ask that you begin your testimony by giving us your first and last name. Please also spell them for the record. Because the Executive Board meets over the noonhour and members have other hearings beginning at 1:30, we will use a three-minute light system today. When you begin, the light on the table will turn green. The yellow light is your one-minute warning; and when the red light comes on, we will ask you to wrap up with your final thoughts. I would remind everyone, including senators, to please turn off your cell phone or put them on vibrate. With that, we will begin today's hearing on LR21. Welcome, Senator Brewer.

BREWER: Thank you, Chairman Briese, and good afternoon-- good afternoon, fellow senators of the Executive Board. For the record, Senator Tom Brewer, T-o-m B-r-e-w-e-r. I represent 11 counties of the 43rd Legislative District, and I'm here today to introduce LR21. LR21 will be a special committee that is focused on the small modular nukes. Since our time is limited here, I'm going to cut right to the point. There is a lot of challenges that we've seen wind energy, solar energy, some of the things that are considered green energy. I think those that are aware of some of the new potential for nuclear energy understand that that is the wave of the future. With the exception of scheduled outages, nuclear power is always on. It's base load electricity, works 24/7/365. Besides hydroelectric, nuclear is the only way to make electricity that produces few emissions into our environment. The new emerging small modular reactor technology shows great promise and could reduce or even eliminate the need for long-haul, high-voltage transmission lines. Public power officials hopefully will follow me today and share more information about some of the possibilities with nuclear energy. The company that right now has the regula -- has been going through the regulatory process, a company called NuScale, they have accepted the small modular design and certificate. The prototype is operational in Idaho National Labs facility. Again, that is on a schedule probably to be active and operational in 2029. During this last small modular nuke conference we had in Lincoln, we had a chance to see a lot of designs, talk to folks, and better understand it. It is clear to me Nebraska has an opportunity to get in on the ground floor with some of the-- the

exciting new opportunities with nuclear energy. I would like to see a special committee in partnership with our public utilities to chart a small, realistic course ahead for Nebraska. So essentially what we're talking about here, for those that weren't able to be at the conference, think of all the systems that we're currently using in naval ships. That's where we are finding the best example where small nuclear programs have been successful. Now, the reason that the 80-some ships or submarines that are using nuclear power are able toto move forward and have I guess what you call advantage is because DOD doesn't put the same scrutiny to what the limits and restrictions are with nuclear power like the civilian sector does. So they're-they're given a lot more leeway. The point being that we're able to put these 80-some ships to sea and-- and do that with virtually no issues. And it's kind of the example that they're using to then figure out how to have these small modular reactors in the civilian sector. Now, some of the advantages that I'd like you to think about is the fact that if you have one of these, you could produce enough electricity to take care of a, say you draw a circle of 150 miles and that -- that plant then takes care of that piece. Again, we're not worried about the weather because that is not an issue. It's base load generation. And it also then, of course, is going to not have as many requirements for your power movement or power lines. So anyway, what I'm asking today is for that special committee to take a look at the future of nuclear energy in Nebraska and chart that path ahead. With that, I'll take any questions.

BRIESE: Thank you, Senator Brewer. Any questions for the senator? Senator Vargas.

VARGAS: Thank you very much. Thank you for bringing this LR. I'm sort of channeling my inner Erdman here. He's a cosponsor of this. Oftentimes when we're creating these new committees, sometimes we create committees to react to something terrible that's happened and we're trying to figure out, like the YRTC Committee. You know, sometimes we're creating a committee where it's the intent is to study policy recommendations and there's no other vehicle for— able to do it. My question is, is it necessary for us to have a committee or is the study and policy recommendations the most important? Let me know if you want to react to that question and yeah.

BREWER: Well, I think if we want to focus on trying to look into the future on what the next step is, because I think that the realistic challenge is going to be that we have to keep up with technology. And, you know, wind energy is kind of something that has some limitations,

especially depending on where you're putting it, whether it be the effects on just the general appearance of the place or the ability for it to sustain power because of— of having wind. Solar has some advantages, but the downside there is the footprint that comes with it. You know, we talked about how if we were to meet OPPD's desire on the amount of megawatts that we're talking, you know, in that range of of 20 to 30 square miles of nothing but solar panels, I would imagine that the nuclear reactors will probably fall in on a location is currently, a coal-fired plant, a natural gas-fired plant. So the footprint is basically where there's already a footprint. And— and you're not taking up all this land with— with other options and you're giving yourself a base load capacity where otherwise you're at the mercy of the sun or the wind.

VARGAS: It's-- it's awful to hear that. I just want to make sure that if we're going to be studying something, if we do absolutely need a committee to study something, that maybe we do that. Or if there needs to be an interim study in a committee that does this or-- and I know there's some language here that would create a contracted entity can study this, no more than \$30,000. So I do have questions about that in the long term. And in terms of the-- is there an end date for when this committee would end? Is it like two years, two years?

BREWER: Well, I think it would be on their ability to gather enough information so that you could address the timetable, the capability, work with public power to figure out if they were to have them, how large would they be and how much would it change our overall footprint in Nebraska of energy production? Would we-- would we still keep some natural gas? I'm assuming that coal will-- will be something we're transitioned out of. But will that then change how much wind and solar we look at in the future? You know, there are just a lot of parts and pieces of this. And the problem in the interim study is you gather folks from a committee that may or may not have a very good working knowledge of the very subject you're trying to get information on. Where if you can, you know, have a-- a more dedicated, focused research, I think the chances of getting what we need are better.

VARGAS: OK. Thank you.

BRIESE: Thank you, Senator Vargas. Senator Riepe.

RIEPE: Thank you, Chairman. Thank you for being here, Senator Brewer. The questions that I have was, one, the length of the study. I think you've addressed that. Do we have any idea of the cost of the study?

BREWER: Well, I think we have-- we've never done one quite like this. So that might be one. We'll have to look at something previously that maybe is along these lines. But, you know, any study is going to-that goes into much depth, you know, I think if the public power works with them, that the cost would be less. And I think public power has got a direct impact here, and they're going to be the ones that have to champion this as it becomes available because the technology's there to justify it. But I don't know. it would be hard, I think, to give a very close figure.

RIEPE: Is there any opportunity to possibly over the interim, to have this study and condense it and concentrate on it rather than running it, say, for a two-year time period?

BREWER: Yeah, I mean, that's-- that is an option. I mean, that would-that would probably give us, you know, a reference to work off of. You
know, if we can find folks that are interested and have enough working
knowledge to where they can actually do justice to that, I think,
yeah, it's got potential.

RIEPE: Is there any chance to, if I may, is there any chance for us to do leapfrog technology where we learn from what others have done and completed? Because I know there's a lot of literature out there both on the pros and cons and everything else, but I support your concern about an alternative to solar and wind. I think they're short-lived on the life of energy.

BREWER: Well, and we will at some point run out of natural gas. And the coal plants are really a thing of the past. And so we need to look at ways to guarantee reliable energy into the future. And I just think that, you know, the public power in Nebraska has been very successful in making sure that when we need electricity, we've got electricity. And, you know, the exceptions are pretty extreme exceptions. But as we look out, we're going to have to figure out how to sustain that. And-and I think this might be the wave of the future. We do know some of what's going on, but I don't know that there's anybody out there who can take Nebraska's challenges with distance, where there's current plants, where there's issues with transmission lines. Another state is going to be a completely different situation just for one, they don't have public power plus just size and shape of the state.

RIEPE: OK. Thank you very much.

BRIESE: Thank you, Senator Riepe. Senator Bostar.

BOSTAR: Thank you, Chair Briese. And thank you, Senator Brewer. Can you just-- you have here the Chair of Natural Resources, which makes sense to me as far as the designees. And then you also have the Chairperson of Government, Chairperson of Transportation and Telecommunications and transportation and Chairperson of Appropriations. Can you just briefly talk about how you decided to choose those?

BREWER: Well, the committees that I thought could possibly directly be impacted by the decision and then those Chairs also have a pretty good working knowledge of some of the challenges, especially on— on the side of— of, you know, I guess, energy and what the needs are and what the common things we see in those committees that carry over, because those are kind of the committees that see the most of the things with the exception of maybe Appropriations. But ultimately, if it's something that costs, we need them to at least have a look at it, maybe not a decision on it.

BOSTAR: Thank you.

BRIESE: Thank you, Senator Bostar. Senator Lowe.

LOWE: Thank you. And thank you, Chairman Brewer or Senator Brewer, for bringing the bill. After serving on the Midwest Canada Energy Subcommittee for the last six years, small modular nuclear reactors have really intrigued me because of the safety that they bring. The fuel is now safe. There is no afterlife in them. And I appreciate you bringing this because we're looking for good, clean, safe energy and.

BREWER: Well, and I think if there was issues, we would have seen them in the 30-some years that we've been using the nuclear reactors on submarines and in aircraft carriers and now even destroyers and frigates. And, you know, those are relatively young individuals that are managing a lot of those systems because of the nature of the military. And they're able to manage them and use them and make them work. And so I don't know that it's a huge transition for us to figure out how to then put them in a fixed facility with more experienced senior folks that manage them. So I just think it's got all kinds of potential. We just got to figure out, you know, what right looks like when it comes to nuclear energy.

LOWE: Thank you.

BRIESE: Thank you, Senator Lowe. Anyone else? Seeing no other questions, thank you, Senator Brewer.

BREWER: And I'll stick around.

BRIESE: Sounds good. Thank you. Any proponent testifiers? Welcome.

SETH VOYLES: Thank you. Good afternoon, everybody. Chairman Briese, members of the Exec Committee, Seth Voyles, registered lobbyist for Omaha Public Power District. And I'm also testifying on behalf of [INAUDIBLE] Nebraska Power Association. That's S-e-t-h V as in Victor-o-y-l-e-s. We wholeheartedly, all the utilities, support Senator Brewer's LR on small modular reactors. For us when it comes to small modular reactors, we're all looking for that in the future, seeing where it's going to come because we need-- we're going to need that kind of power going forward. Right now, public power is kind of in the forefront of all the reactors going forward in the United States. There's two big plants in Georgia that are going in, the [INAUDIBLE] plants that MEAG Power is a public power utility and Jacksonville Electric are part of. And they have the UAMPS, one small modular reactor going up in Idaho National Labs. So we've got good data and what's happening on those kind of things. And I think what the-- the good part about what this study does is it gets us in a position to know what we don't know and know what we have to do going forward so we can actually start putting these things in, because right now they're-- they're kind of linked together. The ones that are going forward now from NuScale up in Idaho National Labs, you-- you have a series of them that gets up to about 4 to 600 megawatts. Those numbers, I'll have to get some information on that, but they're easy to put around and those kind of things. But right now they have none have been built. So we need to figure what that is. For public power, we need to make sure that the cost is current, is -- is steady, we know what it's going to be and making sure that the regulatory issues are ready to go so that we're going that way. So as Senator Brewer talked before, these things are going to go in places where we already have some generation, those kind of things, because if the substations are there, switchyards are there, the infrastructure's there to put these things in quickly to do those kind of things. I do appreciate the fact he also mentioned the microreactors. These are up to 10 megawatts. They can do different loads other places. But like I said, for Nebraska to be on the forefront of these things, we have to have these kind of studies to know what we need to know to go forward, because I think most will be commercial and the price will be in the right spot. Mid 2030 is when they're really going to be coming down to know where

we have to put these things. The regulatory process and the time frame for that is about that long. The Nuclear Regulatory Commission does not move fast in anyone's time frame, so getting this stuff in before, know it before then we do it that way. And with Senator Bostelman, who had the study on— the site study on those things, that's also helpful so we know where we can put them. That study is going on. This, I think, is a good addition onto that as well. So with that, I'll answer any questions.

BRIESE: OK. Thank you. Any questions? Senator Riepe.

RIEPE: Thank you, Chairman. It's my understanding that. OPPD is decommissioning the plant that you have up on the Missouri.

SETH VOYLES: Yeah, Fort Calhoun, yes.

RIEPE: And it's not one that can be converted over to this smaller new technology.

SETH VOYLES: No, and we're decommissioning that now. And that's-that's going to be decommissioned. We can't restart that. But we have the land around there. That's our land. And we could put a small modular reactor there because we still have the substation and everything there that's ready to go. Our issue with Fort Calhoun, it was the single-- it's a single reactor. It's the smallest in the entire fleet in the United States. The cost on that was prohibitive on those things. If you have a -- you have a 1,500 megawatt set of reactors, you have 700-plus employees. For us, we had one reactor with almost 500 megawatts and we had 700-plus employees so the overhead and those kind of things made it cost prohibitive. And that's the economics of that was why that had-- why we shut that down. But a small modular reactor could be placed there as well. There's some floodplain issues we have to figure out that some of the siting study that's going on right now from Senator Bostelman's bill. Floodplain issues are always an issue now with flooding going forward, but we're looking at those sites now to see what we can do.

RIEPE: OK.

BRIESE: Thank you, Senator Riepe. Anyone else? Seeing no other questions, thank you for your testimony.

SETH VOYLES: Thank you.

BRIESE: Next proponent testifier, please. Welcome.

SHIRLEY NIEMEYER: Thank you, honorable senators. I'm handing out what I've already submitted online. And I just wanted to mention that in case you haven't had time to read it. I am Shirley Niemeyer, N-i-e-m-e-y-e-r, Shirley is S-h-i-r-l-e-y. I support LR21. I think and I'm not repeating what's in there, I think we have to move to more options other than the fossil fuels. It's really important. Some of the things I'm reading and the research that's being done is that global warming and climate change is happening more rapidly than they even expected or predicted. And the results of the scientists from NASA and the International Panel on Global -- Global Warming indicates that we have an escalation of melting ice caps. There's a crack in one of them, rising sea levels, more devastating disasters, and the changing locations of plants and animals, which affects Nebraska's agriculture. And so with that, I think we have to move to as many options as you can right now, including solar and wind and weather. And some of the states have already passed legislation.

BRIESE: Very good. Hold up just a second.

SHIRLEY NIEMEYER: OK.

BRIESE: Thank you for that. Any questions for the testifier? Seeing none, thank you again for your testimony.

SHIRLEY NIEMEYER: Thank you.

BRIESE: Next proponent testifier. How about any opponent testifiers? How about anyone wanting to testify in a neutral capacity? Welcome.

BILL HAWKINS: Good afternoon, Senator Briese, members of the Executive Board. My name is Bill Hawkins, B-i-l-l H-a-w-k-i-n-s. I'm a lifelong Nebraska person and citizen who has taken what the Legislature does pretty seriously. And this energy issue as coming here and testifying in neutral is a concern of mine as choosing to live here in Nebraska. And I'm a lifelong environmentalist. I have lived without electricity a lot on my farm out by Branched Oak Lake. And so my carbon footprint is probably a lot less than other people. And so in looking at all the bills coming to this Legislature this year, I'm looking at a sensible, sustainable energy program for the state of Nebraska. You would think because I'm an environmentalist, I would be in favor of wind and solar. I'm in favor of distributive energy where we have not for my whole life designed to take advantage of the sun. We don't have passive solar earth bermed houses. We have our foundations out of the ground. And yet now we're clamoring to cover 40 square miles with

solar panels that are not clean and green. Solar panels come from China with the oppressed people, toxic chemicals, and I guarantee you they are not carbon free. We have found out that our windmills that we want to cover our state as a cash cow are not as green. The carbon footprint for them, we cannot recycle the 200-foot blades that are stacking up in Wyoming. They're toxic waste. So we need a sensible approach. And I feel this modular nuclear issue needs to be studied. We need a diverse energy source. We need to conserve energy. But this modular nu-- nuclear energy source looks with our distributed population, where we've got groups of populations across a wide area of our state, this works. We already have the infrastructure. We do not have to put a huge power line system clear across our beautiful Sandhills and destroy the only Sandhills in the world. It makes no sense to ship power to Chicago or New York City. So as the legislative body, it is your task to look at a sensible, sustainable power source for our great state. And so I appreciate your time and I would be happy to answer any questions.

BRIESE: Very good. Thank you. Any questions?

BILL HAWKINS: Seeing none thank you.

BRIESE: Seeing none, thank you for your testimony. Any other neutral testifiers? I see none. Senator Brewer, you are welcome to close. And I do note that we have four proponent written position comments, one neutral comment.

BREWER: All right. I have a dream that someday Bill will come in, inin support of my bills because his neutral testimony, I love it, but
somehow I gotta--I need to get him over the edge to be a proponent.
But that's all right. I appreciate the fact he took time to come in
here. Thanks to OPPD. And I think this is the key part and the point
really, the ones that are on that list, I think the-- the Chair of
whichever committees designate-- they can designate someone in their
place. It was just those committees having oversight is the part that
I want. For this to work, I think we have to be with public power.
They understand how it works. They understand the needs. And we need
to gather to figure out what that future should look like and how we
get there. And that's the idea behind the-- the study. So with that,
I'll take any other questions you have.

BRIESE: Thank you, Senator. Any questions? Senator Lowe.

LOWE: Thank you. I just did a quick check of the Navy bases that we have in the United States, and I think there are about ten and they all seem to be in highly populated areas. And they probably all have at least one nuclear powered ship there at almost all times. So are you saying that the Navy thinks it [INAUDIBLE]?

BREWER: Well, I will tell you that there probably are occasions where the Department of Defense is more focused on being prepared to fight a war than maybe as much of a focus on safety is as you may be otherwise. But I also know that they come under a lot of scrutiny, too, and they've got years of success in using a smaller nuclear type of system. And— and I just don't think that the modular will be that much of a transition from what we call the mini now, which is— but keep in mind, a— an aircraft carrier is about 5,000—plus folks. So it's a pretty good sized requirement for that to have a nuclear reactor and meet the needs. So, you know, I just— the military probably has set a good path ahead. But what we need on the civilian sector is going to need a few more safety checks, I think.

LOWE: Thank you.

BRIESE: Thank you, Senator Lowe. Anyone else? Seeing no other questions, thank you, Senator Brewer. And that will close the hearing on LR21. And with that, we will open the hearing on LB566. Welcome, Senator Bostelman.

BOSTELMAN: Good afternoon, Chairman Briese, members of the Executive Board. My name is Bruce Bostelman, spelled B-r-u-c-e B0o0s0t0e0l-m-a-n, and I represent Legislative District 23. I'm here today to introduce LB566. LB566 would provide the Natural Resources Committee the ability to conduct a study examining what, if any, are the economic impacts of intermittent and dispatchable electricity generation, as well as current trends in generation. The bill provides an appropriation of \$30,000 which can be utilized to contract with a consultant who can assist with performing the study. Specifically, the study would examine three questions: should short-term and long-term costs and risk, if any, of replacing base load generation with intermittent renewable energy; the economic benefits of maintaining base load energy; whether the current trajectory of increased reliance on intermittent renewable energy threatens the ability of power suppliers to maintain existing base load generation, as well as developing new base load generation sufficient to meet the energy needs of Nebraska. As energy policy around the nation is shifting to a more diverse set of generation sources, it is prudent for the Natural

Resources Committee to examine the potential effects of those policies. These policies could make a-- could have a direct impact on livelihoods of thousands of individuals In Nebraska. Base load energy plants like nuclear, natural gas, and coal employ hundreds of employees with high-paying jobs. Many times, these jobs are located in communities where the power plant is a main employer such as Gerald Gentleman in Sutherland, Nebraska. Decommissioning these plants, whether it be due to age or to replace them with new technologies or an intermittent generation, may have an impact on these communities. And we should know what that impact might be. As other states push forward with increasing the diversity of their generation mix, the North American Electric Reliability Corporation, or NERC, has recently raised numerous concerns that some regional transmission organizations or RTOs such as the Midcontinent Independent System Operator or MISO to our east will not be able to meet their peak load demands. And care must be taken to ensure dispatchable generation is not only available today but into the future to meet the growing demand. After Winter Storm URI, the Southwest Power Pool has raised concern as to how the market will meet demand into the future. In response, SPP recognized the need to increase their planning reserve margin. In June 2022, the SPP board voted to increase the reserve margin from 12 percent to 15 percent. And the board also approved a change in how they accredit the generation sources, changing to a performance-based capacity accreditation. And I have handed out two maps, the 2021-2022 maps that speak specifically to Sections 1(c) of the bill. The Natural Resource Committee is responsible for oversight of public power. And over the last several years, the committee has held numerous hearings and studies involving this industry. In 2014, the Legislature commissioned the Brattle Report, which was an in-depth report looking at the trend of increased renewable genera -- energy generation, transmission and distribution in Nebraska. More recently, the committee studied the response and recovery from the bomb cyclone in 2019, the response to the 2021 Winter Storm URI, as it affected power generation, transmission distribution in the state and the role of the Southwest Power Pool during this time. While these previous studies have examined the generation capacity mix and transmission, LB566 is intended to look at the economics of the change in generation mix. The study would be conducted by an independent third party and provide the Legislature with an unbiased look for the people of Nebraska. With that, I ask for the advancement of LB566 to General File and will answer any questions you may have.

BRIESE: Thank you, Senator Bostelman. Any questions for the Senator at this point? Seeing none, thank you. Be here to close I assume. Very good. Any proponent testimony? Welcome.

RANDY EMINGER: Thank you, Mr. Chairman, committee. I'm Randy Eminger, executive director of the Energy Policy Network. I'm out of Arkansas, but represent base load generation. We do research-- yes, sir.

BRIESE: Go ahead and spell your name.

RANDY EMINGER: I'm sorry. Randy, R-a-n-d-y, Eminger, E-m-i-n-g-e-r. I'm here today to support the senator and his bill. We are in all of the above -- all of the above organization. However, we focus on coal-based generation and the need to keep coal-based generation in the mix. We feel like it is an important part. Although nationally it's 20 percent of the capacity, it continuously is called on, especially in extreme weather events, to double that to 40 percent of the electric generation. I would ask that you focus on just a couple of charts that I have put in the packet on the right, and it really deals with the Southwest Power Pool, which the senator had just talked about. Nebraska is a member of the Southwest Power Pool, and like it or not, it's basically in control of a lot of what goes on throughout from North Dakota all the way down to Texas south. Electricity moves at the speed of light and it's transferred ever so quickly from one state to the other. As you'll note from this chart, I'd like to start with the fact that the past five years electric utilities in the Southwest Power Pool have closed 15 base load power plants: one nuclear, seven coal, and seven natural gas for 7,000, I mean for 4,738 megawatts. That's equivalent to 2.8 million homes. They replaced this base load, 92 percent, with wind and solar generation during this last five years. By 2030, if the utilities go forward with what they've said they're going to do in the Southwest Power Pool, they'll close another nine base load power plants for another 5,700 megawatts or 3.4 million homes, average generation. The second chart, I'd just ask that you look at the one on the right real quick since time is limited. If that goes forward by 2030, 56 percent of the electric generation in the SPP will be intermittent power, will be wind and solar, will be weather following depending on the wind and the sun and when it shines. SPP is rated wind generation at 17 percent capacity factor, solar at 35, nuclear at 95, and coal and natural gas at 9 percent capacity factor. The third slide is really key here, and that's that they're showing more and more supply chain problems with solar since most of that comes from China. And silicon and graphite are harder and harder to come by. These show FERC says there's 8,100 renewable

projects totaling 1,400 gigawatts of generation that have not been built because of transmission, as well as—as well as supply chain issues cost associated. I'll end with this, Mr. Chairman, real quick and that's that official records in the state of Texas show that 248 people died from Winter Storm Uri from hy—hypothermia. They froze to death. Let's not let those voices fall on deaf ears.

BRIESE: I hate to cut you off. I appreciate your information. Appreciate the packet you provided us with. Any questions for the testifier? Seeing none, thank you. Next proponent testifier. How about opponent test-- proponent?

BILL HAWKINS: Proponent.

BRIESE: Come on up. Welcome again.

BILL HAWKINS: Good afternoon, Senator Briese, Chairman, and the members of the Executive Board. My name is Bill Hawkins, B-i-l-l H-a-w-k-i-n-s, and I thought I would surprise people in coming in as a proponent for this, gives me a little more leeway. I will repeat that we need a sensible, sustainable power source for Nebraska. It needs to be a combination of different technologies. We are just -- we aren't experiencing it, but there's a huge blizzard that's going across the northern part of our great country right now. And-- and I've been told a couple of years ago when we had a big snowstorm that Lincoln's solar panel field on West O Street remained covered with snow for days. So through that blizzard that's going across our northern country right now, every solar panel field up there is covered with snow. You can't drive out there and uncover them. So when, if you shut down all of our coal plants, and I'm not in favor of coal, I'm sure we can clean it better, but you don't have any energy. We talk about the -- right now the big push is lithium battery storage. For our alt-- our alternative energy, we must have battery storage for when the sun doesn't shine or it's covered for days in bitter cold weather, you have no energy. We're opposed to coal mining, which is dirty and everything. If you research lithium mining, it is extremely toxic. It is not good for the environment. And lithium batteries don't last as long as they are. So they have issues, too. I'm not in-- totally opposed to, quote, green energy, but we need to have a distributive, sensible, sustainable look at this. So I'm here and as a proponent for Senator Bostelman's LB566 And so you have a weight on your shoulders to look at Nebraska's future. So thank you for your time and I hope you get a little break. So thank you.

BRIESE: Thank you. Any questions? Seeing none, thank you for your testimony.

BILL HAWKINS: Thank you.

BRIESE: Next proponent testifier. Seeing none, how about any opponent testifiers? Anyone who's wishing to testify, please feel welcome to come up to the front seats and that'll save us a little time when the time comes. Welcome.

AL DAVIS: Good afternoon, Senator Briese, members of the Executive Board of the Legislative Council. My name is Al Davis, A-l D-a-v-i-s. I'm reg-- registered lobbyist for the Nebraska Chapter of the Sierra Club and also here speaking today on behalf of Nebraska Farmers Union since John couldn't be here. Renewable energy has changed the face of power generation and distribution across the nation. Solar and wind energy is now a cost effective alternative to traditional power generation and used extensively in states with both liberal and conservative governance. Nebraska lags behind most of our neighboring states in the adaptation of renewable energy, partly because the unique public power structure in Nebraska excluded the developers from early tax credits. That has changed significantly through legislative efforts to deregulate the industry and permit private developers to construct wind and solar farms for sale to our own public power entities, but also as an export crop. Billions of dollars have been invested in the industry in Nebraska over the past decade, generating millions of dollars in income to farmers and ranchers working with the developers. Further, these projects generate millions in tax dollars through the nameplate capacity tax and provide good paying jobs in parts of the state, which have lagged the rest of the state in quality job growth. LB566 is far too narrow in assessing costs and benefits to the renewable in-- to the renewable industry. And an economic impact study must include the benefits to the state from this relatively new energy sector and what it does to reduce energy costs for consumers and the impacts it has had on our state's economy. As to this study, public power employs numerous individuals whose job is to manage a complex power structure. The experts at NPPD, OPPD, and LES have certainly performed the type of assessment which this bill specifically calls for. In addition, the public has elected power board members who have studied the industry and are steering the state's energy future through coordinated efforts with private developers and through our association with regional compacts. What does a legislative study do besides sit on a shelf collecting dust? The study excludes one of the most obvious problems associated with

the fossil fuel industry-- pollution, which kills Nebraskans through its emissions and the long-term damage with global warming will inflict upon our state. The 2012 summer season saw massive fires across the state, the degradation of grazing land, and exorbitant power demands by irrigators. We must remember that reducing global emissions is essential if we want to avoid a future where 2012 becomes the norm in our state. If this study moves ahead, it is essential that the ramifications of global warming be factored into any cost-benefit analysis associated with the study. Finally, innovation and technological breakthroughs appear to be imminent, which will change how power is generated, stored, and delivered. For example, a fully charged electrical vehicle can provide stored power to a homeowner for two or three days, and the move to electrically powered vehicles, coupled with the appropriate interconnection that the residents could provide a significant redundancy factor to the power generation-generators at NPPD, OPPD, or LES. Without factoring in what innovation can bring to the table, this study will be obsolete as soon as it is completed. The study is superfluous and unnecessary. It is constructed to produce a result rather than to produce a straightforward answer about powering Nebraska's future. The bill should be killed outright, since it serves as a warming-- warning to entry-- entities in the renewable industry that Nebraska is not open for business. Thank you.

BRIESE: Very good. Thank you.

AL DAVIS: I had to rush through that to get it out.

BRIESE: Very good timing, appreciate that.

AL DAVIS: Thank you.

BRIESE: Any questions? Senator Lowe.

LOWE: Thank you. So this is for an economic study. Correct?

AL DAVIS: Yes.

LOWE: And haven't you stated before that it's generating millions of dollars for landowners and for--

AL DAVIS: I just did state that, yes.

LOWE: Yes, you did that. So are you arguing for it or against it?

AL DAVIS: I think that the study doesn't include those factors. I think it includes only things that are pertinent to other things. It's not adding in the benefits that we're getting from the renewable industry that we have in the state. I think that needs to be played a part, and I don't see that in this bill.

LOWE: Well, it could be just discussed through this committee.

AL DAVIS: It could be, yes.

LOWE: So all right. Thank you.

BRIESE: Thank you, Senator Lowe. Anyone else? Seeing no other questions--

AL DAVIS: Thank you.

BRIESE: --thank you for your testimony. Next opponent testifier. Welcome.

MIA PERALES: Good afternoon, Chairman Briese and members of the Executive Board of the Legislative Council. My name is Mia Perales, M-i-a P-e-r-a-l-e-s, and I'm a student from Omaha South High School. I'm from Students for Sustainability. We are a multi-high school organization composed of students all over Nebraska. And we are here today to ask you to please say no to LB566. This bill proposes a study to examine the economic impacts and risks of intermittent energy. Even as an AP biology student in high school, familiar to many scientific studies, I can tell you this study is far too narrow. Scientific studies should acknowledge all risks and variables while this study blatantly ignores the continued reliance on carbon-based energy and fails to acknowledge fossil fuels as a finite resource. There have been plenty of studies showing the benefits of renewable energy compared to coal. From an economic standpoint, it does not make sense to spend \$30,000 on this study when the facts are already there. The price of renewable energy has declined by 80 percent in the last decade. In Iowa, with an almost sim-- with an almost exact climate as Nebraska, is championing -- championing in renewable energy, therefore surpassing our use of renewable potential. A lot of people in Nebraska, politicians specifically, want to know why young Nebraskans are leaving. I can tell you it is not because the prices of property taxes are raising. It is because our voices aren't being heard and they're not being taken seriously. So I ask you to please think of

Nebraskans' future and the future of young people in Nebraska and say no to this bill. Thank you.

BRIESE: You bet. Thank you. Any questions? Seeing none, thank you very much for your testimony. Next opponent testifier. Welcome.

HUNTER OAKLEY: Good afternoon, Chairman Briese and the members of the Executive Board of the Legislative Council. My name is Hunter Oakley, H-u-n-t-e-r O-a-k-l-e-y, and I'm a student at Central High School and also a member of Students for Sustainability. And I came here today to talk about this study because it's focused entirely on the negative effects of renewable energy, while only focusing on the positive effects of fossil fuels. And this is just a blatant bias. And I think that the other testifier earlier stated very clearly that it seems to be looking only for a result rather than an actual study. And I think that that's very biased and one of the reasons why many young people in the state have been leaving because studies like this go ahead and they don't really consider both sides of the equation. They just kind of go to support things like gas and coal lobbyists want to see. And with bills like these being put forward, it's what will lead to less renewable energy being put forward. And that's, I think, it is a severe concern for members of the board as well as any politicians in Nebraska, as nonrenewable energies, specifically coal, lead to pollution, very specifically with air pollution affecting crops. And with Nebraska having such an agriculture heavy economy, air pollution affecting crops is a very big deal in my opinion. And with studies like this going forward that are so narrow-minded, I just think that you should all be opposed. And that's kind of it. Oh, sorry.

BRIESE: No, very good. Any questions? Seeing none, thank you very much for your testimony.

HUNTER OAKLEY: Thank you.

BRIESE: Next opponent testifier. Welcome.

CHLOE JOHNSON: Hello, Chairman Briese and members of the board. I'm Chloe Johnson. I'm also from Omaha. And I'm also the director of Students for Sustainability. I--

BRIESE: Could you spell your name for us?

CHLOE JOHNSON: Oh, C-h-l-o-e and then Johnson, J-o-h-n-s-o-n.

BRIESE: Perfect. Thank you.

CHLOE JOHNSON: So as we walked in here today, I'm sure you all noticed that it is bitterly cold outside. It is not just a cold winter day. It is almost personal how cold it is. I was just over the weekend, I was in Colorado for a scholarship opportunity at a university there. Because while I was offered more money at schools here in Nebraska, I wanted to be somewhere where I knew I could find a job in the career industry I'm interested in, which is renewable energy. And that is, I cannot find that here where my family is. Adding to that, while I was in Colorado and it was the same temperature outside, it was not cold. It was not personally, aggressively cold. That is because here we have wind. We have no-- we are a plain state, unlike our neighbors, and we have no mountains or great hills to block wind. While that makes it pretty miserable to be outside right now, it is a huge asset to our economy that is going underutilized. Our neighbor, Iowa, is using 60 percent wind energy right now. They're known as a national champion of wind energy. They are benefiting from tax revenue in their schools and all over their state because they are using this resource. We have even more potential for not just wind but also solar. And we are not using it. We are to-- to go ahead with this bill is to blatantly, blatantly not look at the positives that renewables could use. That is, there is a clear purpose to how this bill is written. It is only looking at the negatives of renewables and the positives of fossil fuels because the person that wrote this bill knew that if it were a direct comparison, renewables would win, economically and morally. We are currently denying farmers the income that they could be receiving from having wind and solar on their land. We are denying Nebraskan citizens the benefits of-- from tax revenue from these industries. And we are denying all Nebraskans a safe future as climate change, which 97 percent of scientists agree is human caused, that is higher than the number of scientists who agree that cancer is related to cigarettes. Scientists are telling us they are begging to pay attention to the fact that current coal pollution is hurting public health. It is hurting our crop yields. And the future of climate change will bring shorter growing seasons and more unpredictable weather, which, if you are representing farmers, which I believe many of you are, that is violence against them and what they do for all of us.

BRIESE: I'm going to have to shut you off there, stop you there. But we have your notes here, appreciate that. Any questions for the testifier? Senator Lowe.

LOWE: First of all, I'd like to thank all three of you for coming down and testifying today on this bill. It takes a lot of guts to come down

and sit in front of old curmudgeons like us. We had Mr. Hawkins come and testify on the last bill, or on this bill also about how dirty renewable energy really is. Have you studied any of that, the disposal of the wind blades, the--

CHLOE JOHNSON: Yes.

LOWE: -- the batteries and things like that.

CHLOE JOHNSON: So what renewable energy is, is a booming industry, which means it is not perfect. There is no perfect solution. But the bottom line is that fossil fuels are a finite resource, while renewables are by definition, not a finite resource, meaning the switch will have to happen at some point whether we want to leave it for future generations to deal with or not. There are many ways to recycle wind turbines. That is, if we are not passing legislation that is banning the recycling of them, which has happened, there are ways to recycle those. It is not -- it is absolutely not a necessary waste. And lithium batteries actually have never been cheaper than they are now. And there are many people who are working on finding alternatives to that as a battery source. But if I can just say one more thing, I would like to say that a lot of this bill is looking at renewable energy in terms of being an intermittent resource, meaning that people will be left hanging because there will be times where the sun is not out. However, there are no solar or wind plants being proposed that do not also have a gas generator. Currently in north Omaha, we are closing our coal power plant, but we are building two different gas plants. Those plants will only be used for gas power about 10 to 15 percent of the time. The rest of the time they will be used using solar or wind. But we will-- so the-- the feasibility aspect is simply not true because no one is-- no one is proposing solely solar. They're proposing hybrids always.

LOWE: Thank you.

BRIESE: Thank you, Senator Lowe. Anyone else? Seeing no other questions, thank you very much for your testimony.

CHLOE JOHNSON: Thank you.

BRIESE: Any other opponent testifiers? Seeing none, anyone else or anyone wanting to testify in the neutral capacity? Welcome.

SHIRLEY NIEMEYER: Thank you. Honorable Senators, Shirley Niemeyer, S-h-i-r-l-e-y N-i-e-m-e-y-e-r, and I am neutral on LB566 for a couple

of reasons. I, too, think perhaps we need to look at the environmental damage of the traditional fuels as part of this, but some of that has already been done. So maybe just looking at the existing data that talks about the pollutants and the cost and the cost to healthcare, it's out there. So I think it could be included in this, too, to broaden the evaluation. But you won't-- that's more than \$30,000 to do some things like that. I think we need to continue to diversify our energy sources, such as wave action, wind, solar and newly developed potential from plants, a cellular energy and etcetera, to even move to moderate the damage that is being done and will be done by global climate change and warming as predicted by scientists throughout the world. There are new options for stabilizing the grid, and they're being researched and developed throughout the world. They just need a little more time. And I want to give you some information from the University of Sydney in Australia from Science News. New battery technology has the potentially to significantly reduce energy storage costs. They have developed -- researchers have developed a new long, low-cost battery built with four times the capacity of lithium. An international team of researchers from their university school of chemical and biological molecular engineering are hoping that a new low-cost battery, which holds four times the energy capacity of the lithium batteries, is far cheaper, will significantly reduce the cost of transitioning to a decarbonized economy. The battery has been made with sodium sulfur, a type of molten salt that can be processed from seawater and costing much less to produce than lithium ion. The battery has been specifically designed to provide a high-performing solution for large renewable energy storage systems such as electrical grids, while significantly reducing operation cost. And 32 percent of Australia's electrical electricity needs came from clean energy sources. And so going on, but the batteries are used to store energy from renewable sources like solar and wind. And according to the head of the Asia Pacific Economics and Policy, it can be used alongside a solar farm to help smooth the output and make any disruptions less likely and much more manageable. And storage is also very likely to go into your local substation and can reloose-- can reduce the alliance on the system. And it makes operating the network better, stronger and cheaper. And I'm sorry I didn't write this out. I'll try to get this through you via the online.

BRIESE: OK. Very good. Any guestions?

GEIST: No, but I would like that information.

SHIRLEY NIEMEYER: OK.

GEIST: [INAUDIBLE]

BRIESE: That would be great.

GEIST: Sorry.

SHIRLEY NIEMEYER: OK. I will make sure that I get it to-- on this system. Thank you very much. And I, too, really appreciated the young people's testimony. They're the ones that are going to have to deal with the pollution and climate warming even more. Thank you.

BRIESE: Thank you for your testimony. Any other neutral testifiers? Welcome.

LINDSAY MOUW: Thank you. Good afternoon, members of the Executive Board. My name is Lindsay Mouw, L-i-n-d-s-a-y M-o-u-w, and I'm here to testify on behalf of the Center for Rural Affairs, testifying in the neutral capacity. The center would like to propose an alternative study to be conducted by the Natural Resources Committee through an independent third party. A specific value of solar study is an opportunity to assess the benefits of distributed generation and better plan for investments that provide maximum benefits to society. The study would take a uniform approach to establish the true value of the electricity produced by distributed energy systems and help determine a transparent and market-based rate that utilities should pay for solar energy. Many studies have been completed to quantify the value of privately generated solar to the grid. Most recently, in 2020, Iowa passed a bill that required the Iowa Utilities Board to conduct a value of solar study to determine what a fair compensation rate would be for their customers. This bill passed with bipartisan support and was supported by utilities, agricultural groups, trade associations, and environmental groups. Similarly, in 2014, the Minnesota Department of Commerce conducted a value of solar study as well. Minnesota's analysis calculated that the credit had value of solar as the total avoided costs of utility to a utility for private generation, and found that the value of solar through this supported cost was greater than the retail rate of electricity and found that net metering undervalues rooftop solar. A value of solar study can shed light on the economic benefits of distributed solar that may not be readily apparent, such as the cost of purchasing energy from other sources, the cost of building additional power plant capacity to meet peak energy needs, providing energy for decades at a fixed price, and reducing the wear and tear on our electric grid, including power lines, substations, and power plants. In Nebraska's current net

metering policy, compensation for excess generation is equal to the local distribution utility's avoided cost of electricity. Without a value of solar study, utilities may be underestimating the benefits of private generation within its avoided costs. Nebraska could pursue a similar study to the value of solar to identify the true value of privately generated solar, which offers numerous benefits to the utilities and the grid. In rural communities, customer-owned systems can boost the reliability of electricity service and can reduce peak demand hours, providing greater reliability to the service and to reducing those peak demand charges, which lowers costs for everyone. According to the National Renewable Energy Laboratory, Nebraska ranked sixth for the highest utility demand charges in the country. In the handout that you will have, I provided more information about a value of solar study and example language from Iowa's code describing the methodology for the study. Similar to Iowa, the Center recommends that the committee consider conducting a study with an independent third party to allow interested parties to comment and offer testimony on the proposed methodology before it is adopted by the committee. I believe that a value of solar study would give insight into the comprehensive value of solar and the benefits it provides to the grid, our utilities, and greater society. Thank you for your time and I'd be happy to answer any questions.

BRIESE: Thank you. Any questions? Seeing none, thanks for your testimony.

LINDSAY MOUW: Thank you.

BRIESE: Any other neutral testifiers? Seeing none, Senator Bostelman, you're welcome to close. And I do note that we have several written position comments: 7 proponents, 18 opponents, and 1 neutral comment.

BOSTELMAN: Thank you, Mr. Chairman. We go to the bill itself on page 2, I want to direct you to three words. First before we get to that, this is an oversight. Thank you. Oversight we've had before, Natural Resource Committee has had before on— on public power. So we're talking about an oversight type of a bill. On line 7, the second word is economics— economic. On line 10, I think is about the seventh word again, economic. Speaking to the first one on line 7 on economics, Mr. Davis has testified in hearings before on bills that I've had. And it says, renewable industry has provided millions of dollars in income to Nebraska farmers and ranchers, millions in tax relief, provided a number of good paying jobs across Nebraska. John Hansen has come in and testified, I believe, was \$16 million of new annual income to

Nebraska farmers, \$21.3 million of new local tax revenues, 400 estimated direct and 7,640 construction phase jobs, \$6 billion of new capital investment tax relief. David Bracht come in and provided another handout on another one of the bills that we've had, six-- \$6 billion in tax and investments, \$15.8 billion in other areas. So the bill isn't, I would say the first A actually supports the renewables in what's been testified by both Al Davis, John Hansen and David Bracht in the committee hearings we've had before. In Section B, subsection (b), maybe you change the word "the" to "any" economic benefits. You know, I do believe, as the previous testifiers say, natural gas is a backup to wind and solar. Well, that's looking at that. Natural gas is a part of that. Or if it's-- if it's a nuclear, whatever it might be, it's just looking at that, seeing what that is. And the last one as you look is a determination whether the trajectory. And I want to-- with that, I want to draw your attention to the maps I handed out. The 2021 long-term reliability assessment map, if you look in the middle, that's SPP that's-- that's not colored. That's SPP. We have no risk, limited risk. Now we go to 2022, long-term reliability assessment. SPP is now at an elevated risk, one year. We go to the back of the form that have a first paragraph, the last sentence says this: This 2022 LTRA also identifies reliability trends, emerging issues and potential risk that could impact long-term reliability, resilience and security of the BPS. NERC, FERC, SPP are all looking at similar information. The thing that's different and see in what generation we have, what generation we need to make sure we have as far as a base load to support what we have on renewables and how to move forward as a state. They're doing it on a national or in a RTO level. This is just asking take a snapshot look, take a look at what it looks like in Nebraska. And, you know, if public power doesn't feel like we should be taking a look at this, I guess my question would be why? I think this is just an opportunity for us to take a look like the Brattle Report did. I don't think there's much difference in there. It's just to take at least three elements of this. And spe--the specifics in it detail it's drafted this way so there is not specifics to look specifically at this portion, this portion, or that portion. That will be up to the study. So with that, I believe the other thing I would-- would draw the committee to, if you look at the map with SPP in yellow and just to the east, the red-the red, that's Iowa. That's Iowa. And if you look at MISO, MISO says we're at high risk. We are at a high risk of not having energy available for us in high demand areas. So there is a place in there for the renewables [INAUDIBLE]. This is just a look at those areas to make sure in a snapshot, are things looking, going in the right

direction? If not, then it would be up to the committee or others to cite if anything needed to be done. So with that, I'll take any other questions you may have. And I would like to again thank any of the testifiers come in. I do appreciate their testimony. Thank you.

BRIESE: Very good. Senator. Any questions for Senator Bostelman? Senator Vargas.

VARGAS: This is not a question. Well, it's kind of a question. I think what I heard from some of the testifiers in opposition is they're not seeing language that is like, for example, if we're talking about, quote unquote, intermittent renewable energy generation, what are—what should we—what can we be doing to ensure that there's infrastructure development so that renewable energy is more reliable? That's—are you opposed to putting language in this that would study that as well? Because nobody's—I don't think I heard from them that they're against studying the economic risks or benefits of renewable energy generation. It's that what are the barriers to make it more sustainable is the question I have. Are you opposed to putting that kind of language in this as well so we study all aspects of it?

BOSTELMAN: Right, no, great question and great comments. And specifically do not want to direct specific questions to be asked by it. It was more to be— to have as the consultant would look at it, those would be all factors when you look at energy as transmission, distribution, and generation. But again, it's back to the economics of if you have a solar facility, what's the economics of that to that community? How does that affect that? How does that affect the jobs? How does that affect the community itself? If you have a gas facility, you know, how does that affect that community? What are the jobs? What is it? That's the economics of that specific thing. That's what I was looking at, I guess I would say. And I'm—— I guess if the transmission needs to be added into it, I don't know how that would.

VARGAS: I like what you just said. I think when I read this, it only focuses on the risks and the costs rather than the benefits. And I think that's--

BOSTELMAN: That's my intent.

VARGAS: Yeah.

BOSTELMAN: My intent is to take a look at.

VARGAS: Yeah. I think that's the difference between what you're saying and what we're reading. And if this is something that indeed to get out of committee we wouldn't-- I wouldn't want to put a question that we're asking the consultant to answer a pointed question, and that the question is more opened up to what you just said.

BOSTELMAN: Exactly. I don't want to limit what the scope might be. I want that to be open for that to happen.

VARGAS: OK.

BRIESE: Very good. Thank you, Senator Vargas. Any other questions? Senator Bostar.

BOSTAR: Thank you, Chairman Briese and thanks, Senator Bostelman. I have a, and I'll be brief. I have an unrelated question. LR21, the hearing we just had before this--

BOSTELMAN: Sure.

BOSTAR: --the nuclear. You've done a lot of work on nuclear. I was curious. It was introduced by Senator Brewer and. cosponsored by Senator Erdman. Is that-- is that something that you support as well, having kind of sort of led the charge on a lot of the nuclear stuff in the Legislature?

BOSTELMAN: To have a what, I'm sorry, to have an LR look at it?

BOSTAR: To-- to create a special committee for--

BOSTELMAN: Sure.

BOSTAR: I was just curious. Thank you very much.

BRIESE: Thank you, Senator Bostar.

BOSTAR: I was surprised not to see your name on it, that's all.

BRIESE: Anybody else?

BOSTELMAN: Well, to answer your question--

BOSTAR: Yes.

BOSTELMAN: --because when it first came out, he did ask, I think, but I didn't know what committee it was going to go to. And typically, if

it comes to my committee, I don't cosponsor bills. And I guess we just never came back around to it.

BOSTAR: That makes sense. Thank you.

BRIESE: Very good. Thank you, Senator Bostelman.

BOSTELMAN: Thank you.

BRIESE: That will close the hearing on LB566 and that closes our

hearings for today.