CLEMENTS: Let's call this meeting to order. This is the Appropriations Committee. Welcome to the Appropriations Committee. My name is Rob Clements. I'm from Elmwood, represent Legislative District 2, which is Cass County in eastern Lancaster County. I serve as Chair of this committee. We'll start off by having the members do self-introductions, starting with my far right.

LIPPINCOTT: Loren Lippincott, District 34.

VARGAS: District, District 7, Tony Vargas, south Omaha.

DOVER: Robert Dover, District 19.

DORN: I'm Myron Dorn, District 30.

ARMENDARIZ: Christy Armendariz, District 18.

CLEMENTS: Assisting the committee today is Cori Bierbaum, our committee clerk. To my left is our fiscal analyst, Keisha Patent. If you're planning on testifying today, please fill out a green testifier sheet located by both doors and hand it to the clerk when you come up to testify. If you will not be testifying but want to go on record as having a position on a bill being heard today, there are yellow sign-in sheets by both doors where you may leave your name and other pertinent information. These sign-in sheets will become exhibits in the permanent record after today's hearing. To better facilitate today's hearing, I ask that you abide by the following procedures. Please silence your cell phones. When hearing bills, the order of testimony will be introducer, proponents, opponents, neutral, and closing. When you come to testify, spell your first name-- first and last name for the record before you testify. Be concise. We request that you limit your testimony to 5 minutes or less. Written material may be distributed to the committee members as exhibits only while testimony is being offered. Hand them to the clerk for distribution when you come up to testify. Please make sure you have 12 copies. With that, I'll turn the hearing over -- well, I'm going to say, we're going to-- we have three bills today. We'll take them in bill number order. And I'll now turn the hearing over to Senator Vargas and go ahead.

VARGAS: OK. Welcome. LB23. Senator Clements, thank you for being here. Chairman Clements.

DORN: Sorry. We don't have a, a helper and usually we have the bill number on the thing. Do they-- yeah.

CORI BIERBAUM: I will print those. [INAUDIBLE].

DORN: Because this is -- I mean, this is --

ARMENDARIZ: Official.

DORN: Oh, yeah, yeah.

VARGAS: It's been a short tenure doing this, I've already messed up.

DORN: No, you didn't.

VARGAS: I get it. I get it. It's all right. Sorry, the kids have to see this. LB23. Senator-- Chairman Clements, thank you very much.

CLEMENTS: We'll get the bill number here up on the stand. Thank you, Acting Chair Vargas. My name is Rob Clements, R-o-b C-l-e-m-e-n-t-s. I'm here to introduce LB23. The following constitutes the reason for this bill and purposes for which are sought to be accomplished. LB23 is a shell bill, introduced to provide a contingency in the event that the Appropriations Committee needs an additional bill to carry out its budget recommendations in the 2024 First Special Session. It deals with the Cash Reserve and fund transfers, which is part of the Governor's Special Session call, and I have no other comments about it. Would be glad to take questions.

VARGAS: Any questions? I have one question. I know we had it—and this is largely for the record, because you and I had this conversation, Chairman Clements, regarding, you know, shell bill, because the bill as it currently stands could be modified. Maybe we don't move forward with it. It's a necessity. However, I don't know if you had any comments or response to if we did put something that's not in the call in the shell bill, how you would handle that? What communication is like with the Speaker? I just want to make sure that we're above board on what we put out.

CLEMENTS: I would intend to follow the call. But I would-- yes, I would talk to the Speaker first to see if he would be willing to schedule a bill that had something outside of the specific call.

VARGAS: Thank you. Any other questions? Thank you very much, Chairman Clements. Will you stay for your closing?

CLEMENTS: I waive my closing.

VARGAS: OK. Thank you. Any proponents for LB23? Any opponents for LB23? Anybody in the neutral capacity? You waived your closing. Thank you very much, Chairman Clements. That closes the hearing on LB23. We'll now open the hearing on LB24. Chairman Clements, thank you for being here.

CLEMENTS: Thank you, Acting Chair Vargas. My name is Rob Clements, R-o-b C-l-e-m-e-n-t-s. I represent District 2. I'm here to present LB24. LB24 is a shell bill, introduced to provide a contingency in the event that the Appropriations Committee needs an additional bill to carry out its budget recommendations in the 2024 First Special Session. It deals with appropriations of state agencies, which is part of the Governor's Special Session call. And right now, I don't have any content that I know that we'll need, but it was just-- it's a contingency in case we would need it and I would be glad to answer questions.

VARGAS: Thank you very much, Chairman. Any questions? Seeing none, thank you. Will you stay for your closing?

CLEMENTS: Yes.

VARGAS: Thank you. Any proponents for LB24? Seeing none, any opponents for LB24? Seeing none, anybody in the neutral capacity for LB24? Would you have any departing words, you didn't waive your closing?

CLEMENTS: Thank you for committee and I will, again, endeavor to follow the call if there are content put in-- put in this and double check with the Speaker for his approval before scheduling.

VARGAS: Thank you, Chairman Clements. Any other questions? I see none. That closes the hearing on LB24. I almost took your gavel.

DORN: All that stuff for two shell bills.

CLEMENTS: Well, the next bill we have is LB58 from Senator Wayne. Is somebody able to contact him? Clerk, could you?

VARGAS: Looks like Fred Knapp-- Fred-- Fred's going to introduce this one. Right, Fred?

FRED KNAPP: What, what is it?

VARGAS: I'm just kidding.

FRED KNAPP: It's a great bill.

CLEMENTS: This will fix all of the problems.

VARGAS: Is she already texting Justin? I'll text him.

CLEMENTS: Cori, are you calling his office?

CORI BIERBAUM: I'm going to.

CLEMENTS: Oh, you are? All right. Thank you. We will stand at ease until we hear from the introducer. I don't know if he has bills in other committees or, or what.

VARGAS: I'm assuming so.

CORI BIERBAUM: They're not answering in their office.

CLEMENTS: Is the system ready?

CORI BIERBAUM: Yep, we're good.

CLEMENTS: All right, we'll now open the hearing with-- for LB58. Senator Wayne, you may proceed.

WAYNE: Thank you, Chairman Clements. My name is Justin Wayne, J-u-s-t-i-n W-a-y-n-e, and I represent Legislative District 13 which is north Omaha and northeast Douglas County. LB58, right, which I don't--

CLEMENTS: Yes, LB--

WAYNE: Oh, Appropriations, that's why we're in Appropriations because it says appropriate. I thought this would go to Natural Resources, but that's OK. So as I was thinking about property tax relief and those kind of things, we're coming to Special Session, I started thinking about when I was driving back and forth from Omaha to Lincoln that they're doing construction on the medians on both sides of the highway. So if you look at the highways, typically the interstates is four lanes and you got this big area in between that's grass that people hate cutting and doesn't really happen so I thought why don't we put solar panels in between those two and NPPD or OPPD could sell them back to the market as a way of revenue generating for the rest of the state to lower property taxes or at least lower their fees maybe. And so then I started thinking more about that. And then I thought another great place for solar would be on the canal that would help solve the issue of evaporation of water on the canal. And, again, we are trying to move to a, a greener industry. At least that's what both

NPPD and OPPD have testified to in the last couple years. And they're having a hard time finding land and all of these interstates and even highways, Highway 83 and now Highway 75, typically have four lanes with area in the middle. We can put solar trees— solar panels through them. My estimates, and based off of the calculation of how many square feet, these would be how many acres we would be able to produce close to 100-150 megawatts if we were to put these types of solar panels in between the, the four lanes. And that could generate almost \$5 million per year, 5 to 10, depending on the market. So that was a thought. Since we were throwing out everything, I wanted to make sure everything was on the table for property tax relief.

CLEMENTS: All right. Any questions from the committee? Senator Dorn.

DORN: Yeah, I understand your concept, right, it's on-- I call it, like the interstate, four-lane highways or whatever, then you're wanting to put these in the median?

WAYNE: In the median, high enough. Actually, South Korea has already did one. It's-- they use it as a bike lane, too, so people can bike and commute. But I figured our State Patrol and sheriffs would love to have a place to sit, not in the sun, and, and catch people speeding. But you could put them in the median. And what they've also started doing is putting them on the exit ramps in those areas that are quarter of a acre or acres on each side. So it's just a way. And, again, all this is is a study. They would have to, obviously, come with some different funding mechanism. But I think if we're looking at one of our natural resources is the sun, we can depend on it. It rises every day. If it doesn't rise, we probably have a bigger problem than, than solar. But, again, just an idea of how we could generate some revenue to lower property taxes.

DORN: One, one thought I have is what happens when we have vehicles that now they, for whatever reason, end up down in the median, they have a, you know, a wreck, basically?

WAYNE: Right.

DORN: Who-- who's liable or what-- I mean, is--

WAYNE: They would be liable. I think we could put up extra guardrails around those. But you got to remember, I'm thinking more of a tree so they'd be a little bit off the ground. There wouldn't be necessarily on the ground. They'd be higher and almost like a bridge all the way across. That's why I think I framed it a solar highway so it would be

raised. And, again, South Korea has already done it and other places are already doing it. Actually, in Michigan and Mississippi, they've been doing them on the off-ramps. So we have this land and it's available, I think we should put it into production.

DORN: Thank you.

CLEMENTS: Any other questions? I see you have a white copy amendment. Would you describe the changes in the amendment?

WAYNE: The amendment just gives some parameters of where to look and, really, it's just four lanes. If the committee were to kick this out, I would also add the canal or any other areas. But I was just trying to give some context of, of right now where the four lanes, interstates, and highways are located in the-- in the state of Nebraska.

CLEMENTS: Yeah. I see the green copy talked about construction, but the white copy talks about a study.

WAYNE: Study-- yeah, it would be a study. You couldn't do it for \$2 million, so it would be a study.

CLEMENTS: All right. Any other questions?

DORN: Over here.

CLEMENTS: Oh, Senator Dover.

DOVER: I was just wondering-- you know, we-- you know, we-- out in greater-- I guess, we, we have big blizzards come up, that kind of stuff, maybe you see cars that-- I mean, literally we travel always during Christmas season for a family reunion. We usually go to Iowa, it would be the same if we went the other direction to the west. And you just see, basically, cars and-- I mean, cars in the ditch everywhere when blizzards hit and those kind of things. And then during the summer, we see somebody-- someone will fall asleep driving a truck or something. I mean, do you know what-- like, say, you know, say, 100 feet-- if somebody went in and destroyed 100 feet of these solar panels, what would it cost to replace them?

WAYNE: No, I, I don't know off the top of my head what it will cost to replace them. I mean, I, I would think the insurance of the car would cover if it's only the \$25,000, probably or not. But, again, I think that all these questions would be answered in a study to, to help figure out if it's feasible. Again, I'm, I'm just saying we-- the

state and the counties own a lot of land and it just sits. I'm trying to think of a way to put it in some kind of production. May not be the best idea, it may be better for pheasant hunting, I don't know, but, but I'm trying to figure out a way to put, at least, the land back in production of some kind.

DOVER: Thank you.

CLEMENTS: Any other questions? Seeing none, do you intend to stay for closing?

WAYNE: No.

CLEMENTS: All right. Thank you, Senator. We'd now invite proponents for LB58. Is there any proponents? Seeing none, anyone here in opposition? Seeing none, anyone here in the neutral capacity?

WAYNE: Consent calendar.

DOVER: That's funny.

CLEMENTS: Welcome.

DAVE RICH: Good morning, Chairman Clements and members of the Appropriations Committee. My name is Dave Rich, spelled D-a-v-e R-i-c-h, and I am the sustainable energy manager at the Nebraska Public Power District. I have been with NPPD for 46 years. I am a registered professional electrical engineer with the State of Nebraska. I'm appearing today for the Nebraska Power Association in a neutral capacity to testify on the technical aspects of solar energy. The NPA is a voluntary association formed in 1980, representing all of the approximate 165 publicly owned, consumer owned electric utilities in the state, including municipalities, public power district, public power and irrigation districts, and rural public power districts and cooperatives. NPPDs experience with small solar includes 8 community projects installed over the last 8 years, ranging from 96 kW to 8,500 kW. Members of the Nebraska Power Association have community solar projects, including OPPD, Lincoln Electric System, Municipal Energy Agency of Nebraska, cities of Fremont, Hastings, Grand Island, many other cities, and many rural public power districts. To my knowledge, all of these projects take advantage of federal tax credits available to private ownership. And my question is, with the \$2 million provided for the solar project, and I did not understand it was for a study when these were developed or drafted so, you know, what would be the, the benefit? Would there be a positive return for the investment of that? And maybe it is now focused on actually the land utilization

which is a little different of what I'm answering here. But before, as part of this study, there would need to be a solid business case. Would the project be privately owned and qualify for the 30 to 40% federal tax credits or it would be owned by the state or public power, and then they'd be-- would they be able to receive the direct pay federal incentives? Assuming-- and we were just calculating for a 1 megawatt or 1,000 kW, it requires about 6 acres of land or rooftop. And what is the cost of this? And I think Senator Wayne has suggested that we look at using available land that the state has. So that is an issue whenever solar projects are being developed, whether it's community solar with a local community, do they have the land available? If it's a larger project, there's issues about taking farm ground out of production for potentially solar. The price of community solar projects has been increasing, in part, due to the increase of the cost of panels, the racking inverters, grid interconnection on them, including insurance. Small projects of this size do not benefit from the economies of scale, like large projects that OPPD has with the 81 megawatt Platteview project, and that will be another thing that has to be studied if this goes forward, is what are the economics of putting in over a half-section of ground versus along the right-of-ways in the-- in between the lanes and that type of thing? So there's definitely some impacts there. Bottom line is solar energy is growing in Nebraska and will play a critical role in meeting public power consumer owners' energy needs. I'd also like to point out that the Nebraska Wind and Solar Conference is being held on October 22, 23 here in Lincoln at the Cornhusker Marriott. If you or your staff are interested in learning more about solar, consider attending that. And thank you for the opportunity to testify. I'd be glad to answer any questions.

CLEMENTS: Are there questions? Senator Dover.

DOVER: Yeah, I just was wondering, what's the efficiency— what's the efficiency or comparison— say, you are in southern Arizona versus Nebraska on the interstate for solar energy?

DAVE RICH: So solar is definitely better in Arizona than Nebraska. One of the challenges when you get down to Arizona is the efficiency goes down with high temperatures and, and so they lose some of the efficiency there. But definitely the southwest has better solar. Even across Nebraska, western Nebraska has better solar than eastern Nebraska because there's more moisture, more clouds in eastern Nebraska. The humidity is much lower, or western the altitude is higher. So there is some differences. So, you know, in Nebraska, you might see anywhere from 26% efficiency down to 20% going across the

state, I don't have the exact numbers, but just that concept. And you may be at 30% or 35 at Arizona. But there's trade-offs there. You know, you have to have load to use it and in the desert where there's a lot of sun, there's not loads. So then you got to build a very expensive transmission to get it to load. So there's pluses and minuses wherever you locate solar. But solar is being installed in North Dakota, Minnesota, you know, further north with even less than in Nebraska cost effectively.

DOVER: All right. Thank you.

CLEMENTS: Senator Dorn.

DORN: Thank you, Senator Clements. Thank you for being here today. I, I guess mine, mine is— I, I can't tell you exactly why Senator Wayne brought this, other than the state of Nebraska has a lot of land. And that's why I think he was proposing along these. What, what is the—when you're building a solar field or project, is, is one of the— I, I guess— how much does the land cost pay into it? Because here we—Nebraska would have the land for this project that if, if we see a return or have some group build it and then we get a return off of it, I think that's somewhat the concept he maybe has. Don't know for sure, but what part does the land play in a project?

DAVE RICH: So different aspect of land, one of the bigger challenges is actually getting zoning, zoning approval for that within a county. OK? So if you're taking out prime corn-irrigated ground, and right now the payments for that is, typically, around, maybe, \$800 an acre per year. And so some farmers are looking at that and say, that's a lot better than I can do raising corn without taking all the risk. And so-- but there's-- also, you have to be careful. Some of those developers are offering escalation, others are saying it's \$800 flat for 25 years. So you need to take that into account. And then another big factor is the transmission being able to interconnect into the existing transmission system. So you see a lot of solar projects being developed along the lines that are 161,000 volts or higher so they can put that generation on there. So the land price is important, but some of these other factors are probably more important right now in getting projects built. One of the benefits of smaller projects are you don't need to go through the Southwest Power Pool study process if you can keep them below 5 megawatts and don't generate into the transmission grid. And so there is some benefits from that standpoint on the smaller projects.

DORN: Thank you. But one more thought then, I guess.

DAVE RICH: Yes.

DORN: You know, he, he talked about it in the median but, I call it, along interstate on either side there's quite an area also along the fence. If they put one grid of solar panels for 2 or 3 miles, that's not near as efficient as, I call it, putting them all on a quarter section of ground where you have them all together.

DAVE RICH: So one of the things that will need to be looked at is tracking systems. So tracking systems, there's different designs, but most of them have a long row and they face the east in the morning and then they slowly rotate. So at high— solar noon they're straight up and then at the west. So those type of projects, you normally would want to have on north—south runs, OK, and fairly long runs. So that really doesn't fit in as well with the interstate would be my initial reaction. There's also just flat mount where you just face them into the south and you don't track, efficiencies aren't quite as good, but that may be a better application for along the interstate.

DORN: Thank you. Thank you for that information.

CLEMENTS: Senator Lippincott.

LIPPINCOTT: Two questions, and this falls outside of your realm of expertise, but I wonder what the Department of Transportation has to say regarding any kind of obstructions in the roadway of federal highways, interstate highway, in particular. The other question--

DAVE RICH: I had the same question, is I heard that how would they react to this?

LIPPINCOTT: Yeah. And then the other question I have is, solar panels, for the most part, are built and made, manufactured and, and parts procured in a country of China. Is that correct?

DAVE RICH: Yes.

LIPPINCOTT: Yep. Do we make any solar panels here in the USA?

DAVE RICH: They are being made in the U.S. and there's more with the big incentives for it to be developed. There's potential more projects being developed in the U.S. and, potentially, even one here in Nebraska. So I didn't say that here. You didn't hear that here. But, you know, there's potential for that to develop. And so, again, because of the restraints and the embargoes and the tariffs or, you know, out of state or up from China specifically in the labor force

they use, there's a lot of benefits of trying to develop that technology, make it cost efficient here in the U.S.

LIPPINCOTT: Thank you, sir.

CLEMENTS: Any other questions?

DAVE RICH: I guess what I said is on the record no matter what I said. Right?

CLEMENTS: Yes. The amendment doesn't limit it to a study. It also has construction in the-- remaining in the bill.

DAVE RICH: OK.

CLEMENTS: It's amended that way. And you use an example of 1,000 kilowatts needing 6 acres. Do you have an idea of what it would cost to build 6 acres of, of solar?

DAVE RICH: It's roughly-- and, again, a lot depends on how it's designed-- let's say, ballpark, about \$3 a watt or \$3,000-- and make sure, \$3 a watt, \$3,000 a kilowatt, and so then you're going to have to take that \$3 million for a megawatt if my math in my head is right. \$3 a watt, \$3,000 for a kilowatt, \$3 million for a, a megawatt--

CLEMENTS: A 1,000 kilowatts is a million watts.

DAVE RICH: --or a 1,000 kilowatts.

CLEMENTS: Yeah.

DAVE RICH: Yes.

CLEMENTS: OK. \$3 million. So we only have \$2 million here and that would just be-- that'd be a pretty small output.

DAVE RICH: Yeah, it'd be relatively small. And, again, it all depends on the situation and whether— whoever is doing this could get the tax credits. You know that's a big, big play in, in these solar projects. And the ones that are going forward in the state are getting those tax credits and throughout the whole U.S., it's just a process.

CLEMENTS: It would be a private company that builds it and leases the real estate from the owner and then they-- and they own the solar panels or--

DAVE RICH: They get the investment tax credit, which is based on their investment. And then they, typically, look for an off taker, which may be the electric utility that's located there. And then they would like to enter into, like, a 25-year power purchase agreement where they sell that energy to that utility at a contracted price. And so, for example, it may start out at 4 cents a kilowatt hour. It may have some escalation in it depending on what's negotiated, but that's how the process historically has worked here in Nebraska.

CLEMENTS: All right. Any other questions? Thank you for your testimony.

DAVE RICH: Thank you.

CLEMENTS: Are there other neutral testifiers? All right, seeing none, Senator Wayne waived his closing. So that will conclude the hearing on LB58, but we do have some comments. We have position comments for the record: 2 proponents, 2 opponents, none in the neutral capacity. And that concludes the hearing on LB58. Thank you. And the committee is adjourned to Room 1003.

VARGAS: Let's go.