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Natural Resources Committee
February 11, 2009

[LB436 LB663]

The Committee on Natural Resources met at 1:30 p.m. on Wednesday, February 11, 2009, in Room 1525 of the State Capitol, Lincoln, Nebraska, for the purpose of conducting a public hearing on LB436 and LB663. Senators present: Chris Langemeier, Chairperson; Annette Dubas, Vice Chairperson; Tom Carlson; Tanya Cook; Deb Fischer; Ken Haar; Beau McCoy; and Ken Schilz. Senators absent: None. []

SENATOR LANGEMEIER: I'd like to welcome everybody to the Natural Resources Committee. I'd like to welcome everybody in the crowd as well as those that are watching on closed caption and those that are watching us new on our live Internet streaming feed. I am Chris Langemeier, the Chairman of the Natural Resources Committee. And for...as the committee members come back I'm going to jump ahead a little bit here. Those of you that raised your hand and choose to testify today, there are these green sheets of paper located in the corners of the room. I need you to fill them out in their entirety. And when you come up to testify we ask that you hand it to our committee clerk at the start...before you start your testimony. For those of you that are here that want to be on the record of being here in support or opposition of a bill but yet you don't want to testify but you want to be part of the record of being here, we ask that there's another form in the back corner, looks like this, that you can put your name and address on and the bill you're here in interest and whether you support it or oppose it. So if you do that, those are your options there. If you're here just to spectate, welcome. I'm going to start by introducing the committee. Starting to my far right or your far left, we have Barb Koehlmoos, the committee clerk for the Natural Resources Committee; we have Danae Escher who is sitting in to observe from my office; we have Senator Tanya Cook from Omaha; we have Senator Tom Carlson joining us from Holdrege, Nebraska; we have Senator Deb Fischer from Valentine, Nebraska. Then we're going to go off to my far left or your far right, we have Senator Beau McCoy from Elkhorn; and then Senator Haar who's not in his seat, is sitting at the table, is also a member of the Natural Resources Committee, represents north Lincoln; we have Senator Ken Schilz from Ogallala, Nebraska; and then we have Annette Dubas who is also the Vice Chair of the Natural Resources Committee with us today. We also have Laurie Lage who is the legal counsel for the Natural Resources Committee. Today we have, as we do each time we meet, we have two pages. So if you have something to hand out, we ask that you have ten copies of it. And if it is something that you know right now you don't have enough copies, if you raise your hand, one of the pages will come assist you in making some copies. Our pages today are Justin Escamilla from Scottsbluff, Nebraska, and Malinda Frevert from Omaha, Nebraska. And we thank them for their assistance. It makes this all flow better. While I'm talking about handing things out, if you do have something you choose to hand out to the committee, we will keep it. So if it's something you just want to show us, just hold it up at the table and we'll look at it from here. But if you do give it to the committee to pass around, we will keep it as part of the record of something we reviewed. When you come up to testify, the introducer will do the

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introduction on the bill and then we will proceed to those in support or proponents, and then we'll go to opponents. And then we'll have neutral testimony, so in that order. And then the introducer will have the opportunity to close at the end. We are...we have installed a light system here. We are going to use that. Senator Haar, it won't be for you as the introducer, everyone to follow except for your closing. We will use it. We'll give you five minutes to testify. You'll get a green light, and then you'll get a yellow light with a one minute warning, kind of tells you to wrap it up. And then the red light we'll have you stop and then we'll ask you questions if you haven't stopped before that. And then we will proceed in that fashion. We do appreciate everybody here. This is your opportunity to participate. When you do come up to testify we ask that you spell your first and last name so we can keep our record as precise as we can. No matter how simple a name you have, we do ask that you spell it to keep consistency. And with that, we're on to Senator Haar. Welcome. And you're recognized to open on LB436. []

SENATOR HAAR: (Exhibits 1 through 6) Thank you. I am Ken Haar, K-e-n H-a-a-r. Senator Langemeier and members of the committee, I want to tell you that I am excited about renewable energy. In this time of doom and gloom, which is well earned, I think there is a bright and hopeful future in terms of renewable energy for Nebraska. I think one sign is the list I passed out to all the committee members. And these are all the energy bills that are going to be before the Legislature, 25 bills just about. That in itself is a good sign. A lot of us are thinking about it and there's a lot of excitement. There's kind of some different levels that we can talk about. There's big wind, which is the turbines that you see as you drive out along the highways. We're not really going to talk about big wind today, but big wind has enormous potential for Nebraska. Then there is small wind, which is things like the little turbine your may see here or there or maybe a solar collector that somebody has on their house, that's sort of the small. And then somewhere in the middle, I guess, there's middle renewable energy. What we're talking about today really pertains mainly to small energy and to middle energy. And since it's a fairly complex deal, I'm going to...if we could have one of the pages, I have a Cliff Notes summary of this legislation. And I'm going to go through it in some detail. Now I'd also like you to look at the white copy of the bill that was passed out and not the green. Again, I apologize, as a new senator with just a few days to get stuff done, we hustled and the white is much better. Well, I'd like to start by focusing your attention on Section 1 of the bill because it's really interesting. It's really important. The Legislature, which is kind of the super board for public power in Nebraska, finds that it is in the public interest to encourage private investment in renewable energy, stimulate economic growth and enhance diversification of energy resources in the state. If you don't agree with these three (laugh), you'll probably want to read something else. But these are the basic premises for what we're doing here--encourage private investment, not only does this, you know, are we talking about consumers here, but we're also talking about entrepreneurs. And we're seeing more and more entrepreneurs in Nebraska who are working with smaller renewable energy projects. And I think you're going to hear from a number of those today. Stimulate economic growth, certainly the whole development of

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wind potential has great potential for Nebraska in terms of economic growth and enhance the diversification of energy resources. Nebraska has great potential in terms of wind, solar and in southwest Nebraska even geothermal, using heat from deep in the earth. And of course then we have biomass and we have methane and so on. We're really an energy rich state. So going on, line 9, what I've done in my Cliff Notes deal here is to divide this into customer-generators, where the people producing the electricity, and then the electrical suppliers who are the people who basically own and put power onto the grid itself. Line 9, this bill allows a renewable energy system with a maximum rated output of 125 kilowatts. That's page 2, line 27. And I'd like to say that just about everything in this bill we find negotiable. And we're starting with an admittedly high number of 125 kilowatts, and we're willing to negotiate that. Another deal for the pages, if you could. Just to give you an idea what we're talking about in terms of kilowatts, this is a chart that I got off the Web and I think it comes from somewhere in Iowa. And it shows, and then I'll need on too. I forgot to keep one for myself. It gives you an idea of what we're talking about in terms of kilowatts. And these are all home uses. And the thing that is so interesting is that in a modern electric home, for example mine is all electric except we have a propane stove. But other than that, in an all electric modern home, as you can see you can easily be running 27,000 watts or 27 kilowatts, and that doesn't even include the lights. And the items I had marked here was having the central air conditioner running, my clothes dryer running, a dishwasher, hair dryer, a range and a refrigerator and the water heater, and I know there are times in my home all those things have been running, and I'm going to be using almost 30,000 watts or 30 kilowatts. And that's really important when we talk about this renewable energy because we place a limit on how many kilowatts, how many watts can be generated and put back onto the grid. And again line 10, 125 kilowatts is negotiable. Okay, line 9, net metering. At 1 to 1, and what this proposes is that if Senator Langemeier is the grid and I'm the generator, that he sells kilowatt hours and then I sell him kilowatt hours. And if that's balanced, if those kilowatt hours are balanced it's an equal trade-off. But if not, then at the end of the year if I generate more than I use paid out...I'm paid out whole...if I generate more electricity than I get from Senator Langemeier, then I'm paid at the wholesale cost, sometimes called avoided cost. That's in Section 2 of this bill. So as long as it's a 1 to 1, it's a trade-off. But once I start generating more electricity, then the grid pays for me at wholesale cost. Line 14, if I'm the generator, I would own any green tags produced by the generation. Green tags are a concept that is becoming much more popular and basically these are credits that you can buy and sell on certain markets if you produce renewable energy. Line 15, it will be required...the customer-generator, that's me, will be required to pay for any utility build out necessitated by the qualified facility. For example, if I have some kind of generation going on and it won't work with the current lines, then I have to pay for that. Very much like if somebody installs irrigation and they need a heavier use of electricity, it's up to the irrigator to pay the costs of that new build out. And then line 17, for small projects like this would not be subject to review by the State Power Review Board. Then electrical suppliers, line 20, electrical supplier's cannot charge an additional fee for net metering

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above any minimum monthly fee charged all customers. So Senator Langemeier can't charge me an additional fee just because I am producing electricity. Line 22 would require a single bi-directional meter, means it runs in both directions, installed at the electrical supplier's expense. Again, this is negotiable. If we find that utilities would want some kind of dual metering so that they can get more data, we're certainly open to that. Line 24, shall establish standards of interconnection based on the National Electric Code, and so on and so forth. But that...the standards they set on line 28 could produce no unreasonably burdensome standards, no additional standards above those prescribed in this act, cannot require additional tests, cannot require additional liability insurance above the customer-generator's current liability insurance on the property. We're checking on that. With most insurance companies, with a small facility like this you're not going to need additional insurance. And then line 33, shall produce a report on numbers and effects of net metering. So that's the Cliff's Notes for this particular bill. Another handout? Couple more handouts. I was a math major so I like pie charts. Okay. The pie charts I've handed out, we've gone to a study that was done in Colorado. And next week when I talk about a transmission study, I'm going to give you each a copy of the whole study. But this goes into certain of the utilities in Colorado and shows on a pie graph the percentage of net metering customers versus their total. And these are actual pie graphs. So in the first one, 92,000 customers total, they have 20 customers net metering. So what I'm trying to demonstrate here is that the impact on a local utility from all the experience we've seen so far will be small. And if you turn to the very last page, we've aggregated all of the Colorado utilities, 560,000 customers, 174 net metering customers. That was a year or two ago. Norris Public Power District, which is my own district, 17,995 customers as of yesterday, and 5 are using net metering. And so although we believe that there's an increasing effect to produce electricity through solar cells and all that sort of thing, wind turbines, small wind turbines, the effect on the utility will be small. That's why I handed you that one. Then the other one I handed you which is kind of interesting is called the "Cost Component Unbundling." And I can't remember, Shelly, whether you gave me this chart or Bruce? [LB436]

TODD HALL: Yeah. (Inaudible.) [LB436]

SENATOR HAAR: Yeah, that's your chart. Okay. This is LES's chart and with colors and numbers it shows you, remember we talked about if I produce as much electricity as I use, then we're even. But if I produce more electricity and I hand it back to the grid then they're going to look at wholesale costs to reimburse me. And this just gives you some idea, at least for LES, what's included in your 7.1 cents per kilowatt hour. You see generation, and it's color coordinated, transmission, energy, billing, and tech., and so on. So if I were net metering with LES and they were only paying me for the wholesale, my guess is it would be this number, 5.4 cents down here out of the 7.1 cents. And then finally, and I hope you're going to ask me a lot of questions, I brought along the Nebraska Power Association's Legislative Regulatory Policy Statement, dated January 14 of this year. And this kind of goes into what their policies are on a lot of different

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things. But I want to read, the NPA supports net metering legislation for consumer...I'm sorry, for customer-owned renewable energy generation that provides an offset for energy produced while equitably compensating the utility for remaining fixed costs and customer charges. Net metering laws should provide for the safety of the public and utility employees and ensure the integrity of the distribution system. And again, there's always room for improvement. But we think that the...LB436 pretty much fits into what they're asking. In conclusion then, I would just say that I feel there's a big benefit to the state of Nebraska to get into renewable energy at the big level, the middle level, and the small level and we should incentivize people to do this. It's going to be a benefit to all of us. And with that, I'm open to questions. [LB436]

SENATOR LANGEMEIER: Thank you, Senator Haar. Are there any questions? Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you, Senator Haar. I guess, just in a nutshell why is net metering such an important part of this whole renewable energy picture? [LB436]

SENATOR HAAR: That's a good question. Well, net metering can either be an incentive or it can be net burdening, as some people have said. If there is absolutely no incentive for me to hook back onto the grid, you know, it's going to slow down development, I believe. So at the...there are two things operating. One is we don't wish to burden the other ratepayers, but we also want to incentivize people that are generating these small electricity and net metering is really the key to that. You can either make it work for you or you can make it a hurdle that people just say, you know, it's not worth jumping over. [LB436]

SENATOR DUBAS: So would you see the more people...should we get policy in place that everybody is on board with and the more people who take advantage of net metering, is that good or bad for the public as a whole? [LB436]

SENATOR HAAR: In my viewpoint it's good for the public as a whole. Again, it encourages consumerism in terms of purchasing these sorts of things like, let's say solar cells or whatever it is, a small generator. It stimulates economic growth by providing business for entrepreneurs. And again, you'll hear from some of those today. And then I think the one kind of intangible benefit is that it sets a great example and people can see how we're using, on an individual level, how we're using energy. Now I suppose if I had my druthers, although this bill is not suggesting that, there are at least some states now where if I'm a generator they pay me more than Senator Langemeier would charge to incentivize, you know, the generation. In Germany, maybe some of you have seen this, but there's a big push to do solar. And there's quite a difference, there's quite an incentive for people to actually have solar farms, and they're paid more money by the government than they're charged for their energy. [LB436]

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SENATOR DUBAS: Thank you. [LB436]

SENATOR HAAR: Yes, thanks. [LB436]

SENATOR LANGEMEIER: Senator Carlson. [LB436]

SENATOR CARLSON: Yes, Senator Langemeier and Senator Haar. Would you list in order the three most important reasons for wind energy. Three is no magic number and it's not meant to trick you, so... [LB436]

SENATOR HAAR: No, no, no. First of all, this bill, by the way, covers not just wind energy but solar and methane and just about...biomass, all those kinds of things. One of the first reasons for anybody in Nebraska, we have so much wind. I've heard that Nebraska may have as much as 2.5 times as much wind potential as we need as we have energy needs in Nebraska. And so the big picture goes like this--we have enormous energy potential in this state. And some day, just as for every ton of coal that comes into Nebraska, we pay an excise tax that pays a property tax for Wyoming. Someday I'd like to see us shipping wind energy to California and New York and let them help pay our property taxes. (Laugh) We're almost, you know, if Wyoming just closed its borders and just used all its coal internally that would be certainly of no economic benefit to them. And it's almost the same with us. We've in some ways closed our borders to this great potential we have. So it's part of our bright future. So that would be number one is we have lots of it. Certainly one of the reasons is the economic development that comes with it. Not only do we have small entrepreneurs that can be selling energy equipment and so on, but as we start working on large wind on a big scale then I think we'll also have manufacturing moving into Lincoln...into Nebraska, we're going to have construction jobs to put these things up, maintenance jobs to keep them running. And then the third one is...has to do with...it's renewable energy. And I feel that part of my responsibility to the future to my grandchildren is that we go to renewable energy so that they can indeed have a bright future. We can generate much of this energy ourselves. We can quit supporting those countries, especially in the Middle East that hate us. And I think it's a real opportunity. For example, in the 1970s, when there were lines of cars at the gas pumps and we were running out of gas and then things got settled down and we had gas and we thought (makes a noise) it's over. You know we come to these points where it's right in front of our face that we have to do something and then we back off. And I think this time we have to take the challenge. And I really believe that developing wind energy and small wind and so on is one of those steps. [LB436]

SENATOR CARLSON: Okay. With...and I'm not arguing with any of this. [LB436]

SENATOR HAAR: That's okay if you... [LB436]

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SENATOR CARLSON: But I'm trying to understand this a little bit better because you did make the comment we're looking at Colorado, that you will see in looking at this in a sense it doesn't involve very many people. [LB436]

SENATOR HAAR: Um-hum, um-hum. [LB436]

SENATOR CARLSON: So we get to the aggregate total of Colorado utilities, there's 562,000 customers and only 174 that are net metering? [LB436]

SENATOR HAAR: Um-hum. [LB436]

SENATOR CARLSON: Well, that's not much of an effect. [LB436]

SENATOR HAAR: Right, I agree. But it's a beginning, and that's what I would say. And if we put in place reasonable policy, we are going to see that number grow. So I would use this chart...the point I was trying to prove was, or at least demonstrate with pie graphs is that right now it's not going to have a huge impact on existing electrical systems and how they distribute their energy. But I would also say that this is a beginning. And frankly, for people to think they can make money off of small energy projects like this is unreasonable. But people do it for environmental reasons. Some people would like to get off the grid if they could. And if they're generating electricity they'd liked to see, you know, that maybe they could feed it back again. [LB436]

SENATOR CARLSON: Okay, thank you. [LB436]

SENATOR HAAR: No, sure. I appreciate it. Thank you. [LB436]

SENATOR CARLSON: I'll make one other comment and then I'm through. On the amendment, Section 1. [LB436]

SENATOR HAAR: Okay. [LB436]

SENATOR CARLSON: You've got the first three points. Now to me point four isn't there, but that's the Legislature finds it's in the public interest to continue to provide economical electricity to the citizens of the state. [LB436]

SENATOR HAAR: You bet, yeah. The original concept behind public power is that we should have affordable or low-cost and, what's the word I'm thinking about, to really tune it out, low-cost energy that's reliable. That's the word, reliable. And I think as time goes on that we're going to add some other things to that, although we need to keep those in place. As we begin to figure out how to generate large amounts of electricity we're going to be thinking about how this can be...how we can export energy and make

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that one of the things that we export in this state. But I think within those parameters of low-cost and reliable, that this makes sense. The other is looking to the future, and the big picture is this, even my electric rates in Norris Public Power are going up something like 7 or 8 percent and that's because the price of coal is going up, the price of transportation is going up. I think OPPD's energy bills are going way up. And the main reason for theirs is the transportation, the railroads obviously know about the only way to get coal there is with trains. And we're coming to a point, we heard it in the last Congress and it didn't go anywhere but it will, it will sometime in my lifetime, we're going to be...and probably quite soon that we're going to be talking about carbon costs. So that there will be costs involved with generating coal...generating energy that releases carbon. And that's going to be part of the cost. And when you add that in, we're going to see that what we felt was cheap coal electricity isn't going to be cheap coal electricity anymore. So times are changing. And that would kind of be my answer to that one. [LB436]

SENATOR CARLSON: Thank you. [LB436]

SENATOR HAAR: Yep. [LB436]

SENATOR LANGEMEIER: Other questions? Senator Haar, I'm not so sure I have one for you yet. But you said somebody else made this sheet,... [LB436]

SENATOR HAAR: Yes. [LB436]

SENATOR LANGEMEIER: ...this cost... [LB436]

SENATOR HAAR: That's from LES. [LB436]

SENATOR LANGEMEIER: LES? [LB436]

SENATOR HAAR: Yeah. [LB436]

SENATOR LANGEMEIER: Can I see a show of hands, is LES going to testify in some fashion, some way, sometime today? You are? [LB436]

TODD HALL: Yeah. [LB436]

SENATOR LANGEMEIER: I'll save that question for them. [LB436]

SENATOR HAAR: Good. [LB436]

SENATOR LANGEMEIER: Because I do have a question on that. [LB436]

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SENATOR HAAR: Okay. [LB436]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much... [LB436]

SENATOR HAAR: Well, thank you very much. [LB436]

SENATOR LANGEMEIER: ...for your in-depth opening. Now we'll move onto supporters. I did skip one thing in my testimony. If you have your cell phone on, please turn it off so we don't disrupt Mr. Winston's testimony here. Welcome. [LB436]

KEN WINSTON: Thank you. [LB436]

SENATOR LANGEMEIER: And these lights are kind of a maiden voyage here, so we'll give it a shot. [LB436]

KEN WINSTON: (Exhibit 7) Thank you, Chairman Langemeier, members of the Natural Resources Committee. My name is Ken Winston, last name is spelled W-i-n-s-t-o-n, and I'm appearing on behalf of the Nebraska Chapter of the Sierra Club. And I'm offering written testimony. And I also have attached to this a copy of a memo that I requested from the Environmental Law and Policy Center related to the two net metering bills that are being heard this afternoon. And basically, we're longtime strong supporters of renewable energy development and longtime supporters of net metering as an important tool to encourage renewable energy development by consumer-generators. Now Brad Klein, I've attached the memo to my testimony. But basically, I'm just going to summarize what I consider to be the high points of that memo. Brad Klein notes that there are net metering laws available in 43 states and the District of Columbia at the present time, although there is a wide variety in the types of laws. And he notes that New Jersey, Colorado, Pennsylvania, Maryland, Florida are widely regarded to have effective state metering...state net metering programs. Then in his review of the bills, he notes that LB436 is fairly simple and streamlined. And although he didn't take a position on the bill, he says that many experts consider simplicity to be an important feature of a well-designed net metering program. He also notes that it provides a one to one retail offset, which he views as being characteristic of a true net metering program. In addition, he notes that standby charges and other miscellaneous fees can be particularly burdensome to small generators and can undermine the goals of net metering programs by diminishing the economic incentive for customers to install renewable energy systems. He also notes that additional insurance above homeowner or commercial policies may be a barrier to consumer-generators and many states have eliminated requirements for such additional insurance. And he has a footnote to a study related to that. And then I just wanted to state his conclusion regarding both bills. LB436 appears to be largely consistent with best practices for state net metering programs and therefore would likely be effective in achieving its stated goals of promoting clean renewable energy, diversification of energy resources and economic growth. We

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respectfully ask that LB436 be advanced. And I would be glad to take questions if I can answer them. [LB436]

SENATOR LANGEMEIER: Are there any questions? I have one for you. In subsection (d) of his brief, he states in there, there was a drafting error. Is that corrected in this total strike and redraft of the bill in the white copy? [LB436]

KEN WINSTON: Yes. [LB436]

SENATOR LANGEMEIER: Has that been addressed? [LB436]

KEN WINSTON: Yes, it's my understanding, I haven't gone line by line and looked at it exactly. But I did share this memo with Senator Haar's Office. And it's my understanding that the suggestions that he makes in his memo have been addressed in the white copy of the bill. [LB436]

SENATOR LANGEMEIER: Okay. Sounds good. Are there any... [LB436]

KEN WINSTON: He makes three suggestions and... [LB436]

SENATOR LANGEMEIER: I see that. Are there any other questions? Seeing none, thank you very much. [LB436]

KEN WINSTON: Thank you. And I didn't use up my lights. [LB436]

SENATOR LANGEMEIER: Hey, you did great. (Laugh) And I thought they just quit working. (Laughter) [LB436]

KEN WINSTON: Oh no, I just talked fast. [LB436]

SENATOR LANGEMEIER: Just kidding. Just kidding. Thank you very much for your testimony. Further testimony in support? Don't be shy. Oh, no, you don't have to show me. Come on up, there's a seat up here. Come on up if you're...get in line to...welcome. [LB436]

ROBERT BYRNES: (Exhibit 8) Good afternoon, Senator Langemeier, members of the Natural Resources Committee. Pleasure to be here this afternoon. My name is Robert Byrnes, B-y-r-n-e-s. I'm from Oakland, Nebraska. I am a small wind turbine owner. I work with, develop, and erect small wind turbines. I operate a small farm that's been off grid for over five years. I'm going to...we have quite a bit of testimony today, so I will be brief in my comments. We've tried to diversify our presentations to the committee as much as possible. It's not news to anybody that we have plentiful wind. This bill creates a reasonable process whereby citizens can utilize this resource, generate power, and

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deliver excess power to public power. The resistance put up by our public power system to a fair interconnection process goes back three decades and is astonishing. In the year 2009 we still have a patchwork quilt of programs across the state designed to inhibit and limit this opportunity. A fair net metering policy plugs citizens into their power system. The fact that investor owned, profit-motivated, private owned utilities offer such fair net metering programs indicates to me that our public power system may have lost its way. In Taking Charge, a New Look at Public Power, and I have provided the copies of the pages I've quoted from to the committee, by Richard Morgan captures this well. Public and private power systems display markedly different attitudes towards alternative energy sources. Many public power entities are seeking to develop wind power, solar energy, and other new technologies. Private utilities have not only shown little interest in clean, decentralized energy sources, but they've constantly downplayed the potentials of wind and solar energy. It is the simplicity of solar and wind technologies which explain the energy monopolies' disinterest in them. Conversely, public power systems have a natural interest in alternative energy sources. Public power would not be threatened by the loss of customers to decentralized energy sources. In fact, public power might thrive in a society where individual homes or communities generate most of their own energy needs. These words were published in 1976. It is clear public power is acting like a private utility in regards to renewables as shown by the renewable energy on our state grid having such a minute component. Why is this? I've been asked this question hundreds of times by citizens. The answer is complex. However, I see three major reasons. Nebraska has some of the dirtiest coal plants in the nation. In the name of cheap rates, our environment is being assaulted by the combustion products from the Wyoming coal we burn by the trainload. Again, I refer to Wagner's book, public power systems with poor environmental records have one thing in common, the decision makers are far removed from the people they are supposed to serve. While the shoe certainly fits our situation, the second and contributing reason places responsibility squarely in the laps of apathetic citizens. Lulled to complacency by reasonable rates, they have abdicated their responsibility of oversight and supervision. The third major reason was clearly noted in the 1980 final report of the Small Farm Energy Project. In order...quote, in order to realize the full potential of wind energy, however, it became clear that various institutional barriers had to be removed or changes. Most REAs are oriented toward centralized power, so their willingness to allow these systems to be connected is often less than enthusiastic, end quote. The emphasis in the text is theirs. So here we are, still trying to negotiate institutional barriers put in place to discourage decentralized production 30 years later. The fact is decentralized energy production creates jobs. Currently, the few Nebraska businesses in this field are part-timers with no employees, myself being perhaps the only exception. Fair net metering would supply new jobs and investiture with no loss of jobs to public power. The goal of energy policy should be to create these high value jobs. The cost to public power for use of the distribution system for excess power was clearly shown to be negligible by their own study done by John Hoke. The system capacity limit in LB436 is both reasonable and appropriate. Integrating citizen-based renewable energy is the essence of a true public

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power system. It is something we can do as citizens for our future, which should be encouraged. A fair net metering petition, which we have in our possession, has been signed by over 125 citizens who support this idea, and this number is growing. Our state motto, equality before the law, would also indicate that a fair policy must be made available to all Nebraskans. I strongly encourage the committee to advance this bill. The only addition I would say is that I would ask that you would consider month to month reconciliation of excess power. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, Mr. Byrnes, for being here. A couple comments you made in your testimony, if I could get some clarification on them, please. You say Nebraska has some the dirtiest coal plants in the nation. What's your basis for that? Have there been studies out there? Are there EPA reports that you're quoting? Where do you get that from? [LB436]

ROBERT BYRNES: I could certainly find those quotes for you, Senator. But I think it's fairly well known that some of the older coal plants in Nebraska, I don't have the information in front of me, I could certainly provide that to you. [LB436]

SENATOR FISCHER: I would like to see some information. [LB436]

ROBERT BYRNES: Okay. [LB436]

SENATOR FISCHER: A lot of times we hear on both sides of an issue people making statements like that. [LB436]

ROBERT BYRNES: Sure. [LB436]

SENATOR FISCHER: And we need to act on facts and information. So if you can get that to me, I'd really appreciate it,... [LB436]

ROBERT BYRNES: Absolutely. [LB436]

SENATOR FISCHER: ...some studies. [LB436]

ROBERT BYRNES: I would do that. And I understand that there's a value to coal and baseload generation, the value of reliable, cheap power. I'm not against coal, per se. I've often...I have made a number of times to NPPD, through their official process, future transmission technologies that the omissions from CO2...the CO2 emissions from coal plants can be scrubbed, through algae production systems, and turned into renewable biomass that can be converted to fuel. Those things we can do with what we have

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certainly. [LB436]

SENATOR FISCHER: I know our coal plants here in this state, as in every state, they're regulated by EPA though. Correct? [LB436]

ROBERT BYRNES: That's correct. [LB436]

SENATOR FISCHER: So hopefully, you will provide those. Another point you made on the REAs, and you said they're oriented towards centralized power. Why did you say that? I have a number of REAs, and I have a big legislative district, so I have a number of REAs. And to tell you the truth, I think it's quite the opposite with mine because they have a board that's elected by the people in the district. Anybody can run for the board. I find those people very responsive to the public. So why would you say that they're oriented towards centralized power? [LB436]

ROBERT BYRNES: I think that came from the Small Farm Management Project quote, centralized power. [LB436]

SENATOR FISCHER: And where is that from? [LB436]

ROBERT BYRNES: This is a project that was done on small farms in Cedar County, Nebraska by the Center for Rural Affairs in the late seventies, early eighties. Wind power was attempted but there was...it didn't work out for a number of reasons. That was one that was cited. I think what they're referring to is centralized power production in which the power is actually produced in large central facilities where economies of scale can be leveraged to produce the power in the most efficient manner. That model works very well, except that the downfall is to the centralized power model is it creates the least amount of jobs in energy production. It is the best cost. Now that may balance itself out. But you have transmission losses. When you make electricity on this side of the state and you ship it to the center part of the state you have a significant loss due to the transportation. [LB436]

SENATOR FISCHER: And one last question. You...on page 2 of your testimony, when you talked about the study, their own study. And you...what study was that? [LB436]

ROBERT BYRNES: John, Senator Preister referred to that study. That was a study by John Hoke, and it was called the... [LB436]

SENATOR FISCHER: Could you spell his last name. [LB436]

ROBERT BYRNES: H-o-k-e. [LB436]

SENATOR FISCHER: Okay, thank you. [LB436]

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ROBERT BYRNES: It was called "The Hidden Cost of Net Metering." And they used an assumption that they took an REA district and they did...ran a calculation based on 50 percent excess power delivered to the REA, which is extremely high. The object of net metering is for a consumer to offset their own production. We're not trying to set up net export in these kinds of bills. So 50 percent excess is kind of high. And that study came that for each net metering application within that public power district the cost to the shifted cost or however you want to term it for transmission is 15 cents per year per person in the district. [LB436]

SENATOR FISCHER: Okay, thank you. It's nice to see you here. Thanks. [LB436]

ROBERT BYRNES: Thank you, Senator. [LB436]

SENATOR LANGEMEIER: Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Mr. Byrnes, would you agree that the concept and development of public power when it was done originally in the thirties, was very visionary? [LB436]

ROBERT BYRNES: Oh absolutely. George Norris, who is the author of our public power, began the TVA projects and the...as a result of the abuses of privately owned utilities that were getting away with it, and they went in, in the thirties, and they gave public control back to these critical assets. I think the essence of public power is tremendous. It is our power system. I'm very proud of public power. We have our days. But I think it is an outstanding system. But like TVA, and like many organizations, they can tend to drift from their original intent. And I don't think it's intentional. It's an evolutionary process to some extent and it can be expected. But I think as created it's a tremendous thing that we should be very...and they've done tremendous things in Nebraska and continue to do so. [LB436]

SENATOR DUBAS: I think you may have already alluded to some of this question, but I'd maybe like you to expand on it a little bit more. How do we take that same visionary approach with public power and move it into what's going on today with renewable energy? [LB436]

ROBERT BYRNES: Well, it goes back to LB246, the Biopower Steering Committee, one example. We need a plan, we need a plan that sets out goals, dates, deadlines, capacities based on realistic utilization of available resources with realism placed into the transmission. We can't dream about 7800 megawatts unless we've got the wires to deliver it, you know. So there has to be a resource assessment, the technology availability, and the realism and time lines of...without a plan, and I used this analogy here before, before this committee, that it's like building a house without a set of plans. I

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think there is legislation that is currently in this session that I think will address some of that. And I think with a plan and certainly the Biopower Steering Committee with its diverse makeup of a broad base of stakeholders, I think would enable us to get a report, get an assessment of where we're at so we can make the proper policy and investment decisions for the future. I think that's the first place to start. [LB436]

SENATOR DUBAS: Thank you. [LB436]

SENATOR LANGEMEIER: I have one quick question. You said you work on installing small wind turbines. [LB436]

ROBERT BYRNES: Yes. [LB436]

SENATOR LANGEMEIER: What's the capacity of those typically, average? [LB436]

ROBERT BYRNES: Typically, we are seeing 10 kilowatts and below. We've seen some 20s going up. We have not seen the larger users put those up to really offset true farm usage will utilize every bit of 100 kilowatt nameplate capacity. We have to remember also that small wind turbines versus...small wind turbines are much more challenged than large wind turbines. Large wind turbines generally have a 40 percent capacity factor and cost \$3 a watt to install from a megawatt above. Smaller wind turbines cost about \$5 a watt to install and they gain about 20 percent capacity factor. So a 100 kilowatt wind turbine is only going to provide 20 kilowatts on an annualized average basis. The largest that I'm aware of in the state is a 20 kilowatt system. [LB436]

SENATOR LANGEMEIER: Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Mr. Byrnes, if I wanted to put a turbine up on my ranch and the bill has, I think, it's 125 kilowatts on it, what's that going to cost me to get that put up and working? [LB436]

ROBERT BYRNES: A lot of times with net metering I work a lot with off-grid applications. With an off-grid application where you're battery charging using the power, there's a lot more burden on the electrical balancing and finding the right loads and all that. And those are generally limited. You can't get 100 kilowatts if you're off-grid. I mean, the batteries would fill the room. As a net metered system or a grid-tied system, when you start getting larger sizes it really comes down to equipment that's available. Like there's a number of 5 kilowatt units, and then there's not much until you get to 10 kilowatts, then there's like three or four different sizes. Twenty or 25 kilowatt you'll have several to choose from. [LB436]

SENATOR FISCHER: Okay. I want that 125 though, I want that 225, what's that going to cost me? [LB436]

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ROBERT BYRNES: A hundred and twenty, well, 100 K.W. Northern, which is a U.S. made, heavily warranted, top of the line, will cost you approximately \$450,000 to install. [LB436]

SENATOR FISCHER: And what's the life span of that turbine? [LB436]

ROBERT BYRNES: The...there's the technologies that are coming out now in this...well, almost all the technologies in this...this is all small end we're talking about, are 100 magnets, which are very low maintenance. They do not have the gear boxes and stuff that we see. And actually, this technology is drifting into the larger ones. So you can fully expect in excess of 10, 15 years. [LB436]

SENATOR FISCHER: How does it make sense, I don't have that kind of change laying around. (Laughter) How does it make sense for me to go to the bank and borrow that money and put this up and get 5 cents net metering back. Why would I do it because I can't afford it, so why would I do it? And under this bill it's not going to help me. I mean, seriously it's not going to help me. Are there...like I said, I don't have any change around for that. Are there federal incentives out there? What...how can you afford to do this? How can your customers afford to do this? [LB436]

ROBERT BYRNES: There are...now what I quoted, obviously, was a top of the line, high end cost. The range is probably between \$300,000 and \$450,000 for something of that size. It's still a lot of money. [LB436]

SENATOR FISCHER: Well, that doesn't make a difference to me. (Laugh) [LB436]

ROBERT BYRNES: You're not...that's big money here, too, Senator. This is not...you know, we look, I think, and I certainly am not putting myself in your shoes. But I think when we look at energy policy we need to have an eye for the future. [LB436]

SENATOR FISCHER: But are there federal incentives right now? [LB436]

ROBERT BYRNES: There are, there are federal incentives, there are grants. A lot of what we work with folks on now is the last...the sprinkle of sugar on the banker bailout bill provided incentives for small wind installations, 30 percent for commercial applications with no limit, and up to a \$4,000 limit or a \$12,000 system cost, which can buy you anywhere from 2.5 kilowatts to 4 kilowatts of installed power. We're targeting those systems for folks so they can make maximum use of those federal tax credits. And that's a very real benefit. There are grants that are available. But I think for a lot of folks it's lifestyle, it's a lifestyle choice. And they want to be green. It's obviously not going to be a road that people are going to stampede down today, but again as...and Senator Haar alluded to some of the factors that are looming that will change what we're

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used to. [LB436]

SENATOR FISCHER: Okay, thanks. [LB436]

SENATOR LANGEMEIER: Seeing no other questions, thank you. [LB436]

ROBERT BYRNES: Thank you very much. [LB436]

SENATOR LANGEMEIER: Further testimony in support. [LB436]

LAVERN RAABE: Good afternoon. My name is Lavern Raabe. The last name is spelled R-a-a-b-e. I'm from Pilger, Nebraska. I've submitted e-mail testimony to the committee. It's always a pleasure to follow Mr. Byrnes, one of the more creative people in the state. In case you're wondering where the butter cow went from last year's State Fair, Bob converted it to biodiesel. These are the sort of people that we need in this state to kick start this cottonpickin' improvements in energy. Senator Dubas last year chaired a hearing on economic improvements in the rural part of the state, and I salute her for her efforts. She showed up at the Wind Energy Convention in Kearney. There is great potential in this state and it's going to be started more than likely not by the NPPD, who last year in their budget had \$30,000 to dump biofuel in a turbine when they simply could have called the Air Force Research Labs, Dayton, Ohio, and asked them, hey, can we put biodiesel in a turbine or will it burn? They would have talked to you as long as you would have cared to listen. You know, the amount of money they spent for that little experiment will cover any expenditure for small wind turbines and whatever effect it would cost them for years. If the state of Nebraska is serious, I encourage you as members of the Natural Resources Committee, representatives of the state Legislature, to ask why Iowa, why Minnesota, why all the neighboring states around us have such huge installations of megawatt turbines and what we can do to, you know, get that business here in Nebraska. There is great potential for...in all sorts of areas. You look at solar. What is the mechanism that converts, you know, solar energy to something else? We all know it is photosynthesis or at least those of us that weren't asleep in science class in the fourth grade learned it. No offense. But what's the most efficient plant for conversion? It's the American beach. Study after study after study proves that out. If we want to invest, we want to develop this resource, let's take a look. Biologists all over are beginning to study, you know, the natural conversion factors. Robert alluded to the fact of basic loads and everything else. A generator mechanically is a real poor conversion device. My history was I was a lead engineer at a jet engine company in advanced concept for years. And believe me if there's any group of people that would welcome with open arms improvements in energy conversion, that would be the industry among others. But by basically creating a scene we may create people like Bob, Jon Dixon, and Ed, and I apologize, I'll never get you're last name right, so whoever, you know, undertaken on their own initiatives, you know, a chance to improve things. And I have to agree, starting out it's basically going to be a lifestyle change. But if we look

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downstream, if we start with George Norris, as Bob alluded to, and you look to today, somewhere things went haywire. There is no reason in my estimation that Nebraska should not be among the leaders in the nation in alternative energy. And I thank the committee for their time. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, sir, for being here. You mentioned...I took it that you were talking a lot about big wind projects in the state when you were talking about what Iowa is doing and everything. [LB436]

LAVERN RAABE: It will...generators, as generators come and go, are big and small. What will probably work in one will work someplace else. [LB436]

SENATOR FISCHER: In my district I'm fortunate, I have a wind farm at Ainsworth. There's 36 big turbines up there. [LB436]

LAVERN RAABE: Okay. [LB436]

SENATOR FISCHER: There's going to be...either it's just opened or it's getting ready to open, the turbine farm at Bloomfield. I know there's companies looking...I also represent Custer County. And there's companies looking in Custer County to put up big wind farms. But this bill specifically is talking about small wind, and it's talking about net metering. And I guess I'd like to know why you're supporting this bill with the net metering. [LB436]

LAVERN RAABE: Okay. Why I'm supporting it is very simple. I believe that innovation is going to be hand in hand with motivation and that people that start off on small turbines and stuff will, you know, attract attention of people doing larger things. If you... [LB436]

SENATOR FISCHER: But don't you think...obviously we're not moving fast enough for you. But don't you think here in the state when we have this new wind farm going in by Bloomfield, and as I said in Custer County, there's going to be another one, I anticipate soon, that there is movement for the big wind farms. And as I said, this bill is focusing on small turbines, which I can't afford by the way, but small turbines with the net metering. So specifically, why do you support this bill with net metering attached to it. [LB436]

LAVERN RAABE: Why do I... [LB436]

SENATOR FISCHER: Because the big wind farms, there's no net metering involved in those. [LB436]

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LAVERN RAABE: No, they produce basically energy at a cost. The reason my support for the small wind turbines is that it allows people like Bob, Mr. Dixon, Ed, and even myself, I'll be honest with you, I've talked to several companies. There's a couple of them around that have some rather unique blade designs. I talked to the one at Ada about, you know, what changes can we do to the blading to improve their efficiency. If we can extract more energy, we can generate more energy. [LB436]

SENATOR FISCHER: Right. [LB436]

LAVERN RAABE: But it...nothing comes free anymore. But I was lucky enough to convince a member of the United States Air Force, who has access to the software program, Fluent, which is a compressible fluid dynamics program, to model up a blade. And we'll just run it at ten miles an hour, you know, in virtual reality, and see what these changes do. Improvements to energy extraction come in many ways. But two of them are starting speed. The slower you can start the...you know at that speed you can generate more power. And the faster you can go and get efficiencies in your generator, the more power you can generate. And these are things that people need to be looking at, and people are looking at. But who is to say that you, Senator Langemeier, Senator Haar, Mr. Carlson, Bob Byrnes, the other two gentlemen aren't, you know, won't someday uncover things. It is, you know, we need to basically reward people for their efforts. [LB436]

SENATOR FISCHER: Okay, thank you. [LB436]

LAVERN RAABE: Thank you. [LB436]

SENATOR LANGEMEIER: Thank you very much for your testimony. Further testimony in support. Welcome back. [LB436]

LAVERNE THRAEN: My name is Laverne Thraen, Jr., or Laverne Thraen. Senior died, so no longer junior. L-a-v-e-r-n-e T-h-r-a-e-n, 4728 Cass Street, Omaha, Nebraska. And the reason I'm for net metering is it costs the utilities less. Dual meters mean more administrative costs, more accounting costs. So if you can just spin your meter backwards and spin it forwards, you got one meter you got to account for. So from a utility point of view, dual meters always cost more money. So I wish you'd drop that out of the bill. Second of all, last week we had this wonderful zero percent loan for energy efficiency. I got it. Thank you very much. I applied it to my life. I cut two-thirds of my power strictly by changing windows, doors, and insulation. And then I cut it another 50 percent by the smart wind technology, which is what you're really discussing here. You're talking about a two-way conversation between you and the utility grid as a user. Everybody is focused on wind. But I have been to the solar labs in Washington, D.C. and they have got silicone that will just go on the windows and will be clear and will

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generate electricity. They've got all kinds of fabulous technology, which will get money, hopefully, from the feds this time. [LB436]

SENATOR LANGEMEIER: Can I have you sit back just a little. It's not picking you up, I'm told it's not picking you up on the record, so... [LB436]

LAVERNE THRAEN: I'm just talking way too much. So anyway, so what the real benefit of it really is this, that as technologies develop, you know that there are solar cells for your roof, not just big panels but actual shingles. You've heard about this. So as your zero percent...you know, your efficiency loans are being picked up by developers who are going to come and tell you that they're going to do these kinds of roofs, now these homes, a decentralized system is what you'll be getting to lay out with energy efficiency first. The reason there hasn't been that many people tied on in Colorado is because they didn't apply those...those 200 people probably did energy efficiency first. A Sun Frost refrigerator uses one-tenth what a common refrigerator. That's Arcata, California who builds that. Flagstaff, Arizona builds a Southwest Wind power wind turbine which is a plug and play 2 kilowatt wind turbine. In other words, you plug it into the grid and you play. Turns your meters back, turns it forward. The technology has already gone by your laws. Sunny Boy, it's a German inverter. It's a plug and play unit. And if you notice, computers have taken over the planet and they have taken over the renewable energy, you know, thing too. Another great thing about solar energy that's just coming down the pike, and I'm so excited about it, is the Absolute Black that they have achieved. I don't know if you've gone on the Internet and looked at it. It is blacker than black, it's Absolute Black, it absorbs 99 percent of all light. And that we'll start going into the banks of solar panels so it will absorb 99.9 percent of the light, which we'll convert that. So your panels, over the next ten years, are going to just increase in power by huge magnitudes because of this Absolute Black discovery with carbon material. So anyway, I'm just trying to give you kind of a technology update in the sense that the technology is already out there to plug and play for small wind turbines. Now I'm going to tell you a quick story. From '94 to 2004, I lived in a renewable energy home. We were able to address the load and then we put up one 600 watt wind turbine and eight solar panels. We over generated every spring, I just ran my stereo. And I used to laugh to think I have to run my stereo to use energy, otherwise it will just stop. So over generation is possible when you use your loan from last week, that efficiency loan. When you reduce your consumption by two-thirds, windows, doors and insulation, and then another 50 percent by changing your equipment, that's the feebate program I discussed with you last week, which would do that, get new refrigerators and new equipment, reduce it so small, now your renewable energy, your passiveness of renewable energy begins to really have a major effect. And that is something that no one seems to be really kind of thinking cohesively about it. Last week you talked about this. This week you're doing this. You know, utilities are going to come to you for Internet connection probably in the next five years I'm betting, because they can provide Internet connection. Utilities always had a two way conversation, they just kind of not allowed it, you know, and they've always

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done it through expense and equipment and all that kind of jazz. So the biggest thing is every kilowatt of coal you save at your house and in this room will displace 10 kilowatts of coal back at the power plant. Now three mile radius around every one of those power plants asthma rates in your children are higher. You can look that up on the Internet yourself. Just asthma rates in children, 30 mile radius. There's mercury in your fish. You know that. You see the announcements every day. Those are from coal plants. And if you watch public access television, watching the polar bears swimming and watching the icecaps melting. And we've all say it's from carbon emission, which is our coal plants. So regardless if we're dirty or not, that's the fact. I hope you take it as a moral initiative along with the technical facts. Thank you. [LB436]

SENATOR LANGEMEIER: Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: I'm going to stop after this one, I promise. [LB436]

LAVERNE THRAEN: No, I love it, I love it, no, go. All right. I was just sitting over here just burning every question you had I was like oh. [LB436]

SENATOR FISCHER: I know, I could see you wanted to just jump up and start talking. (Laughter) [LB436]

LAVERNE THRAEN: I'm just like wow, I know, it drives me crazy. [LB436]

SENATOR FISCHER: Don't eat the microphone next time though. But when you were talking about the Absolute Black solar panels, on our ranch we use solar panels for a lot of our water for our cattle. We have windmills but solar panels too. We have solar panels that run our electric fences, you know, all that kind of stuff. Afterwards, if you would like to give me information on that black solar panel stuff where I could look into it. [LB436]

LAVERNE THRAEN: It's just Absolute Black, it's a carbon material. It's... [LB436]

SENATOR FISCHER: So if I type in Absolute Black, I'll get... [LB436]

LAVERNE THRAEN: Yeah, just type in carbon material and it will be Absolute Black. And they're talking about putting that over some (inaudible). [LB436]

SENATOR FISCHER: Okay. That will be great. Okay, thanks. [LB436]

SENATOR LANGEMEIER: Any other questions? Seeing none, thank you. Welcome. [LB436]

STONIE COOPER: I'm done already. [LB436]

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SENATOR LANGEMEIER: Hey we're quick. (Laugh) Now this is confusing. Don't look at the red light. [LB436]

STONIE COOPER: (Exhibit 9) Chairman Langemeier, Vice Chairman Dubas, thank you for letting me speak today. My name is Stonie Cooper. My wife and I own and live on a small farm in Saunders County. I'm here to testify in support of LB436. When my wife and I were preparing to build a house on our farm, I contacted our local public power district to get direction on how to set up net metering. I'd been out of state for seven years and had assumed that Nebraska already had net metering because the state I was living in, which had several private utilities, already had net metering. The response from my public power district indicated that I could not net-meter at all. In fact, any electricity I generated had to be metered back out to the electrical grid without touching my circuit and the public power district may only credit me 1 cent per kilowatt hour against what I was using on the incoming meter. And I had to buy the second meter on top of that. Based on this response, the good intentions of my family to lower our electrical footprint were abandoned. I pressed further to find out why my public power district was against net metering. Being a publicly owned utility, my electrical provider should be encouraging its members to lower their electrical consumption, or so I thought. Not all public power districts have the luxury of forward vision, and LB436 helps them in achieving goals that benefit all Nebraskans. The reasons my public power district gave me for refusing to allow net metering were unsubstantiated. The first reason given was that net metering was unsafe for utility linemen. In researching this point, I found the statement to be untrue. There have been no recorded incidents where a lineman was electrocuted from a line electrified from a home, farm, or small business generating in the United States. And I know you're going to ask. I got that from the...okay. (Laugh) Actually, the OSHA Web site has a searchable engine. You can search for incidents there and find. LB436, Section 5.3.b, also requires the installation of an isolator by all qualifying generators to prevent any potential foreign accidental charge that could harm a lineman in the event of an outage. Even without this clause, modern inverters have built-in safety mechanisms to shut off power back to the grid in the event of a utility outage. The second reason given was that net metering was a foolish investment. I was taken aback by this argument. I don't know that my public power district should be protecting me from foolish investments. It is only a bad investment under the current paradigm that reimburses the residential power producer 1 to 3 cents per kilowatt hour when I have pay the same utility 7 to 8 cents per kilowatt hour. I did the math though, and with net metering as proposed in LB436, I would have a return on my investment in 10 to 15 years using the current rate at which we are paying for electricity through our public power district. This is if we installed only photovoltaic solar cells. If I hybridized my investment with solar hot water collection, the period to break even drops to 8 to 12 years. And we happen to have access to a year round stream flow on our farm. With microhydro technology, we can see a return on our investment in just seven years. That is with no government subsidies, without taking advantage of green

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discounts or low interest loans, and without taking into account the less tangible benefit of lowering our country's energy needs. It is not uncommon to purchase real estate with a 15 to 30 year investment strategy in mind. My family views renewable energy in the same kind of light--it is an investment. The final reason I was given, and the one that I see most often in REA literature against net metering, is that power generating customers are subsidized by non-generating customers. There is no logic in this statement. If I trade all the incandescent bulbs in my house to CFLs, and I lower my electrical usage footprint, are my neighbors subsidizing that effort? I paid for the CFLs and I lost the value of the incandescent bulbs I replaced. It is no different if I install a solar panel to decrease my electrical footprint. I am the one spending the money to do the right thing. A recent newsletter by a local public utility indicated that their rate hike was prompted by increased demand for electricity. If enough generators offset the increased demand, then we would be actually subsidizing our non-generating neighbors by investing our money in renewable energy that keeps our bills low. In summary, every argument that I've been given by my public power district is either an exaggeration or an outright false statement. As a customer that has considered installing renewable energy to offset my electrical footprint, I have been discouraged from doing so under the current system. For my family, LB436 will return the incentive for us to examine installing renewable energy generation. And thank you. And I'll entertain any questions. [LB436]

SENATOR LANGEMEIER: Are there? Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you very much for your testimony. I think your testimony and the previous one has kind of taken us away. We've spent a lot of time talking about wind energy and now we're talking about solar and some other things. So do you think we are...the fact that a lot of the conversation is aimed at wind is causing us to lose sight of net metering in the bigger picture for other types of energy. [LB436]

STONIE COOPER: Absolutely. In fact, wind energy is towards the back of my assessment. Being on a small farm and having a small feedlot, one of the things that has occurred to me is if I capture the manure runoff and digest that and burn that methane, that would be a sustainable renewable source of energy that is absolutely applicable in Nebraska. As Senator Schilz can also testify to, this is a source that is not just wind energy. Solar, biomass, there has been research done on burning just crop residue as a source of electricity. And I think we need to keep the source out of the picture and more into net metering. If you generate from a renewable source, then it really doesn't matter. [LB436]

SENATOR DUBAS: Okay, thank you. [LB436]

SENATOR LANGEMEIER: Very good. Any other questions other than Senator Fischer?

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(Laughter) Just kidding. Seeing... [LB436]

STONIE COOPER: And I apologize. My last name is spelled C-o-o-p-e-r, and my first name is S-t-o-n-i-e. [LB436]

SENATOR LANGEMEIER: Thank you very much for your testimony. Further testimony in support. I like to see this eagerness. Welcome. [LB436]

AARON PRICE: (Exhibit 10) Good afternoon, Chairman Langemeier and members of the committee. My name is Aaron Price, spelled A-a-r-o-n P-r-i-c-e. I'm a fourth generation Sandhills rancher. I grew up near Burwell, on Gracie Creek Ranch in the Sandhills of Loup County, which is in Senator Fischer's district. I'd like to start out by saying that climate change and energy issues are two of the greatest challenges facing my generation. These Nebraskans need to step up to these global challenges now. We cannot just look to the federal government for solutions. I believe each of us must take responsibility in meeting these challenges. A statewide net metering policy provides the necessary framework for citizens who are willing to step up to the energy plate and invest in their own renewable energy facility to meet their own electricity needs. Agriculture is slowly moving into a new defined role. Not only will we call upon our world's farmers and ranchers to feed the United Nations 9 billion people projection by 2050, but we also...but also take on additional roles as well. Our new roles include producing wind and solar energy, but particularly wind to help address climate change and energy issues. The long-term benefit of renewable energies is enormous. Renewable energy production diversifies income and energy portfolios, provides non-CO2 emitting energy, and uses no water in the generation of electricity. Using agriculture as a foundation along with the energy incentives we're talking about today, we can begin to address the current and forthcoming food supplies, energy, and climate issues from one source. Adopting a statewide net metering policy in Nebraska can help take us into this direction and support the economic sustainability of our state's ag sector. Agriculture is the foundation of Nebraska's economy and I know this Legislature has adopted policies to try to keep its young people on our farms and ranchers, such as the Beginning Farmers Act. This would be another tool for young people and old farmers and ranchers alike to be able to stay on the land. My father told me a year ago, Aaron, I have never seen such volatile times in agriculture. I know these words to be true. Gracie Creek Ranch, like other farms and ranches throughout Nebraska, recognized how wind energy can help an operation's economic bottom line and bring a needed control cost element to rural landowners like my family. I think LB436 would be a positive step in developing or distributing renewable energy within Nebraska, especially for rural landowners where I come from who worry about the varying costs of production from year to year. Controlling costs on the ranch are a huge priority for my father and we work closely with a local consultant to track the our costs of production. We're looking for new opportunities to deal with this issue. The statewide net metering policy set forth in LB436 establishes a foundation to gain control over large variable

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energy costs associated with agriculture. Even though our unique public power system has done an excellent job in keeping our electric rates low, actually some of the lowest in the nation, electricity is still a major cost of doing business. I come from one of the top ten least populated and poorest counties in the United States per capita and many friends and locals have approached me within District 43 to discuss bringing wind energy to their operations to help with costs. Besides my ranching experiences, I also have worked in the wind energy industry since 2004. I worked with the White Earth Land Recovery Project on a large DOE grant focusing on a collaborative wind energy feasibility study with native tribes in Minnesota. During this process, I was trained by NREL in the WhEATS program. I presented some of the findings of our grant study to NREL personnel. I traveled to countless industry meetings throughout the United States, and I have continued discussions with my father about bringing a generator to our ranch. We even have a hill picked out where we could place a turbine close to our headquarters once the policy and economic conditions are fruitful. If Nebraska had a net metering policy, I guarantee my family and I would be meeting with the turbine companies to begin talking about purchasing a turbine. But many wind energy professionals I talked to and worked with said to wait until Nebraska had a net metering policy before considering going into the purchase and construction phases. Without net metering rural Nebraskans can only dream about having a turbine and solar panels that are cost-effective. We would like to see a large...excuse me, small-scale generator that could cover our basic energy usage on the ranch. We need a state statute in place that clearly sets out the parameters of a net metering program for all Nebraskans. And please reflect with me for a moment on my conclusion. With our democratic processes here in Nebraska, I see each legislative bill that is passed as a seed each of you plant which affects the current and future generations at every corner of our state. Right above us stands a seed sower looking back toward my home, waiting to spread the seeds of another season's crop. With the critical issues of wind energy development incentives and climate change in mind here today, I pose this question to everyone in our policy making process: What kind of seeds are we planting for our future generation's energy and economic security right here in Nebraska? I urge you to advance LB436 from committee. Thank you. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you very much for being here today. I know that...well, I'm very excited to see your generation wanting to stay on the ranch. I'm trying to bring our son into our operation too. It's very, very important that we're able to not just keep the current generation going, but to encourage those who maybe have left to come back. And I know you already addressed this in your testimony, but I would really like you to reemphasize the fact of why is it important that you have tools, such as net metering, to keep...to make your ranching operation viable for your generation and future generations. [LB436]

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AARON PRICE: Well, like I said, it would just be a control cost factor. The variable costs are...they vary from year to year. And just having a wind turbine that can help with our energy bills would be great, keeping us here and keeping our ranch operation and others economically healthy. [LB436]

SENATOR DUBAS: And what other types, outside of just the cattle portion of your ranch, what other types of things are you looking at to broaden that revenue stream for your ranch? [LB436]

AARON PRICE: Well, we're looking at doing some eco-tourism operations with our neighbors, Calamus Outfitters. And then we also have a...the North Dakota Farmers Union has a CO2 program for sequestering carbon. And I believe the last time I talked to Liz, who runs the program up there, helps coordinate it, my father's ranch is the largest land applicant in the process right now. And so we're gaining some revenue from that that's helping out. So, yeah, that's how we're kind of diversifying some of the economics of the ranch. [LB436]

SENATOR DUBAS: And that's important to your future? [LB436]

AARON PRICE: It is very important. I'd like to see that continue. You know, cap and trade systems, I do believe, are coming. And once those are in place, that's just going to take off and be very beneficial for us and other people that are involved in the program. [LB436]

SENATOR DUBAS: Well, again, I thank you for your testimony, and wish you much, much success. [LB436]

AARON PRICE: Thank you, Senator Dubas. [LB436]

SENATOR LANGEMEIER: Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. I have to say, hello again to Aaron Price. His parents are good family friends. And you'll have to tell them you did a nice job. [LB436]

AARON PRICE: Thank you. [LB436]

SENATOR FISCHER: Thank you very much. [LB436]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much for your testimony. [LB436]

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AARON PRICE: Thank you again. [LB436]

SENATOR LANGEMEIER: Further testimony in support. Welcome. I think you're Ed, is that right? [LB436]

EDUARDO TORIBIO: (Exhibit 11) Yes. Senator Langemeier and members of the committee, good afternoon. My name is Eduardo Toribio, E-d-u-a-r-d-o Toribio, T as in table, o-r-i-b as in boy, i-o. I'm here today to testify in favor of LB436, not as just a homeowner or a resident of Nebraska, but also as a small business owner. I do install portable tanks and small wind turbines, up to 15 kilowatts rated power. So I can answer most of your technical questions and I encourage you to do so. The handouts that I gave out includes three letters of some of the people that have spoken in the last two years, and also a common letter that was signed by 20 of us. As you can see, the people are spread all over around the state. I would read the letter. We would like to express our support for LB436 to implement a fair net metering law in Nebraska. It is our desire to support net metering for the following reasons. We are all concerned about increasing energy prices and want to harness the plentiful wind and solar resources to help us reduce our monthly bills. Renewable energy systems have a high up-front cost, and without net metering it would not make sense to invest...make an investment of \$3,000 if we're just going to save \$5 a month. So we really do net metering so the economics of investing in renewable energy systems look better for the customers. Small scale wind, solar, and hydropower are intermittent resources, so with net metering it will allow us to receive full value of the electricity we produce, either is used by us or our neighbors. By producing our own power at home, we will be also reducing the pressure to put more power into the grid. Onsite customer generation will delay the need to build new coal and nuclear power plants. Customer-owned generation lessens the demand for peak demand power that is usually bought from neighboring utilities like Mid America in Iowa and western municipal agency. Out west the price of this power is higher. So when they pay more the high cost is passed onto the customer also. Encouraging people to produce their own power at home will create demand for new jobs and installers and technicians to install solar panels and wind turbines. In conclusion, net metering will bring new economic development, create new jobs, will reduce the cost for the utilities, it will reduce the demand for new power plants and most important it will give us a fair trade for our clean produce electricity made from renewable sources. I'll be happy to take any questions. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Seeing none, they're going to let you off the hook. Thank you very much for your testimony. Further testimony in support. I like to see this eagerness to come up. Welcome. [LB436]

JAY SCHMIDT: Thank you. Chairman Langemeier, members of the committee, I'm Reverend Jay Schmidt, S-c-h-m-i-d-t. I'm an ordained United Methodist clergy. And our Nebraska Conference of the United Methodist Church of a general conference, which is

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our national organization, have passed resolutions concerning...of concern and action on global climate change, urging government support of sustainable and renewable clean energy. I'm a member of the state board of the Nebraskans for Peace, which is also concerned for the environment that we become good stewards and make ourselves independent of foreign oil and thus which seems to come with military conflict. We are not simply concerned for the well-being of the environment for its own sake, but finally for the sake of people and their well-being. We need to do all that we can to minimize global climate change. It is often said that coal is a cheap means of generating electricity. It is not. Figure in mercury pollution and floods and droughts as part of global climate change and you have a very expensive form of energy...of electric generation. Presently, this is from the Lincoln Journal Star, so I take it, it must be accurate (laughter). Presently, 60 percent of our power in Nebraska is from coal, and 1 percent from wind. I didn't put in the hydroelectric, which is so renewable, but we only have so many rivers that we can dam up (laugh) and use in that way. We're doing pretty good on that, so it's 60 percent from coal, 1 percent from wind. We need to do all we can to reverse this ratio. Net metering would be one step forward in helping switch to more renewable energy. We in Nebraska have been too slow in using our wind and solar power which are so readily available here. We need to do all that we can to catch up and use such renewable resources. With this bill, some rural people will become generators of electricity on a modest scale. This will help our rural Nebraska economies add another source of income. It may not be a great amount, but for some people a little more can make a notable difference. This will also help our electric utilities in meeting some the increased energy needs without a great outlay of money for new generating facilities. And I thank you. [LB436]

SENATOR LANGEMEIER: Very good. I do have one question. Reverend Schmidt, is your testimony on behalf of the Methodist Church and Nebraskans for Peace, or are you just members of those groups? [LB436]

JAY SCHMIDT: I am a member of the board of Nebraskans for Peace and was authorized to speak by the coordinator, state coordinator. [LB436]

SENATOR LANGEMEIER: So on behalf of Nebraskans... [LB436]

JAY SCHMIDT: But as a United Methodist, any of us can speak about the resolutions that have been passed by the general church. [LB436]

SENATOR LANGEMEIER: Very good. I just wanted to make sure I got that correct before we go on. [LB436]

JAY SCHMIDT: So I'm not speaking on behalf of my bishop or anything, but pretty much the general church's position. [LB436]

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SENATOR LANGEMEIER: Sure, great. Are there any questions? Seeing none, thank you very much for your testimony. [LB436]

JAY SCHMIDT: Thank you, appreciate it. [LB436]

SENATOR LANGEMEIER: Further testimony in support. Come on up. [LB436]

RITA CORELL: I have some stuff to hand out. [LB436]

SENATOR LANGEMEIER: Yeah, just set them there, they'll come up and grab them. [LB436]

RITA CORELL: (Exhibit 12) My name is Rita Corell, R-i-t-a, the last name is C-o-r-e-l-l. I'm from Omaha, Nebraska. I'm a member of Sierra Club. I'm a massage therapist. I belong to the American Massage Therapy Association. I'm a health educator. I'm also going to be the president of the Nebraska Solar Energy Society, which just got it's 501(C)(3) status. But I'm not here talking on behalf of them. I'm talking on my own as a private citizen. And on the handout you're getting now, there is a stapled part and then there are two attachments on the back. And this thing is long, I always talk a lot, I'm sorry. I am scared of that light but I'll go over a couple of the attachments on the back of this. Okay. And you have a reference to that from the Rocky Mountain Institute, this thing here that looks like the energy generation going on down. Someone, the last fellow talked about 60 percent of our energy is from coal. I didn't know that. I do know that your maximum energy efficiency is 30 percent from a coal plant. So you can see that taken off the top, when you have 100 units of energy going into coal, that you're only going to get...you're going to lose 70 percent of it in the generation. Okay? So that's just the maximum efficiency in a coal plant as they stand now. They're working on it, but that's how it is. When you look at that other 100 percent coming out, which is 30 percent left of what that plant is actually taking in, the other 100 percent that goes out at the end of it, you have 9.5 units going to your home. That means it's a one in ten loss coming out from transmission to distribution on the lines going through the different step down processes it does. And so Laverne was talking about that, Laverne Thraen, with the one in ten ratio. If you look at you're generating something in your home, you are opening up the capacity on the line coming from the plant. Line capacity is an issue. It's like how much pressure you can hold water in a hose. So when I make my own electrical, I'm not taking that capacity out from the plant, it's being saved a little bit extra to go on. If I have excess electricity, instead of going back to the plant, it goes out to the little transformer box on my pole and goes over to my neighbor. So that means my neighbor gets that electrical at almost 100 percent of generation from me making it versus the one in ten ratio back from the plant. So that's very efficient that way. In addition, my neighbor taking my energy and using it is not taking that energy capacity out of the plant for the line coming out. So that's where that is good. The other chart I have here, you were talking about subsidies earlier. And Senator Fischer, on the

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second page of this there is a quote that I took from John Preister's...or Don Preister's, let's see is it second or third page? It's third page. From that Jon Hoke article about that 15 cent going up on a thing. That's there, you can read about that later. Above that it's talking about this thing I have here, the second attachment. And that is the top ten lowest utility states with net metering programs. You know, so...or just the top ten lowest utility states, lowest utility in terms of electrical. So if you look at this second thing you see West Virginia starts at 5.66, we go down the line, Nebraska is number 8, 7.16. What I want to point out on this chart is the other seven states above that that are cheaper rates than us all have net metering programs. So net metering does not raise rates. As a matter of fact, these guys got even lower rates than what we got. Okay, so I just wanted to get that clear. And, you know, this is year 19. Who is fighting us? The public utilities. If you take "public" off, you make it "utilities" we'd look a lot darker. And I'm tired of not having public utilities me, as a citizen owner, getting support for this. And I'm only in my second year on this. I'm not a technical person. I put a lot of time into this because I really believe in it. We have rights, you know, and as citizen owners we have rights. The public utilities have spent hundreds of thousands of dollars fighting us. Why? I don't understand it. But here's the things we'll look at here, all right. So we're year 19, if I put PV panels in my house I need to have expensive solar battery and I've got to have a place to vent it, all that sort of thing because if I put it on the grid at net billing, I take that energy back off because I'm using the grid as storage. I am being charged three times that rate of the net billing that I was credited back as a result. So I'm going to let you read through this later. Smart Grid Technology, Senator Cook, you should look at that in terms of the bottom of that page, "load shedding," we need to look at that for Omaha. What's going to happen in terms of we can do a lot with this. I'll let you read this. But I just think it's very, very important that we look at net metering. And I would like you to honestly read this over time. Iowa, by the way, if you're looking at that, Iowa is doing five, seven-year contracts out with Minnesota, North Dakota, South Dakota, Illinois developing transmission line contracts so they can sell the excess energy they're going to be making. Nebraska has zero. They have four international companies building turbines there and setting up. They have four community colleges spitting out energy technicians. Their electrical engineers are starting out \$60K a year out of school, and it's about selling turbines. Nebraska has got zip. So I just...it's time when real poverty is here in the outlying regions of the state to look at this. Public utilities used to allow its citizens, need to allow its citizens true net metering credits while we, the citizens, foot the bill for providing renewable energy. They talk about being green, but they won't let us help them install the equipment to make it so. [LB436]

SENATOR LANGEMEIER: Very good, you've given us good information to study. Are there any other questions. Thank you very much for your testimony; very good. [LB436]

RITA CORELL: You're welcome. [LB436]

SENATOR LANGEMEIER: Further testimony in support? Welcome. Yep, keep your

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copy. Go ahead when you're ready. [LB436]

BERT McINTOSH: (Exhibit 13) I'm Bert McIntosh of St. Paul, Nebraska. And it's B-e-r-t M-c-l-n-t-o-s-h. And before I get into this I'd like to say that I really was thrilled by the young man that was here that had so much enthusiasm that just lit the place up. And I normally like to talk like that but then I tend to get out of control and I've got to keep it written and keep it under control. And I'd also like to say that when I get to the end of this, I would like to take the liberty to add a few extra comments until my light's up. Having said that, I will start. I am grateful to be here today, not only for myself, but in part for those that cannot be here. I have waited ten years for this state to step up to the plate and open the door for those who desire to contribute to not only their own well being, but also that of others. I applaud you for this effort. Since 9/11 we have all become painfully aware that the more concentrated our resources are the more vulnerable we all are, and that there are those who would choose to hurt us any way that they can, if they could. We also have become aware that the methods that we choose to produce energy may be contributing to climate changes around the world, not only affecting our lives, but generations to come. This bill before us today opens the door to address all of those statements and concerns. The desire to provide for oneself, to contribute to the well being of those around us, to dilute the concentration of power and to do so in a way that lowers the impact that we have on our environment and lessen the impact we have on our future generations. How is this so? As I have stated at the beginning, I have wanted to be able to, at least in part, provide for some of my own needs in relation to the power that I use in my home. I have purchased solar panels and wind generators, even storage batteries. Yet, I have been restricted from using them because the REA does not want my contribution. I am not able to put my electricity on the line. To try to do something on my own with the equipment that I have purchased would require me to split my wiring in my house into sections that I could produce power for, yet not endanger the men and women that work so hard to provide electricity in some of the worst conditions one can imagine. It would be morally incomprehensible to knowingly endanger these people. Yet the technology has existed, probably for as many years as I have wanted to do my part. As a past farmer, I am very well aware that for many years the REA has offered farmers a discount rate if we would allow them to disrupt our electrical service to our irrigation wells during peak summer usage periods. We farmers that agreed to this, would have to wait for these times to pass before we could restart our wells. So while the REA rightly decried the need to protect their and our workers, they were not being honest to admit that they already were using technology that would protect those workers, and could have applied it to any place that might have been a danger to them if they had really wanted to. It would make one wonder if they were not more concerned with keeping the little guy, people like me, out of the system and enabling them to enslave them to their monopoly of power, which is exactly what they have. Even as the power needs grew greater and greater, rather than open the door for people like myself to add to the greater good, they would instead encourage all of us to conserve more while they try to address the

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apparent coming shortfall in the capacity. Not that there is anything wrong with conserving energy, but it seems to betray a stubborn resistance to let the American people do what they do best, innovate. Now they, the people of the industry and government, are saying that to meet the growing power needs of this country they will need to have to start about a power plant every day for the next ten years. It has been stated by our former Vice President that we, as a nation, on the low-end estimate need to build 13,000 new power plants in the next ten years. He also stated that the high-end estimate is 19,000 power plants that will be needed to be built. Now will they allow the people like myself and others to do our part? Or will they try to convince you that this is a bad thing for the REAs or the public power companies? That they need to control the generation of electricity for the protection of their workers. I see my red light's on so you have the rest. [LB436]

SENATOR LANGEMEIER: We have the rest but would you just, for the record, read in your last paragraph? Your summary. [LB436]

BERT McINTOSH: We the people are saying let us help. We the people are saying that we do not want 19,000 new coal burning power plants in this country. We the people are saying that we do not want nuclear plants that generate waste products that last 50,000 years. We cannot handle the waste we create already. Why would we want to create more? We the people are asking, will the great state of Nebraska set us free to do our part. Let us join the growing swell that is sweeping this nation to change the status quo and break the bonds that have held us back for all these years. It's up to you. And I'll entertain any questions that you have. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Seeing none, thank you very much. Thank you. And for those of you that are new to our hearing process, our senators have bills they are introducing in other committees, so that's why they're leaving and they will come back as they go do their introductions. And they will come back. It's no reflection to the testimony we hear in our committee, it's just a lot of other committees meeting as well. Welcome. We're ready when you are. [LB436]

JON DIXON: Thank you. My name is Jon Dixon, J-o-n D-i-x-o-n. I am owner of Dixon Power Systems here in Lincoln, and we install renewable energy systems for the last ten years. Senator Haar mentioned the five net metered systems that are Norris's utility grid; I installed all five of those. Two of the three systems that are on LES's grid; I installed. One of those was funded by LES. One of the systems on Norris's grid is the first school in Nebraska to have wind and solar and it is a private school. I wasn't sure what I was going to talk about today, but as I heard some of the questions, I thought I would try to answer some that I didn't think were...that you maybe didn't get all the information. One of them is, why would someone want to spend this much money, you know, the return on investment is very long. Okay. What people tell me when they come to my place of business and we start talking about putting up a renewable energy

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system is, they do start out with return on investment. That's where they start looking at, you know. Can I put this in? What's going to be my return on investment? And many times folks are looking for a less expensive form of energy and they'll quickly learn that this is not it. But what they are saying is, this is a lifestyle choice. I am an organic farmer, so this fits my lifestyle. Others have said I'm very interested in the environment, I have the means, so this is how I'm going to satisfy my environmental need. Other people just like the idea and one of the folks sold a home, built a new home, had a little extra equity and he wanted to invest it in his own turbine. So these are what the ultimate, final result is when they do choose to put in a system. I also think this answers the question of the three top reasons why is wind important. Well, these are the four reasons is the people want it, the people want it, the people want it. And that's what they're asking for. The net metering, I would guess that it's still probably a little bit fuzzy as to what it really is. It is not an incentive, in my opinion. Net metering is only asking for the same advantages that every other ratepayer is already getting on the utility. And that is, if you choose to install like a geothermal heat pump at your home and reduce your kilowatt hour use by 300 a month, the utility supports you. They're very happy. You can call them up, they'll come out. Many of them do an audit and say, well you could lower your bill if you put this in. Here it is, you know, it's \$25,000 you put it in, your bill is lower, you reduced your bill by 300 kilowatt hours a month, completely acceptable. And many utilities are also giving you a financial incentive on top of that. LES just passed a new program, for instance. Great. Now, if you come along and say, I want to put up a small wind turbine, generate 300 kilowatt hours a month and reduce it from my bill, this is where the problem runs into. Because the utility will not allow net metering, the end result is you don't get 300 kilowatt hours a month off of your bill. You may get 200, and then they're going to buy 100 of them from you at this lower rate. So net metering is only allowing you the same thing that they allow all the other ratepayers in that class. There is no difference, that's all it is. If you go negative, let's say you put up a wind system that's really big and you could generate more energy than you use in a year, then the utility is buying that from you at this lower cost in LB436 which is the bill I am in favor of. So there is no big difference there in my opinion. And that's how it is. All utilities that I'm in touch with support it, energy efficiency, you know they're all there to help you reduce your bill. So I can't find any difference; that's the feel there. We have two utilities that have a written net metering policy, NPPD and LES. LES was the first to do it, they're both 25 kW, kW means 25 kW of capacity whether that means solar panels or a wind generator, that's its name plate rating. That's what you're allowed to use. Twenty-five is good and it's glad that we have those but if we want to help out the ag and small business areas, it's going to need to be larger than that 25. That's why I like this larger 125. Thank you. [LB436]

SENATOR LANGEMEIER: Very, very good. Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, Mr. Dixon, for your

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testimony I don't think I agree with you, though. When you talked about the utilities, they encourage people to put in heat pumps and then you can save on your electric bill. But that person bought the heat pump, correct? Paid to have it installed and the reason they're saving on the bill is that they're using less energy. Would you agree with me so far? [LB436]

JON DIXON: Correct. [LB436]

SENATOR FISCHER: Okay. Why can't a person put up a turbine, use the energy off of that. They'll be able to also reduce...they've spent the money on the turbine, they put it up, they use less energy from the utility because they're producing their own and so they're saving money from their electric bill because they're using less. Why should they then get paid also by the utility with the net metering? The person with the heat pump isn't getting paid, the person who does weather stripping doesn't get paid, you know we do these things on our own, we make that choice. So why with wind or anything else--solar--anything else, why wouldn't you install it on your own, save on your energy bill because you've done this? Why should the utility have to pay you then, for extra energy that you may be producing? [LB436]

JON DIXON: That's just in the bill, and I guess where maybe I didn't make myself clear is. [LB436]

SENATOR FISCHER: But that's what net metering is. The person who is able to sell back energy they're producing to the utility, that's net metering, correct? Why can't you just use what you're producing, that's what I'm saying and benefit from it? [LB436]

JON DIXON: Okay, the reason...and same deal, if you put in a renewable system you're buying the equipment, you're paying to have it installed, all the costs are on your side. You're connecting it to your side of the meter. The reason you can't put up a turbine that makes 300 kilowatt hours a month and get retail offset, or reduce your bill by 300 which gives you retail, right, okay, is because the wind system may be going along, generating energy the wind's blowing, let's just say we had this ten mile an hour wind, we're making this energy here on this imaginary graph, okay. And your house is up here and it's using twice as much as what your wind generator is doing. What you would see is, if you went outside and you were looking at your meter is it will slow down by however much generation you have at that moment, okay. Therefore you're reducing your bill just like the heat pump would, because your old heat pump made the bill go like this and your new one makes it go like this. Same thing. Now where the issues comes in is all of the sudden, let's say your house is not using this much energy, everybody left for work, you know, it's a nice day, you turn the heat up. Your house drops down to here but the wind turbine is still up above, so it's generating more than you use, are using at that instantaneous moment in time. When that happens, the energy has to go somewhere. So in a system that's plugged into the utility, it makes the meter then go back the

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opposite direction. Just like the old days you used to hear people would jack there car up in the driveway and put it in reverse and run that thing and take miles off of it and then take it into the car lot. Same thing; that meter goes backwards. [LB436]

SENATOR FISCHER: You wouldn't know about that, would you? (Laughter) [LB436]

JON DIXON: What happens is the meters goes backwards, all right. [LB436]

SENATOR FISCHER: But couldn't you...I'm going to interrupt you. [LB436]

JON DIXON: Please. [LB436]

SENATOR FISCHER: But couldn't you disconnect? [LB436]

RITA CORREL: No because (inaudible) [LB436]

SENATOR FISCHER: Don't interrupt. Really, the hearing you have to follow it. Couldn't you disconnect from it? Why do you need to be still connected and have it producing energy? I guess I'm thinking where, if you aren't going to use it, what do we do with it? [LB436]

JON DIXON: Let me say this. Let's say this customer normally uses 1,000 kW hours a month, okay. They put the heat pump in, they took 300 off a month, now they're only buying 700, okay. So in that same example, this customer uses 1,000 they generate 300 but because the way the utilities measure that energy flow, when the meter goes backwards they capture that amount of energy which is kilowatt hours and they say we're going to give you a lower value for it. Now the end result then, see, this customer still is trying to reduce their bill. What they're trying to do is average out over a time period because that meter might start running backwards for ten minutes and then the air conditioner kicks on and then it goes back forward. So all we want to try to do is...I can generate 300 a month, I just want that full 300 reduced from my retail bill. And it's because of the way that at times you may generate more than your home is using which makes the meter run backwards. Now with LES, they say, fine, okay it goes backwards for ten minutes, we don't care. We're going to wait and at the end of the 30 day period we're going to look at the thing and say, oh, this person still owes us 700 kilowatt hours. We're going to send him the bill for 700. We don't care that yesterday it went backwards for an hour or two hours, who cares? We're going to let you average out so you can get full retail value for your energy for that month. [LB436]

SENATOR FISCHER: Okay, so LES is doing it and you said also NPPD is. [LB436]

JON DIXON: NPPD and Norris... [LB436]

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SENATOR FISCHER: And they're good with it and Norris is doing. [LB436]

JON DIXON: And Norris is doing it as a...it's not a formal policy but they have stated that they will change their current contracts with customers to whatever the state passes. [LB436]

SENATOR FISCHER: Okay. [LB436]

JON DIXON: So if for some reason something came out of here that was worse, these people that have already invested this amount of money they could be, you know, even worse shape than where they are. [LB436]

SENATOR FISCHER: I appreciate that. [LB436]

JON DIXON: Did that help or. [LB436]

SENATOR FISCHER: I'm slow, but yes it helped. It helped, thank you. We'll visit. [LB436]

JON DIXON: Well, it is confusing and that's why I say it's not an incentive. And we're not asking to be paid and we're not asking to sell. I hate those words but the sell word comes in when that meter runs backwards. [LB436]

SENATOR FISCHER: Right. [LB436]

JON DIXON: So maybe it's only for five minutes today. If you had a solar system today it's not going to be very much it's not that great of a solar day. But it's when it goes backward they capture it. LES says we don't care, NPPD says we're going to wait for 30 days before we look. [LB436]

SENATOR FISCHER: Okay. [LB436]

JON DIXON: But the REAs and some of the smaller ones are looking every second. [LB436]

SENATOR FISCHER: I'm sure they'll come up; we'll ask them. Okay. [LB436]

JON DIXON: That's how it is and that's the way it's been for years. [LB436]

SENATOR FISCHER: Okay. Thank you. Thank you. [LB436]

SENATOR LANGEMEIER: Thank you very much for your testimony. Further testimony in support? [LB436]

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PAUL VONDERFECHT: My name is Paul Vonderfecht, spelled V-o-n-d-e-r-f-e-c-h-t and I'm representing Energy Smart Company. I am the owner of a new company in Omaha, Nebraska, called Energy Smart Company. We're a green building supplier and home builder. In Omaha near 90th and Pacific Street we are building a 2,000 square foot model green home to showcase to the public energy efficient and green building strategies. The home is going to include a structurally insulated panels, windows with R11 value, LED lighting, recycled paint, sustainably harvested flooring, Energy Star appliances, low flow toilets and showerheads, and things like energy recovery ventilators to improve indoor air quality. But one thing is glaringly missing from this model green home and that is a renewable energy system that generates electricity. Even though I buy solar panels direct from Sanyo, the manufacturer, and install the panels, I'm still not going to install them simply because Nebraska has no net metering laws. Solar generates electricity during the day while most of us are at work. So during the day while the panels are generating electricity they are feeding the grid where we would get about 2.7 cents per kilowatt hour. But at night, when we are usually home off of work and consuming electricity, the panels are not generating electricity because there's no sunlight. So I have to pull electricity off the grid where I'm being charged approximately 8.57 cents a kilowatt hour. So to avoid this unjust situation I would have to buy several solar storage batteries to store the electricity only because Nebraska does not have fair net metering laws. To install these batteries increases the cost of the system by 10 to 15 percent. This is a completely avoidable expense with these eight pages of legislation. In my opinion, laws exist to promote public safety and commerce. Nebraska's current lack of legislation in regards to net metering laws has crippled any chance of commerce through renewable energy. President Obama has a goal of creating millions of green jobs and to create a green economy. If we, as Nebraskans, cannot do something as basic as have a fair net metering law then the green economy is going to pass us by. But if we, as Nebraskans, create net metering laws, good jobs which cannot be outsourced to foreign countries and as projects are sold, sales tax will be generated for the state. We're not asking you to subsidize renewable energy, we are just asking you to give it a chance through something as simple and basic as net metering laws. Thank you. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Maybe we'll have to come on a house tour. Senator Carlson. [LB436]

SENATOR CARLSON: Senator Langemeier. And I caught all your testimony, I didn't catch all the previous one. And I would have asked the previous testifier. But one of the things that I don't understand. [LB436]

PAUL VONDERFECHT: Um-hum. [LB436]

SENATOR CARLSON: In the example that you gave, when you're away at work and

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your solar panel is generating electricity, you don't need it in your home. [LB436]

PAUL VONDERFECHT: Um-hum. [LB436]

SENATOR CARLSON: And the electrical...the power company doesn't need it at that time either. [LB436]

PAUL VONDERFECHT: They don't need it? [LB436]

SENATOR CARLSON: Well, probably not because it's reduced...it's a reduced requirement. Now when you get home at night with your solar example, you can't generate electricity. We're talking about wind; you could still be generating it at night. [LB436]

PAUL VONDERFECHT: Okay. [LB436]

SENATOR CARLSON: But at night you need the power. [LB436]

PAUL VONDERFECHT: Um-hum. [LB436]

SENATOR CARLSON: And so sometimes it's a willing buyer and a willing seller. If you generate electricity when somebody needs it, they should pay you for it. [LB436]

PAUL VONDERFECHT: Um-hum. [LB436]

SENATOR CARLSON: If they don't need it, why would they pay you retail? [LB436]

PAUL VONDERFECHT: You raise a good point, and that's what we call peak demand charges. Most states, California...I started with the New York division for the nation's leading energy service company where we did large scale building automation projects at Rockefeller Center, large hospitals, and universities. So actually during the day they'd bill you more per kilowatt hours because large industrial plants, manufacturers, commercial buildings like Rockefeller Center are guzzling up the energy but at night when most of us are at home, there's less demand on the grid. So there's actually more demand on the grid during the day because of the manufacturing plants, industrial plants, things like that. But at night the demand's lower so we're actually helping OPPD and NPPD. [LB436]

SENATOR CARLSON: Thank you. And in your example, I can't argue with that, so I'll wait for another wind generator. Thank you. [LB436]

PAUL VONDERFECHT: All right, thank you. [LB436]

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SENATOR LANGEMEIER: Any other questions? Seeing none, thank you very much for your testimony. Further testimony in support. [LB436]

MICHAEL SHONKA: (Exhibit 14, 15) I have two handouts for the committee. The first handout is the petition that was signed. [LB436]

SENATOR LANGEMEIER: Now wait a minute, don't speak until you get in front of the mic. We can't make it a record. [LB436]

MICHAEL SHONKA: Right. Right. Okay. Sure. My name is Michael Shonka, it's spelled S-h-o-n-k-a. I am the vice president of the Nebraska Solar Energy Society but today I'm here on behalf of my own business called the Solar Heat & Electric Company in Omaha. I've been installing solar energy and wind equipment and energy conservation devices since 1983. I'm also here to support this economic stimulus package you have before you in LB436. I really consider it a true net metering policy. I'm thinking in terms of today, what really makes a meaningful statement and I wanted to say we don't have a solar industry in Nebraska right now. We have a few people trying to make a living on it and they're not being very successful at it; similar with wind. But if you pass this legislation, this will give us an opportunity to have an economic viability on our businesses. And there's one comment, or one item, that struck me when I was reviewing the Nebraska Energy annual reports back in the '80s and '90s. And that was Nebraska imports 99 percent of its energy and this comment has been removed in recent editions, not exactly sure why but I think it's still relevant today. What that means is we're really exporting capital to pay for our huge energy imbalance, and this is foreign energy and we're talking about millions of dollars annually. These are dollars taken out of our pockets and it's for gasoline as well as coal as well as whatever else it might be, but in a sense it's energy dollars. So one of the things when you get down to energy production here in Nebraska, Norris and its contemporaries really saw the linkages between energy in our cities and the countryside needing water control for the canals and irrigation. And so they saw that at that time and thought well, if we vision this for the future we can create a public power entity that will work together and our whole society will be better from it. I think it's that vision today that we need to invoke again. I think it's very important to do that. But we all know that monopolies do not innovate very well. That's just the fact about monopolies. So if you take a look and you parallel the telecommunications industry and you look at before divestiture, AT&T wouldn't let you connect a fax machine because it might damage the network. We've got the same issue today with net metering. It's really no much different, it's just a matter of attitudes and policies. We've got a vital issue with our economic security in this country. We have a vital issue with our energy security in the state and we're not using the two most, well, the two very important resources are totally under utilized our wind and our sun. So 80 percent of my solar inquiries start out with electrical costs. I have to tell them it's a negative ROI, we've discussed that previous testimony. But if you magnify that on the state level that means people don't have a choice where they can make their personal

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investments for their home. And we can all out and perhaps if we're wealthy enough and buy some bond issues from a public power company, I think that's a great opportunity to contribute in that manner. But I'd like to see some things in the future, not just in net metering, but also with the public power. And to pain that picture, I think if you take a look at the funding mechanisms, perhaps these mechanisms that are now working with power could also generate renewable investment opportunities. Perhaps landowners would have new sources of rental income, or as we've heard the previous testimony, be able to diversify their revenue streams so it keeps the family on the farm or the ranch. We could really do reduce our dependence on this foreign energy by harvesting these opportunities. So I'm looking to the power companies for leadership. I'm looking for them to create the kind of outreach programs to truly educate the public to these issues, to train professional installers, to coordinate this kind of investment opportunities. And I think they can do that. With their buying power they could actually buy a lot of solar equipment, train the people to install them, and we'd have a better overall expenditures every way around. So I urge your support in this. The survey, or actually I guess petition, that we handed out was at the recent meeting of Sierra Club where I was the speaker along with two other gentlemen in geothermal and wind. There were over 80 people at that meeting. That was the largest meeting the Sierra Club's had in years. So there's a tremendous interest right now in this topic and I look forward to any questions the committee might have. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Seeing none, thank you very much for your testimony. [LB436]

MICHAEL SHONKA: Thank you. [LB436]

SENATOR LANGEMEIER: Further testimony in support? Come on up. Mr. Kluthe, how are you today? [LB436]

DANNY KLUTHE: Wonderful, thanks. My green light didn't start. [LB436]

SENATOR LANGEMEIER: That's to your advantage, go ahead. (Laughter) [LB436]

DANNY KLUTHE: Oh, okay. Thank you. Talking about green power. [LB436]

SENATOR LANGEMEIER: I'm saving energy. [LB436]

DANNY KLUTHE: Danny Kluthe, D-a-n-n-y K-l-u-t-h-e. I'm a director to the local power district and I'm also a director to the Rural Electric Association, but I am testifying on behalf of Danny Kluthe, the hog farmer. I've got an anaerobic digester, a manure processing system that the by-product is electricity. And what this anaerobic digester does is it's a piece of technology where we can take animal waste, the hog manure and feed it into this digester and break down the solids, liquefy them and create an odorless

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by-product. When you can take livestock odor and make it disappear, for economic development that is huge, to have livestock neighbor friendly, and also the by-product of all of this is electricity. The methane gas that comes off of this anaerobic digester, we funnel it through to a 3306 CAT engine that runs a generator 24 hours a day, 7 days a week and it's energy we can count on. When I say the by-product, the most exciting thing about this anaerobic digester is the fact that we actually make a better fertilizer product that is odorless. Once the manure goes through this digester, it's in the ammonium phosphate form which means it's readily available to the crop and, you know, raw manure the ground has to break it down before it's available to the crop. So when you actually take a sample of this we've actually got a fertilizer that we capture everything that you get. Now raw manure, you'll never ever capture it all. So what we've got here is since agriculture is the backbone of Nebraska and the backbone of agriculture is livestock, we've got a piece of technology here that we can help livestock be neighbor-friendly. I'm also a zoning commissioner for Colfax County, planning and zoning. And if you want to see the courthouse fill up, have somebody want to build livestock hog buildings or expand their livestock. Odor is always the issue, and here we've got a mechanism that can address odor and I think it's so exciting that the by-product of all of this is electricity. So, you know, I...sitting back there hearing everybody talk...and even when you hear about renewable energy most of the time they talk about wind. I thought, here's an opportunity that maybe I could let you know that there's more to renewable energy than wind. And actually, not only is this renewable energy, it's actually a by-product of a more exciting product. You know, there's a lot of stuff I could say but I think because of the time and I don't want to keep going over the same issues that's been all day. At that, you know, if there's any questions I'll. [LB436]

SENATOR LANGEMEIER: Thank you very much. Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you, Mr. Kluthe for coming and sharing your personal experience because I think that goes a long way to helping us understand the issue. So just...how does what you do with your methane capture, how does that help your bottom line? [LB436]

DANNY KLUTHE: Actually, if...see it reduces odor and to be neighbor-friendly you have to address odor in an area. See, I live right across the road from Olean, it's a country church--parish--and it is...a lot of people smell with their eyes and when they see a big hog enterprise sitting right across the road, even if the wind is out of the south and I'm east and they couldn't be possibly smelling me, but they see me and so I stink. And you know, when I heard that the anaerobic digester addresses odor and makes livestock neighbor-friendly, you know, in terms of odor issues being sued because of odor and etcetera, that is huge in the livestock industry. I mean, right now we...I'm working with the University of Nebraska-Lincoln. We're going to put a value on the odor footprint. Once a value is established, then when you go to the bank they've got something to hang their hat on. But right now all we've got is speculation that is...some places odor

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isn't an issue; in others odor is a huge issue. And here we've got a mechanism that can address that. [LB436]

SENATOR DUBAS: So aside from just the odor issue, then, what you're able to capture and produce in electricity, does that contribute to your profitability? [LB436]

DANNY KLUTHE: Oh yes. Actually I've got an 80 kW unit and it will...I will probably, if I use my power first, I'd use 25 percent, export 75. So, yes. The manure is there, the methane's there and it definitely helps my bottom line. So yeah, I'm excited about the technology. [LB436]

SENATOR DUBAS: So then with this net metering, if this were the bill that would advance, would that add some extra profitability? [LB436]

DANNY KLUTHE: That would add a bunch. Yes, that would be huge. But, you know, even though...you know, I thought this would be a good opportunity to let you know that methane's here, it's renewable and it's probably...to me it's by far the most exciting renewable project there is. [LB436]

SENATOR DUBAS: Thank you very much. [LB436]

SENATOR LANGEMEIER: Senator Carlson. [LB436]

SENATOR CARLSON: Senator Langemeier. Mr. Kluthe, how long have you been set up to do this? [LB436]

DANNY KLUTHE: Actually, I had my ribbon-cutting ceremony in August of '05 so I've got, I'm starting my fourth year and it by far exceeded all my expectations. [LB436]

SENATOR CARLSON: Do, would you share what kind of investment you made in order to get yourself to that position to be able to generate power? [LB436]

DANNY KLUTHE: In terms of the cost of putting it in? General rule, about \$80 a pig space and then there's obviously grants, the USDA, Rural Development's got a grant. NRCS has got a grant, going to cost share and all of the above is enough to make it get you started. [LB436]

SENATOR CARLSON: And you use 25 percent of it and you export 75 percent? [LB436]

DANNY KLUTHE: I, well, I actually the way...see you've got to go back about five years ago when I wrote my contract. NPPD buys all my power and then, you know, they seed the...NPPD is a generation company, transmission. And all the local public power

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districts buy their energy, or at least Cuming County Public Power buys their energy from NPPD. So what...at the time when we wrote this, Cuming County Public Power couldn't buy my power. They had...you know, the only way we could do it was if NPPD bought it. So what happens is NPPD buys the power and then puts it right back into the grid. So anybody at Cuming County turning their lights on, they don't know the difference if it's coming from Olean Energy or Cooper Nuclear. [LB436]

SENATOR CARLSON: But you're using that to...what's the number on your CAT engine? [LB436]

DANNY KLUTHE: 3306 CAT engine. [LB436]

SENATOR CARLSON: Okay. 3306, that's what I put down. So methane is firing that engine, right? [LB436]

DANNY KLUTHE: That is correct. [LB436]

SENATOR CARLSON: And that's 24 hours a day. [LB436]

DANNY KLUTHE: Twenty-four hours a day, yep. Seven days a week. [LB436]

SENATOR CARLSON: Do you have a backup? [LB436]

DANNY KLUTHE: Well, if...I'm hooked to the grid. So if it...let's say... [LB436]

SENATOR CARLSON: Or does a CAT engine running forever? No, no, I mean a backup to your engine. What happens if your engine stops, or it doesn't? [LB436]

DANNY KLUTHE: I fix it. [LB436]

SENATOR CARLSON: A CAT doesn't stop. I had a 3208, it never stopped either. (Laughter) [LB436]

DANNY KLUTHE: Yeah, yeah. [LB436]

SENATOR CARLSON: So you haven't had a problem that way. [LB436]

DANNY KLUTHE: Well, no. We have maintenance, we're down for maintenance, it's no different I'm hooked to the grid so when we're down, you know, I use power from the grid. [LB436]

SENATOR CARLSON: But the point is it's not...that's a minimal time that you're down. [LB436]

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DANNY KLUTHE: Yeah, well. It...we got a quick coupler to change oil, we suck the oil out, we change the filter, suck oil back into it. We're off and running. And then we had to do a major overhaul so we were down for that. But otherwise, it pretty much runs 24 hours a day, seven days a week and you can count on it. Within a minute after you turn the key, you can be up to max production. And also, I got a Gen-Tech on there that I can tell it to run 35 kW or to run full open. So, you know, if we had a time of pricing--time of day pricing--you know, and I want it to run on peak time, you know, the rest of the day I could run it low and when peak time come on, I could fire it up to run full blast. So, you know, there's the lot of interesting things that we can do with the anaerobic methane digester. [LB436]

SENATOR CARLSON: Now this isn't a smart aleck question, but it runs through my mind. With your system, you take care of an odor problem. [LB436]

DANNY KLUTHE: Yes. [LB436]

SENATOR CARLSON: You're across the road from the church. [LB436]

DANNY KLUTHE: Yes. [LB436]

SENATOR CARLSON: Do you have a noise problem with your 3306? [LB436]

DANNY KLUTHE: It's a hum. It's a kitty, it purrs. [LB436]

SENATOR CARLSON: Okay. Thank you. [LB436]

SENATOR LANGEMEIER: It's in a nice shed, too; that helps. I've been there. On your facility, how long can you store methane? If you had to shut your engine down today, for some reason, whether it's oil change or something major, how long can you sit down before you have to burn off your methane in your digester. [LB436]

DANNY KLUTHE: Actually, Senator, the bacteria is working and as long as you've got fresh manure in there it'll keep producing gas. And if by chance the engine is down, we would have to flare because you cannot store methane, so we'd just flare it off. [LB436]

SENATOR LANGEMEIER: That was my question. Senator Schilz has a question. [LB436]

SENATOR SCHILZ: Thank you, Senator Langemeier. Mr. Kluthe, thank you for coming in today. I guess, and if I understood your testimony before you actually sit on the board of a Rural Electric Association, is that correct? [LB436]

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DANNY KLUTHE: Correct. [LB436]

SENATOR SCHILZ: Yes. Okay. What...I guess just because you're the first person from any power organization. [LB436]

DANNY KLUTHE: Well, but I'm not representing them. [LB436]

SENATOR SCHILZ: I understand that, I understand that and let me finish my question. In your opinion, what's so tough? And maybe somebody else can answer that for me but is it really all about attitude or are there some...either institutional things that are in place or are there some problems with transmission or everything else that's causing us to not be able to move forward on this any faster than we have. It's kind of a broad question but. [LB436]

DANNY KLUTHE: That is a big question. I would say there...you know, both sides got valid reasons, you know, the REAs, you know, spend a lot of money on poles, and the lines, generation. [LB436]

SENATOR SCHILZ: And I don't mean to put you in a tough spot, but yeah. [LB436]

DANNY KLUTHE: And they got to upkeep it. On the other hand, renewable energy projects spend a lot of money on projects also and we have to upkeep it and try to make value. So I guess that that's, you know. [LB436]

SENATOR SCHILZ: Could we characterize it as there just hasn't been the will to get things done yet. Or the need? [LB436]

DANNY KLUTHE: Pretty much, probably. [LB436]

SENATOR SCHILZ: Thank you. [LB436]

SENATOR LANGEMEIER: Thank you very much. Seeing no other questions, thank you very much for your testimony. Further testimony in support of LB436? Don't be hesitant, come on up. There are seats up front if you want to move forward and get ready to testify. Welcome. [LB436]

RANDY SCHANTELL: Thank you. My name is Randy Schantell, R-a-n-d-y S-c-h-a-n-t-e-l-l. I have a company called SWT Energy here in Lincoln. After listening to most of the testimony, I won't reiterate most of it. There's some key points I think I need to point out and when we do work with our customers we usually do what we call a payback period, trying to analyze just what their costs are versus energy costs savings, tax incentives, which Nebraska has zero, grants available, Nebraska has zero. This would be one thing that Nebraska could do to help get renewables moving forward,

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because it's just part of that payback. And we're not just talking about just solar and wind here, we're talking about all these different projects, digesters, bios, so forth. With my company I can't hire full time employees right now because I have a job, that job gets over. I don't want to have to hire people and then have to lay them off. With the renewable energy, money that's going to be coming our way and we're talking about jobs and a lot of them. I mean, the stimulus money that's going to be coming out of Washington, I mean, we just can't ignore it. And I think we ought to bet getting in a position that we're going to be a leader in this regard rather than putting up barriers and making senseless arguments against net metering. You know, like LES, they've...I don't know why most utilities don't just exchange notes with them. They've got a real progressive policy; hopefully it stays in place. We've got customers lined up to put their systems in. Also, Norris Power, I hope their policy stays in place if this doesn't work. I guess just the bottom line is the jobs that we could be creating with renewable energy and that's the bottom line for me. I'll take any questions. [LB436]

SENATOR LANGEMEIER: Okay. Are there any questions? Seeing none, thank you very much for your testimony. Very good. Further testimony in support. Come on up. Welcome. [LB436]

RICH LOMNETH: Thank you. Hello, my name is Rich Lomneth, last name is L-o-m-n-e-t-h. And I had actually planned to not testify today, but I thought I'd come at this at a different angle than other people. You've heard lots of very convincing facts and figures and policy recommendations and things that have me convinced that net metering is a good idea. But I'm coming at it as a consumer. I've been trying to save for some sort of renewable energy system for a number of years and I probably have a few more years to go. I have a few neighbors, we live out on an acreage, who are also considering renewable energy systems. And I'm sorry Senator Fischer isn't here, but to answer her question, if we had net metering in Nebraska, that would be a big incentive to help us actually buy those systems and install them. So basically I wanted to say if we had net metering, there's probably myself and at least two other neighbors who would use that to provide the last bit of incentive to buy a renewable system. And that's what I wanted to have for my testimony. [LB436]

SENATOR LANGEMEIER: Very good. [LB436]

RICH LOMNETH: Thank you. [LB436]

SENATOR LANGEMEIER: Are there any questions? Well, seeing none, thank you very much for your testimony. Further testimony in support? Welcome. [LB436]

JOHN K. HANSEN: Chairman Langemeier, members of the committee, for the record my name is John K. Hansen, H-a-n-s-e-n. I am the president of Nebraska Farmers Union and also am their lobbyist. In my other...one of the other caps that I wear is the

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co-chair of the Nebraska Wind Working Group. This last year we have put on over 65 public information meetings on wind across the state of Nebraska from one end to the other. We have staffed booths at the State Fair for ten days, Husker Harvest Days. So far this year we've put on over a dozen wind information meetings across the state. In this two week period we'll have put on about eight, so we will be in your end of the state Sunday, Senator Schilz. And as you go around and you have all of these informational meetings and we put out the latest, best information on what is going on in wind, large wind, medium wind, small wind, I was going to bring along our small wind booklets for the committee today and realized that we've gone through over two boxes of them since November and we are out. But that is indicative of the amount of interest in small wind. About one third of the folks who attend these meetings are consistently interested in wind and wind energy issues. There is a tremendous amount of interest. There is also a tremendous amount of frustration that as we look at the big picture of where states rank in their net metering policies, while our primary generator utilities are moving forward with large wind energy, Nebraska Public Power District has requests for proposals for 80 megawatts, OPPD has an RFP out for 80 megawatts of wind, MEAN has a request for proposals of 30 megawatts. At the other end of the equation in the small wind end, Nebraska is not being progressive and we are one of the, in our opinion which was buttressed by the experts that we brought in by the Nebraska Wind Conference held in Kearney last November, Nebraska has a very regressive policy relative to small wind. And that is the absence of a fair and comprehensive and uniform and reasonable statewide net metering policy. It is just that simple. And so we are not forward looking, we are on the horse looking backwards. We are not on the horse looking forwards and our perspective in small wind reflects that. And so public power, we continue to tell folks, we are the only state in the nation that has a 100 percent public power system. It has served us extremely well, but we are more than just ratepayers, we are owners of our own public power system. And the authority for that policy that put public power into place came from the Legislature on behalf of the people who supported it. It's appropriate that we not have a patchwork of differing REA to REA to REC policies across the state here and there. You need to have fair rules of the game; it needs to be across the board. And I would suggest that LB581, remnants from the last legislative session which really represented a lot of compromise and a lot of work to try and find some middle ground for a net metering policy on which this bill is patterned, had an additional provision in that relative to how it is we settle out for the excess generation, which would, in our view, be very appropriate to look at. And I'd be more than very glad to provide the committee with that language if they don't have it. But the difference is that right now this bill as it presently exists--and we support this bill--really leaves Danny Kluthe and all of those kinds of producers behind. This is really a wind bill and we want to try to have a net metering policy that makes sense for both and you can do that if you're able to settle out at the end of the month or have the option of settling out at the end of the year and if you're using the monthly wholesale cost. We would suggest that the middle ground on this issue so that we can do this and get off the dime and move forward so we can argue over other things of more consequence would be to settle out

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at the wholesale rate. And at that point, if you're a small wind or a methane producer, when you're a customer treat them like a customer, when you're a wholesale provider you treat them like a wholesale provider. That keeps everyone whole, there's not rate disparities particularly. And certainly from the rest of the customers in the pool, they're paying the same price. There's not a differential in the wholesale cost that they're paying for, whether it's from their single source provider or whether it's the small renewable energy producer located out at various ends of the wire. And with that, I see my light is red and I should stop and I'd be glad to answer any questions if you have any. [LB436]

SENATOR LANGEMEIER: Senator Dubas. [LB436]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you, Mr. Hansen. I'm going to ask you a similar question that I asked one of our earlier testifiers about the vision of public power, you know, and what public power did for our state when it was first instituted. And you very appropriately indicated the need for net metering to continue that vision. Are there other things that we would see that we need to do to bring public power...continue that vision of public power? [LB436]

JOHN K. HANSEN: Well, I think that there's things based on different size and different sources of renewable energy that are particularly appropriate. And from a process standpoint, you know, we...our organization helped create the public power system, believe in it, and this system has served us extremely well. We have the sixth lowest rates in the country despite the fact that we are a rural state. This is an excellent system but in the area of small wind, the small wind dealers, the farmers, the ranchers, the business folks, the homeowners, the folks who come up to us and I must say to the committee that there isn't any testimony that you have heard here today that I don't hear on a regular basis when I do a wind meeting. It just, you know...but it comes up every meeting and you get a little different slice of it at every meeting. But there's a growing frustration on the part of the public over this issue. And I look at the total economic impact on the system, the economic impact on the load. From my perspective, I can't tell the difference between energy efficiency if I'm looking at it from the load standpoint and, you know, either efficiency or renewable energy. The impact on the grid is the same and we need to get past this issue because in my judgement, I am a conduit by virtue of the folks who show up at these meetings and the calls that we get and there is a growing frustration on the part of the owners of our system with public power. And I'm concerned about that. And that's a real flash point for us because folks who call up can't get what they want, they're mad at the whole system. That's not good for anybody. This is not a matter or a size of consequence in our view that we ought to be jeopardizing the public support of the public power system over such a small amount of electricity. Other states do this all the time, just haven't had a problem. My guess is that if we could just move past this in two years it would be hopefully just a pleasant blur in the rearview mirror of memory. [LB436]

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SENATOR DUBAS: Thank you. [LB436]

SENATOR LANGEMEIER: Any other questions? Senator Carlson. [LB436]

SENATOR CARLSON: Senator Langemeier. This question just came to mind as I was listening to you, Mr. Hansen. Do you...I don't know, do you know the other five...if we're in sixth position, who is ahead of us? [LB436]

JOHN K. HANSEN: In...are you asking in terms of wind energy potential or in terms of cost? [LB436]

SENATOR CARLSON: No I'm asking in terms of cost. Cost to the customer. [LB436]

JOHN K. HANSEN: Right. We're the sixth...we have the sixth most wind energy potential in the country but we have the fifth lowest rates. [LB436]

SENATOR CARLSON: Oh, fifth lowest rates. [LB436]

JOHN K. HANSEN: Fifth lowest rates, I believe, in the country. And I'm thinking that a couple of those states are big hydro states. They're sitting on a bunch of hydro power out of the northwest, or coal. I think Wyoming might be lower because they're sitting on all the coal but we're...okay. [LB436]

SENATOR CARLSON: Do you know, are those four states net metering? [LB436]

JOHN K. HANSEN: I don't know, I haven't compared those two lists, Senator. [LB436]

SENATOR CARLSON: Okay. [LB436]

JOHN K. HANSEN: But yes. I mean, we're...we have such good rates, we have such good service, we do so well overall as a state and in our view this is a sticking point that it'd sure be nice to get this resolved so we could move on and do something else. I've been working on this issues...I was trying to think the other night when I started on this, but I think this is my seventeenth or eighteenth year, I'm a slow learner. [LB436]

SENATOR LANGEMEIER: Very good. Any other questions? Thank you very much for your testimony. [LB436]

JOHN K. HANSEN: Thank you and thank you to the members of the committee for your consideration. [LB436]

SENATOR LANGEMEIER: You got it, any other testimony in support? We're still

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supporting, yet. Welcome. [LB436]

STEVE EVEANS: Senator Langemeier, my name is Steve Eveans. I live at 14927 Shirley Circle. I am a renewable energy... [LB436]

SENATOR LANGEMEIER: I need you to spell it. [LB436]

STEVE EVEANS: Okay. S-t-e-v-e E-v-e-a-n-s. [LB436]

SENATOR LANGEMEIER: Thank you. [LB436]

STEVE EVEANS: I'm here today in support of this bill that supports our Nebraska homeowners and farmers and ranchers that would like to participate in our state's development of renewable energy. A couple of the things that haven't been said in this relationship is that--or in this discussion today--is that public power is in the process of evaluating all of these types of inputs into the transmission system. They do have a plan in place, a process in place, for studying the impact of wind and other renewable energy sources coming into the transmission grid. So I just want to make sure that you guys are aware of that process. Also in our travels and in renewable energy consulting and with my neighbors considering renewable energy installations on their homes, we are looking at joint ventures with public power and we have been involved with several different discussions with all of the public power entities in the state in regards to a joint venture proposal much like Danny Kluthe already has in place. He's actually already net metering. How is that? You know, how is that in place when we aren't offered that same opportunity? He is a public board member, but he's a farmer and a producer of renewable energy which is being sold to NPPD. And they do have a net metering process. We would just like to see that process implemented across the whole state and through the whole system. One of the things that I've seen that, in the process, that there isn't a very clear picture on is what is avoided cost? I've have many farmers and ranchers ask me for the definition of avoided cost in this process. Well, the definition is not very clear within public power and I would ask you to look into that and understand what their definition of avoided cost is. They actually have two different spellings for that cost factor in their economic evaluations. One of them is voided cost and another one is avoided cost. Which one is it? What is the definition? What makes up the components of that? I notice the LES document did a very good job of that, but I haven't seen it from some of the other public utilities. I think that that kind of disclosure and that kind of information needs to be made available to the public. And I would hope that you forward this bill. [LB436]

SENATOR LANGEMEIER: Thank you very much, are there any questions? Seeing none, thank you very much for your testimony. [LB436]

STEVE EVEANS: Thank you. [LB436]

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SENATOR LANGEMEIER: Further testimony in support? Welcome. [LB436]

CAROL SMITH: Thank you. My name is Carol Smith and I live here in Lincoln. I'm lucky enough to live within the LES... [LB436]

SENATOR LANGEMEIER: Carol, I need you to spell that. [LB436]

CAROL SMITH: Oh. C-a-r-o-l S-m-i-t-h. [LB436]

SENATOR LANGEMEIER: Thank you. [LB436]

CAROL SMITH: I'm lucky enough to live in the LES district, so we have net metering. Last year we installed a geothermal heat pump and this year I hope to install solar panels. Something that nobody has mentioned so far is if this net metering law was passed, we would all be guaranteed that we would continue under a net metering policy and there's nothing to say that LES will continue if the bill isn't passed. And that's all I have to say, other than that I am in support of the bill. [LB436]

SENATOR LANGEMEIER: Very good. Very good. Are there any questions? Seeing none, thank you very much. [LB436]

CAROL SMITH: Thank you. [LB436]

SENATOR LANGEMEIER: We appreciate that. Further testimony in support? Welcome. [LB436]

JOHN O'KEEFE: My name is John O'Keefe, O'K-e-e-f-e and I'm from Omaha. This is the first time I've ever testified and actually the first time I'd ever come to a hearing so I was thinking maybe I won't do it, but here I am. I am just going to testify on behalf of an average homeowner who is interested in improving my energy footprint. And I've been working for a few years on reducing my energy consumption. I've actually brought it down about 50 percent since I actually started paying attention through all kinds of efforts. And I have for a long time thought about adding solar or maybe a small wind turbine on my acreage in just north of Omaha. And I found out pretty quickly there is actually no way that this is worth doing or even conceivable unless we change this law. And I'm increasingly frustrated because 42 states have net metering laws and I honestly don't understand why what's good for 42 other states is not good for Nebraska. And this seems to me to be not a very difficult piece of legislation to pass but it has failed so many times. And so I finally got myself together and came down here and tried to pay attention. Ultimately for me it's really about contributing to the well-being of the United States by being a better and more responsible citizen, and by doing everything I can to not only reduce my energy consumption, but also to contribute to different ways of

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generating power and to help start a new way of thinking about power generation in the United States. You know, I may be out in front of most people--most of my peers--but without a change of this law, it's impossible even for someone like me to go out and take that extra step. That's all I have to say and thank you. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Seeing none, thank you very much for your testimony. [LB436]

JOHN O'KEEFE: Thank you. [LB436]

SENATOR LANGEMEIER: (Exhibit 16, 17, 18) Good job. Further testimony in support? Okay. I have a couple letters here: Richard Bolli, from Burwell; LaVern Raabe, from Pilger; Kurt Jurgens, from Omaha; have submitted letters in support of LB436. Now we'll move on to those that wish to testify in opposition. Please come forward. Good afternoon. [LB436]

KRISTEN GOTTSCHALK: (Exhibit 19, 20, 21, 22) Good afternoon or almost evening. [LB436]

SENATOR LANGEMEIER: We might get there yet. [LB436]

KRISTEN GOTTSCHALK: Chairman Langemeier and members of the Natural Resources Committee, I have a feeling I may be a lonely testifier in the opposition testimony but I do feel that it's important to let you know. Oh, my name is Kristen Gottschalk, K-r-i-s-t-e-n G-o-t-t-s-c-h-a-l-k. I am the registered lobbyist for the Nebraska Rural Electric Association so I will be representing my 35 member systems that provide electricity in rural Nebraska, but I will also be representing all of the electric utilities which amount to about 171, that way we won't line up one after the other to testify on this bill. Although I do believe some of the utilities will be testifying in a neutral capacity as well. And, you know, I had prepared testimony which of course would change a little bit based on the...I also have my testimony that I will submit as well. But it would change a little bit based on the changes that Senator Haar brought before the committee, so hopefully through my testimony I'll be able to address some of those changes as well. We do appreciate Senator Haar's interest in renewable energy, we applaud his efforts. We think that moving forward with energy conservation, energy efficiency, and indeed even net metering are important things to do. We do, however, disagree on his approach to net metering. However, now, I would say the overall approach, now there are some other components in his bill that he brought up that I think that we would find favor with. For those of you that have been on this committee for awhile, this is not a new issue. John Hansen brought that up, for those of you that are new to the committee it turns out to be more than just a simple issue, it's a very complex issue. I do want to point out we've talked about the definition of net metering. I'm going to give you a very simple definition of net metering, in fact, it's a definition you can find in Senator Haar's

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bill and you can find it in 27 of my member systems' net metering policies. And one of the requirements for net metering is it's intended primarily to offset part of or all of your own energy use. And that's an important distinction I'll bring up on another point later. But net metering basically lets you run the meter forward and backwards. You're doing an exchange on energy and while you're doing that you are exchanging at a one to one ratio. Where we get into differences of opinion with net metering is how do you compensate for the excess energy generated. Now, Mr. Dixon got up here and he said that it is fair, we're treating the consumers the same if we pay them a retail rate for that excess energy. We've typically thought that is actually a discriminatory rate because if we're paying them retail for the excess energy that has potential benefit to the other consumers, that's more than we pay for the other energy that we purchase at wholesale energy rate. So we do feel that that's a fair rate to pay. So that's where some of those differences is. And when you look at--and I do applaud Danny Kluthe for coming up here--Danny's hog facility, you know, I've taken several people out there, it's a wonderful facility. It deals with a number of issues, but the way he has his facility constructed, his generator generates about 50 percent more energy than he actually uses. So that would not necessarily fall under net metering provisions. It would, however, fall under provisions that we have provided under a net metering and costumer generation bill that we introduced last year, LB1065. Now, NREA members and NPA members have supported legislation dealing with net metering over the years and arguably when the industry first got involved with this is was more net billing than net metering. And I think through the years our members have seen value in changing that approach and have indeed moved towards net metering as a means to compensate for small generation. Now what I've handed out to you is a copy of the sample policy that 27 of my 35 member systems have implemented. Of my 35 member systems, six are headquartered out of state. So 27 of mine have implemented a policy almost identical to that except three have actually bumped that up to 25 kW. And of course, we've seen what LES has done, what NPPD has done and other utilities in the state are actually looking at implementing policies. Now those six that are headquartered out of Nebraska, the one in Colorado applies the Colorado net metering, 10 kW for residential, 25 kW for commercial. Three members, excuse me, two members from Wyoming that are applying the net metering standards in Wyoming and that's 25 kW. So to say that the electric utilities are not doing anything, that we don't have net metering in the state really is a false statement and is unfair. And I see I'm getting a red light. What I do want to say in the process of this, I think it's important to note that policy. I don't want to be accused of doing nothing. But we do still have some problems with Senator Haar's bill, however, we do appreciate the inroads that he's made and the progression towards some compromise and we'd enjoy being able to continue to work with him but we need to be sure that we still are looking out for the consumers' best interest. So I hope you have a lot of questions for me. I took notes on a lot of the previous testimony. Obviously I wouldn't have time to incorporate it into my testimony, so I hope you do have questions. [LB436]

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SENATOR LANGEMEIER: We'll see, okay? Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, Ms. Gottschalk for being here. You mentioned LB1065 from last year. [LB436]

KRISTEN GOTTSCHALK: Um-hum. [LB436]

SENATOR FISCHER: Could you give us a brief outline of that bill and what happened to it? [LB436]

KRISTEN GOTTSCHALK: Okay. LB1065 was a hybrid bill, and it was in two parts. The first part of that bill was a net metering bill that applied to consumers that had generation, renewable generation, 10 kW and smaller. And that would allow the one-to-one energy exchange. It would also allow for the excess energy that is generated to be compensated to the consumer generator at the average wholesale rate. And we took out that term avoided cost because, as we heard before, that gets very confusing and if you mean the average wholesale rate that's what we decided we were going to say. That average wholesale energy rate, the monetary credit could be carried month to month throughout the year because net metering actually lets a net metering generator use the electric utility as a battery backup. You can think of it in that light so that then they can draw on those reserves to offset their energy bills at a later time, something that you can't do when you're off grid. You have to find another energy resource. The second component of that bill was meant to be a fair value bill. And that would say that if you are a larger system wanting to interconnect to the system and there was no size limit on the larger systems, you could interconnect. And what would happen is the bill allowed for us to create a special rate class for those consumers which allowed us to take the fixed costs which are part of your basic retail rate now and move them into a customer charge. So you're only paying that once. And then the exchange of energy would be retail for retail but that retail rate would be more at the wholesale level. So if you had an energy need during that time frame, you would be paying what was essentially--for that energy--a wholesale rate because your fixed costs we already taken care of. If you generated more than you used, you would be paid that same rate. It would be an identical rate because the concern was that oversubsidization, and if you can collect those fixed costs, then you could exchange energy at a fair level. So that's the bill that advanced to General File and died for lack of time. [LB436]

SENATOR FISCHER: So this...would you say this committee has--in the past--been responsive to this issue? [LB436]

KRISTEN GOTTSCHALK: I would say that the committee has been infinitely patient and responsive to this issue. [LB436]

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SENATOR FISCHER: On...you mentioned the wholesale rate. With the Senator Haar's bill that we have before us, there is language in it...I haven't had a chance to read the white copy through completely as we've been sitting here I'm trying to do both listen to testimony and go through that. But there's language for retail and wholesale rate. You mentioned Colorado and Wyoming on their kW that they have 10 to 25. [LB436]

KRISTEN GOTTSCHALK: Um-hum. [LB436]

SENATOR FISCHER: If this bill would reflect maybe...well, first let me ask what do they do with their rate, with wholesale or retail rate in other states, do you know? [LB436]

KRISTEN GOTTSCHALK: Well, it's all over the board in other states. Many states use an avoided cost, some use the wholesale energy rate. And that's another point to bring up. Not every state has a law; they may have policies in place in major utilities. So it is all over the board and I don't recall exactly how Colorado is compensating the excess generation right now. [LB436]

SENATOR FISCHER: Okay. [LB436]

KRISTEN GOTTSCHALK: Whether they're paying it at a retail or an avoided cost. But I can find that information out and get it to you. [LB436]

SENATOR FISCHER: That would be good. Do you know how many states have laws on this? [LB436]

KRISTEN GOTTSCHALK: Usually when we hear people refer to that, they're referring to the DSIRE Web site which gives a wonderful overview. You can actually go in and look at the components of every state's policies. No, I couldn't tell you exactly but one of the components for the DSIRE Web site was that two or more major utilities had an implemented policy or a public utility commission had a policy in place that applied to utilities. In some of those states, even when there are laws, they don't necessarily apply to all utilities in the same manner. You are going to find in a lot of the states they exempt electric cooperatives or public power systems. And they do that because, obviously, they're not as saturated with public power systems as we are in Nebraska. Some states incorporate those or apply different standards to those different types of utilities as well. But we can certainly get you an updated listing from the DSIRE Web site but it's a wonderful resource and you can get all of those policies. [LB436]

SENATOR FISCHER: Would you be more comfortable with the bill...first of all, if the kW was lowered from that 125 so it would be more reflective of what other states have? [LB436]

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KRISTEN GOTTSCHALK: One hundred twenty-five...I think lowering that number would definitely increase our comfort level. One of the things that he did that we're very appreciative is if there's a new interconnection that requires additional build-out, let's say you have a system going from single phase to three phase line and you have to have additional build-out, his original bill would have said that the utility had to cover that. If that's ten miles of three phase line, that's \$500,000. That's a big chunk of change. [LB436]

SENATOR FISCHER: As a rancher, we've paid for ours so. [LB436]

KRISTEN GOTTSCHALK: So you're aware of that cost. [LB436]

SENATOR FISCHER: Yes. [LB436]

KRISTEN GOTTSCHALK: So that is appreciated because that really would reflect back on the other consumers. So there are still some other issues, applying a kilowatt hour credit on the bill, and I know a number of other states do that but it doesn't reflect the value of the energy when it was generated. Energy has different values at different times of the year. Obviously in March when the weather is mild, it's fairly comfortable, we're not using a lot of energy, those kilowatt hours don't have as high a value. You get into peak summertime load, everybody's irrigating, everybody's got the air conditioner on the value of those energy is more significant and it seems fair to the other consumers that you assign a value that reflects the value of the energy when it was generated. [LB436]

SENATOR FISCHER: Okay. [LB436]

KRISTEN GOTTSCHALK: So we'd still like to look at that but I would say that on a number of these issues we would like to be flexible and continue to work with Senator Haar. [LB436]

SENATOR FISCHER: Okay, thank you. [LB436]

SENATOR LANGEMEIER: Senator Schilz. [LB436]

SENATOR SCHILZ: Thank you, Senator Langemeier. Ms. Gottschalk, thank you for coming in today. Can you tell me just for somebody that really doesn't have a clue what could you run with 10 kW if you were plugging something in? [LB436]

KRISTEN GOTTSCHALK: Oh, somebody with more technical knowledge is going to have to tell you what you can specifically run. When we set 10 kW, we looked at an average consumer household and balanced that over a month's usage and 10 kW seemed to be the appropriate amount but there will be a couple of other people maybe

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in the neutral capacity that have that technical background. [LB436]

SENATOR SCHILZ: Okay. Thank you. [LB436]

SENATOR LANGEMEIER: Any other questions? Seeing none. Thank you very much for your testimony. [LB436]

KRISTEN GOTTSCHALK: Thank you. [LB436]

SENATOR LANGEMEIER: Further testimony in opposition? Welcome. [LB436]

RANDY ANDERSON: (Exhibits 23, 24) Senator Langemeier, members of the committee, I'm Randy Anderson, R-a-n-d-y A-n-d-e-r-s-o-n. I'm the executive director of the State Electrical Board. The State Electrical Board is charged with the enforcement of electrical licensing and inspection laws found in statutes 81-2101 and 81-2143 known as the State Electrical Act. I'm testifying in opposition but I'm kind of...we're basically neutral but I don't like to come up neutral and then ask to have something changed on the bill so that's why I'm saying opposition. So that way the knives don't come from behind me. (Laughter) I'm here today representing the board to testify in opposition of the way LB436 is written. Page 6, line 2-9 references safety standards. The bill requires compliance with the National Electric Code but provides no requirements to have the facility inspected to ensure it is code compliant. Without the inspection, we will only be aware of a violation after a problem or accident occurs. 81-2108 of the State Electrical Act states no person shall for another wire or install electrical wiring apparatus or equipment unless he or she is properly licensed. 81-2121(5) of the act states nothing in the act will require an owner of property from performing work on his or her principle residence if such residence is not larger than a single family dwelling or farm property excluding commercial, industrial, public use buildings and such facilities. I feel that if a customer generator is going to sell power off site, then they should be classified as commercial. This would put them in the same class as everybody else that's doing it. If they produce energy for use on their property that is not the complete electrical service to the property and not connected to the grid, they'd be exempt, meaning the owner could install his own equipment, use it any way he wanted to. By classifying the facility as commercial, it would fall under 81-2124(1) of the act and require electrical inspection. This would also then require the individual who installs the electrical equipment to be licensed. Most homeowners do not have the required knowledge to install these systems to be code compliant because they're not familiar with the code. I have met with some of the people in the room, Mr. Dixon and some of the others, I can't remember their names right now. Their systems look very good. We're worried about the interconnection. The board does not have an issue with large wind generation farms what this bill is not about because they are designed by engineers, monitored by the local utility and connected directly to the substation. 81-2121(1) exempts electrical utilities from licensure, 81-2132 exempts inspection while working on their own systems,

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so the power companies we do not inspect. We've met with some of the utilities and the Nebraska Rural Electric Association to address our safety concerns. These small systems when not properly installed can send current back through the transformer and on the local utility line during a power outage. We currently have problems with the small gasoline generators that consumers purchase at the local hardware store, then take home and they plug them in directly to an outlet without disconnecting the building from the power company. In these cases the local utility must find these generators and then isolate them from the system before repairs can be made to the system. And that is our concern that these are...I realize in the bill Senator Haar has National Electric Code be met, but trust me I have 15 inspectors working daily and we get on jobs where there's not a permit required and most of the people that testified here are top-notch people that are going to be putting this in correctly. But as soon as this comes out to where it starts moving forward, the board wants to be proactive instead of reactive and be thinking we've got to think about the guy that puts a shingle on his front door and all of a sudden he's an expert. Now, Mr. Kluthe had his system inspected and I don't...there was a couple things he had to change but I don't think we had major problems and the board would respectfully request that the bill not move forward in its current language but changing that to being inspected, we would then support it. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Seeing none, thank you very much for your testimony. [LB436]

RANDY ANDERSON: Thank you. [LB436]

SENATOR LANGEMEIER: (Exhibit 25) It's kind of a lukewarm opposition. Is there any other opposition? I have one letter of opposition from Gary Hedman from the Southern Public Power District for the record. Now moving on to neutral testimony. Welcome. Yep, go ahead, you can just set them over there. Go ahead. [LB436]

TODD HALL: (Exhibit 26, 27) Good afternoon to everyone, my name is Todd Hall. That's T-o-d-d H-a-l-l. I'm with Lincoln Electric System as the vice president of consumer services. We are here today to discuss this bill by Senator Haar in a neutral position and with the follow along request which I'll discuss through at the end of the comments, but again that request is going to be that we ask you to grandfather our current program to any new legislation that may be considered. What I've passed out to you is a booklet and it's homework for senators. It's the policy and guidelines for customer owned generation. The reason that I present that is that since 1978, the Public Utilities Regulatory Policies Act was passed, and since that time 21 different standards have been put forward by utilities. Some of them deal with interconnectivity between customer generators, some of them deal with other standards of performance and activity by the utility on the benefit of the consumer. Generally speaking, the PURPA, Public Utilities Regulatory Policies Act, is directed toward the utility to provide conservation of energy, optimization of efficient use of facility and resources, and

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equitable rates among all consumers. That as a background and as an understanding gives us a kind of view of where we stand and from LES's perspective as we've developed a net metering bill. You'll also note...well, I'd like to bring it up anyway, that currently we have four more PURPA standards coming up with the current buzzword in the electric utility referred to as smart grid. So we'll be going through rather extensive public processes this summer here in Lincoln for our utility discussing smart grid and how we might do that here in Lincoln. Most of my comments today will be directed towards LES and Lincoln and Lancaster County and not necessarily directed toward other utility or service areas outside of Lincoln and Lancaster County. Subsequent to the PURPA and the regulations associated with PURPA, the Federal Energy Regulatory Commission or FERC, another regulatory body at the federal level for electric utilities, promulgated Rule 18 CFR 292. In this it obligated the utility to determine fair and efficient ways to interconnect customer generation not only at the safety level but also at the fair and equitable level for all consumers. These policies and procedures defined the processes of the customer owned generators for facilities of 100 kW less and also defined 100 kW and greater. As a part of that aspect, 100 kW and greater is based on the FERC guidelines and the PURPA guidelines is a case by case negotiated position between the utility and the consumer generator. Below 100 kW is a specific outline of performance by the utility and nondiscriminatory behavior relative to bringing you on the systems. In 2007, LES after extensive public review, input, dialog and detailed consideration by our administrative board and the local regulatory body for LES, which is our Lincoln City Council, we instituted the renewable net metering policy and pricing tariff. You'll find that in your yellow booklet on page 5-3. You'll note there that we have taken a slightly different approach relative to net metering as compared to what's been presented and recommended in Senator Haar's bill as well as what's been possibly discussed by some of those in favor of the bill as presented. You'll note a diagram and it was noted earlier that some of us don't get all the text, I prefer pictures myself so I provided a picture for you in the text. In the picture, you'll note...pardon me? [LB436]

SENATOR LANGEMEIER: It's a good picture. [LB436]

TODD HALL: Thank you. I've done stick drawings for years. You'll notice LES, that demonstrates the supply delivery from our transmission distribution system. You'll also notice the QF, that's the qualified facility or the generating plant, again, I'm on page 5-3, the qualifying facility, that's the generating plant; end load, that's utility speak for the facility consuming the energy. Under our policy we have decided and elected to not go with the bidirectional meter, I'll discuss that in a minute why, but we've elected to proceed with the two meter set. This does not increase for the LES consumer any additional cost for meter sets or the installation of their facility. What it does allow LES to do is to ensure that we understand what the full delivery of energy to the facility is because that's important on how we plan and develop our resources in the extended years. We need to know how much you're consuming so we can plan to determine if there's continued growth in our community and in our load base. Meter two is there to

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determine the amount...and I'm on a red. [LB436]

SENATOR LANGEMEIER: Go ahead and finish up quickly. [LB436]

TODD HALL: Meter two is there simply to indicate how much energy has been delivered. We then net the two metered deliveries. All energy generated by the qualified facility goes to load first and then finally to our system. We simply...simply put, from the initial generation of qualified facility to load and then all additional energies back to the system until a zero balance point is one to one match, anything beyond in a net surplus back to LES is at a wholesale rate. And since I'm at a red. [LB436]

SENATOR LANGEMEIER: Okay. Now we'll ask questions. I want to go back to your pretty picture. I like pictures. Where in this picture is the cost for...well, back up, back up. I know, I've been to Doniphan, I've been to Nebraska Public Power System. This picture. [LB436]

TODD HALL: (Exhibit 27) Yes, I'm going to give you a new picture, Senator. [LB436]

SENATOR LANGEMEIER: Is it a better one? [LB436]

TODD HALL: It is a better one. I'll make you a copy. [LB436]

SENATOR LANGEMEIER: Well I'm going to keep talking anyway. I've been to Doniphan and I've seen Mr. Kluthe's digital center on that board so they monitor his power on. When you have your five that they've testified, do you have to put that same type of facility at LES to monitor what they're putting on your system or is it so low you don't really have to monitor when it's coming, when it's going? [LB436]

TODD HALL: With a two meter set we're monitoring when it's coming in and then how much is coming out and we net the basis of the two. [LB436]

SENATOR LANGEMEIER: But that's for billing purposes. On a day to day, if we went to LES could you look at your board and say, oh, Joe Blow is putting power on today? [LB436]

TODD HALL: Absolutely not. [LB436]

SENATOR LANGEMEIER: It's so small, it's minor. [LB436]

TODD HALL: It's so small, it's so insignificant to the total load. [LB436]

SENATOR LANGEMEIER: Okay, well that took away my whole question. [LB436]

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TODD HALL: What the new picture is, is almost identical. It's been reorganized for your benefit. What the new picture represents for you, by the way, is what a typical bill and average cost looks like. There's been discussion about avoided cost and discussion about how does that apply to billing, we've reordered from the original picture to have something that represents more in line to what you see in a typical billing, which is a customer charge and energy charge from your local utility. [LB436]

SENATOR LANGEMEIER: Very good. Are there other questions? Very good; sounds like your customers are happy with you. [LB436]

TODD HALL: I hope they continue to be. Thank you. [LB436]

SENATOR LANGEMEIER: Hopefully. Further testimony in a neutral position? [LB436]

CHRIS DIBBERN: Good afternoon, members of the committee, my name is Chris Dibbern, D-i-b-b-e-r-n and C-h-r-i-s. And I want to thank Senator Haar and all the Nebraskans here who are interested in energy and the time that you've taken to study energy too. I represent the Municipal Energy Agency of Nebraska and I just had three follow up points and we are neutral on the bill. MEAN serves 20 towns in Colorado. Colorado does have a net metering bill but it exempts small public utilities and municipalities. I have not seen Senator Haar's white paper so I'm somewhat at a disadvantage if he changed the definition of energy utilities in his bill. But I also wanted to reflect that I don't think public power has drifted away from our original intent. The legislation that we've always followed said you wanted the lowest cost energy, you wanted reliable energy, and lately you've also told us you wanted some renewable energy. So all of the utilities have looked at wind, that's one of the pieces, and MEAN particularly, our members came across and they've given us direction that said go buy wind, build wind, use renewables and we've put out that RFP and have the small farm around Kimball. And so in summary, a net metering bill I think is possible in Nebraska but we've always...we've had dueling bills because there were things that were important to the utilities and there are things that are important to the citizens. And I think that you've been given a challenge here to find that mix between the safety concerns, the avoided cost concerns, the size concerns, and we're willing to work with you on that and I don't think it has to be a win loss on this bill. I think we need a reasonable net metering bill in Nebraska and the interconnection agreements that you've seen from LES and Norris and NPPD's willingness to work with methane, I think those show good-faith efforts to say that there's some compromise. Thank you. [LB436]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier, just a quick question. What was your position on LB1065 last year? [LB436]

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CHRIS DIBBERN: I think it was neutral, also. Exempting small municipals but actually, that was a preferred bill. [LB436]

SENATOR FISCHER: So you want to have net metering as long as it doesn't affect your customers? [LB436]

CHRIS DIBBERN: Not necessarily, no. It just is that municipals don't lend themselves to a lot of net metering. You're not going to see hog operations or cattle operations inside a town, you're not going to see a lot of wind generators in town. We will see some solar, we'll see roofs and windows so. [LB436]

SENATOR FISCHER: Well shouldn't the citizens in your communities be able to take advantage of solar and take advantage of wind and everything else and put that up in the communities and take advantage of net metering? [LB436]

CHRIS DIBBERN: And they do take advantage of those where it's applicable. We do have solar applications in cities. [LB436]

SENATOR FISCHER: But are you in favor of allowing net metering for your communities? [LB436]

CHRIS DIBBERN: I am in favor of local control. I think where the communities say we'll interconnect with that, we'll pay you back, that's what our organization stands for. [LB436]

SENATOR FISCHER: Thank you. [LB436]

CHRIS DIBBERN: That's why I'm neutral sitting here. [LB436]

SENATOR FISCHER: But it's easy to be neutral if the bill doesn't affect you. [LB436]

CHRIS DIBBERN: And as written, it didn't affect us. I don't know what that white copy did. [LB436]

SENATOR FISCHER: Okay. Thanks. [LB436]

CHRIS DIBBERN: Thank you. [LB436]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much. Further testimony in the neutral position? Welcome. [LB436]

DAVID RICH: Good afternoon, Senator Langemeier and committee. I'd like to first,

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David Rich, D-a-v-i-d R-i-c-h. I'm the renewable energy development manager at NPPD. I'd like to thank the committee and Senator Haar for the time they've invested in this. There has been some questions regarding the leadership of public power. I'd like to share on behalf of NPPD, I think we are taking a leadership role. We built the Ainsworth Wind Farm, 60 megawatts. Our board has adopted a strategic goal of 10 percent new renewables by the year 2020. Our board has approved entering into two C-BED projects near the Bloomfield area, the Elkhorn Ridge 80 megawatt project and the Crofton Hills 42 megawatt project, and we have signed power sales agreements to share the first project fifty-fifty with OPPD, Lincoln Electric System, MEAN and the city of Grand Island. Our board has approved entering into landowner agreements to measure actual wind speed. As was stated earlier, we have two RFP out for two 80 megawatt projects at Broken Bow and Petersburg. Those responses are due April 15, and we are also...what we haven't discussed is that we have a small RFP we're working on with our wholesale customers for projects less than 10 megawatts and we are hosting a meeting on February 19, in York. You may have seen something about for methane working with the Nebraska Department of Environmental Quality and EPA and others. Again, those methane projects are very, very capital intensive so we're working with USDA to see if we can get grants to those hog confinement and other confinement operators to help buy down the cost of that and then NPPD is interesting in taking proposals to purchase that electricity or our wholesale customers may also purchase that. In the past few years we've changed our wholesale rates so that our wholesale customers can in fact, for less than 2 megawatt projects buy directly from the farmer. So in the future Danny Kluthe's project could be bought directly by the rural. And that is a change. As far as clarifications, we have adopted what I refer to as a monthly net metering policy. September 2008 we have three customers, wind 2 kW or less and monthly reconciliation of net excess energy is important. It was suggested by Mr. Burns and Mr. Hansen in their testimonies and as was described by Mr. Dixon with energy conservation in the months that you save energy you get that savings that month, that financial savings that month. And that is important because utilities have seasonal rates which reflect our actual costs and if you allow that to accumulate over a year then you're not sending the correct pricing signal. Right now, potentially solar energy is more valuable because it tends to peak on our peak hours. There's been a lot of discussion about adding wind may delay a future power plant. We have to provide electricity when it's demanded and we cannot count on wind being there. So we look at wind as being an energy resource and it's a good energy resource but we can't count on it for capacity. And so how much the addition of wind will actually delay a power plant is questionable, I guess. If you can conserve energy over peak hours, then you are definitely delaying a power plant. But just adding a resource that you cannot schedule or dispatch that may not be available of your peak hours most likely will not reduce that. And I don't know what the final white paper showed, but there was a provision that utilities would be required to estimate the total amount of energy produced by the customer generators. We would have no means to be able to measure that. You know, it would be...our meters are just going to show what comes into us; it won't show at all

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what's generated. So if that's still in there that would be a concern for utilities to try and estimate that. The customer would be in a better position to estimate that if he had some type of metering on his generator. That's my testimony; any questions? [LB436]

SENATOR LANGEMEIER: Very good. Senator Carlson. [LB436]

SENATOR CARLSON: Senator Langemeier. Mr. Rich, what are the pluses and minuses of the Ainsworth Project? [LB436]

DAVID RICH: The pluses and minuses of the Ainsworth Project. Again, it was our first utility scale. We are working through some maintenance issues as we struggle with some blade cracking issues, some gear box. And we started out the first year with an annual capacity factor of about 43 percent. It dropped the second year; the third year it was closer to 35 percent. And so again, those are equipment problems with this particular type of turbine. We're working through those. So far this year we've typically only had one turbine out of service where last year we were having seven and eight turbines out. So it has provided us a low-cost renewable energy the first few years. In the 3 to 4 cents a kilowatt hour price tag. We were able to buy that facility back then at about \$1,350 a kW. Current prices maybe \$1,600 to \$2,000 a kW; this was 2008 before the major economic crisis. They may be coming back down and we'll see what happens there. But we were able to install it at a good time, it's been a good producer of energy and all the environmental benefits of Ainsworth as far as no water usage, no emissions, no long term waste. But again, there's mechanical problems with every generator and we've had our share there. And one of the benefits and why our board has entered into power purchase agreements now, too many reasons. One is that there's federal incentives for private ownership and both private or C-BED projects can take advantage of that and that can pay for one third of the wind farm. So there's a benefit there and the other reason is we, NPPD and our customers, are not taking that risk of operation. We're paying only for the energy that's being produced on a per kilowatt hour basis. [LB436]

SENATOR CARLSON: Thank you. [LB436]

SENATOR LANGEMEIER: Senator Fischer. [LB436]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, Mr. Rich. I appreciate NPPD's commitment in moving forward on some renewable energy. However, you, I know are aware that some of my constituents in Brown County where the Ainsworth facility is and also in Custer County where you're proposing more turbines, not everybody's happy with that. The people who have to live close to those facilities, I have heard from them a number of times. They are not pleased that those facilities are going up in their backyard. And so when we promote these things we need to be aware that not everybody is going to be thrilled for a variety of reasons, and

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especially the people that live by them. [LB436]

DAVID RICH: It's likely we've heard from those same people. [LB436]

SENATOR FISCHER: Yes. And that is a concern. [LB436]

DAVID RICH: Yes. [LB436]

SENATOR FISCHER: And for the statements to be made that everybody wants this, that's not always true if it's in your backyard. Also, you talk about reliable energy and I mentioned earlier that we had solar panels by for some of our tanks. The sun doesn't always shine, my sons carry a generator in the back of the pickup when they go out to those tanks on cloudy days because they have to pump water to make sure the cattle can drink. Reliable energy is coal, coal fired plants, and you heard a comment made at the beginning--about three hours ago--beginning of this hearing that Nebraska has the dirtiest coal plants in the nation. Those are yours, aren't they? [LB436]

DAVID RICH: I don't think I would ever admit to that. But I think depending on... [LB436]

SENATOR FISCHER: Oh, I'm sorry, you have the coal plants. You have coal plants here in the state. [LB436]

DAVID RICH: Yes, we have coal plants. [LB436]

SENATOR FISCHER: Would you respond to a citizen saying Nebraska has the dirtiest coal plants in the nation? [LB436]

DAVID RICH: And again, you have to take...you know, what is the definition of dirtiest, you know, there is a concern about CO2. [LB436]

SENATOR FISCHER: Oh, don't get picky on my. [LB436]

DAVID RICH: I think, as you stated, there are APA rules, you know, and we meet all of those rules to the best of my knowledge. And we have installed bag houses to reduce the particulate and we're looking at other things and continue to reduce the amount of whatever you want to call pollution is as time goes on and so, you know, everything is a balance. You know, there's coal is low cost but there's concerns about CO2. And so how do we as a nation move forward with that is probably going to be discussed for a long time in D.C. as to what climate change policy and what incentives and caps and trades. But yes, you know, we have coal plants but part of our charge is to provide low-cost reliable energy and we're doing that the most effective way we can. [LB436]

SENATOR FISCHER: Do you have any studies or information you can provide the

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committee with the emissions from your plants? [LB436]

DAVID RICH: We would be glad to provide that. [LB436]

SENATOR FISCHER: Okay. Thanks. [LB436]

DAVID RICH: Yes. [LB436]

SENATOR LANGEMEIER: Any other questions? [LB436]

SENATOR DUBAS: Senator Langemeier, thank you. Mr. Rich, we've been talking about net metering for a long, long time. And I guess I would just be interested in your thoughts about how important is it to us to adopt some kind of net metering policy in order to move renewable energy production, not just wind, but the big picture of renewable energy production, how important is net metering to that development of renewable energy? [LB436]

DAVID RICH: In a couple of different aspects, many utilities already have and so, you know, as I sit back there I'm thinking why don't we that already have kick the others in the butt so we don't have to be talking about this anymore and move on. You know, but you know, in the big picture I think if you look at some type of incentive, some type of tax credit, or something like that would actually provide more dollars incentive for that to happen then what net metering will. Again, if it's, you know, the way we've sized it, you know, they'll get the credit but there's still a very very long payback period and with this net metering. And, you know, we have low rates, we've had some rate increases, there's some uncertainties with the carbon tax, you know, and that may have a significant impact. And, you know, who knows what that will bring over the next few years and so if there is for example, a \$50 a ton CO2 tax, you know, that could have a significant, maybe double our electric rates. Well then some of these other things would be very cost effective that aren't now. Right now the price for a small turbine is very expensive. You know, we need as a nation to try to figure out how to sell that at a much more reasonable price than where we're at \$5 or \$6 a kW. That's the biggest hang-up in my mind. [LB436]

SENATOR DUBAS: So do you think net metering is more important to the small and medium sized renewable energy projects rather than the larger ones; am I following you right? [LB436]

DAVID RICH: It would only apply to the smaller ones. [LB436]

SENATOR DUBAS: Okay. All right. Thank you. [LB436]

DAVID RICH: It will provide some incentive, but I think even with net metering I think

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there's still very long paybacks for a lot of these projects and I think the people that do it do it for other reasons rather than financial primarily. That's my personal opinion. [LB436]

SENATOR DUBAS: Okay. Thank you. [LB436]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much for your testimony. [LB436]

DAVID RICH: Thank you. [LB436]

SENATOR LANGEMEIER: Further testimony in a neutral capacity? Seeing none, Senator Haar. Do you want the lights or not? [LB436]

SENATOR HAAR: No. First of all I'd like to thank...turn around to thank everybody who has come and thank you very much. When I was interviewing my LA we talked about opposition and we both agree that opposition is not only necessary but improves things, so I just want you to know that's my position. We are talking about small generation today. I think that's really important to remember, that net metering, when you get into the bigger projects then power agreements are worked out and that's the way that works. The big picture with renewable energy and I'm just going to spend just a moment on that, the big picture is this. We know that the wind doesn't always blow and the sun doesn't always shine but probably methane is constant, I'm not sure about that. But in the big picture, someday we're hoping that there will be a supergrid that connects all parts of the United States and we're starting to hear about that now from the current administration. And the thing about a supergrid that connects all parts of the country is that if the wind isn't blowing somewhere it's probably blowing somewhere else. And I think really, the eventually to make renewable energy work for us the way we want we're going to need that super interstate highway grid much the way we have a super interstate highway system. That being said, I want to go back to something Senator Dubas said and because it got me thinking. Talking about visionary, George Norris was certainly a visionary. He gave us the Unicameral, where one of the rules is every bill gets heard. And he also gave us public power and I want to state emphatically that I support public power. A few years ago there was talk of selling public power. No way, no way. I support public power. And then going on to say without any blame, without any blame, right now it doesn't feel too visionary because we look around and I know Senator Schilz can stand in his district in Nebraska and look across and see wind turbines in Colorado, 100 and some... [LB436]

SENATOR SCHILZ: More. [LB436]

SENATOR HAAR: ...more. And it's really frustrating to us all because we see public power as visionary and it doesn't feel that way right now. And it's frustrating. And so

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what we're asking now is for public power, and this includes all the districts, all the districts that belong to the citizens to be visionary and to provide leadership and I believe that progressive, and when we talk about the big picture I see the wind turbines starting to go up but we're talking about small generation now. Net metering, a good net metering policy is an important step and maybe a little step, but really an important step in terms of going to a visionary stance. And we've heard all kinds of reasons for that. There are new business opportunities. You've heard from a number of entrepreneurs that are out working the state, this would provide jobs. But it can't just be patchwork and that's one of the things that's really confounding their jobs nowadays is the patchwork nature of net metering if it occurs in various public power districts. We see the opportunity for clean energy, for renewable energy. A way to tie sun, wind, geothermal, biomass, methane, all those things that we have as resources in this state into our energy system. We see it's a distributed energy system which means we're getting energy from a lot of different places. I think that's very positive. We see citizens choosing a lifestyle where they're willing to pay more. My wife pays more for organic food and sometimes I don't understand why but she has chosen that lifestyle and I like her cooking. So we're hearing from people who want to chose the lifestyle that probably will cost more at this point. We're asking public power to be visionary with small generation to help release creativity. It's amazing to me to see what Mr. Kluthe has done and what other people are doing to generate electricity. And that pie graph I passed out at the beginning, I think what we're hearing today is if you pass something like LB436, an improved and negotiated LB436, that they will come, that we're going to get more people that are going to come onto the system for net metering. So I guess in the big picture I would urge the committee to be visionary and to advance LB436 and we will work with people to make it a better bill. Thank you very much. [LB436]

SENATOR LANGEMEIER: Thank you very much. You've heard the closing on LB436. Thank you. Now we'll move on to Senator Janssen, I thought I saw him here, yes. Welcome. Come on up. We'll now open the hearing on LB663. And I thank everyone that has testified. Welcome to the Natural Resource Committee. That bright tie is effective this time of day. [LB436]

SENATOR JANSSEN: It's not solar powered or wind powered. [LB663]

SENATOR LANGEMEIER: It's neon, though. [LB663]

SENATOR JANSSEN: Thank you, Chairman Langemeier, members of the Natural Resources Committee. Thank you for allowing me to introduce LB663, the Net Metering Act. My name is Charlie Janssen, C-h-a-r-l-i-e J-a-n-s-s-e-n and I represent the 15th Legislative District in the Nebraska Unicameral. Wind Energy, and when I say wind energy I'm talking about renewables as federally designated renewables, also methane, solar to name as few as designated and I'll say that throughout, so when I say wind energy, I'm really saying all of the alternative fuels, wind energy became an issue for me

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during my campaign last fall. It was then that I promised that I would do something to help encourage the development of wind power for Nebraska. The Legislature, power companies, renewable associations, and manufacturers have been working for more than a decade to bring a bill together. They have been unable to do it, so it is time to step up and get it done. LB663 will standardize net metering procedures across the state. LB663 is a completely new idea for Nebraska. It is based upon the rules for small power production and cogeneration of the public utilities commission in Minnesota. Public power makes Nebraska unique amongst the 50 states, however, public power exists in almost every other state, too, whether it be in the form of rural electric, cooperative, or municipal utility. [LB663]

SENATOR LANGEMEIER: Senator Janssen, Can I stop you just for a second? It's not recording so we're not getting a record with you that close. [LB663]

SENATOR JANSSEN: Well, sorry, I'm just excited to be here right now. [LB663]

SENATOR LANGEMEIER: I understand, but I want to have a recording of it so, go ahead. [LB663]

SENATOR JANSSEN: (Exhibit 28) Since 2001, Minnesota has seen on average 15 percent growth annually in the number of cogeneration units added to the system. Nebraskans want to take advantage of the unique opportunities offered by the renewable resources. LB663 allows them to do that. There is a movement, as it were, by Nebraska citizens to tap our state's potential. A series of NPPD opinion surveys show that Nebraskans are practically unanimous in their desire to harness wind energy. Nebraska is ranked as having the sixth largest supply of wind, yet we are ranked only 19th for actually having harvested that potential by the American Wind Energy Association. The National Renewable Energy Lab has presented a report which paints a very nice economic picture for Nebraska if we seriously embrace wind development. Their road map says that Nebraska is poised for large-scale economic development impacts including tens of thousands of new jobs and billions of dollars in economic development projects. While we have not contacted everyone who may have an interest in this bill, we do know that each group that has contacted us has told us that there are specific parts of the bill that interest them very much and they have no problem with supporting the bill. But there are other parts that make the bill difficult for them to swallow. That's how we know that we have a good bill here. That, and the fact that it has worked very well in Minnesota for 20 years with a proven track record of results. We were surprised when we hadn't heard from the municipal utilities. On closer inspection, the bill showed why. We inadvertently exempted municipal utilities by not including them in the mix. We apologize for that and offer this amendment somewhere up here...well, I'll offer an amendment that I will pass out that basically includes municipalities because it really wouldn't be fair for us country folk to have this ability and not share it with the municipality utilities. What makes this bill different from other net metering bills that have

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been introduced over the years primarily is in its depth and scope of this bill in addressing issues that each group has introduced over the years. I heard earlier somebody said they want net metering to be simple, and simple just doesn't work for net metering; it's a very complicated issue. The bill addresses the net metering issue completely. It does this by introducing three different metering strategies. It proposes net billing, which is the concept most of us think of when we think of net metering. It proposes simultaneous sell and purchase of energy, and it offers up an option for a time of day rate. Net billing rate allows the cogenerator to sell power to the utility at the average retail, which is much different than other bills, retail as opposed to wholesale rate class. Past bills introduced to this committee allowed the customer to sell power to the utility at a wholesale rate. Again, we would be at the retail rate. While some utilities have adopted their own net metering policies, based upon the lack of new development in renewable cogeneration in this state, I don't believe those policies are adequately compensating the consumer for their investment in their cogeneration unit. As I mentioned, the bill provides for the purchase of excess capacity to the cogenerator at the average retail rate of the rate class. Past bills have included a cap on the size of the generating unit. We have split these into three different size ranges, less than 40 kW, 40 kW to less than 100 kW, and 100 kW and above. Under the 40 kW units can choose any of the three standard rates that are proposed in this legislation. The 40 kW to the 100 kW category can choose either the simultaneous sale and purchase rate or the time of day rate. The largest cogenerators will be able to negotiate a rate directly with the utility that they interconnect. This bill has reporting requirements for utilities. These requirements exist so the public may verify the avoided cost of the utility. In no instance will the rates paid by the utilities to the cogenerator ever be less than the full avoided cost of the utility. The bill requires the utilities to make these reports available to the public. Additionally, the Power Review Board will serve as a repository for these reports. In exchange for the retail rate, we require the consumer to pay for all interconnection costs to the utility. Past bills have required the utilities to pay for the interconnection cost, however we do not allow the utilities requirements for interconnection to be unnecessarily restrictive or excessive. We also provide a mechanism to allow the consumer to appeal to the state Power Review Board if he or she feels unfairly treated. Some parties have raised concerns about liability issues. While we are unaware of any liability cases that have ever occurred due to the interconnection of a qualified facility to the utility grid, our bill lets the courts decide who is liable. It specifically prohibits hold harmless or indemnity clause for the contracts between the utility and the consumer. It does, however, allow the utility to acquire insurance by the cogenerator in the amount not to exceed \$300,000 which is the typical amount of liability coverage that we would have on our homeowner's insurance policy. The bill also has provisions for dispute resolution, wheeling, safety concerns, and a statewide uniform contract for cogenerators of the less than 40 kW in size. I've met with some of those that are going to testify on behalf of this bill and also in opposition to this bill. I do respect the committee's time, especially today, and I've asked my proponents to keep their comments very brief today and keep them very specific to LB663. I did feel and see and hear the passion of the

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previous bill introduced and I think a lot of that passion would be there as well. Perhaps not toward this specific bill, but I would ask at least the proponents here for my bill to stay specific to this bill and respect the committee's time. And I will possibly close but would be very brief in that as well. Any questions? [LB663]

SENATOR LANGEMEIER: Ready for questions. Senator Haar. [LB663]

SENATOR HAAR: Thank you very much. You talk about a contract in your bill. Could you tell a little bit more about that? [LB663]

SENATOR JANSSEN: Yeah, and it--thank you, Senator Haar--might be a little bit odd to see a contract in statute. I've heard that, and what this does is...right now, I think the rural electric said they had 30 or 29 different metering or net metering, which to me meant 29 or 30 different contracts out there. This just uniforms it across the state. The contract is the same. And we've, as you saw, we've covered it for the less than 40, the 40 to 100, and the 100 above in that contract. And it's actually very similar to the contract that they've used in Minnesota successfully for 20 years. [LB663]

SENATOR HAAR: Okay, so one single contract. [LB663]

SENATOR JANSSEN: Yes. [LB663]

SENATOR HAAR: Okay. So is there...talk about the concept of firm power and so on, how does that relate to? [LB663]

SENATOR JANSSEN: Well, it basically firm power, we say that whatever the total amount of output you can expect for a qualified facility, we'll define firm power as 65 percent of its capacity and we'll count that as firm power. I've learned in my brief legislative career people always ask well, why 65? Why not 50, why not 45? And to that I offer, and which you will hear quite a bit, that's what Minnesota did and it went through their body up there when they went through the legislative process and they came out with defining 65 percent as a firm power. [LB663]

SENATOR HAAR: Okay. And then looking in your crystal ball because this is sort of the thing that we've been talking about all day, do you think people will come? [LB663]

SENATOR JANSSEN: Well, it's hard to tell. And I have to extrapolate everything from Minnesota which we spent a great deal of time researching and on that I would say right now, in Minnesota they have about 200 people taking advantage of this right now. Minnesota has a population about four times Nebraska's population, so from that you could say 50 people would take advantage of it. However, you know, you're taking some factors. There is somewhat of a recession out, so maybe people aren't just going to run out and do this. It doesn't make great business sense. I think the retail rate makes it

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make a little bit better sense, but it really takes a person that has a passion for this that you had indicated earlier that wants to do this, so. But that said, there is a movement, so I think we could have more people, possibly a higher rate than they did in Minnesota. But to answer your question, I'm guessing crystal ball, you could look at 50. [LB663]

SENATOR HAAR: And so, stealing Senator Carlson's question, with such a small...I think this is kind of what you were getting at with some of your questions, with such a small number participating, is it worth this time and energy we're putting into it? No pun intended. [LB663]

SENATOR JANSSEN: Well, yeah. Firm energy. Well I certainly believe so. My staff has spent a significant amount of time on this, I have spent a significant amount of time on this and I think it goes back to what you had mentioned earlier. We do need that supergrid and we do need to be ready for that. It goes back to the administration right now in Washington, D.C. They have made this a priority of theirs to...not necessarily wind energy, but renewables. And I think in the state, we would be getting ahead of the curve a little bit before they're telling us what to do. They still will, as we all know, but at least we will have something in place already. [LB663]

SENATOR HAAR: And then, I'll be honest, I didn't read your whole bill so I have to ask you. [LB663]

SENATOR JANSSEN: I read yours until you changed it yesterday. [LB663]

SENATOR HAAR: Well, yours does say that interconnection costs, just as now when somebody interconnects--installs--an irrigation unit or something, the consumer pays for that interconnection cost. And your bill does that as well, right? [LB663]

SENATOR JANSSEN: That is correct, and I believe your amended bill does it...do the same. [LB663]

SENATOR HAAR: Yeah, we do that too. [LB663]

SENATOR JANSSEN: It does have the qualified facility in this case would pay for all the interconnection cost. [LB663]

SENATOR HAAR: Okay. So I see a lot of similarity about what we're talking. [LB663]

SENATOR JANSSEN: In that respect yes, yes. [LB663]

SENATOR HAAR: Yes, yeah. Thank you. [LB663]

SENATOR LANGEMEIER: Senator Schilz. [LB663]

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SENATOR SCHILZ: Thank you, Senator Langemeier. And I just, Senator Janssen, I just have a couple questions. You...and I've been hearing and I have to admit that it's been a long four hours. [LB663]

SENATOR JANSSEN: I'm with you, Senator. [LB663]

SENATOR SCHILZ: And so if you could just refresh for me, you talk about wholesale and retail and maybe you're not the person to ask for this but why is that so significant and what exactly does that mean, in your bill? [LB663]

SENATOR JANSSEN: Well, from my perspective and maybe there is somebody that can answer better, but retail rate is more. It pays more, so it means more to the consumer. And to me, now I'm requiring them to pay the interconnectivity fees so the payback is that you'll get retail for this and the retail rate makes it at least somewhat palatable. At least for me being a business guy, I can say well, I can reach and say this could be a business decision, but you have to have the passion for it. I would not recommend this as a business to do because it would have to be a passion, but retail pays more. It helps to incentivize people to move forward because they can see that there is more of a tangible reason. So yeah, I'd say it's more of an... [LB663]

SENATOR SCHILZ: Sure. [LB663]

SENATOR JANSSEN: ...incentive to do this. [LB663]

SENATOR SCHILZ: Okay. And then as we look at it here, I mean its...when you say its broad in depth and scope, I can tell. And I have not read every page of it either, I'll be honest. Senator Haar's bill, in contrast, seems to be much more streamlined, and much more...much simpler, for lack of a better term. I was just wondering, why do you feel that it has to be so detailed? I mean, what are the reasons for that. And you touched upon them when you started, but I'd like a little more in depth. [LB663]

SENATOR JANSSEN: Yeah. And I did full disclosure. I talked to Senator Haar, we had some meetings and we've talked quite a bit and bounced ideas off of each other. And I apologize, I have not read the complete new revision to Senator Haar's bill. Like I said, I've had a bill start off even early on as a two page bill and end up as 30 pages as I went through the process. And I think a lot can be answered by the fact that Minnesota did go through this process, and possibly when they started out they had a two page bill, but as they went back and said oh, but what about...what about this, what about that and next thing you know it piles on. So I think...as far as... [LB663]

SENATOR SCHILZ: Voila. [LB663]

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SENATOR JANSSEN: And I'm not saying Minnesota's great or Minnesota's that. I'm just saying they have a bill in place that has gone through their legislative muster and it came out. Now, we put modifications on it, we didn't copy paste Minnesota, but I don't think we added substantially to it and the premise of the idea is there. And this is a very complicated thing, and a lot of times the people that want to use it, it's complicated to them. It's certainly complicated to the general public. So a lot of times when we see these bills come forward, you'll see a lot of the opponents, in some cases, want to make it complicated because that makes it say oh, wow, this is 40 pages. And even, I've had proponents of Senator Haar's bill call me up and say what kind of bill is this, it's 40 pages. And I bet they probably didn't read it. And Senator Haar's bill is simple, it's this and that. And possibly it is, I don't know, but I think sometimes simple is not addressing all of the situations. And I don't say that in respect to Senator Haar's bill. [LB663]

SENATOR SCHILZ: No. Sure. No, I understand. I guess the only other question I would have is, you know, you brought up Minnesota a couple times. You're not some closet gopher fan, or something are you? Just wondering. [LB663]

SENATOR JANSSEN: No. Nothing in the closet here. (Laughter) They do a lot of roadside trapping in Minnesota for gophers. (Laughter) [LB663]

SENATOR SCHILZ: I'm sorry, I didn't mean to take up your time. [LB663]

SENATOR LANGEMEIER: Might be too much information at this point. Senator Janssen, I want to commend you, you put 72 sections in 35 pages, you know, that's a pretty good task. Now, you used the word earlier, avoided cost, and in the four hours previously to your arrival to this committee today we've had a lot of people say there's a lot of definitions to that as well as some say we don't really know what the definition is to that. Do you know what the definition is to avoided cost? [LB663]

SENATOR JANSSEN: I would fall into both of those categories you just said. I listened to the complete testimony today, pretty much complete testimony today in my office and I forgot who was up that gave the avoided cost and explained it. That was the education I got today so. And you're right, I've heard so many different things but I think the power companies have a definition for it in Nebraska, what they call their avoided cost. I think it's their number but they can speak to that, and possibly Senator Haar can speak to that when he's asking. [LB663]

SENATOR LANGEMEIER: I didn't really want to know the answer, just had to bring it up. Other questions? Yes, Senator Haar. [LB663]

SENATOR HAAR: Well, sort of in answer to your questions, one of the simplifications of using retail versus avoided cost is retail is pretty easy to determine. As a business person, you know, it wouldn't make sense for me to buy a 12 kilowatt generator to try

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and make money on it, obviously. And you and I have both had the advantage of just going door to door and talking to tons of people and stuff, running through an election. What did you hear from people, why do they want to do this? [LB663]

SENATOR JANSSEN: You've got to keep in mind, my opponent had windmills on his sign and I didn't so, I wasn't really considered the wind guy in this. So I'm sure everybody's surprised that I have it but it did come up quite a bit and it seemed to be that it was a lifestyle for them, that they wanted a reason to incentivize them to do it. And sometimes I've seen people get scared off, I've heard the thing earlier today. Well, what about...we want to create a new rate class, well what about the their words not mine, the little old lady at the end of the line, that she's going to get stuck with a higher bill because of this rate class, because of this energy you're selling. So we went ahead and looked at some numbers out there in Minnesota, and again, nothing to do with the gophers, but in the state of Minnesota. And I just looked at some numbers if you had a unit that generated 8,500, which in Minnesota 8,500 kilowatts incentive is 3 cents is what they sell it for. Essentially it comes out to \$250 annually if you had 2,500 ratepayers which is what they have there it comes out to 10 cents per ratepayer out there. So how does...there's a lot to that, that's a pretty simplified answer to a formula but so how does that little old grandma at the end pay that extra 10 cents? Well, I would say that she's paying it for her grandkids in the future to help them become less energy dependent on oil and foreign oils. [LB663]

SENATOR HAAR: But in most cases, at least when people talk to me, when they putting renewable energy of any sort, it's probably going to be less than they need. But if they're going to size it to their needs, it's not really to make money, do you find that as well? [LB663]

SENATOR JANSSEN: Yeah. In fact, when we talked the first time, you kept saying, so you're talking small wind, right Charlie, small wind. And I said, yeah I can go big if you want. But I mean, yeah, it really was. It's...I don't expect that meter to run backwards. I mean it's just, I don't think there's going to be this influx of power sent to the grid from the farmsteads or from the rooftops or wherever. I just don't foresee that happening. [LB663]

SENATOR HAAR: Not a lot, yeah. Thanks, I appreciate it. [LB663]

SENATOR LANGEMEIER: Seeing no other questions. Thank you very much. Now we'll move to testimony in support and I think Senator Janssen has somebody he'd like to testify first so we'll have him come up. I would...we have heard a lot about this issue today. I would hope that we could keep our testimony to points of the bill, things you like, things you don't like. [LB663]

SENATOR HAAR: Good job, Charlie. [LB663]

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SENATOR JANSSEN: Thank you. I do have the amendment, I'll give it to the clerk. [LB663]

SENATOR LANGEMEIER: Just give it to the clerk. Welcome. [LB663]

JIM DAKE: Good afternoon, Senator Langemeier and fellow senators. It has been a long afternoon for you. My name is Jim Dake, J-i-m D-a-k-e of Ames, Nebraska. I am a constituent of Senator Janssen and I am pleased to see that as a freshman senator in the Unicameral he has brought LB663 before the Legislature. The two bills you are discussing this afternoon speak directly to the net metering for electricity. In the nation's sixth windiest state, we join a handful of states like Alabama, Mississippi, and South Carolina which do not have net metering for electricity. How much power could be generated in Nebraska if there were a wind tower put up at every center pivot site, if solar collectors were installed on the ceilings of buildings and as part of the roof? But my expertise does not go to electricity. It goes in another direction. My expertise in electricity is figuring out how to jump start a car, how to flip the switch on a wall or how to get this wheelchair going when it decides to quit on me. My expertise is in another area; I'm an attorney. And we do quite a bit of word crafting and understanding what exactly the laws are and what they come from. Nebraska Legislature has a long tradition of pulling up laws from other states, incorporating them into Nebraska, and making them work for us. It doesn't make sense to draw it from scratch when somebody else is doing it and has put the definitions and such together. What Senator Janssen has done here is picked up a law from Minnesota that has been in place for 15 years or more and that has, if there ever have been any questions about how this section is interpreted, what does this section mean, and it actually has gone to the courts. There is a judicial opinion out there that tells how that judiciary or how that section should be read. That is something that judges, that lawyers here in Nebraska can look at. We can look and see what Minnesota said about their law and does it apply here? Since the year 2001, I have helped the Nebraska State Bar Association summarize all of the court opinions of both the Supreme Court and the Court of Appeals. So I've read more law in that time than I did when I was practicing law from '92 to '99. So I think I understand what exactly the judges will be looking for and what the lawyers will be needing. We need not a short bill on something like this. As you found out today there are a lot of questions that are surrounding this whole net metering idea. That's why you need that long a bill. Because that bill is the law, it tells you what something means, it tells you to what extent you can do things and you can't do things. And that's the first step that needs to be taken. So I would believe that drafting or pulling up LB663 would be the best means in which to get net metering in this state because it has answered a lot of the questions that a lot of the opponents have raised to Senator Haar's bill and it speaks to them directly. That, I guess, would be it since I'm a little bit off script. [LB663]

SENATOR LANGEMEIER: Okay. You did good. Are there any questions? I don't see

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any, thank you very much for your testimony. Very good job. [LB663]

JIM DAKE: Thank you. [LB663]

SENATOR LANGEMEIER: Further testimony in support? Seeing none, I don't have any letters. Moving on is there any testimony in opposition. And Justin will put the chair back for you to sit on. Welcome back from Custer County. [LB663]

RICK NELSON: Well, thank you. It's good to be back. My name is Rick Nelson, R-i-c-k N-e-l-s-o-n. I'm testifying today on behalf...in opposition on behalf of the Nebraska Rural Electric Association on behalf of the Custer Public Power District and on behalf of Nebraska Power Association which is a voluntary organization throughout all segments of public power including municipalities, power districts, public power and irrigation districts, and cooperatives. I won't spend a whole lot of time talking about the net metering limit. Kristen gave testimony on LB436 talking to our preference to, at least from the NREA side, 10 kW. However, some of those same arguments are still there when you're talking about 40 kW or less. LB663 sets out a tiered approach to describing the size of a qualifying facility, thus providing alternatives in buying and selling of that energy and capacity. Currently 40 kW and below is net metered. We oppose net metering at this level. NREA would oppose net metering over 10 kW. Next, I want to talk just a little bit about several points within the first part of this bill. It did take me about a day and a half to get it read. And along that point, the first part of it is definitions, talking about tariffs, talking about reports. From one aspect, I guess, public power has enjoyed what you might think as a simpler life. Being public power, we're locally controlled, operated under state statutes that govern the formation and the governance of public power districts. LB663 spends the first eight to ten pages defining terms and describing the new powers of the Power Review Board, Nebraska Power Review Board. I think Nebraska takes a more realistic approach and here's why I think so. Other states have a mixture of investor-owned utilities and public utilities primarily cooperatives. Typically the investor-owned utilities are governed by the state Public Service Commission or state utility board. These commissions or boards say what the investor-owned utility can charge for rates both within a class and between classes. But also an investor-owned utility is allowed to recapture rate of return for their shareholders. Rates are sometimes referred to as tariffs, you might have saw tariffs in the bill. From the public cooperative standpoint, some may be under P and C type control as far as tariffs depending on what state they're in, some are not. Throughout the bill I get the sense that it assumes that all interconnecting distribution systems are generation facilities and I'm not sure if that changed with an amendment talking about municipalities, but of course, you know, Custer is not a generating facility. Again, talking about the wording in the first part of the bill, with board or commissions' requirements for oversight of investor-owned utilities, again, Nebraska is locally owned and the scenario described in this bill would not apply and therefore not needed. The Power Review Board currently does not have any control over tariffs and I'll leave it there. The next aspect of...there are some things that we do

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like in the bill. I think that was brought out prior, but the one aspect that I do want to talk about is the final part of the bill where it talks about the contract. Again, in states where this is enacted there are certainly reasons why some of those documents are within legislation or within the rules. Again, Nebraska is governed locally, we're governed by state statutes and I would assume the state statutes would lay out the parameters of what we would have in a contract should a net metering bill get passed. As I said, we agree on some aspects with the bill but oppose the bill in its entirety presented today, and we would recommend that you kill this bill. I would take any questions that you may have. [LB663]

SENATOR LANGEMEIER: Okay, thank you. Senator Fischer. [LB663]

SENATOR FISCHER: Thank you, Senator Langemeier. Thank you, Mr. Nelson, for being here today. I was hoping you would come forward. Senator...Mr. Nelson, did I call you Senator? (Laughter) [LB663]

RICK NELSON: I certainly hope not. [LB663]

SENATOR FISCHER: I was demoting you if I did, my apologies. Mr. Nelson is a constituent of mine. I had a question on the last bill and this bill deals with net metering also and I don't know if you remember the question I asked...I believe it was Mr. Dixon on what happens when a turbine is producing energy and do you disconnect it or what do you do? And we were talking about a heat pump and if you...and if a consumer puts a heat pump in their home and they see savings on their electric bill because they made the investment on the heat pump, if they put new energy efficient windows in their home they see savings on their electric bill because they've spent the money and put in those windows. If they put up a turbine or put, well, it would be a turbine I think more so than solar panels, but if they put up a turbine and they see savings on their bill because they're producing their own energy at that time so they're seeing savings on their electric bill, so why would we allow net metering for those customers who choose to see savings in that way when we don't...basically we're not giving the guy who put the heat pump in or we're not giving the consumer who's put in energy efficient windows or put in better insulation or whatever. We don't give them any benefit, so why would we give a benefit to the person with the turbine? And I...was I on, you're going to say yes, because you like me, but was I on track with that question? [LB663]

RICK NELSON: Well that was a pretty long question, I'm not sure I remember it all. Let me if I can indulge you just a little bit, describe maybe that process. Somebody buys a heat pump so they're using less energy. That means that the meter is going to run slower, or we hope it run slower, you know, that's the reason to put in a heat pump. If we put up a wind turbine and that wind turbine is generating, I guess conventional wisdom would say that meter is going to be running slower. And it could be running slower to the point where it goes beyond what they've used in that period and therefore

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and when you get beyond that period, let's say a month, they generated 1,200 kilowatt hours and they only used 1,000 kilowatt hours so they're to the plus 200 kilowatt hours. That's where we say we would pay avoided cost. Up and to that point I was a little confused with the answers in the discussion but let's say that heat pump offsets 300 kilowatt hours and you typically use 1,000. So now you're down to 700 kilowatt hours that you pay for at the end of the month. Let's say through that same month time period, you know, you typically use 1,000 but you have enough wind generation to offset 300 kilowatt hours. Well, that meter is going to offset that 300 kilowatt hours just like it did the heat pump because it's going to be running backwards. You know, using a bidirectional one meter system. Does that make sense? So therefore, you know, the analogy works and sometimes it doesn't work, but you're going to be backing off kilowatt hours in both instances. [LB663]

SENATOR FISCHER: But why? So why should we reward the people that put in wind turbines by giving them credits or paying them with the net metering concept? I'm looking at the two bills with just the concept of net metering. [LB663]

RICK NELSON: Right. [LB663]

SENATOR FISCHER: Because other customers who put in energy saving measures or conservation measures in their homes or businesses, you know, I don't know how much they're receiving. But we all like to talk about renewable energy and it's politically correct to do so and it's great and so we're willing to give incentives there whether it's for solar or wind or ethanol as we've done in the past. Is that the way we want to go? I'm just asking for your opinion, you don't have to give it if you don't want. [LB663]

RICK NELSON: Well, my opinion is, the cheapest kilowatt hour to save is the one you don't produce. So that's why we're going after conservation and energy efficiency. From a net metering standpoint, and this is our argument or my argument on using 10 kW or below. With using 10 kW and below, offsetting energy you're not going to probably dip into some of the fixed costs that we have built into the first part of the rate block. And not all of our fixed charges are in the customer charge. And therefore in that first two rate blocks, typically in my viewpoint, and some of the fixed costs are caught up in those two rate blocks. So with the 10 kW there's less of a chance to get down in those two rate blocks, thus there's less of a chance to subsidize that generator. I can see your point and we don't give incentives for energy efficiency but we're allowing that generator to back off, you know, on a retail basis that same amount so. I'm trying to talk all the way around it so I don't actually have to do that. (Laughter) [LB663]

SENATOR FISCHER: That's what I'm getting, that's what I'm getting. We'll talk later, thank you. [LB663]

SENATOR LANGEMEIER: You're doing a good job. Senator Haar. [LB663]

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SENATOR HAAR: Well now I'm not sure how you do this in your district, but I live in the Norris Public Power District and I put in a ground source heat pump and I very...I have an ICF house and so on and ground source heat pump and stuff. So it's all very energy efficient, so my average bill is a little over \$100 a month being all electric. [LB663]

RICK NELSON: Great. [LB663]

SENATOR HAAR: But I got \$1,000 incentive to put in my ground source heat pump so I went for almost one year without having to pay anything and under the new federal--and this is not the one passed recently--but under some of new federal guidelines, I believe I could have gotten even an additional \$1,000 to \$2,000 of tax credits. So actually, we do incentivize and I think it's appropriate because I agree that the electricity that you don't have to generate is the best stuff. But actually we do incentivize people for...I did, I got incentivized and I like it. [LB663]

RICK NELSON: Could I talk on that just? [LB663]

SENATOR HAAR: Yeah. [LB663]

RICK NELSON: My only concern with that coming from Custer Public Power District, we're 8,000 square miles, we're sparsely populated. The rebate that you got or the even the tax incentive that you get even from the federal level, that comes from the federal level and doesn't come from my other customers. Some of my other testimony that I did not give today, a recent survey over 40 percent of my customers are over the age of 65. So that's where my concern lays is artificially increasing their rates in order to subsidize, although a small number from what you laid out earlier. I would rather have that subsidy come from somebody that is more broad based. [LB663]

SENATOR HAAR: Do you consider 65 old? [LB663]

SENATOR LANGEMEIER: I'm not sure that's germane to the topic. (Laughter) I'll get you out of that one. [LB663]

RICK NELSON: Thank you, Senator Langemeier. Did I say that? [LB663]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much for your testimony. [LB663]

RICK NELSON: Thank you very much. I came prepared to talk about avoided cost. [LB663]

SENATOR LANGEMEIER: Type it up and hand it out. Further testimony in opposition?

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Come on up, don't be shy. Welcome back, Mr. Cooper. [LB663]

STONIE COOPER: My name is Stonie Cooper, S-t-o-n-i-e C-o-o-p-e-r. I'm going to shoot up my time here trying to answer some questions. If you've ever showed calves, portable calf blowers take 5 kilowatts, so if you have two of those, that's 10 kilowatts. So that's all you could do with 10 kilowatts. [LB663]

SENATOR SCHILZ: Thank you very much. [LB663]

STONIE COOPER: To Senator Fischer, if you have a wind turbine and without net metering actually the person with that wind turbine would be penalized as opposed to somebody that has a heat pump and I'll explain why. If I have a heat pump, I get to lower my overall utility bill by just having it there. In my public power district, if I have a wind turbine and I'm generating power, my utility requires that I don't allow that to touch my meter at all. It has to go out to their grid first, and they only give me a penny per kilowatt hour for that that I generate. Then what I pay for what comes in costs 7 to 8 cents depending on the time of year and the time of day. And so that's why net metering is so important, is it allows that person who puts up the generator, which is very much analogous to a heat pump, to have the benefit of lowering their utility bill. Most people who want to do the small generating don't want to become wholesalers to a utility. All they want to do is lower their overall footprint. And in my particular situation and I don't want to speak for all public power districts because there are some forward thinking public power districts in Nebraska that have instantiated net metering for their customers. For them it's great, but in my case I'm really at a loss. There's no way that I am going to put in a wind generator, solar power, or a digester on my feedlot, any of that because I am penalized for trying to do something that is progressive. Net metering levels that playing field. Does that help? Onto LB663, I've vacillated back and forth. I kind of drew the short straw amongst the caravan of people that was here earlier between neutral and opposition and Senator Janssen's bill has got great intentions however I think he illustrated it best when he told you that Minnesota's had this for 15 to 20 years and they've only got 20 users taking advantage of this net metering legislation, 200 users, I'm sorry, is that correct, as opposed to somebody who has a more liberal net metering bill such as Connecticut, Oregon, or Washington who have thousands of net metering users? And some of the specific points I want to address, number one is the requirement of the second meter head. And I know you've talked about this in the earlier bill. If you require a second meter head, you can do it like LES does and they pay for the second meter head but if you make the customer pay for that second meter head, it is not a trivial expense. And it is, once again, something that would work against somebody wanting to do renewable generation in their home. Another point that I want to bring up that's in this piece of legislation and maybe it's just a clarification...by the way, I actually did read this whole thing. And I'm not only a small farmer, but I come from an engineering background. I was on the team that developed the F-22 fighter jet for Lockheed Martin. So we used to get documents of 500 pages long about a single

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instrument on the cockpit panel, so I'm somewhat used to dealing with larger documents that almost seem esoteric in their content. But the next point I want to address is the insurance requirement and it just may need clarification that a homeowner utilizes their current liability insurance versus needing yet another \$300 k in liability insurance just for this one segment, just for having that home generation. In Section 61, it allows for warrantless trespass on a customer's property by a utility person. That's something that I'm concerned with as a privacy issue, and most of all, Section 68 it nulls and voids all current progressive net metering programs established by public power districts such that if this bill is enacted in its current form, the programs that are in place by LES or Norris or NPPD would have to be forfeit for the conditions that are set forth in this bill. And like I said, I vacillate between neutral and opposition. I am obviously for net metering as I testified earlier. If this bill is to go forward, though it needs some work. Do any of you have questions for me? [LB663]

SENATOR LANGEMEIER: Very good are there any questions. Senator Haar. [LB663]

SENATOR HAAR: Just...I'm curious, are you my constituent or Senator Langemeier's. [LB663]

STONIE COOPER: I'm Senator Langemeier's constituent. [LB663]

SENATOR HAAR: Oh, good, okay. Where do you live in Saunders County? [LB663]

STONIE COOPER: The very western edge outside of Prague. [LB663]

SENATOR HAAR: Okay, good. Thank you. [LB663]

SENATOR LANGEMEIER: Very good. Thank you for your testimony and sticking around. [LB663]

STONIE COOPER: Thank you. [LB663]

SENATOR LANGEMEIER: Further testimony in opposition? Welcome back, Mr. Hansen. [LB663]

JOHN K. HANSEN: Mr. Chairman, members of the committee, for the record my name is John K. Hansen, H-a-n-s-e-n, and I'm the president of Nebraska Farmers Union, and I reluctantly appear in opposition. We support the concept, we support the effort. This bill has provided us an awful lot of material that is food for thought and consideration, I think, as we look at this issue. I did run the traps with my counterparts in Minnesota and of course we did steal the C-BED concept from Minnesota. We are not adverse to stealing good concepts from Minnesota, have done it before. And what they said, their experience was that it was too complicated, it was not as user friendly as they thought a

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net metering policy should be. And as I look at this and I envision myself trying to explain this to average folks on how this works, I think it may well exceed my ability to communicate things effectively and the small wind dealers that we worked with...that where we looked at the two different approaches, this was really a load for them. And so if the folks who are doing this all the time are struggling with just how it is that this all works, the question that I would raise is does this become very cumbersome and an administrative burden for the REAs and the other folks who would use net metering? And if the technical people are struggling with it, how do rank and file average citizens deal with it and my concern is that it becomes so cumbersome, so legalistic that it's a bit overwhelming. And so, as most of you know, I am Norwegian mostly by background and I do have limitations and this bill exceeded my Norwegian capabilities. As I waded through it and I found sections of the bill that I was trying to figure out what applied to what going back and forth, and I just found it really unwieldy for me to make my way through it and understand it to explain it for some reason in things that we do. So of the two different bills that have been before the committee today, we obviously prefer the other bill. We thank Senator Janssen, we think this was a tremendous effort. It does have good ideas and concepts in it that I think could be picked from but we prefer something that is more simple both to administer but also simple to understand for the public in order for it to be really used as it should be used. And so with that I would end my comments and would be glad to answer any questions if there are any. [LB663]

SENATOR LANGEMEIER: Very good. Thank you. Senator Haar. [LB663]

SENATOR HAAR: As you've talked to people throughout the state and all the meetings you have done, why do people want to do this? Because I think the point has come across that it's not a good business venture, I mean, you don't invest in small generation to make a profit. Why do people want to do it? [LB663]

JOHN K. HANSEN: There really is a wide range of reasons. There are folks who are just really fascinated with the whole idea of becoming more and more independent and becoming, you know, as free as possible from the grid. They do a lot of other things in their homes and their lives to try and be as sustainable as possible. You have folks that, you know, in the case of...we have a lot of farmers that are looking at refurbished 65 kW machines out of California that are very competitively priced that they think would work nicely in their operations and they're thinking about pivot corners. We have ranchers, obviously, we have a small business who are, you know, are really technical people who have lots of ideas of innovation and other kinds of things and they, you know, they feel that this is a thing of the future. And from their standpoint it's an area of interest and they want to try to get some experience with it and think that it's going to be the future. And so there's just, yeah, you know as I said earlier in my earlier testimony a good third of the folks who show up to all of these meetings are interested in small wind. And there is just a wide range of reasons for why that is. But they are interested and they are, you know, they are wondering why we can't move forward. And so when they talk to their

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counterparts in other states and their relatives in other states, you know, they pretty quickly figure out that our state is a real hodgepodge of policy. In some cases our policy is extremely regressive depending on where they're at and so we have folks who spend a fair amount of time and effort getting ready to do this, get all excited about it. And I keep telling them when they call me up my counsel is talk to your local supplier soon, the sooner the better. Find out what their policy is, talk to them, find out how they are to work with on these things and don't spend a whole lot of time and money and effort up front until you've done that. Because depending on which part of the state you're in or which supplier you're being served by, some are obviously a lot more user friendly than others. And so, you know, if you're in one where they really don't want it to work you're going to spend a lot of time and money for nothing because at the end it won't work. [LB663]

SENATOR HAAR: Well, both Senator Janssen and I think are arguing that we need a unified policy for the state. One policy at least a minimum, you know, others may want to go above that. Do you think that's necessary, and why? [LB663]

JOHN K. HANSEN: I think it is. You know, it's a state issue. It's a state public policy issue in a public power state. And our view is if you're a public power state and you're owned by your own citizens and the majority of the citizens want to do it, we ought to be at least as inclined to reflect what it is our owners want in our public power state as other states are who are served by private sector suppliers are to their customers. In fact, we ought to be a lot more willing to try to make our customers/owners happy in our state, in our view. And so, is there going to be a huge number of these kinds of facilities come online? I don't think so. But at least if you take away the barriers and you put it on a level footing and a fair policy, you'll at least give them the option to do it if they want to. [LB663]

SENATOR HAAR: But to pin you a little bit. [LB663]

JOHN K. HANSEN: I was afraid of that. [LB663]

SENATOR HAAR: Yeah, okay. [LB663]

SENATOR LANGEMEIER: I might have to use the lights on your answer. [LB663]

SENATOR HAAR: But to pin you a little bit on that. You know, Norris Public Power has a board and etcetera, etcetera. Each public power district, each municipal, why do we need a unified? [LB663]

JOHN K. HANSEN: I think it creates some real inequities depending on which district you happen to land in and you know, the economic and the fiscal consequences of this issue are so small that it just seems to me we ought to have a fair policy that runs

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across the state. The cost benefit ratio just isn't there to spend this much political capital and time fighting over such a small amount of change, in my view. [LB663]

SENATOR LANGEMEIER: Very good. Oh, Senator Carlson. [LB663]

SENATOR CARLSON: Senator Langemeier. If LB436 hadn't even been offered and been on the docket today and sometimes I think after we've been here four hours certainly whoever presents second is in a negative situation. If LB436 hadn't been here today, would your testimony be different on LB663? [LB663]

JOHN K. HANSEN: It would have been tougher to be in opposition if it was the only bill up, but my perspective is tempered by the fact that I've been tracking this public policy issue for I don't know...15, 16, 17 years, something like that. And so I'm really looking to try to find public policy solutions that meet the middle ground test, that create compromise, that get consensus, that bring parties together and I...you know, so of the two bills this year, we prefer the one clearly to the second. [LB663]

SENATOR CARLSON: Okay. Thank you. [LB663]

JOHN K. HANSEN: Because of those reasons along with others. [LB663]

SENATOR LANGEMEIER: Very good. Good question. Thank you very much for your testimony. [LB663]

JOHN K. HANSEN: Thank you for your patience. [LB663]

SENATOR LANGEMEIER: I have lots of patience. Further testimony in opposition? [LB663]

TODD HALL: Good afternoon again, my name is Todd Hall, T-o-d-d H-a-l-l, vice president consumer services, Lincoln Electric System, Lincoln, Nebraska. I'll make my comments very brief. We sit here in opposition to this bill based on a couple of issues. One, renewable energy and the integration of distributed generation or customer-owned generation is not a complex issue. It's a simple issue. Net metering is a simple issue. We've proven that by our own legislation that we've done, our own policy and guidance that we put forward in the book that I presented in the last discussion in the last bill. This is not complex. What's presented in this bill is horribly complex. I sat down with my CFO and we went through the first 15 pages trying to determine exactly how we could enumerate financially what the impact would be to LES. We went through the algorithm that was presented in the text of the bill, the statute or the presumed statute. It is difficult at best. Net metering is not difficult, particularly when you look as the text represented by FERC and by PURPA. Avoided cost is represented. It's calculated, it's demonstrated, and it's shown. Seven utilities, the seven largest utilities in the state of Nebraska have to

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turn in a report to PURPA and to FERC indicating what their avoided costs are by measure for not only the current year, but five years future. Avoided cost is not a complex issue and I'd be happy to discuss it in greater detail if you so desire. The other issue happens to deal with the retail rate and the credit for retail rate. In the...as we designated earlier, the pretty picture, in that picture, about 30 percent of the average total rate for residential and for small commercial and most utilities, 30 percent has to do with energy and capacity dealing with the generation and the delivery of electricity. Seventy percent has to do with fixed cost. The avoided energy, the avoided cost is that energy and capacity of transmission and delivering the energy, the megawatt, if you will. Seventy percent has to do with the ongoing operation of the utility. When you suggest to us as a utility operations facility that you would like us to give you credit for the entire line item retail rate, that is in essence saying you want to incent and cross subsidize that one individual user 70 percent of the total rate in lieu of other people that will have to pick up the cost of that fixed cost. That fixed cost includes things such as the cost of service, mortgage payments we have to make on our power plants, on our capital assets. That is where the financial and the rate rub begins to develop for the utility. And that's why I keep saying that this is simple. It is simple, it's general finance. And that's where the concern lies in this bill. Giving away that much money whether it's three consumers or 200 or 5,000 consumers begins a road for the utility that says it's okay to give away money and cross subsidize from one class of customer when we follow a rule that says it's not. The other item I think is important is the question about incentivizing. We incent people to put in heat pumps, we incent people to change their lighting systems. We incent people to do a variety of things that is quantifiable to the benefit of the system, then therefore quantifiable to the benefit of the entirety of the community that we serve, all ratepayers. We incent them a certain amount of money because we know we have a certain amount of return on that investment. This has no return on the investment for the utility nor does it in turn have an investment for the entirety of our ratepayers. If the question is from the community, from this bill and from other bills discussing net metering that we want to incentivize and encourage the marketplace to grow and develop, then let's change the argument. Let's get out of my revenue stream and let's talk about an expense stream where I talk about an identified and quantifiable amount of money that we would offer to a consumer that says if you change your behavior, I will incent you to do something and I'll quantify that. I can go back to my board and I can go back to my entire rate-paying base group and say we've invested \$1 million and we got a return of \$3 million. That's the kind of business that we need to be in when it comes to the operation of the finance and financial prudence for our ratepayers. Because we are at the end of the day responsible to our ratepayers across the board. The other item, quite simply is as it goes to the administrative burdensomeness, we are tight in our personnel. We operate very thinly, I don't have a large number of people in my accounting group, nor do I have a large number of group of people in my rates group which would be responsible for the reporting mechanism here. That would be difficult, I'd have to add staff, which quite honestly I can't do. I can't afford to add staff because I have to keep our rates down. It is difficult for us to consider

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something that is that administratively burdensome. With that, I conclude my comments and I must say in my conclusion, you folks are super people. How do you sit here for this long. I conclude my comments and answer any questions. [LB663]

SENATOR LANGEMEIER: Questions? Senator Haar. [LB663]

SENATOR HAAR: Going back to the retail thing, let's say that LES has 12 net metering customers or whatever. Currently, with such small numbers isn't it more trouble to try to figure out what to give them for that excess? Yours is one to one, isn't it? Just simply. [LB663]

TODD HALL: Yes. [LB663]

SENATOR HAAR: Okay. [LB663]

TODD HALL: Unless it goes back to the negative net or a positive sell back to LES then it goes back to wholesale. [LB663]

SENATOR HAAR: Okay. Isn't it more trouble to figure out that wholesale and all that kind of stuff for such a small number, or can you do that quite simply? [LB663]

TODD HALL: It is part of the rate mechanism and it ties directly back in line with our efforts that we've done with PURPA for the last 30 years as well as the Federal Energy Regulatory Commission so it is in line with how we currently conduct our businesses. [LB663]

SENATOR HAAR: So for those 12 people or whatever, it did three right now. [LB663]

TODD HALL: Three, we've had three renewable energy customers for. [LB663]

SENATOR HAAR: Okay. So is it worth your time to go through all that extra stuff or you're saying you really don't have to go through extra stuff right now? [LB663]

TODD HALL: We really don't have to go through extra stuff because, again, it is part of our rate making methodology. Also, it goes back to once we establish a rate method, once we establish the mathematic behind the construction of a rate, that needs to stand time. And it needs to be something that's repeatable and not specific or personalized to any one individual that would possibly indicate that we are favoring one consumer's behavior versus another consumers' behavior. [LB663]

SENATOR HAAR: So it's kind of that chart you gave us. [LB663]

TODD HALL: Exactly. [LB663]

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SENATOR HAAR: Okay, thank you. [LB663]

SENATOR LANGEMEIER: Any other questions? Seeing none, thank you very much for your testimony., [LB663]

TODD HALL: Thank you and good night, thanks for your patience. [LB663]

SENATOR LANGEMEIER: Further testimony in opposition? Seeing none. Any testimony in neutral? Seeing none. Senator Janssen, you are recognized to close. You're doing good. [LB663]

SENATOR JANSSEN: Thank you, Chairman, members of the committee. I was maybe going to waive closing because I know you've been here for awhile but a number of things came up so why not pile on? We're all going to the same place, probably. We can walk together. I first off wanted to point out that, and I asked Senator Langemeier if my proponent could speak first because I thought there would be other people here but I did talk to several proponents, and I think Mr. Hoyer (sic) kind of made a mention that he drew the short straw. I don't want you to indicate that doesn't mean that there were several people here to support. Due to the length of the hearing before that, I told several to just go. I think a lot was said about wind energy and renewables in general that would be echoed on this bill as well. Secondly, I think we've got something pretty good here. I really do. I think we're looking at opponents that are very scared. They are misleading you. They are going to continue to do that. They'll pull you off the floor, they will continue to do that. They know we've got a lot going on. They know it's simple, it's retail. They don't want retail. They'll come to you and they'll tell you all these reasons they don't want to pay retail. I'm willing to bet in Senator Haar's former bill they didn't like the fact that they had to pay the connection fee. They probably worked to get that out, but then they did like the wholesale point because that was cheaper for them. So now all of a sudden they kind of cut both ways here in probably hopes of getting rid of them both. I believe I've got a strong bill. I haven't seen it but I believe yours is great too, I'll support either one. This one has been tried, it is true. I happen to have and I don't recall the name but one of the gentleman in opposition said he talked to his counterpart in Minnesota. I have the luxury of having a former utilities worker in my office from Minnesota that was there when this was created. I can assure you his story is quite different. Now maybe misleading one way or the other, I don't know, but it depends on who has the microphone and who is talking at that point in time. And you know, and sometimes, and I say this with a great deal of levity to kind of...Mr. Nelson was up speaking, and these are the people that we have put in control of coming up with something for net metering. It's been years, we really don't have anything and so you've got to take that into consideration when they're talking on a bill. And I would say this, it took me an hour and a half to read it and it took them a day and a half so that says something about who can move a little faster and get stuff done. It took him six

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minutes to not answer Senator Fischer's question. So I think there are some things in there that you've got to take into consideration. I say that with levity, I was...I'll probably talk to him in the hallway about that. But if you understand it, I'll go back to it's retail versus wholesale. It's pretty simple. I do not have a wind background, I do not have a renewables background. I'm sure I'm probably fairly advanced in it right now because I went through quite a bit of the studies on it. It's a good bill. The utilities are scared of it. I will be talking to you. Like I said, nobody's going to pull you off the floor. We will be talking to you in person to go over these. I'll take some of your valuable time to talk to you in your offices and give you the real deal from our perspective, because somebody needs to stand up for Nebraskans because they're not going to be the ones out there pulling us off the floor to talk about this. Because they're not paying a lobbyist out there to do that for them. With that, I'll answer questions but it's late, and I'll answer them at the bankers thing too. [LB663]

SENATOR LANGEMEIER: You're doing good. Senator Haar. [LB663]

SENATOR HAAR: And this is an inside joke, but if you notice, I added onto my bill a section that said there could be no trapping in the ditches. [LB663]

SENATOR JANSSEN: Absolutely. No picture taking in the ditches either. (Laughter) [LB663]

SENATOR LANGEMEIER: On that note, we will close the hearing on LB663. (See also Exhibit 29, 30, 31) Thank everyone for sticking around and testifying; we appreciate it. [LB663]

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Disposition of Bills:

LB436 - Placed on General File with amendments.

LB663 - Held in committee.

Chairperson

Committee Clerk