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Natural Resources Committee
August 19, 2008

[LR287 LR290]

The Committee on Natural Resources met at 9:00 a.m. on Tuesday, August 19, 2007, in Scottsbluff Room, Student Center, Chadron State College, Chadron, Nebraska, for the purpose of conducting a public hearing on LR290 and LR287. Senators present: LeRoy Louden, Chairperson; Tom Carlson; Mark Christensen; Annette Dubas; Deb Fischer; Gail Kopplin; Tom Hansen; and John Harms. Senators absent: Carol Hudkins and Norman Wallman. []

SENATOR LOUDEN: Okay, we'll start this hearing now at this time and we're from the Nebraska Legislators Natural Resources Committee and some of the Senators are members of it; some of them are visiting Senators. So I will introduce the Senators as they are seated up here at the front of the building. Standing is Senator Mark Christensen from Imperial; next to him is Senator John Harms from Scottsbluff; Senator Tom Hansen from North Platte; Senator Tom Carlson from Holdrege; Senator Deb Fischer from Valentine; myself I'm LeRoy Louden, Chairman of the committee; the Senator on my right in the blue shirt is Senator Gail Kopplin; and next to him is Senator Annette Dubas from Fullerton. Senator Kopplin is from Omaha. On my right is Mark Ludwig, committee counsel; on the far end down there is Barb Koehlmoos, committee clerk, she records everything. Sitting on the end chair there is, what did you say your name was? [LR290]

CYNTHIA MONROE: What's her name? (Laughter) [LR290]

SENATOR LOUDEN: Cynthia Monroe, and she was a native from Alliance at one time and she's administrative assistant from the office down here. With that, some of the other folks here today I might introduce while we're doing some introductions. Jay Rigenberg from the Department of DEQ and Carla Felix are here. Sitting back there, Dave Haldeman, also from the DEQ. Dave Carlson from the Chadron office from up here at DEQ. So we've got their attention anyway. The U.S. Forest Service today is

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Dennis Adams and Mike McNeil, is that correct? [LR290]

DENNIS ADAMS: Dennis is Nebraska Forest Service. [LR290]

SENATOR LOUDEN: Nebraska Forest Service, okay. And is Doak going to make it here today? [LR290]

DENNIS ADAMS: Well, he's supposed to be here. [LR290]

SENATOR LOUDEN: Okay, well good enough. We can get by without Doak for a while. Okay, with that, why those wishing to testify on a resolution should come to the front of the room when that resolution is to be heard and as someone finishes testimony the next person should move immediately into a chair close to the table to begin so they'll be ready for their testimony. The green sign-in sheets for testifiers are on the tables by the doors and need to be completed by all people wishing to testify. If you please, complete the form prior to coming up to testify. When you come up to testify, give it to the committee clerk. Do not turn the form in before you actually testify. Please print and it is important to complete the form in its entirety. If our transcribers have questions about your testimony, they use this information to contact you. If you do not wish to testify but would like your name entered into the official record as being present at the hearing there are white sheets for you to sign by the door. The list will be part of the official record of the hearing. As you begin your testimony, state your name and spell it for the record even if it is an easy name. Please keep your testimony concise and try not to repeat what someone else has covered. If there are large numbers of people to testify it may be necessary to place time limits on testimony. If you have handout material, give it to the staff and it will be circulated to the committee. If you do not choose to testify, you may submit comments in writing and have them read into the official record. No vocal display of support or opposition to the resolution will be tolerated. I'd also like to remind you that the purpose of the hearing is to gather information for the benefit of the committee. It is not appropriate to respond to what

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someone else has testified to unless a committee member asks for clarification. Also I'd ask that you turn your cell phones, either put them on silence, or whatever you want to do. The other day I was at a conference at a...a senator from another state said the way he handles it in committees is if your cell phone rings it cost you a dollar to go to the food bank and if you answer the thing, it cost you five bucks. (Laughter) So we may have to implement that some of these times. Also I see Doak Nickerson has joined us here from the Nebraska Forest Service. Also Lynn Webster from the NRD is here, and where did Dave go to? He's a member of the NRD. I thought I saw him...there he is, yeah, thanks, Dave. That's some of the people that are from some of the areas. With that, we will have committee counsel do the opening remarks on LR290 which will be the first one we will take testimony on. [LR290]

MARK LUDWIG: Thank you, Mr. Chairman, and members of the committee. My name is Mark Ludwig, M-a-r-k L-u-d-w-i-g. I'm legal counsel for the Natural Resources Committee and our first interim study up this morning is LR290. And this interim study or legislative resolution was introduced to examine the possibility of recycling construction site waste and deconstruction materials. One of the purposes of this interim study is to look at problems associated with deconstruction and disposal of vacant buildings in different communities and also trailer houses that have been abandoned or condemned in these various communities. Outside of the nuisance laws and condemnation laws that are on the books and regardless of ownership of the various structures themselves or if the real estate upon which the structures are located, the purpose of this study is to look at specifically what can be done to facilitate the recycling of these construction site materials and deconstruction of these vacated and abandoned city buildings. This interim study is also...it's not just looking at deconstruction type recycling but also construction site recycling. I don't know if we're going to have any interested parties from the construction industry here today but I know we have representatives from DEQ that are going to speak to this subject. We may have some local city and county officials that maybe will talk about their own experiences with tearing down and disposing of vacated city buildings or abandoned trailer houses on lots within the, you know, city

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limits, or in the county. We may have some recycling interests that will testify here today too as far as their interest in this subject matter. But basically, what we're kind of looking at for purpose of this study is to see what can be done in terms of incentives or education or promotion and marketing of recyclables, anything that can be done in terms of grant funding or education or whatever on the subject to do whatever can be done to make tearing down or reuse or disposal of construction site waste or deconstruction materials more feasible, more cost effective, and more enticing. So with that, unless there are any questions, I'd be happy to turn it over to, I think, representatives from... [LR290]

SENATOR LOUDEN: Questions for Mark? Seeing none, thank you, Mark. [LR290]

MARK LUDWIG: Okay. [LR290]

SENATOR LOUDEN: And a first testifier from DEQ? [LR290]

DAVE HALDEMAN: (Exhibits 1, 2 and 3) Okay. Good morning, Chairperson Louden, and members of the Natural Resource Committee. My name is David Haldeman, that's spelled D-a-v-i-d H-a-l-d-e-m-a-n, and I'm the division administrator for the Waste Management Division of the Nebraska Department of Environmental Quality. In my testimony this morning I will provide information that I hope you will find useful as you study the possibility of recycling construction waste and deconstruction materials. To begin, I would like to mention the department's role as it relates to the disposal of construction and demolition wastes. Then I will briefly touch upon a grant program that the department administers that we think has potential to further encourage and promote the recycling of construction and deconstruction materials. The primary method for getting rid of construction and demolition wastes in our state is by disposing of the materials in permitted landfills. The department administers a permit program for landfills that receive many types of wastes, including those specifically designed for construction and demolition wastes. At present the department has issued permits to 23

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permitted construction and demolition landfills across the state. In addition to the permit program, we also have a compliance and enforcement program that has a focus of ensuring construction and demolition landfills are properly constructed and operated, and to conduct enforcement actions if these wastes are illegally disposed. One of the handouts that is part of the testimony, this particular one here, this is a handout that was produced in 2005 and it provides good information on the proper disposal of construction and demolition wastes. This handout was developed as part of a supplemental environmental project for the settlement of an illegal disposal enforcement case that the department worked on. So this is a good source of information on what you can legally do to dispose of C&D waste and the different individuals, agencies, that you might want to be in contact with as you get involved in managing these types of waste. Disposal in a permitted landfill is an approved method of getting rid of a building and construction wastes, however the department is looking for ways to support and further encourage recycling and reuse over disposal. Most buildings have components like metal, lumber, block, brick, or fixtures that can be sold or salvaged for reuse or recycled into other products. We think there is a fair amount of potential to recover these materials and others, which is a better alternative to placing them in a landfill. One method to recover these materials is through the concept of building deconstruction. The concept of building deconstruction might not be familiar to some, but what it commonly means is the physical dismantlement of a building's components to recover the materials for reuse, recycling, or other waste management options. It might simply be thought of as the reverse of construction of a building or taking a building apart piece by piece. As I am sure you remember, during the last legislative session the department had an interest in revising one of the grant programs that it administers to further encourage the deconstruction concept. The bill that would have accomplished this was LB725 which made it as far as consent calendar. LB725 would have revised the Waste Reduction and Recycling Incentive Act by adding a new category of eligible grant funding to the existing program. The proposed new category would have allowed the department to award grants for reimbursement of costs to cities of the second class, villages, and counties of five thousand or fewer population for the deconstruction of

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abandoned buildings. In order to be eligible for grant funding, the recyclable content and structure of such building must be processed for recycling or reuse. The department is interested in seeing the changes proposed in LB275 pursued again. Although LB275 did not advance during the last session, the department did receive a building deconstruction related grant proposal that we were able to fund through the existing grant process. The grant proposal was from the Nebraska Center for Sustainable Construction. The proposal primarily has an educational focus on deconstruction and conservation-based new construction techniques and principles. The proposed project will provide a series of workshops and on-site seminars over a two-year period. Part of this project will include a study component that will evaluate the cost differences between razing a building and disposing of it in a landfill and deconstructing a building. One or more buildings will be selected in a community for deconstruction. A cost estimate will be obtained for the demolition of the building and that estimate will be compared to the actual costs of deconstructing the building. This grant project is one that we think has very good potential to further promote the concept of building deconstruction and demonstrate that there is potential for recycling construction waste and deconstruction materials. For background on the Waste Reduction and Grant Program, I also provided a second handout which gives you just some basic information on the legislative history to that program. In that program for fiscal year 2008 the department awarded \$5,427,500 to 140 projects from that program. The program has traditionally been used by eligible applicants for projects related to managing wastes like scrap tires, yard waste, paper, cardboard, household hazardous wastes, used oil recycling, electronics, and other similar wastes generated from households and businesses. However, the program also has the potential for increasing recycling and reuse of materials that would otherwise be disposed of in construction and demolition landfills. And that concludes my testimony and I would be glad to try to answer any questions that you might have. [LR290]

SENATOR LOUDEN: Yeah, one question I have, Dave. You talk about LB725 and you talk about LB275, now first... [LR290]

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DAVE HALDEMAN: That is a typo. [LR290]

SENATOR LOUDEN: Okay. What are we talking about? [LR290]

DAVE HALDEMAN: LB725 is the bill that was introduced by the committee last year, correct, Senator. I'm sorry. [LR290]

SENATOR LOUDEN: That was the one, okay. Okay, that was the clarification I needed. Okay, questions for Dave? Senator Dubas. [LR290]

SENATOR DUBAS: Thank you, Senator Louden. Thank you, Dave, for your information. You alluded to, in your testimony, part of the project would be looking at evaluating the cost differences between demolition and deconstruction. Do you have any idea now what those cost differences might be or is that a pretty gray area still? [LR290]

DAVE HALDEMAN: Well, we've looked at some studies that the deconstruction principles...our deconstruction is taking place in other states and a lot will depend upon the value of the materials in the building that you're deconstructing. So if you have a lot of high value materials that can be recycled or perhaps salvaged and sold, then the deconstruction approach would probably be less than just razing the building. But again depending on the structure, it could be very similar or in some cases a little higher, a little lower. [LR290]

SENATOR DUBAS: Okay. Do we have the facilities in the state to take the types of materials that would be recycled out of businesses, out of buildings, excuse me? [LR290]

DAVE HALDEMAN: It's, honestly, fairly limited. In the Lincoln and Omaha area there

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are a couple of stores that actually receive these materials and then turn around and sell it at a discounted price. And so we have a couple in the Lincoln and Omaha area. We also have entities like Keep Nebraska Beautiful and some of their groups that have waste exchange programs where people can advertise things that they might have, like, we have brick or we have windows or doors, and then people looking for those materials can go through the waste exchange program. And that's how they connect people that are interested in managing those wastes. [LR290]

SENATOR DUBAS: So in greater Nebraska we would have more of a challenge in recycling these right now anyway, than we would in the more urban areas. Thank you. [LR290]

DAVE HALDEMAN: I do believe so, yes. [LR290]

SENATOR LOUDEN: Senator Carlson. [LR290]

SENATOR CARLSON: Senator Louden. Dave, to follow up on question by Senator Dubas. The cost estimate will be obtained for the demolition and estimate compared to the actual cost. So I assume that there probably, it wouldn't be me, but there are people that can pretty readily determine on an existing building the value of what's in there rather than make an estimate, and get into it and then halfway through find out this is a lot more expensive than what we thought. I would assume there's that expertise. [LR290]

DAVE HALDEMAN: There is, yes sir. I think architects have the ability, probably some engineers and certainly people that are in the business, although there are very few. But people in the business can go through that process, right. [LR290]

SENATOR CARLSON: Thank you. [LR290]

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SENATOR LOUDEN: I was wondering, when you talk about in one of the handouts you generate about \$4 million from these source, that tire fee and then that tipping fee at the weigh site and all that, most of that money is pretty well used up isn't it between recycling tires and some of the other Keep Nebraska Beautiful programs and that sort of thing. I mean there isn't much give in there for some deconstruction money, is it?
[LR290]

DAVE HALDEMAN: Well in the...I think there is just based on my knowledge of how we've administered the programs over the years. A lot...it's a competitive grant process. A lot depends upon the number of applications that we might receive in any given year and then the quality of those applications. Environmental Trust Grant Program, we'd like to have a lot of applications, good applications, and then fund the very best as opposed to having few and funding all of them. I think, you know, having a Robust Program like that is in the best interest of the state and the citizens of the state. But the funding generation is around \$4 million this year. We awarded grants in the tune of \$5 million because we had enough really good grant projects but I think we could fit the deconstruction projects into this in some capacity. [LR290]

SENATOR LOUDEN: Then if you take in \$4 million and you awarded \$5 million, was that a carry over or where did the other... [LR290]

DAVE HALDEMAN: There was a balance of funds. [LR290]

SENATOR LOUDEN: Okay. How come that money wasn't given out the year before then, was there not enough grants applied for or did you think they weren't worthy of giving grants? [LR290]

DAVE HALDEMAN: We funded the ones that we thought were worthy. [LR290]

SENATOR LOUDEN: Okay. Then if you don't think they're worthy, then you just keep

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the money? [LR290]

DAVE HALDEMAN: The money, well, as you know, it's more complicated than that. You have the fund and then we have a certain spending authority. But yes, that kind of fund may have a balance at different points during the year. [LR290]

SENATOR LOUDEN: How much of a carryover do you usually have in that fund from one year to the next? Do you usually have \$1 million carryover? [LR290]

DAVE HALDEMAN: No, we don't. I think the balance that we had has been a balance that has been slowly accumulating over a number of years, a period of years. [LR290]

SENATOR LOUDEN: Okay, then, I guess that leads to my next question. Should there...does there have to be some additional funding if we do some type of a deconstruction grant program in there? [LR290]

DAVE HALDEMAN: I don't believe so, but again it would depend upon how much you wanted to fund for deconstruction. With LB725 we envisioned just making this another eligible category. As you know, there are many eligible activities you can do in that particular grant program but it was just an additional category. And we felt that additional funding mechanism would not be necessary to do that. The scrap tire interests, they pay \$1 fee for every new tire sold at retail. They actually set, within the senators that developed that law, actually set a priority of \$1 million going to scrap tire projects. So they focused it, they were part of a fee structure, and they focused it and said, you know, we want \$1 million to be prioritized to scrap tire projects, but... [LR290]

SENATOR LOUDEN: Then at the present time your entire funding then comes from the tire fee and a tipping fee at the land fills? [LR290]

DAVE HALDEMAN: And the business fee. There's a fee on businesses if you sell a

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certain amount of... [LR290]

SENATOR LOUDEN: Oh, okay. What about the environmental trust. Do you get any money from them for any of this or do the people have to apply for a separate grant to get money from the environmental trust? [LR290]

DAVE HALDEMAN: The environmental trust is a completely separate program that our agency doesn't administer. So yes, they have their own grant process that if you wanted to apply for a grant, you'd go through them. [LR290]

SENATOR LOUDEN: In other words, I guess these would be the three things that would fund this deconstruction or fund any of it would be the three that you outlined in the incentive program. [LR290]

DAVE HALDEMAN: Right. The Waste Reduction Grants Program, that fund is funded by those three fees, if you will, and so yes, we would propose to...under LB725 it was proposed that it would be that fund that receives those fees that would be eligible for deconstruction projects. [LR290]

SENATOR LOUDEN: Okay, thank you. Other questions for Dave? Seeing none, thank you for your testimony, Dave. [LR290]

DAVE HALDEMAN: Okay. Thank you, Senator. [LR290]

SENATOR LOUDEN: Next testifier. [LR290]

SPIKE JONES: Good morning. [LR290]

SENATOR LOUDEN: Good morning, Spike. [LR290]

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SPIKE JONES: I represent the city of Rushville. We have had considerable amount of problems with derelict buildings. [LR290]

SENATOR LOUDEN: Can you spell your name for us, please? [LR290]

SPIKE JONES: S-p-i-k-e. [LR290]

SENATOR LOUDEN: Okay. [LR290]

SPIKE JONES: J-o-n-e-s. [LR290]

SENATOR LOUDEN: Okay. Thank you. The clerk needs that for her... [LR290]

SPIKE JONES: Oh, I'm sorry. [LR290]

SENATOR LOUDEN: Go ahead. [LR290]

SPIKE JONES: We are attempting to remove as much of the...as many of the derelict buildings as possible not only because of the eyesore, health hazards, but there are people that will exist, not live, in these when they're forced to. The income, the low income people will attempt to survive in some of these shacks that are absolutely unsafe and unfit for human occupation. So we have been trying, and it's a very difficult proposition, our problem seems to be money. I consulted with the local trailer sales people and they have attempted on their own to dispose of some of the derelict trailer houses. Their labor costs run from \$200 to \$300 per unit and then they have the ashes, they can burn part of it. And, of course, most of them are made of aluminum and they can recycle the aluminum but it isn't enough to offset the cost of demolishing it. Then they can burn the framing and then haul the ashes off to the landfill. Recently we bought a derelict building on the highway. It's an old stucco building, it was an old business building known as the old coffee building and we contracted it to have it demolished. We

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would have liked to had it recycled but he said the cost would be several times what it would take to demolish it, and he's going to demolish it and haul it to the landfill. Just the demolishing will cost us \$7,200.00. We already had the contract and if...now that's for the demolishing and depending upon where we have to haul it, whether or not there will be additional cost. If we can just take it to the local dump and they'll haul it up here which they have said they would because of the city's entity. But if we have to bring it Chadron, then the cost is going to be considerably higher. A number of years ago a private party demolished a family dwelling and at that time they were able to bury it on private property and the cost of this private dwelling ran...to demolish and bury it cost about \$3,000. The bottom line here is money. We have been buying property which comes up on tax sale if nobody else wants it, we're giving the minimum amount, actually \$10.00 and then trying to clean up the buildings. On some of them, the fire department can use them as a training exercise. But this does not, this does not come in any way as far as recycling is concerned other than those that are concrete or that are stucco we have had a cement concrete recycling program in which anything that we can separate, any concrete, any stucco, we have brought in a crusher in the past, obtained a grant and this was recycled as gravel. And it worked very well. The problem at the moment, of course, is getting, for example, the trailer houses and the other houses if we are to attempt to recycle any of the material, to get the money because the expense is several times as much to recycle it as it is to utterly destroy it. Anyone have any... [LR290]

SENATOR LOUDEN: Okay. Thank you, Dave. Questions for...or Spike, I mean, sorry. Questions for Spike? Senator Carlson. [LR290]

SENATOR CARLSON: Senator Louden. Spike, who do you represent? [LR290]

SPIKE JONES: City of Rushville. [LR290]

SENATOR CARLSON: Okay. What's your position there or you just... [LR290]

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SPIKE JONES: I'm the mayor. [LR290]

SENATOR CARLSON: Okay. Okay. So your testimony gets down to the practical problems here and I'm sitting here thinking, you know, what really is the comparison of cost but your experience is, it's a lot more expensive to recycle than to demolish but demolishing is still a problem. [LR290]

SPIKE JONES: Yes. Originally on the old coffee building we had hoped that he would be able to give us a bid whereby the material could be separated and the usable could even, you know, taken to the dump and piled in a place where people could utilize it. But the labor cost run so high that, well, we didn't obtain a grant for this. This is coming out of the city coffers and we're trying to get by at the least expense to the taxpayer that we can. [LR290]

SENATOR CARLSON: And these are properties where the owner doesn't have any resources or has just left it and is gone? [LR290]

SPIKE JONES: Well, he wouldn't even pay the taxes and the...we did one house, the owners gave us permission to dispose of it. We haven't done it yet but the others we have bought and are still buying, whatever comes up. As a matter of fact, we give \$10.00 a property just for the sake of legality and then we can go in and do whatever we can...you know, the legality of these things. I believe the environmental quality, I think they have some new regulations relative to burying this type of debris so that it can't be done, at least to my knowledge. It has to go to the landfill and this, of course, is costly because our landfill is something...about, well, I think the landfill from here is 15 miles and we're 33 miles on top of that so it's a considerable cost. [LR290]

SENATOR CARLSON: Thank you. [LR290]

SENATOR LOUDEN: Any other questions? Have you applied for any grants or anything

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like that to, you know, the testifier before talked about the grant funding and stuff, has Rushville applied for any grants to do any of that and what has been your success rate? [LR290]

SPIKE JONES: No, we have not. As a matter of fact, I wasn't even aware of the fact that there was money available for the demolishing of it. And I don't know, I should have asked at the time but I don't know whether this applies to trailer houses, whether recyclable material from trailer houses qualifies for a grant. I didn't ask that. [LR290]

SENATOR LOUDEN: Well, yeah, at the present time that I don't know either that's the reason we've brought this forwards to see if it has to be expanded and some work has to be done. But I was just curious, since you've been doing some of that, if you've applied for any money from environmental trust or... [LR290]

SPIKE JONES: No, we haven't. No. we haven't. [LR290]

SENATOR LOUDEN: ...and how easy that is to get money out of there because as they testified, that they think there's enough money in there without going for some other source of funding and I wonder about that. When you talk about anywhere from \$700 to \$3,000 to demolish something, it goes through some grant money pretty fast when you look at the state of Nebraska all over so I'm... [LR290]

SPIKE JONES: Well, my opinion is that with money, for example, the old coffee building, I think there is considerable amount of salvage involved if there was some up front money but, of course, the contractor doesn't want to risk it and we thought that...well, two things of course, expediency and cost. We need to get some of these buildings out of the way. We bought an old apartment complex which was a stucco building and it's a definite health hazard and we need to get it demolished and get it out of there to alleviate the health problem. And as you probably know, most of those grants take time. And it seems rather odd, we always have application in to get a grant to build

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houses or improve them, refurbishing loans and grants. I guess, it seems odds for us to be working both ends of it at the same time, trying to build them and trying to tear them down at the same time, so. [LR290]

SENATOR LOUDEN: Well, everything has a life span, I guess. [LR290]

SPIKE JONES: Yes, unfortunately, many of these we are dealing with have lived their life. It's done and unlike with automobiles, there isn't a market for them, you know, without the labor. Right now, I understand, that there's no excuse for derelict automobiles to be on the street because they're giving, I've heard, above \$100 a piece to just haul them off, but trailer houses, nobody wants them. And that's our biggest problem, is trailer houses. And we have, between the local sales representative and the city, we have probably in excess of 100 unusable trailer houses, and in a town of 1,000, I think that's a bit excessive. [LR290]

SENATOR LOUDEN: Yeah, it is. Other questions for Spike? Seeing none, thanks for your testimony. [LR290]

SPIKE JONES: And I thank you for the opportunity. [LR290]

SENATOR LOUDEN: Next testifier. [LR290]

DEB DOPHEIDE: My name is Deb Dopheide and I'm director for Keep Alliance Beautiful in Alliance, Nebraska. First off, let me thank you for coming out to western Nebraska and giving us an opportunity to speak with you about these bills. [LR290]

SENATOR LOUDEN: Can you spell your last... [LR290]

DEB DOPHEIDE: Pardon me? [LR290]

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SENATOR LOUDEN: Spell your last name, Deb. [LR290]

DEB DOPHEIDE: I'm sorry. Deb, D-e-b, Dopheide, D-o-p-h-e-i-d-e. Do you need me to do that again? [LR290]

BARB KOEHLMOOS: I got it. [LR290]

DEB DOPHEIDE: Okay. I came here today to speak in...to encourage you to go again and pass LR290 for a couple of different reasons. One, I've never understood why we put things into a landfill that can be reused. I just don't get it. That seems, well, quite frankly, stupid to me. So that's the first thing I'd point out. The second thing I would point out is that it comes down, a lot of this is coming down to money and can we afford to do this, that kind of thing. I would tell you to look a little further. One of the things that I've been hearing about is that Nebraska is dropping in population and certainly we're dropping in population in small towns. Okay. So we have our fellow from Rushville here and he's got a problem with empty buildings. Okay. He's also got a problem with trying to rebuild his town and keeping people coming to his town and new businesses coming to his town. New businesses do not like to see messy towns. They are very happy to come in and they are very happy to come to towns that look well taken care of, clean, neat, that's the kind of thing businesses like to see because if they are going to live there and other people are going to live there. So for me, this is part of the economic recovery of Nebraska. Now, I'm going to heart tug you a little bit because that's my job. All right. Years and years and years ago, when I was about 13 or 14 years old, my parents who were depression people decided they wanted to build a new house. Unfortunately, we weren't very wealthy people but we had lots of kids in my family, there were seven of us. And, of course, that's a free labor force for my parents. So my parents drew on a little piece of paper this home that they wanted to rebuild. My mother gave this to my father said, don't forget the balcony and said, go to it. My father then took all of us and started bidding on jobs where he could find construction materials that he could use to build this home. This is a brick that came out of Hyannis. It was a natural

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platform brick that was along the railroad, a railroad platform brick. It was one of the jobs that we went down, we dug up all these bricks. I can teach everyone of you Senators how to clean a brick if you're interested and be happy to. And we dug up that whole platform of bricks. My father took them and he used them in the back patio of this home. We tore down school houses, we tore down hog pens. We tore down just about everything you can imagine in order for Dad to get what Dad needed to build this home. A lot of the things that he wanted to reuse were beams, big, heavy, strong beams that they don't make anymore. And he wanted his wood to be absolutely perfectly level and straight because that's the kind of home he wanted to build. As you go down to Alliance, I would suggest that you drive through Berea, Nebraska, which is a little town in between Chadron and Alliance and go down to 409 Pearl Street and take a look at the mansion that they built. Now, I will tell you that I don't like cleaning brick any more. I will tell you that I'm not real crazy about tearing down hog pens, never was. But I will also tell you that my parents taught me to reuse things and to recycle things and I think it's something that we need to continue on and that we need to teach our children and that we need to encourage in our state. That's all I have to say. [LR290]

SENATOR LOUDEN: Questions for Deb? Senator Fischer. [LR290]

SENATOR FISCHER: Thank you, Chairman Louden. Thank you for being here, Deb. You'll be happy to know that the home that I live in, it's fairly new but the bricks came from an old monastery. We have used bridge girders and bridge beams and even our sinks came from, well, I hate to put this on record, but they were in the trash behind restaurants (laughter) that were remodeling, so we have stainless steel huge countertops and sinks that came from there. And it can be done and it can be very nice. [LR290]

DEB DOPHEIDE: And it can also be very reasonable in terms of the cost to the consumer. [LR290]

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SENATOR FISCHER: Thank you. [LR290]

DEB DOPHEIDE: You're welcome. [LR290]

SENATOR LOUDEN: Other questions? Senator Carlson. [LR290]

SENATOR CARLSON: Senator Louden. Deb, I appreciate your testimony this morning and this isn't meant to be critical when I say this or when I ask you this, how many grants did your father apply for to get this job done? [LR290]

DEB DOPHEIDE: My father did not apply for any grants because he had all these children to do all this work for him. However, I can guarantee you that had my father been aware of a grant program he would have been there. (Laughter) [LR290]

SENATOR CARLSON: And you'd have helped him find it probably. [LR290]

DEB DOPHEIDE: I would have helped him find that, that's part of my job now. [LR290]

SENATOR CARLSON: Okay. Thank you. [LR290]

DEB DOPHEIDE: But my point...if I can just...because I have the feeling that you're saying to me, is a grant program really necessary? And what I'm telling you is, yes, it is. Because the properties that he was tearing down were private properties. The cities owning all of these properties that wasn't a problem. That's just becoming a problem the last, I see, about the last 10 to 15 years. [LR290]

SENATOR CARLSON: Well, I'm also meaning to compliment the work ethic that you were taught. [LR290]

DEB DOPHEIDE: Oh, thanks. (Laughter) Kind of wish Dad hadn't done quite such a

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good job on that, but thank you. [LR290]

SENATOR LOUDEN: Other questions for Deb? When you mentioned this, oh, by the way since you're from Alliance, do you recognize that brick house that's what, northeast of the court house right there on the corner? [LR290]

DEB DOPHEIDE: Yes. [LR290]

SENATOR LOUDEN: Used to be Scoggins house. [LR290]

DEB DOPHEIDE: Yes. [LR290]

SENATOR LOUDEN: You know where the bricks came from for that house? [LR290]

DEB DOPHEIDE: No. [LR290]

SENATOR LOUDEN: Emerson school, when they tore it down. [LR290]

DEB DOPHEIDE: Emerson school, that could be the original Emerson school? [LR290]

SENATOR LOUDEN: Yeah, the bricks. [LR290]

DEB DOPHEIDE: Yeah, that could be. [LR290]

SENATOR LOUDEN: The whole house was built out of the bricks left over... [LR290]

DEB DOPHEIDE: I don't doubt that. People reused and they reused a lot and I just...what I'm saying is, we need to do that again. We need to get back into that and if it takes a state grant to help us do that, let's do it. [LR290]

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SENATOR LOUDEN: What I think, to me, the point that I get across from you is the fact that it takes cheap labor to make it work. [LR290]

DEB DOPHEIDE: Well, it takes cheap labor or it takes volunteers. [LR290]

SENATOR LOUDEN: And this is where our either grant funding or we're going to have to take them out of the jail and make them reclean the bricks or whatever you want to have for cheap labor but we got to have some money someplace to make the thing work because not everybody has seven kids. [LR290]

DEB DOPHEIDE: Exactly. And if we don't have a grant program, we can't do it. And, you know, I look at Habitat for Humanity as a perfect example of what's going on in Alliance. Possibly Habitat for Humanity would want to help us with something like this. I don't know that. I'm guessing but there are people who will want this kind of material to use and so I'm saying let's do it. By the way, for anybody who is near Humboldt, this is where this brick came from, was Humboldt, Nebraska. [LR290]

SENATOR LOUDEN: On your...you apply for grants and stuff and some of the testimony was that there's probably enough there. What's your opinion, is there enough money available if we go into something about decommissioning, as I would say trailer houses, for a better word, will... [LR290]

DEB DOPHEIDE: You know, I am going to trust the Nebraska Department of Environmental Quality to tell me that they know how much money there is there. I'm going to trust them to tell me that yes, there is enough money there, and that we're not going to have to increase that amount. I'm going to trust them because, quite frankly, I don't know that answer. [LR290]

SENATOR LOUDEN: Do you have enough money for your scrap tire program? [LR290]

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DEB DOPHEIDE: Oh yeah, we do fine on our scrap tire programs. [LR290]

SENATOR LOUDEN: Okay. You always have enough money to get rid of all your scrap tires? [LR290]

DEB DOPHEIDE: They haven't turned us down thus far. [LR290]

SENATOR LOUDEN: Okay. That's what I'm wondering is when they talk about giving out grants, and yeah, sure they give our 140 but how many did they turn down and you know... [LR290]

DEB DOPHEIDE: Well, usually, usually, you know, one of the things that we try to do with grants is just make sure that we've answered all the questions, that the answers are straightforward, that they know where we're coming from, they know what we're doing and then usually, if they've got a question, you know, there's an opportunity that they will send out any questions that any of their reviewers have to us so that if there's some question on a grant, we can respond to it. And quite frankly, we've done quite well on grants because of that. They've not...we've not had problems with NDEQ at all. [LR290]

SENATOR LOUDEN: Okay. Thank you. Other questions? Seeing none, thank you for testifying today, Deb. [LR290]

DEB DOPHEIDE: I'll take my brick back. [LR290]

SENATOR LOUDEN: Yeah, you can have your brick. Next testifier. [LR290]

PASHA GONZALEZ: Good morning. My name is Pasha Gonzalez and that's P, as in Peter, a-s-h-a, G-o-n-z-a-l-e-z, and I come in support of LR290 this morning and I come with experience from two different perspectives. One of my part-time positions is

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managing the recycling program for Keep Alliance Beautiful so I work with Deb Dopheide on that, and I have some experience and information to share with you about recycling in general and the perspective of people in the communities trying to recycle not knowing what can be recycled and in terms of construction and demolition waste. I also come to you with the experience and information as a mechanical engineer with professional experience in the design and construction industry of new buildings, not necessarily remodeling existing buildings but from a new building perspective. So first speaking to you from the recycling perspective in managing a small rural community recycling program, I've come to learn that the majority of residents within a community or an area don't want to just throw things away and sweep them under the rug. It's very easy to send things into the trash. You don't think about where it goes after that so nobody really has a visual concept of landfills. What the pros are, what the cons are, this and that, but what I do find is, I receive a number of questions from people asking, what should I do with this. And I'm sure all of you know, if you are not one of these persons already, which I am, I have things that I don't want anymore but I don't throw them in the landfill. And my basement is stacked up to the ceiling with things that I can't consciously justify throwing in the landfill but I have no other option for them, so I've chosen to hold on to them until something better comes along. And that's a perspective that I find in the communities and this goes along with your general waste and trash but also with construction and demolition that most of the time people don't want to throw things in the landfill. They want an option to take it elsewhere or to reuse it in a different way or to do something different with it than just sweep it under the rug or throw it in the landfill. And we get questions all the time for hard to recycle items. Well, I have an old toilet, what should I do with it? Unfortunately, in my program in my community, I don't have an option for them. I give them suggestions. Hey, if you're going to Denver, if you're going to Rapid City or a local or a nearby large municipality, they may have an opportunity for you should you choose to haul it and incur those transportation costs. But I do find that the majority of people if given the option, will want to do something different. And so in support of LR290, I would like to tell you that this study is important. It should be done and we need to look at ways, and if the committee can help to find

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ways or encourage groups to find ways to give residents and individuals an option for better disposal, that's the purpose and the support for that from the recycling perspective. From the new construction perspective in buildings. There is a national program called LEED, L-E-E-D, which most of you have probably heard about. It stands for leadership in energy, and environmental design. It's a program that design teams, building owners, architects, property owners, anybody who has a hand in wanting to construct a new building, may choose free will to follow this program. And the program sets up encouragement, incentives is not a good word. There is no financial payback or gain at least immediate. This program sets up encouragement that building designers or folks who are involved in this team can be a leader, use this program, and choose to salvage materials from construction sites, whether it be their own or somebody else's and incorporate them into their new construction. And it saves natural resources. There's encouragement for that particular line item. There's also encouragement for another line item to utilize recycled content products. It lends itself to closing the loop. If you are going to recycle materials, you should buy recycled. This particular line item says, buy recycled. Buy carpet for your new building that is made from recycled materials, recycled content. Use OSB board that has recycled wood chips things in it. It doesn't matter what the particular furnishing or material is, but it will encourage you and you get points in this program when you use these things and document it appropriately. The challenge for this program doesn't always come for the building owner or the architect. It comes for the contractors and a lot of what we're talking about today is focusing on who is going to actually do this for us. Well, it's the contractors. And we can say, you've got grant incentive money to help you cover the cost for this but where does the labor come from, where does the experience come from? And I think one of the questions earlier was, is there an outlet for this stuff once it's chosen. We will recycle, we will reuse it or we will divert it from the local landfill. The labor force needs to be educated. You need to have someone that goes into an existing building site or demolished building site and says, yes, this has some value in some way and I think this was addressed earlier as well. So you need to have an educated reviewer, contractor, whoever that goes in and says this can be reused. This is of this value to

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either buy it from you or it's of this value to replace what we would purchase new and harvest virgin materials for. You also need an outlet for these materials to go to if have a deconstruction project and there's many materials to salvage, where do you send them to? And out in these rural areas, I think Senator Dubas talked about this, where do we send these to in the rural areas? There's an opportunity for economic growth in establishing a new business in this way. This is where my experiences cross over from the building design component to the recycling side. As a manager of a recycling program I would like to offer the opportunity for deconstructive materials to come into my center and I can hold them as a material exchange program. Keep Nebraska Beautiful currently has a material exchange program and it's a wonderful program. I look on their web site and see materials I'd love to use for whatever projects I'm doing but I have no access to them. It's not feasible for me to drive to the eastern part of Nebraska and pick up these materials. It's actually economically better for me to buy new materials but that's only focusing on an economic component where you need to also consider an environmental component. And I hope that this study would look at a triple bottom line, the economic responsibility, the social responsibility, and the environmental responsibility. And sometimes the environmental responsibility will outweigh the economic benefits and savings you might see and that might itself push it over to say, it's going to cost us a little more but we should do it because it's better for the environmental responsibility. So would the study look for how to set up material exchange centers in central locations? I don't know. I think it's something that if NDEQ would like some recommendations on to look at that something at least in Alliance and the Panhandle of Nebraska that we would need. But I know there is interest in our area because I received requests for it or questions. Where can I take these beams that I pulled out of this old building? And also currently on one of the building projects I'm working on, refurbishing or renovating a historic building in downtown Alliance, and fortunately the property owners of this building have a very high conscience of refurbishing or salvaging or reusing materials and I can tell you from a fact that 80 percent of the materials that were pulled out of the building have been stored in their other properties that they own, or have already been sold to other people or businesses

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that are looking for materials that have been reused but are also inexpensive. We had some slat boards that you put some shelving in in this building and we sold it to three different people within the community of Alliance. We sold it cheap but it didn't go into the landfill and so that saved tipping costs on our end of things for the project. There are many other materials that we have stored in the buildings and thank God, we have large buildings to have this space but the property owners have instructed all of us on the design team and the contractors not to throw anything away without their approval.

[LR290]

SENATOR LOUDEN: Okay. Thank you, Pasha. Is there questions? Senator Christensen. [LR290]

SENATOR CHRISTENSEN: Thank you, Chairman Louden. Thank you for coming. Question, you said there's a location on Keep Nebraska Beautiful. Have you looked at setting something like that up within Alliance to try? I know Denver, my daughter is out there, Craigslist, a free place you can buy, sell materials and she's done that. And have you tried that out here? [LR290]

PASHA GONZALEZ: I haven't tried it in my region yet but it's on my goals of things to do. I've got some quicker, higher priorities right now. I'm opening a recycling processing center and DEQ gave us a generous grant this year to accomplish this task. Once I have a building set up and I can do my recycling processing, if I have enough square foot area, I'd like to install some shelves where I can start to collect materials from buildings or other construction projects where people just don't know what to do with them. It's a pretty significant fee at the city of Alliance landfill for construction and demolition waste, and so if I can offer a different opportunity for folks in our community and county to give those materials to me, but I can turn around and resell them at a very inexpensive cost, that will help to cover my operating cost or at least balance it out. I don't necessarily need to make a profit. In doing some research on recycling centers and different things like that, I traveled to Boulder, Colorado, and outside of one of the

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private waste haulers there, the county of Boulder has all of their waste disposal processes through private businesses. One of the private businesses is set up right next to a salvage yard and I think they set the salvage yard up as a county nonprofit program but it's on the land and real estate that this private hauler owns. But it's a construction demolition salvage yard where folks in Boulder County can take their stuff and donate it or sell it, if some of it done has value. And then it's just set up and it looks literally just like a junkyard kind of place, Sanford and Son. You go in through the fence and over here's some wooden, you know, makeshift shelves and you've got used wood boards on there. They've got boxes and crates full of different, you know, pipe fittings, things like this, scrap metal. Everything that you can imagine. I didn't dig through anything. We did drive by there but it's very successful in that community and the county as a whole has a consciousness of try to reuse and salvage everything that you can. It's this, you know, green environmental, everybody has been to Boulder. I'm sure you know what I'm getting at. (Laughter) But so they're very in touch with the earth there and it's a very successful business. It's something I'd like to model in Alliance. I know the desire and the need is there but I haven't had the opportunity to set that program up yet. [LR290]

SENATOR CHRISTENSEN: I guess I see it being easier rather than have a location to store stuff that if you had a list that somebody's got a tub, they can go check a list, go to that place, look at it or call, get questions on it like that Craigslist I mentioned. To me it would be much more cost economical and people would use it if they knew they could get rid of it. [LR290]

PASHA GONZALEZ: Absolutely. And I agree with you 100 percent. I think the people who would participate in something like that are the folks that have the ability to hold on to these materials for a while. They don't want to throw them away but they have a basement like mine where there's enough room to stack things up until I have a better option, until someone from Craigslist calls me and says, yeah, I'll take a look at your materials. I'll come and get them. [LR290]

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SENATOR CHRISTENSEN: Thank you. [LR290]

SENATOR LOUDEN: Other questions? Well, thank you for your enthusiasm. [LR290]

PASHA GONZALEZ: Thank you. [LR290]

SENATOR LOUDEN: And we hope it works out well for you and Keep Alliance Beautiful. Next testifier. Okay, does anyone wish to testify again on LR290? If not, oh, one more. Okay. Hurry. [LR290]

JACK NEMETH: Is it too late? Okay. Do I just put this back there, sir? [LR290]

SENATOR LOUDEN: No, bring it up here. [LR290]

JACK NEMETH: Okay. Thank you. I didn't originally intend to testify but I would just like to comment. My name is Jack Nemeth, N-e-m-e-t-h, and I'm the executive director of the Solid Waste Agency of Northwest Nebraska. We provide recycling opportunities for the communities all the way from Gordon, Rushville, Hay Springs, Chadron, Whitney, Clinton, Crawford, Harrison and Hemingford. We are also the solid waste agency. We provide collection and we also have the landfill which is 50 miles north of town. Just to commenting, I've been working for SWANN in this capacity since 2001 and it's been my experience that recycling is basically driven by cost-effectiveness. We have certain unique problems due to our location, as Senator Louden, being our representative out here, can tell you. We're sparsely populated and we're kind of remote from end markets as far as recyclable material. We recycle plastic, newspaper, cardboard, and we bale it up in our garbage baler. We clean it out and bale it up and then we have to get truckloads at a time and market it to, like Oklahoma or Denver. So we have transportation costs from this area are very high, especially at \$4.00 a gallon fuel. Plus for us, we have to run roll-off trucks to these remote communities like 50 miles in every direction and then bring our recycling bins back and sort everything by hand, pretty

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much. And what I'm getting at, I think it's very labor intensive. I'm neutral on this bill. I'd like to see recycling promoted but I think that you need to be aware of certain things, especially in our remote location like this. What works a lot of times in Lincoln and Omaha and Denver and big cities isn't quite as easy here where we're further away from the end markets. Let's see. Oh, trailer houses, currently at our landfill north of town, if it's a residence, trailer houses are kind of easy to dispose of because you can put a frame under them or they usually have axles under them. So if you pull them up there, we actually assist with our loader in knocking the trailer house off the frame and then dozing it up. And then the frames are usually taken out because they make good trailers, axles and wheels can be salvaged. If it's a commercial enterprise, I think one of the problems in Rushville that mayor Jones alluded to was, I think a lot of those trailers are sitting in a lot. It's a private dealer and you're going to have to find a home for them some day but I don't think that the people of our agency should bear the cost of a private enterprise disposing of their trailers. I think this grant money is a great thing but, you know, grant money just doesn't grow on trees. It's generated by fees as Mr. Haldeman pointed out and I think eventually what's going to happen is you'll have to raise the fees. Like our tipping fees currently are \$1.25 a ton for solid waste and probably I can foresee in the future, that those will probably increase to fund the grant funding. I just wanted to comment on those things. If you have any questions of me that I can answer while I'm here, I'll be glad to. [LR290]

SENATOR LOUDEN: Questions for Jack? You just mentioned if it's a private enterprises, they can't bring that trailer house up there and doze it off the runners, or... [LR290]

JACK NEMETH: Actually they can but we charge them a disposal fee of \$35.00 a ton for that and then, of course, we'll assist them in... [LR290]

SENATOR LOUDEN: How much will a trailer house weigh? I mean, are you talking 3 tons? [LR290]

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JACK NEMETH: 4 or 5 tons, I think. [LR290]

SENATOR LOUDEN: 4 or 5 tons? [LR290]

JACK NEMETH: Yeah. [LR290]

SENATOR LOUDEN: In other words, it's about \$140 or \$150 then to get rid of a trailer house up at yours? [LR290]

JACK NEMETH: Yeah. Of course, they need to drag it to the landfill. [LR290]

SENATOR LOUDEN: Providing they drag it up there. It's got to be "draggable" though, huh? [LR290]

JACK NEMETH: Right. Yes, sir. It costs us as much to haul this stuff like from Rushville as it does these private contractors, so... [LR290]

SENATOR LOUDEN: But, I mean for Rushville that wouldn't be feasible because you've got to get a permit every time you drag one of them things down the highway and it's got to be "draggable" and somebody's got to drag it, so if they could chop it up and bale it up where, they are they could probably haul several of them for the same amount of fee. [LR290]

JACK NEMETH: Exactly. [LR290]

SENATOR LOUDEN: Yeah, okay. Well, any other questions for Jack? Seeing none, thank you for your testimony. [LR290]

JACK NEMETH: Thanks for the time. Appreciate your time. [LR290]

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SENATOR LOUDEN: Anyone else wishing to testify on LR290? If not, seeing none, we'll close the testimony on that and we'll have testimony now on LR287, and committee counsel will open on LR287. [LR290]

MARK LUDWIG: Thank you, Mr. Chairman, members of the committee. My name, again, is Mark Ludwig, M-a-r-k L-u-d-w-i-g, legal counsel for the Natural Resources Committee. The next interim study, LR287, kind of follows the same theme of recyclables that we just heard in a certain respect. This interim study is to examine Nebraska State Forest's potential renewable energy sources. One of the things, I guess, the committee would like to do with this interim study, is look at what can be done including what is currently being done to use timber from dead or thinned out or otherwise removed trees from Nebraska State Forest in wood chip burning operations and facilities. I don't have to tell anyone in this room probably that renewable energy is becoming more and more attractive in this modern age of increasing fossil fuel cost. And so this particular subject is something, especially out in this part of the country with the Nebraska National Forest as a source of renewable energy, is intriguing and interesting especially with respect to what is already being done that we know of right here at Chadron State College with respect to their wood chip burning facility. So I think we're going to probably hear some testimony today specific to that particular operation, and there is a tour for the committee after lunch today by the Forest Service of the wood chip operations and the burn facility here at Chadron State College. So we'll probably have some testimony here today at this hearing from representatives of the U.S. Forest Service or the Nebraska Forest Service, possibly from the Natural Resources College at the University of Nebraska, as well as from Chadron State College right here regarding the chipping operations that are already being employed in this area in northwest Nebraska and the burn facility right here at Chadron State College as a specific example. Some of the questions that would be natural to ask with respect to this kind of a study is, is there a market beyond what's currently being done at Chadron State College for the forest waste in the state? Are the state forests in the state of Nebraska a

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reliable source of renewables for these type of operations, either here in this region in the Panhandle or throughout the state of Nebraska? Are there any permitting requirements that are involved, burn permits or anything like that with respect to either EPA or NDEQ? And then also finally, what can the state do or what can the Legislature do to encourage and/or incentivize this kind of renewable energy use? So with that unless there are any questions, I guess we'll... [LR287]

SENATOR LOUDEN: Questions for Mark? Seeing none, thank you, Mark. [LR287]

MARK LUDWIG: Thank you. [LR287]

SENATOR LOUDEN: We'll have the first testifier now on LR287. [LR287]

DENNIS ADAMS: (Exhibits 4 and 5) Good morning. My name is Dennis Adams. I'm representing Nebraska Forest Service and the State Forester in testimony for LR287 and also to encourage use of woody biomass as an alternative energy source in Nebraska, particularly in Nebraska. If we can get the technology to work, I actually have a power point presentation, a short power point presentation to show you. And I realize this room is not quite set up right to watch the power point, but I also have a couple of handouts. One is actually a copy of the power point presentation so that you can take notes right on the copy if you want. And there's another handout... [LR287]

SENATOR LOUDEN: Just a minute. Can you pick up his microphone there? You may have to sit down. [LR287]

DENNIS ADAMS: Okay. [LR287]

SENATOR LOUDEN: Okay. And then spell your name for us if you would, please? [LR287]

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DENNIS ADAMS: Dennis Adams, D-e-n-n-i-s A-d-a-m-s. Let's see if we can get the technology to work here. [LR287]

SENATOR LOUDEN: Oh, while we've got a little time I thought I'd mention to you, Mark here doesn't have a twitch. He's got a pesky fly there that was buzzing around all the time. (Laughter) [LR287]

MARK LUDWIG: Might have a twitch. (Laughter) [LR287]

DENNIS ADAMS: As you know, all of you are aware, I think everybody's aware now that, you know, price of oil the way its been going the last, especially the last few years, but the last 30 years or so has been steadily up. I'm old enough that I can remember when oil was \$3 a barrel and now it has hit \$140 and it has come down a little bit but it's still substantial. So that with the price of fossil fuels, we're looking at other alternative sources of energy and, you know, Nebraska is on the cutting edge for ethanol as an alternative, wind, solar, hydro, nuclear, all of these are being looked at, but wood biomass is also, should be looked at as a possibility. I think there's a lot of opportunities in Nebraska that we need to take a look at. Woody biomass is kind of one of those nice catch phrases. What we're really talking about is one of the oldest fuel sources since almost human existence. It's just wood. Wood is fuel and energy is, you know, a security issue in the United States. The demand is increasing and not only is demand increasing worldwide, you probably saw the increasing demand in China and some other foreign countries. It's also affecting our demand, and price, supply in the United States. And unfortunately, the supply or the percentage of oil that the United States gets is also increasing. And the demand is not going to decrease in the United States either so we need to really look at alternative sources of fuel. There's an emerging consensus that carbon emissions must be substantially reduced. I think everybody's heard about the Kyoto Protocol and the issue with carbon sequestration and that's going to be an important issue. And that's one of the problems with fossil fuels that wood has an advantage is that fossil fuels emit a lot of carbon, stored carbon from eons of storage

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and then it's released with burning for fuel. Rising energy costs also negatively impact rural communities. And I just was reading in the paper the last few weeks about the declining population of the rural communities and the people in some of the rural communities having a real problem commuting to some of the jobs in adjacent towns or cities just because of fuel cost. So that's getting to be more of an issue. The promise of woody biomass energy as an energy source. Wood is carbon neutral which means that as trees grow they absorb carbon dioxide and store carbon. Obviously, when they're burned they also release carbon but in effect it's kind of a net carbon neutral process where fossil fuels is burning stored energy that's been stored for eons. Wood is clean burning, reliable, and it's, I guess, the key thing is it's renewable. And which means that we can harvest, manage our forest land, harvest wood, and then that wood will re grow and we can go back in and then say 15, 20, 30, 40 years, whatever the rotation is, and reharvest off of the same area of land the forester would resource. A few comments about Nebraska grown wood. It's underutilized. A very small percentage of Nebraska forest and wood products are utilized at present. It's relatively plentiful in Nebraska considering the demand. It can be economical and it can stimulate and revitalize some of our rural communities. It brings in not only the technology to burn the wood, Chadron State College is a good example here with the personnel that run that plant, but also the people that work in the woods managing the forest, harvesting the trees, or recycling some of the waste products. Wood energy can solve problems by reducing Nebraska's energy dependence on fossil fuels that we talked about, creating jobs, and reducing forest fuels loads, and risk of catastrophic wildfires. And I think everybody in the Chadron area is familiar with the things that happened in the forest here at Chadron the last few years. It could also create markets for undesirable species. We have a lot of areas in Nebraska where eastern red cedar, Russian olive, honey locust, mulberry, some other species, are "junk" species. And they're encroaching on other pasturelands, rangelands, and woody biomass for utilizing woody biomass offers the potential or the opportunity to utilize some of this waste wood or this neglected resource as an energy source. It also, you know, removing some of the undesirable species from our riparian areas has a potential to increase our water resources in those watersheds, and creating

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more and healthier forest and revitalize communities. I guess as a forester that's one of the things I'm looking at, the real advantages of biomass, utilization as it allows the opportunity for us as foresters to actually manage the woodlands and the forest we have in Nebraska, so that we're getting a usable product and also doing the best to manage the forest lands for other multiple resource benefits, for wildlife habitat, for watershed protection, and so on. Nebraska has a very unique forest resource. I think everybody is probably aware that Nebraska is not a major forested state. We're a little over 2 percent forested and this map gives you a little indication of where the major forests are in Nebraska. We have...most of the forest in Nebraska is basically riparian forests along our major rivers and tributaries. We have, of course, this area of the state, the Pine Ridge, the Wildcat Hills and Ponderosa Pine and the Niobrara Valley in northern Nebraska. But it's about a...a relatively small but significant resource in the state and offers a lot of opportunity and potential to provide not only wood products but biomass for energy production. I guess I mentioned some of this. We have about 1.26 million acres which figures out to a little over 2 percent of the land area in the state is forest land containing 40 million dry tons of standing woody biomass. So that means all of the trees and the forest land, if you harvested all that and dried it down to dry tons, it would be 40 million dry tons. Eighty-seven percent of the forest land and the biomass is on privately owned land. Nebraska's timberland produces at least 1 million net tons of wood per year. In forestry terms that's called annual growth. So you have the forest land there, the trees are growing every year, and they're adding about 1 million tons of wood a year in addition to the residual that's already there. So not only is there a lot of residual forest there that can be utilized for biomass, but if the forests are managed properly you have 1 million tons a year that can harvest indefinitely. Nebraska's woody biomass resources in the Pine Ridge, Niobrara Valley, we're doing a lot of work reducing catastrophic, a risk for catastrophic fire. And then the process of managing those fires, forest, and reducing that fire risk, we also have thousands of tons each year that we can use for woody biomass for energy. Also there's waste wood across the state from other sources, urban sources, arborists prunings is one possibility of wood wasted now, as several people have mentioned now gets hauled to the landfills that

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could be utilized for biomass. Well, we talked...40 million dry tons. In addition, Nebraska timberland produces at least 1 million net tons of wood each year. We talked about that. Woody biomass energy and timber industry applications consume approximately 85,000 tons of wood per year currently. So there's a tremendous amount of unused woody biomass. Just 33 percent of Nebraska's annual timberland production could create approximately 38 million gallons of cellulosic ethanol each year. Cellulosic ethanol is an emerging technology utilizing wood as a source to produce ethanol. It's basically, and I don't understand the process, I'm not an engineer, but it's basically separating out the sugars in the cellulose or wood and then fermenting this, sugars into ethanol. There is an assured supply of wood in Nebraska to support strategically located woody biomass-based enterprises. Now obviously, if you remember the map of Nebraska and the distribution of the forest resource in the state, that it's not statewide. I mean, we don't have a forest resource statewide so I think the businesses, industries that would utilize wood, schools or public institutions or whatever that would use woody biomass, need to be located where it's economical to supply the facility with woody biomass or wood. This gives you an example, and I'm not going to go through these. It's in your handout there. It's some current uses of woody biomass and you're going to see one of the premier ones this afternoon with Chadron State College here. And some of you may be familiar if you stayed down at Nebraska City at the Lied Center also heats and cools with wood. One close by that's been using woody biomass for years and years is Northwest Missouri State College just in the northern corner of Missouri there. So there's a number of industries that are using woody biomass now. One of the things I recently found out was some of the alfalfa dehy plants in Nebraska, all of the alfalfa dehy plants in Nebraska use woody biomass as a fuel source and I was told by one of their operators that none of the plants would be operational if they did not use wood, just because of the economics of natural gas and other fuel resources. We have done some feasibility studies that have been completed for several other entities, Chadron State Community College, Crow Butte Resources, several of these are up in this area, of course, and Nebraska Technical College at Curtis and Peru State College have all done feasibility studies and the feasibility studies are all positive. The payback periods

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vary a little bit but the studies are all positive. I think it's interesting that Peru State College down in the southeast corner of Nebraska with an investment of \$1.1 million to the payback period of six years. Some other facilities that are interested are conducting feasibility studies and again, I'm not going through this. This just gives you a list of a few that are interested. Other emerging opportunities for wood energy in Nebraska, cellulosic ethanol--that's kind of hard to say very fast--electrical power generation, energy source for industrial applications and industrial energy products. And I think by industrial energy products what's meant there is, you know, producers that produce the chips and the biomass in usable form. One of the biggest problems with converting to woody biomass for utilizing wood for energy from public or private facilities is the up-front investment cost. And that's one of the things. I wanted to kind of give some food for thought on a possible solution to that, is that woody biomass revolving loan fund which would be available to public institutions, loans at a reduced interest rate for institutional conversion, would provide funds for some of the development costs, feasibility studies and those types of things. And then institutions would pay back the loans with savings in their energy costs if the feasibility study indicates that it's a positive process. The loan period could correspond to the estimated payback period and as loans are repaid, those would go into this revolving fund to build up a fund to be available to fund other feasibility studies or other facilities to look at wood energy. And that's kind of it in a nutshell. I'd be glad to answer any questions you may have and thank you for attendance. [LR287]

SENATOR LOUDEN: Any questions for Dennis? Senator Hansen. [LR287]

SENATOR HANSEN: Thank you, Senator Louden. Enjoyed that presentation. Could you give us a little bit of information on number one. Can you use a dead tree? Can you use a tree that's been burnt? Can you use a tree that's been sprayed, and then what is the moisture content that will work in a system like here at Chadron State or any other facility? Is the moisture content a problem? [LR287]

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DENNIS ADAMS: Moisture content can...probably somebody from Chadron State can better comment on this than I can but it depends on the type of burning facility, what type of moisture content they can use. But I know there's some processes capable of burning green wood so I'm not sure about Chadron State. I think the moisture content for Chadron State, and is Doak here? Maybe he can help me out. Do you know the moisture content? [LR287]

DOAK NICKERSON: It varies, it... [LR287]

SENATOR LOUDEN: You'll have to come here and speak at the microphone or else wait and testify, Doak. [LR287]

DOAK NICKERSON: I'll relay it. (Laughter) [LR287]

SENATOR LOUDEN: Okay. [LR287]

DENNIS ADAMS: So it depends on the facility. But you're other question, I think any waste wood or wood can be used so dead trees...here at Chadron State College they're basically utilizing chips from slash piles from timber harvest and that's all chipped up and brought to Chadron State College and like Doak was saying, I think, mixed a little bit with green wood and dry wood to get whatever that threshold moisture content is to burn at this particular facility. [LR287]

SENATOR HANSEN: And then in the ethanol production, I'm familiar with corn because they take dry corn, put water with it to get the ethanol out. Would that be a similar project with (inaudible) trees? [LR287]

DENNIS ADAMS: I really don't know much about that cellulosic ethanol production. There's actually kind of an experimental plan or and production plan in Wyoming now and I don't understand the process but it's basically breaking down the sugars in the

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wood and then that sugar is used to ferment and develop the ethanol. But I can't really comment about the whole procedure. It's kind of an emerging technology. I think there's still some bugs to work out and economics to work out. [LR287]

SENATOR HANSEN: But with the demand for ethanol, I think the trees and the other cellulosic plants... [LR287]

DENNIS ADAMS: Yeah, switch grass and... [LR287]

SENATOR HANSEN: Yeah, or I mean we need to develop that sooner rather than later. [LR287]

DENNIS ADAMS: I think that should be looked at as a possibility and I think it's the same as everything. It kind of boils down to economics, you know. What's the cost of production of using wood ethanol versus corn ethanol and some of the other ramifications too. I mean we've seen some of the ramifications with corn ethanol here in Nebraska with affect on other things that weren't anticipated to start with. I think you had a couple of other questions there but I don't remember. [LR287]

SENATOR HANSEN: That's fine. Thank you very much. [LR287]

SENATOR LOUDEN: Questions? Senator Christensen. [LR287]

SENATOR CHRISTENSEN: Thank you, Chairman Louden. Is wood readily available? Say a homeowner right here in town wanted to put in a wood burning stove, heat their home, is it available here? Do they have to go cut their own, these chips like the college uses? With your forest service stuff up here, is it available? [LR287]

DENNIS ADAMS: Well, especially in this area of the state, yeah, there's plenty. The wood resource is available. Some of the transportation and producers to actually get the

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wood product from the forest to the market is probably the question. Now here at Chadron State College, you know, the system's been in place for a number of years where we've got contractors that are going out and chipping the slash piles and delivering it right to the college. As far as homeowners, there's all kinds of possibilities for using wood for a homeowner, all from the way from traditional firewood logs to wood pallets and, you know, everything in between. And I don't know about here, I would assume there may be some firewood producers here that supply people in Chadron. [LR287]

SENATOR CHRISTENSEN: I guess my more question was, if a homeowner wanted free wood to burn, is it available or you going to have to...because Forest Service, they probably don't bring it to town. If they drive out can they pick up free chips or logs or anything this direction or is something that's tied up, has to be purchased and done? [LR287]

DENNIS ADAMS: Well, I think there's the opportunity for landowners to...most of the forest in Nebraska is on private land. So if people want to harvest trees on private land they need permission. I think most landowners would probably be willing to give the wood, especially because of all the waste wood and dead wood and things in the forest now that they'd probably be willing to let people come in and cut free. But I think in most areas of the state the wood resource is available. It's just mostly in private land ownership. Now the U. S. Forest Service, I believe, allows people to harvest, you know, maybe marks a section of the forest and allows people to come in and harvest firewood. Somebody from the Forest Service might comment on that. [LR287]

SENATOR CHRISTENSEN: Okay. Thank you. [LR287]

SENATOR LOUDEN: Senator Carlson. [LR287]

SENATOR CARLSON: Senator Louden. Dennis, one of the slides that you had, on

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payback period, Chadron, oh, this was Chadron Community Hospital with a payback period was 17 years and the up-front cost was \$443,000, but Peru State payback six years and up-front cost of \$1.1 million and that's a huge difference but a short payback period. What's the difference? [LR287]

DENNIS ADAMS: I, you know, I can't tell you for sure, Senator Carlson. There's a lot of variables. You know, it was a consulting firm that did these feasibility studies and there's a lot of variables in the feasibility studies, you know, the availability of the wood, the kind of wood, you know, the contractors available, the delivery price to the, you know, to the facility. So there's a lot of variables there and my only guess is that the cost of getting the wood to Peru State College may have been more favorable than some of the other ones that had a higher payback period. But I can't answer this specific question though. [LR287]

SENATOR CARLSON: Okay. Thank you. [LR287]

SENATOR LOUDEN: Other questions? I have a question, Dennis. You mentioned you're not familiar with the biomass process of making ethanol out of biomass and so I thought I would ask, have you done any study on, if you're making ethanol out of wood chips, what do you do with the by-product? I mean you don't feed it to cattle. Can you...do have to dry it and burn it or can you burn it over and cook your hootch or how does it work? (Laughter) [LR287]

DENNIS ADAMS: I think that's being looked at too and I think that probably the waste product from the cellulosic ethanol would probably be a fuel type of a thing, maybe pelletized, or something like that. I don't know for sure though. [LR287]

SENATOR LOUDEN: One other question. You know like Chadron State it was wood chips or natural gas and some places coal, how does wood chips compare to coal or natural gas for the BTUs? I mean, you know, like a...does it take a ton of wood chips to

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equal a hundred pounds of coal or how does that...do you have any idea of where that works out at? [LR287]

DENNIS ADAMS: I've heard that. Doak, I might call on you if you can remember this figure. [LR287]

DOAK NICKERSON: Oh man, it's...well, wood is lower. [LR287]

SENATOR LOUDEN: Give them your name, Doak, for the committee clerk. [LR287]

DOAK NICKERSON: Yeah, it's Doak, D-o-a-k, Nickerson, N-i-c-k-e-r-s-o-n, and I don't have those numbers in front of me. Everything out there is hard-pressed to beat coal. Coal has incredible BTUs. It's woody biomass and not dinosaurs like most of you are thinking. It's plant material matter that was laid down millions of years ago and succumbed to pressure and heat and it's packed tight and it has incredible BTUs, but coal is ahead of wood. I don't know what the comparison is but wood is not too far behind. Wood is comparable, I think, to natural gas in terms of BTU content. [LR287]

SENATOR LOUDEN: I see. Okay. In order to make this work there has to be some type of an infrastructure to...I mean, like you talk about pellets or something, somebody has got to pellet the thing, then you've got to have transportation to put it out to where people are going to use it or sell it and all of that, is that...is anything come close to being in place to do any of that kind of work? [LR287]

DENNIS ADAMS: In Nebraska for pelletizing? [LR287]

SENATOR LOUDEN: Yeah. [LR287]

DENNIS ADAMS: We've had...to answer your question, no, I don't think so. We've had some inquiries about, you know, pelletizing wood and there was, I can't think of the

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name up in northeastern Nebraska that was looking at doing some kind of a feasibility study on, you know, pelletizing wood. But right now I'm not familiar with anybody in the state that's pelletizing. [LR287]

SENATOR LOUDEN: Then at the present time if your going to do any work with wood chips or anything like that for heating and cooling such as Chadron State, it would probably take something like some kind of a government agency or something that has several buildings to heat and cool in order to make it feasible and to pay for the boilers and do all of that. [LR287]

DOAK NICKERSON: Yeah, certainly the reason why college campuses are ahead of the game on wood energy such as Chadron State or Peru State or the other tech school at Curtis, Nebraska, is because they have an underground steam tunnel system in place already. [LR287]

SENATOR LOUDEN: Okay. [LR287]

DOAK NICKERSON: The infrastructure's there. That's what makes it, makes it a tough sell for isolated facilities like individual school buildings or a hospital like here in Chadron as that it's not tied into an existing steam line or hot water line. [LR287]

SENATOR LOUDEN: Okay. In other words the facility has to be one that's probably had some...either a hot water system or a steam system and then in other words, that wood mass or pellets then isn't much different than the old coal stoker system. I mean, when I looked at that over there that reminded me of those old coal stokers you used to see years and years ago and works on the same principle is my understanding. [LR287]

DOAK NICKERSON: Yeah. Yeah, it's technology revisited. [LR287]

DENNIS ADAMS: Wood's just the fuel source, is all. [LR287]

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SENATOR LOUDEN: Yeah. Yeah, the technology has been there for years and years and years but they're now just improving on it. [LR287]

DENNIS ADAMS: Yeah. [LR287]

SENATOR LOUDEN: Okay. Other questions for Doak or for Dennis? Senator Carlson. [LR287]

SENATOR CARLSON: Senator Louden. Well, Doak, then for Chadron State since the infrastructure was here similar for Peru, would the payback period be similar then? [LR287]

DOAK NICKERSON: Yeah, I would think so. [LR287]

SENATOR CARLSON: Okay. [LR287]

DOAK NICKERSON: You know that would be dependent on engineering feasibility study but quite frankly, the engineering studies that we have done or in the process of doing, the studies are proven out. The studies a small hurdle to jump. The barrier right now is the up-front cost for capital investment and to build the infrastructure to tie it in. That's why we think this revolving loan process might even be a more palatable situation for getting new facilities started versus grants. [LR287]

SENATOR LOUDEN: Senator Christensen. [LR287]

SENATOR CHRISTENSEN: Thank you, Chairman Louden. Why do they use the chips over logs or things this way? I'd think you could put in a big burner with big logs. What's the advantage of chips? [LR287]

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DOAK NICKERSON: It's the age that we live in. Farmers don't harvest wheat with binders anymore, you know, with shocks and, you know, we've evolved. With industrial revolution we've...our technology has come forward, we're a mechanized society and probably the Europeans have taught us that lesson better than we've taught ourselves. And that it makes more sense in terms of fossil fuel spent to haul that stuff, to haul your fuel to town to do it, to chip it in woods, with in-woods chipping and regurgitate the tree, blow it into a form, into a truck that conveys better into a boiler system like you'll see this afternoon at Chadron State. Wood chips are easier to handle. They're not coal, like you see in big power plants. They take coal chunks and grind those into powder but the conveyance is easy that way. Firewood is different. Firewood or cord wood you actually have to handle, handle those chunks. And so we've evolved and I think what you're seeing in the European countries where they're coal firing wood with coal fire, energy plants or electrical generation, that's the operation modi because they can grind the wood chip down in a consistency of coal that's needed to fire big power plants, so.
[LR287]

DENNIS ADAMS: I think it's partially the same thing as if you see the coal trains going by, you know, what form is the coal in now. I think it's a transportation issue. And also with wood, I think it, you know, partially it's an engineering thing and that with wood when it's chipped up, you also have the opportunity for some drying there with the chips, so I think it's a transportation and maybe partially drying. [LR287]

SENATOR CHRISTENSEN: One more question. Quite often with the coal power plants they have to inject natural gas to make it burn hot enough and clean enough. Could we do the same with wood? [LR287]

DOAK NICKERSON: Yeah, they're doing that in Europe now, in Sweden, and... [LR287]

SENATOR CHRISTENSEN: I don't mean inject natural gas but replace natural gas with the wood with coal, would that work? [LR287]

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DOAK NICKERSON: Sure. [LR287]

SENATOR CHRISTENSEN: Okay. [LR287]

DOAK NICKERSON: Yeah. Yeah, European countries are 100 years ahead of us in terms of biomass technology. We've got a lot to learn from those folks. But quite frankly the reason why Europe is way out ahead is because they haven't had the luxury of cheap fossil fuels like we have for so long. [LR287]

DENNIS ADAMS: I think if fossil fuels were still \$3 a barrel, we wouldn't be talking about wood or wind or a lot of the alternatives but I don't think anybody thinks that the price of oil is going to go...I mean it will go in cycles. It cycled down a little bit right now but it seems like it's going to be high from now on with the demand worldwide. [LR287]

SENATOR CHRISTENSEN: Thank you. [LR287]

SENATOR LOUDEN: Other questions? [LR287]

DOAK NICKERSON: One thing I might mention real quick. Denny mentioned the cellulosic ethanol plant in Upton, Wyoming, just up the road. It's a small pilot project that's in operation now and they started producing their first wood ethanol for your gas tank in May. That one may not survive. There's a lot of technology coming along that's really starting to bring cellulosic ethanol up quick. But I think the important point to make and that plant, I think, in Upton is a good example. If they aren't there yet, the future cellulosic ethanol plants may be. But unlike corn ethanol where you have to fire it with natural gas to drive that corn down or to process the still to get the hootch out of it, with cellulosic ethanol, especially wood chips out of the Black Hills, the energy source is the chip, if you know what I'm saying. Not only are they drawing sugars and starches out of the wood chip, they're also firing the system with wood and wood is carbon neutral.

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[LR287]

SENATOR LOUDEN: Question I'd have Doak, when you went through all that, how many gallon of water does it take to make a gallon of ethanol if you're using wood chips? [LR287]

DOAK NICKERSON: I'm guessing...I don't know where that's at right now, but I would imagine it's probably a whole lot, not a lot different than it is with corn. [LR287]

SENATOR LOUDEN: I just wondered. I was told it takes about ten gallon and I'm wondering, where corn is down around three gallon, that's what I'm wondering. Will it take more water? [LR287]

DOAK NICKERSON: I don't know. [LR287]

SENATOR LOUDEN: And one other question. You're a scientist, I suppose. What's the difference...you remember that old wood alcohol we used to get, you know, you rubbed on stuff? What's the difference between wood alcohol and ethanol alcohol that you get out of corn? I know you can drink one, you can't drink the other, (laughter) but how was wood alcohol made? [LR287]

DOAK NICKERSON: I'm guessing it's old technology from what, when wood alcohol was first developed by the Germans. You know, the reason why...in my opinion, the reason why wood ethanol hasn't kept up in pace with other forms of ethanol was mostly because of World War II, and the Germans were on their way to developing that and then all of their scientists went away during the war. And those European countries have vast forests but they're well managed forests, they're working forests. They can't afford to let them burn up like we like to do with our woodland and they use them. And that's why I think cellulosic ethanol has got behind was back in WWII time. [LR287]

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SENATOR LOUDEN: Okay. Other questions for these boys? Thank you, gentlemen, for your testimony. [LR287]

DOAK NICKERSON: Thank you. [LR287]

DENNIS ADAMS: Thank you. [LR287]

SENATOR LOUDEN: Next testifier. You might have to write up a little green sheet, Doak, unless you're going to testify again. [LR287]

DOAK NICKERSON: Okay. [LR287]

SENATOR LOUDEN: Do we have another testifier for this LR287? Okay. Hi there, how are you? [LR287]

JIM CLYDE: Good. Senators, thanks for coming out and spending this time giving us this opportunity. My name is Jim Clyde, J-i-m C-l-y-d-e. I'm here representing Clyde Company. I'm a private forestry contractor, lobbying contractor, that's handling biomass, saw logs, and just in the last year and a half have stuck my foot into the Russian olive removal, which is another biomass opportunity there that's widespread. I think I'm in support of this bill just for the fact we've got to move ahead as a society to handle and manage our forests. It's another management tool to remove this biomass for fire fighting costs and all that and the aesthetics of it. I'd like to support Senator Louden's bill just with that fact that...and you're looking and you hear a lot of things here and the ethanol is good. I think it's on its way. You're going to tour the heating plant here at the college. That's proven technology. You can go right next door and see it. It's doable, it's being done and it needs to be continued. We're sitting here with a new hospital in Chadron being built that is not going to have a heat treating plant and we've got the infrastructure in place to do it. We lack the funding apparently from what I've heard, it's the funding to put that heating plan in that hospital. Part of this funding of research to

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see whether it works or not, we know it works. How about we need to get the funding in place and that revolving fund that Dennis brought up is a really great idea. If they're short a half million dollars to put that plant in there, instead of funding another study, let's put a plant in that hospital and study that. So I think it's real important for you guys to support and continue...and if it's a study, if that's a step to take, that's great. But the biomass removal, the infrastructure is in place or the knowledge to get that material from the woods to town to a plant is in place and is doable. And it's just a management tool for the Forest Service, the state forestry, private landowners, whatever it is, to get that, utilize that biomass. I've put tons and tons and tons of it, in my career, I've put in a pile and watched it go up in smoke. It needs to be utilized. It's an opportunity to cut fuel costs for these institutions where it's a college, hospital, or a private industry, but it's also an environmentally sound practice that it's carbon neutral if it's utilized in a burner and a controlled situation like at the college. You light it on fire out in the woods it's not a controlled situation and it is an environmental violation. So we need to look real strong at how can we utilize the tons and tons of materials that's out there. Not only is that good environmentally, it's the economics of it. It's a job, a creation for economic development in these communities and every community that has it, trees around it and a building of any kind in it, with the technology they have now, you don't have to heat a college sized campus. You can heat individual buildings. It's feasible and the technology and the equipment is there to do it with. So I am definitely in support of, from a private contractor's standpoint, I'm definitely in support of this bill. [LR287]

SENATOR LOUDEN: Thank you. Questions for Jim? Senator Hansen. [LR287]

SENATOR HANSEN: Thank you. Thanks for being here and I want to ask some questions because you're in the private sector. You're not part of the government and you're not part of the college but you are a private contractor. Explain to us just a little bit just about the physical aspect of going out there and getting a tree, chipping, from logging, the chipping, the transport, what all is involved in getting that product to the, say the college? [LR287]

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JIM CLYDE: Okay. It depends on the methods or the prescription that's there. In my case I cut the trees. I'm mechanized. I have machines that can get the trees down, drag them to one place, and in my case, in the past years I've sorted the commercial saw logs which had a value delivered to South Dakota, sorted those out. Another contractor by the name of John Hahn, that has a contract with the college, would bring in a chipping machine, feed the slash and the residue through that chipping machine, truck it to the college. That's real fast and simplified. I would, at this point, pass an invitation to any of you that would take time or have time at any point to contact me and come look out on the ground and see the process. I think it's hard to relay it in here, and you're more than welcome, and I would be glad to show you projects that I've done, projects that are ongoing and tie it to this facility. It's hard to judge this...when you go over here and look at this and the chips in that bin, what it took to do that. [LR287]

SENATOR HANSEN: Do you have to pay for the trees or do people just call you and say we've got several Russian olives to get rid of, some...? [LR287]

JIM CLYDE: The projects in the pine, and it's pine projects that I've done here. It was over in Wyoming that I did a Russian olive project. I'm sure several of you are aware of the dollars being spent down around Scottsbluff on Russian olive removal. As far as I know, the only Russian olives that have been used in a plant, they did a test run on a couple loads here at the college a year or two ago. So far there's no utilization for that short of mulch for your yard. So the process is, depending on...I worked typically on private land. I've worked here on the U.S. Forest Service. I've worked on some, with some state grant money to do...it's cost share for landowner to thin their property and do fields treatment, forestry management. So I'm hired as a contractor to do that and to produce the piles and then it's...and I'm trying to encourage and help along the process of get that slash pile and utilize it instead of just burn it up. [LR287]

SENATOR HANSEN: Did you say that Russian olives had no use other than wood

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chips for lawns? [LR287]

JIM CLYDE: It hasn't been used for heating. All that I'm aware of, that the use of it so far has been a couple test loads brought here to this college to run through the burners. I've heard a negative report on that but there's also some reasons for that. One of it was a chipped old material that was low quality when they started so I think that transferred right here to the college. [LR287]

SENATOR HANSEN: Have you ever had any experience with cottonwoods? I know it's our state tree. [LR287]

JIM CLYDE: No. [LR287]

SENATOR HANSEN: Thank you. [LR287]

SENATOR LOUDEN: Senator Carlson. [LR287]

SENATOR CARLSON: Senator Louden. Jim, you partially answered this. And I don't know, we'll find out more this afternoon. But in Wyoming what did you do with the Russian olive? That was...where in Wyoming and...? [LR287]

JIM CLYDE: Okay. Wheatland, Wyoming, is where I did it. It was a water conservation practice. It was kind of a pilot program for Wyoming to remove them. It all ties into the drainages of the Platte River. It was at Wheatland. That particular...the mulch that we produced on that ended up, they gave that to area...any landowner, whether it be for your yard or whatever. A lot of the farmers came and got it and hauled it off. They gave it to them. They thought they could market it, found out of the transportation costs they couldn't afford to market it. Gave it away to the farmers. The local farmers used thousands of tons of it, hauled it off, and they were going to use it in their pivot tracks to shore up their pivot tracks and which is a unique idea. I know Don Hahn has sold some

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in this area or in the Alliance area for that with pine. But that's where all that Russian olive mulch that I produced went to the farmers. [LR287]

SENATOR CARLSON: Well, I'm not really up on my geography. In Wyoming of Wheatland, it's on the Platte? [LR287]

JIM CLYDE: Yes. [LR287]

SENATOR CARLSON: Is that right across from the Nebraska line? [LR287]

JIM CLYDE: Close. No, Torrington, it's 70 miles north of Cheyenne. It's up close to Guernsey and Glendo Reservoirs so we're probably 30 miles from the Platte. [LR287]

SENATOR LOUDEN: Okay. Thank you. [LR287]

SENATOR LOUDEN: Other questions? Senator Fischer. [LR287]

SENATOR FISCHER: Thank you, Chairman Louden. Jim, the previous speaker mentioned that there are economic development opportunities and he showed a map of the state and it showed where our forests are and where the availability of the material is. Do you agree that there are opportunities out there? [LR287]

JIM CLYDE: Absolutely. [LR287]

SENATOR FISCHER: In the next three to five years are there opportunities out there and if so, what are they? [LR287]

JIM CLYDE: Absolutely. I think that we've got to move away from it. It's all hinging on dependency of foreign oil in this country. I can't find a negative in the fact to put in a plant like this and utilize it. It's jobs creation to collect the material, it's positive for forest

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management. It isn't...we aren't going to just clear cut anything. It's...you can utilize a lower quality tree can be used for this than you can for saw log material. [LR287]

SENATOR FISCHER: Most of the...I don't disagree with you. I support this fully but most of the areas where the timber is are sparsely populated areas. I don't see a lot of facilities being built that can use the matter that comes out of this unless it would be a plant. And it sounds like the technology is not there for these plants yet. [LR287]

JIM CLYDE: The technology is there for a heating plant. For similar, the college. [LR287]

SENATOR FISCHER: For a heating plant. I was thinking the ethanol. [LR287]

JIM CLYDE: For heating, the ethanol is different. Ethanol is coming. I believe that. I think the people that are pro ethanol are saying that it's going to happen a lot quicker than it's going to. But it takes plants like the one at Upton. I'm familiar with that one. Friends with the guy that supplies chips for that. I think it's going to have to be in private enterprise to make that work. I advocate it. I think in the interim, this plant is simple. You grind it up, blow it into a truck and haul it in there and dump it into a furnace. It's real simple. There's not a lot of science that hasn't already been done. The ethanol is evolving. There's a lot of science there that's not proven. [LR287]

SENATOR FISCHER: But we don't have a lot of facilities like Chadron State College in the counties that are highlighted on the map showing where the forests are. And the money is not there to build a lot of these facilities. Most of these communities are small. They're not going to build facilities. I mean, we see a new hospital going up here in Chadron. I think that's unusual for communities of this size or especially smaller that populate this region. I was just trying to get your thoughts on what is available as a plant that makes pellets, is that feasible? You know, that was brought up. But then you look at transportation costs on that. [LR287]

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JIM CLYDE: Absolutely. That's the fall down with pellets is you can produce it. You can transport it easier but you do have the cost. The processing cost is higher than it would be to put it in a boiler. What I come back to you with on these communities, and they're small communities, rural communities, nearly every one of them has a school house. Fuels for Schools Program in Montana is shown to be extremely positive. It's working, they're proving that. It can happen in Nebraska. It can happen anywhere there's some woodlands. Private enterprise. Make this available for heating source. Crow Butte, resources over at Crawford a couple of years ago, they did a feasibility study of producing their own electricity. Those are the kind of things I think the communities need to be educated that it's out there. Another community heating plant is a possibility. I don't have the answers how you finance these things. The whole west end of Chadron, they're building a new hospital out there that did a feasibility study for a heating plant. Why not look at broadening it out and heat the whole west end of Chadron? Every one of those, whether it be Wal-Mart or Miskimins car dealership or any of those have a heating problem, have a heating bill that's astronomical. We need to study some areas like that and heat the whole west end of Chadron with one heating plant. The people say, well, you can't transport the heat that far. The west end of Chadron, in what I've just outlined, the hospital, the senior housing, Wal-Mart, Miskimins and those stores out there, that's no further distance than you're going to see that they're heating on the campus right today. [LR287]

SENATOR FISCHER: I appreciate that. I represent 13 counties that we don't have a community the size of Chadron in it, but we have the fuel available. [LR287]

JIM CLYDE: I think the opportunities are out there and it's going to be an education process to find the technology that will fit your community. [LR287]

SENATOR FISCHER: Thank you. [LR287]

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SENATOR LOUDEN: Yeah, Jim, I must say, comment at this time, that I rode with Jim and saw firsthand how they saw some of those trees down with the machine and grabbed the tree at the bottom and saw him off and lay him over and run him through and the whole works. It was quite a process. I guess some of the questions, I wonder, when you mention about the wood chips you talk about burning them and stuff but in our area the power company is...well, they've got people down there all the time cutting trees out of their power lines and you wouldn't think out in the Sandhills you'd have that trouble. But for some reason, every tree that grows out there grows underneath the power line (laughter) and somewhere along the line he has to be trimmed. But whenever the guy comes through with the wood chips I always tell them, bring them all over because they make the best thing in the world to stop a blowout from blowing out or put in a gate someplace where cattle are tramping through because it's biodegradeable and after a few years it kind of mixes in with the dirt. I use them all the time, that and pine cones to hold sand down. So there are other uses besides burning it up but like you say, transportation gets involved. So there you have a problem. When you talk about the different areas, I mean, and you did this work done on the Platte River, I was talking to a fellow the other day, closer on down to Bridgeport, and that's what he said. They went out there and chopped the Russian olives down, put them up in a pile and burn them up. [LR287]

JIM CLYDE: Yes. [LR287]

SENATOR LOUDEN: And surely there was...well, it was cheaper than trying to chip them and do anything else with them. They just what would you say, recycled them from wood to smoke, I guess, is what... [LR287]

JIM CLYDE: The thing about there those people were successful to get the funding. There was a lot of money brought into the Bridgeport, Scottsbluff area through High Plains Weed Management Association. A lot of dollars being spent there to eradicate Russian olive, fragmities and the thistle, and what have you. They were more

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successful. They got money out ahead of, it's getting the cart before the horse. There's no market for that material so it's going to be piled, the land share of that will be piled and burned up. First of all, it's cheaper to burn it. They did a 9 mile project, you're probably aware of, there east of Scottsbluff. They made mulch with that. There just isn't a big enough market established for Russian olive mulch for gardening and landscaping so it's...if we're going to remove all that much material along the rivers, whether it be the Platte River or wherever it's at, we need to build a market for that material. [LR287]

SENATOR LOUDEN: The stuff is available. [LR287]

JIM CLYDE: A plan of some kind, yes. [LR287]

SENATOR LOUDEN: Other questions for Jim? Seeing none, thank you for your testimony, Jim. [LR287]

JIM CLYDE: Thanks, Senator. [LR287]

SENATOR LOUDEN: Next testifier. [LR287]

DAVE KADLECEK: Hello, Senators. [LR287]

SENATOR LOUDEN: Good morning, Dave. [LR287]

DAVE KADLECEK: I'm Dave Kadlecek, last name, K-a-d-l-e-c-e-k. I think I'm one of maybe one or two or three here today. I'm a private landowner in the Pine Ridge so I think I'm one of few, so I figured maybe I'd better speak a little bit today. Welcome to the good end of the state for you Senators from Omaha? (Laughter) I know he told me Gretna, but anyway that's pretty close to Omaha. What I'm going to talk a little bit about today is the fields reduction program that's been going on. We've been participating in that for several years now. I'll go back a little bit, in 1991 we did an extensive timber

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removal, logging program on our place. We took out over 350 semi loads of logs. At that time they all went to the Pope & Talbot sawmill in Spearfish, South Dakota. That's a long haul up there, 180 miles. We took those out and you look at the place and you think, well, gee, you can't hardly tell there were any trees taken out. Then I get real concerned about the fires. I guess to go back a little bit, I've been an ex-county commissioner. I'm also on the NRD board in the Upper White Niobrara and I also represent the Niobrara Basin on Nebraska's Natural Resource Commission. So I'm very interested in our natural resources in the state as well as on our own place. When we talk about, you know, removing our saw timber and stuff like that, it was a big project when we did that. We spent a couple years working with a fully mechanized harvest operation. When we accomplished that, kind of let things set for a while and then we get to talking, I get to talking with the Nebraska State Foresters, Doak, Dennis, Scott Josiah, the state forester was out here last week. You know, looking at what to do to try to reduce the chances of the...I was on the emergency management board at the Ft. Robinson fire and I know I spent every day over there at that fire trying to figure out how we were going to pay for that. When you start figuring how you're going to pay for slurry bombers, helicopters, 600 firefighters, fire departments that were on the line, you know it's an expensive operation. After the fires here two years ago here south of Chadron I guess I get the feeling, you know, those things don't need to happen. We need to manage our forests and not make them be a fuel that's ready to just explode like a can of gasoline. So I guess the only thing I can do is, I do work on things on our own place of trying to reduce that. We just completed doing 300 acres of field reduction, I think Doak says the largest single contract he put together out in this area. He said, why don't you do two or three? Let's expand that, and I took him up on it. Well, we've got a little bet going on. Right now I've probably got over a 100 piles of trees, full-length trees, that are ready to be chipped. Johnny Hahn will chip that and it will come up here to the college. He and I've got a bet of whether he thinks there's 5,000 ton. I think there's 6,000 ton of chips. That would be enough for six months use of the college up here. The cost share program that is handled through the Nebraska State Forestry is, the funding is, as I understand, part of it comes from Environmental Trust and two or three other

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various sources is made available to private landowners. To those of us that are private landowners it's a 75 percent cost share. We're looking at \$260 an acre in that area. Some of it right now is probably pushing \$300 an acre to do that fields reduction thinning. The cost involved in that include the cutting of the trees, skidding them out, and putting them in a deck, a deck being a pile of trees that's ready to be chipped. And then the chips hauled up here to the college. That cost, I'm paying 25 percent of it, our family is that owns our place. It's still a considerable cost, you know, when you take the 25 percent of the \$260 an acre, I guarantee you the cow rental and stuff like that on a years time won't pay for those costs. So we're trying to...you know, we felt it was good insurance to do that. I don't want my place to look like what these hills look like south of Chadron or over Smiley Canyon at Ft. Robinson. I'm trying to do something to reduce the chances of losing the whole place. What we get then for payment for the trees that are taken out is a buck a ton. A dollar a ton is what we're being paid for, paid...which basically comes from the college through Johnny Hahn for chipping. That is not enough. We need to keep that program going but today that fields reduction program is the only game in town. In the past, for the past since they put the chip burners in here at the college it's basically survived on by-product from logging industry. We tried to sell saw logs when we were putting together the contracts back in April to do this work on our place, just this past spring. I could not even get a bid to send saw logs. We had saw logs and I figured we'd sell some saw logs to, for part of the offset on the cost share. Well, that's, you know, was a good idea but the saw logs today are going to either Hill City, Hewlett, Wyoming, or Spearfish, South Dakota. Those three big mills are basically where the majority, and there's a little bit sawed up here locally, but if you've got a considerable amount of saw logs that need to go out, it's going to have to go up to one of those big mills. Those three mills today are owned by Diamond Forest Products. Jim Diamond is the president of that. I visited with him for quite a while here last spring. He intends to maintain a presence in this area of taking out saw logs because he does need probably more than what was supplied out of the Black Hills. It takes about 150 semi loads of saw logs a day to feed those three mills so it takes a lot of wood on a per day basis. But today, what's going on down here is basically the fields treatment

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program which is handled through the Nebraska State Forest Service. And I guess I want you to make you aware of that, right now the funding that's available on it is basically coming through the Nebraska State Forest Service, Scott Josiah's efforts and his staff to make that available to the private landowners. We certainly do appreciate that but the college, I think, here needs to be aware of that right now where the fuel is coming from for this. I guess I would support what Jim Clyde had to say earlier that, you know, I think there is certainly a place for the wood fuels, you know, whether it be schools. But it takes some...you know, it's the system that you have to have in order to put that into play of a hot water steam system makes it certainly a lot simpler to make that fly. But I think there are places where it can be done. Senator Nelson was out here last week and I know there was some discussion about having a revolving fund of some sort to help fund the capital development for whatever entity it would be that might want to pursue that. He was talking more in the terms of grants and I think that there was several people leaning on him a bit about let's look at a revolving fund that has that has that entity, received, you know, cost savings or started payback on it that then that fund could be replenished. So I'm not sure where that might be headed but at any rate, I guess, I wanted to give you from a private landowner perspective. I think we need to manage our forests a lot of more than what we have been doing in the past. There's a lot of them that are in dire need of management. When Scott Josiah was out on our place last week he wanted to come look at where we'd done the thinning. He said this is a classic Ponderosa Pine forest looking at where we thinned. He said, this is what the Plain Ridge should look like. So I was quite pleased and happy with what he had to say. The crews in there working on us, we had seven guys in there. We had two big Feller buncher machines. They weigh some 60,000 pounds apiece for cutting those trees. We took trees out. We took the uglies out. And when I say the uglies, those are the trees that's got catfaces, gall rust, forked, crooked. In other words, they're never going to make anything and all they do is take up space, are fuels for a fire, and take a lot of water. And so by taking those out we've increased our carrying capacity for cattle, we've increased the grass stand. The grass is there as soon as let the sun hit the ground. The bluegrass, the native grass, has come back. The guys that were cutting those, we did

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not mark a single tree for them to cut or which ones to save. We talked to them, Doak and I, we said, this is what we want out of here. And after I get to looking at my piles of slashes out there Doak said, hey, you didn't know you had so many ugly trees did you? I said, no, I didn't. I mean, you see crooked and all kind of misformed stuff that, you know, what those are in the chain of everything, they're the fuel for like the boilers up here at the college. And that's where they need to go. They need to be out of the forest because all they are is fuel for a humongous forest fire. And so that program we need to continue with and I'm not sure, you know, the funding for that. The college is going to need to recognize that down the road this fuel is thinning right now, is where it's at. When I talked with Jim Naimon, Naimon Forest Products, he says, I think the lumber industry will come back. You know everybody, you all know where the housing industry is at. You know, it's at the bottom. It's got to turn around and he says, I think it will but he said we could be two or three years down the road before a price will come back to make marketing of saw logs, you know, feasible again. So right now this thinning thing is kind of the game in town and I wanted you to understand that. You know, I'm really, I support it and feel it's something we definitely need to continue. So I'll let you guys shoot at me now. (Laughter) [LR287]

SENATOR LOUDEN: Thank you, Dave. Any questions for Dave? Gee, Dave, it looks like you told them about everything they needed to know. [LR287]

DAVE KADLECEK: Must have lied good, huh? (Laugh) [LR287]

SENATOR LOUDEN: Yeah, I guess. Well... [LR287]

DAVE KADLECEK: Glad to see you out in the good part of the state, you know, this is God's country out here. [LR287]

SENATOR LOUDEN: Okay. Thank you for your testimony, Dave. [LR287]

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DAVE KADLECEK: You bet. [LR287]

SENATOR LOUDEN: Anyone else wishing to testify on LR287? [LR287]

DALE GRANT: Good morning. I'm Dale Grant, that's D-a-l-e G-r-a-n-t. I work at the college here. I'm one of the vice presidents. Of course, we support the bill because anything we can do to stabilize our supply of wood chips, regardless of whether the logging is going on or thinning or fires, is helpful to us. We've tried to come up with the economic savings for us between using natural gas and wood and it's kind of a moving target, but we assume about 50 percent savings by using wood chips over natural gas. In our case we've been doing this for 17 years. It's...our uptime is very good. We don't...we have backup gas boilers if we have to go there. A couple of years ago we put in an absorption chiller system so that we can cool with wood chips. We have 21 major buildings on campus and we can cool eight of them right now with that system. We heat all 1.1 million square feet but right now, the college pays for all utilities about \$1 per square foot per year. And I would put that up against just about any cost for square foot for any public building in the state. It's just a very good rate. We figure it does save us about \$360,000 a year. Now as far as the funding for how we got our wood chip plant there was in 1990, '89 there was an Exxon Overcharge Fund where they had to pay a penalty and we participated in those funds and it was right around a million dollars at that time. The absorption chiller was a combination of the task force building renewal put up a good portion of that money. We did get some additional match from the Nebraska National Forest. It was a pass through from the federal, it was federal funds passed through but they helped us with match so we do burn about 8,000 ton a year. Just to answer some of the questions that you had earlier. Why wood chips versus the logs? If we brought in logs, the way that we feed the system is with a screw system that works very similar to an auger. It's an automated system. We don't have to touch them once they get into the pit. Computer says, here's when we need them, feeds the boilers, it's an automated system for us, so. The Russian olive project. They did not burn very well in our system. I'm not saying that we could not set the system up so that it would

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burn Russian olive, but when you optimize a burn on any particular species you're saying I need this much air. I mean you're playing around with those numbers in the boilers all the time so it would take some research to find out what that was and, of course, we would need enough of that product at any given point to reconfigure the boiler to take care of that at any given time, so. I guess I'm just here mostly, you guys had a lot of questions about what we do and I thought I might be able to help on that point, so. [LR287]

SENATOR LOUDEN: Okay. Questions for Dale? Senator Hansen. [LR287]

SENATOR HANSEN: Thank you, Senator Louden. Could you set up that boiler to say use 2x4's out of house trailers that were deconstructed? [LR287]

DALE GRANT: If they can get us clean wood. We cannot have metal in the wood. Now if they chip that wood and had a magnet and removed those things, yes, I don't think that's an issue. But we do have to have clean wood and that's also the issue with the residential, you know, products that, you know, we can't have nails going into the boilers at least slag on the inside of your burn area, so. If you can be assured it's a fairly clean product, absolutely. [LR287]

SENATOR HANSEN: Thank you. [LR287]

SENATOR LOUDEN: Any questions? Yeah, I visited this wood chip, oh, several times, but anyway you mentioned before that you couldn't use some of this burned wood up here because the moisture content was getting too low on it. Does it work better if there's a certain amount of moisture in that wood? Is it got to be moisture or does it have to be sap? [LR287]

DALE GRANT: We typically burn wood that's in the 15 to 20 percent moisture range so when they log it, they generally leave it out six months to a year. The burnt trees, where

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the difficulty there was, is the natural decomposition of the wood after it dies. It's good for about 18 months and then we lose the BTU value. And another issue is when you chip those logs and they've had some age on them, you get a lot of sawdust in there. Sawdust does not work in a boiler because you can't push air through it so we can't get a clean burn so, you know, instead of the stacks being clear and, you know, getting a clean burn on it, we get some smoke. We'll also get that with wet wood. When it's initially put in there you'll get a little bit of smoke, you know. Nothing compared to what happens when they thin and then burn them during the winter after the first snow, because we are an EPA licensed facility so we do have to meet quite a few guidelines. [LR287]

SENATOR LOUDEN: Okay. That was my next question about smoke emissions because I...is there much smoke? I never see any smoke coming out of the boiler. [LR287]

DALE GRANT: It's rare and it doesn't last very long. If you have some wet wood you'll get maybe a minute or two of a little bit of smoke. It's not like it's belching out of the system or anything. [LR287]

SENATOR LOUDEN: Now, is that smoke or water vapor? [LR287]

DALE GRANT: It is smoke. It's got a dark color to it but like I say, we're running under a license from the EPA so we have to turn in a lot of information to them and we're meeting their requirements, so. [LR287]

SENATOR LOUDEN: Okay. Other questions for Dale? Seeing none, thank you for testifying, Dale. [LR287]

DALE GRANT: Thanks. [LR287]

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SENATOR LOUDEN: Anyone else wishing to testify on LR287? [LR287]

BILL WILSON: Good Morning. [LR287]

SENATOR LOUDEN: Good morning. [LR287]

BILL WILSON: I'm Bill Wilson, B-i-l-l W-i-l-s-o-n. My family ranches here on the Pine Ridge and have for over a hundred years. And I also serve on a rural electric cooperative board, Niobrara Electric Association that's headquartered in Lusk, Wyoming, but as part of their service area serves the north two-thirds of Sioux County, of course, the northwest county in the state of Nebraska. On a personal note, 15 years ago or so we had the opportunity to harvest some saw logs off of our property and part of our desire to do that was to lower fire risk and those logs went to the Black Hills, of course. And the economics of it even then, talking about no market right now in the housing market, you have an 80 to 120 year old tree that's worth \$10 to \$20 to you as a landowner, okay. So it's not a great economic boom for you to harvest your trees. A comment on some other parts of the Pine Ridge, my first, ah-ha moment, I guess, on the BTUs that go up in smoke and so forth on a fire, was Ft. Robinson, Soldier Creek Wilderness area, and I'd like to add private property fire because it was significant amount of private property burned in that fire also. I helped a neighbor try to protect their ranching assets, cattle, fences, windmills, next door to Peterson Wildlife Area and Soldier Creek Wilderness area and we were successful. But when you fight a fire alone that and you hear that thing roar like a blast furnace for hours on end as it works its way up through a canyon, you get to thinking about how much energy is being, going up literally in heat and smoke. And that brings me to the point that it has evolved some and I'm glad it has and it will be a controversial comment, but on some state lands the management practice is, wait for the wreck and call the Governor for help. Okay? You kind of understand what I'm saying there? And we can do better than that as a society. We can have a little more forest management that on federal and state and private lands because none of that property stands alone in terms of management of a fire.

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Because a fire, like all forces of nature, floods, as eastern end of the state near and dear to this year, and other strong forces like that, have huge impacts and you have kind of minimal control over them until they reach a point where they kind of quiet down of their own accord, I swear, sometimes. If you've been around a fire you almost realize that that (laugh) they finally decide it's done. I serve on the rural electrical cooperative board and I'd like to make a point for an opportunity there. As we are in this exciting period for ethanol, wind energy, and solar, biomass certainly has a place at the table and it has some characteristics about it that are outstanding. Availability of wind is in the 20 to 30 percent area. Okay? So when you put up a wind turbine, it's just like a windmill watering cattle out there. If that wind doesn't blow, nothing happens so it's got to be tied to some other kind of power generation, gas, base load coal, whatever, water. And, of course, we're probably going to see very high gas prices, natural gas prices, for the foreseeable future. The thing that biomass in the form that timber provides is that it can be base load generation which means 24-7 around the clock. It can be disbursed which means it can be, instead of being at the central location where transmission lines scatter out, if you've got a need on a...out on somewhere on transmission where there's additional power needed and the resources in that area, biomass is in that area, you can have that base load plant there and provide electricity from the other end back a little bit and save on building heavier transmission. That's an excellent asset in times when people don't want new transmissions built across them or near them or in their backyard, of course. I guess that concludes my comments. If you have some questions, I'd like to answer them. [LR287]

SENATOR LOUDEN: Okay. Questions for Bill? When you talk about forest management on some of the state owned lands, is that state school lands, Game and Parks, or U.S. Forest Service? Which ones are you, have in mind? [LR287]

BILL WILSON: Well, (laugh) anytime you talk about school lands, of course, you get in a pretty touchy subject. And if the committee chair will humor me here a little bit, I've got a question for you for the humor of the day. Sioux County is fourth or fifth down the list on

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school lands in the state. How many counties in--and I don't have the acreage on the top of my head--how many counties in the Missouri corridor, meaning the Omaha, Lincoln, and greater area and northeast down into southeastern Nebraska, does it take to equal the acreage of school lands in Sioux County? [LR287]

SENATOR LOUDEN: Just in Sioux County? [LR287]

BILL WILSON: Just in Sioux County. [LR287]

SENATOR LOUDEN: Well, quite a few because I brought that up in the Legislature here a couple of years ago and as near as I can figure out, there aren't any school lands east of Crete, Nebraska. I think the first place we saw a school land was at Crete, Nebraska, and then as...I live in Sheridan County. I live in a township that has, has what, I think five school lands in that township. So I know what you're talking about but what I'm wondering is, on this...are they as an entity managing their school lands in the forest area? I know where the Game and Parks is because I used to visit with them quite a little on the Game and Parks and have been to Metcalf Wildlife Reserve and then I was up here by this one wildlife reserve, oh, when you had those fires in there northwest of Harrison a couple of years ago. So I know... [LR287]

BILL WILSON: Yes. Hat Creek, Thayer. Hat Creek's fire, yep. [LR287]

SENATOR LOUDEN: ...how some of them are managed. That's the reason I'm asking you, which ones you have in mind and whose operating them? [LR287]

BILL WILSON: Well, the answer if I'm not in error from the biennial report, I'll answer my quiz question first but it's 51 counties. It takes 51 counties so when we talk school land issues, I recognize that an eastern senator may not relate to it because you don't have very many school lands in the area you serve, if any at all, none near you. But out in this, in the western two-thirds of the state, it's still a significant deal in particular in the

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Sandhills west. The lands are disbursed, of course, and the board of educational lands and funds pays taxes as a private property owner now. So they pay their fire district taxes but, of course, to my knowledge they do not directly...their staff is very limited. They've got their field man, their regional manager for the different districts, if you will, because I don't know what their terminology is. And the responsibility for the surface management is mostly to the lessee, the party that leases the surface of that school section and that includes fighting fire and the volunteer firefighters that serve the community. So you can interpret that however you want but they do not have any fire fighting capability themselves. Does that answer that part of the question? [LR287]

SENATOR LOUDEN: Well, that part wasn't my question but to go ahead you gave the answer to it. I guess I'm concerned. I know how they operate. I mean, I've got the school lands all around me and all that so I know how the guy comes down and looks it over. When you say they don't have, that it's up to the lessee that isn't entirely true because if the guy that's the overseer of all of that decides that something has to be done, I've seen school lands have pieces fenced out of them and the guy paid the lease on it but he left it lay idle because he grazed it off too short. They have a great deal of control over their school lands. I'm wondering are they doing forest management on their school lands at the present time on...? [LR287]

BILL WILSON: If you'll, after I'm done here, if he will, if Doak Nickerson will come up here and testify again, I think you can get a professional straight answer. [LR287]

SENATOR LOUDEN: Well, okay. [LR287]

BILL WILSON: Because I'm...15 years ago, here's what we did. We own a scenic canyon, the back end of a scenic canyon and it borders a school land which we do not lease. The access, there's a portion of that canyon that is inaccessible for grazing but it's down in where we have part of this canyon, all right. It took an effort on a couple of our parts to go to Gildersleeve and say, look, while we're in there, we would like to

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timber some on that school land to help the forest management down in there because it's certainly the time to do it if you're ever going to do. And that's what it took to do it. It didn't come at this area level. We had to go to the top and come back down. [LR287]

SENATOR LOUDEN: I see. [LR287]

BILL WILSON: Does that answer that question? [LR287]

SENATOR LOUDEN: That answers my question. [LR287]

BILL WILSON: Okay. [LR287]

SENATOR LOUDEN: Any other questions then? [LR287]

BILL WILSON: Well, if I could add just a little bit to that. I know you've been here a long time. Soldier Creek Wilderness area. Well, yeah, Soldier Creek Wilderness area. It has a good ring to it. You know, it used to be called the Wood Reserve. That was the name of it. The Wood Reserve and my Dad said they'd rue the day, r-u-e, rue the day when they tried to store standing timber. And sure enough, if I haven't lost track of the information, 31 days after it was dedicated as a wilderness area, 90 some percent of it burned in a wildfire. That's how the fire species of pine trees, that's what happens. You can't store them. And the management plan, if it hasn't changed, on the Soldier Creek Wilderness area is to let it naturally regenerate. And I suppose in 80 years, in 250 years, it will look like it did at the start of its dedication as a wilderness area. And, all right, Ft. Robinson. To my knowledge there isn't any...there was no forest management preceded the Soldier Creek Wilderness, Ft. Robinson fire, any significant management. And, of course, early photographs will show you how greatly the population of trees has exploded on the hillsides of the scenic buttes that you see at Ft. Robinson. It's a feel good thing to me. Boy Scouts are a wonderful thing. They've come in there all these years since then and replanted a bunch of trees. It will accelerate the reforestation of Ft.

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Robinson but it's still not forest management. I'd love to hear what a Game and Parks official would say what their forest management plan is on their properties in the state. It's minimal, in my opinion. [LR287]

SENATOR LOUDEN: I agree. [LR287]

BILL WILSON: They don't want to offend. I'll be honest. Eastern senators, they don't want to offend their eastern constituency that has the concept that you don't cut down a beautiful tree. Okay? And a tree has a life cycle and you get too many of them and it's like not mowing your lawn for way too long or, you know, whatever you want to name, you know. There's a cycle there and it comes back and bites you if you don't management some, so. [LR287]

SENATOR LOUDEN: Okay. Well, thank you, Bill. Any questions? Senator Carlson. [LR287]

SENATOR CARLSON: Senator Louden. Bill, what should be done with school lands? Should they be sold? Would that answer the, help with the problem? [LR287]

BILL WILSON: Well, that isn't the subject (laugh) of this committees. They already are being sold. [LR287]

SENATOR CARLSON: Not very fast. [LR287]

BILL WILSON: No, and I'll start with that kind of interesting fact. That, you know, the staggering majority of them are in about five counties, I bet. And that would be Sheridan, Sioux, Cherry, what's south of Cherry? There's a bunch in... [LR287]

SENATOR FISCHER: Thomas. [LR287]

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SENATOR LOUDEN: Grant. [LR287]

BILL WILSON: Grant and Thomas. There's a bunch of school sections in those counties. And they are being sold and kind of...and, you know, they've got the lease on them that is seven or ten years and if you...you can call for the sale of it if you're the current lessee before the lease runs out and the board can make decisions on what properties they choose to sell. The Board of Educational Lands and Funds are doing...their number one job is to generate money for the education of the kids of the state of Nebraska. Is that a fair summary of that? Supposed to be. Okay? (laugh) It is, and if you want to ask me if I think it's equitable how those funds are used, it's so inequitable I can't believe a lawsuit hasn't gone clear to the state Supreme Court and they've had to answer the question. But it all gets back to per student population cost and all that because all of these lightly populated counties that have a lot of school sections in them, you know what that adds up to. That's staggering amount of dollars that an absentee landowner, which is the Board of Educational Lands and Funds, takes to Lincoln and redistributes. Okay. Now, if you can show me that there's investment funds for the Board of Educational Lands and Funds that match the resources that those lands generate to the Board of Educational Lands and Funds, that there's investment resources with the Board of Educational Lands and Funds separate from the school sections that provide the kind of generation of money for them to disburse that match the student population in their area, that would be a staggering sum of money. Because what happens is, I don't have the numbers in front of me, Sioux County gets...kicks out, I hate to say, because I'm going to be way off. I'm going to say we get \$9,000 of the lease money to use in our own school and I don't know what the number is that goes to Lincoln. It's, it's, I hate to say, it's a big number. [LR287]

SENATOR LOUDEN: In other words, you think the bonus bid ought to stay at home?
[LR287]

BILL WILSON: Well, you got the whole...that's a whole another issue, the bonus bid.

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(Laughter) [LR287]

SENATOR LOUDEN: Well, we won't go into that issue. [LR287]

BILL WILSON: Well, there is that issue, yeah. [LR287]

SENATOR LOUDEN: Well, we won't go into that. Yeah, we didn't come here today to discuss school land so we'll get on with this LR... [LR287]

BILL WILSON: Okay. Yeah, but can I follow up with one comment on it. [LR287]

SENATOR LOUDEN: Go ahead. [LR287]

BILL WILSON: You'll get me in trouble, you can shut me off as Chairman here any time. The Board of Educational Lands and Funds has the statutory right, and it's kind of a funny right to say when it's a government entity, to condemn a section of ground in the state of Nebraska every year. Okay? And I can't quote the number to you but it's there and they did condemn one in the past year but it's north of Ft. Robinson. And they paid a significant amount of money for it. I believe the number is \$550,000, if I remember correctly. And it borders Ft. Robinson. It has a good feeling about it because it is part of the Rocky Mountain sheep habitat, the herd that's been re-established or is established at Ft. Robinson. And you can make of that what you want but there's the issue of how is the Game and Parks managing the forest? Well, (laugh) there' where some of their effort has gone in the last year is expanding habitat and adding to Ft. Robinson really what the state controls. Okay? [LR287]

SENATOR LOUDEN: When they condemned that land, it was a school land that was condemned? [LR287]

BILL WILSON: It was. [LR287]

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SENATOR LOUDEN: And the Game and Parks condemned it? [LR287]

BILL WILSON: Yes. [LR287]

SENATOR LOUDEN: Okay. [LR287]

BILL WILSON: Yep. Leased, you know, by a private party up until that time, you know, so. Yep. [LR287]

SENATOR LOUDEN: Okay. Any other questions? Thank you for your testimony, Bill. [LR287]

BILL WILSON: Thank you. [LR287]

SENATOR LOUDEN: Although we did get a little away from the subject here from LR287. Anymore testifiers for LR287? Seeing none, then we'll close the hearing on LR287 and close the hearing today in Chadron. And I want to thank all you folks for being here, for those of you that stayed out, for being attentive. I think...did I forget to introduce Lyndon Vogt from the Natural Resources District director when I was introducing people a while ago? But anyway, thank you, Lyndon, for being here. And thank you all for your testimony today. This is how we work with the committee. We use this testimony to make our decisions. Thank you again. [LR287]