## [LB1087]

The Committee on Natural Resources met at 9:30 a.m. on Monday, February 13, 2012, in Room 1525 of the State Capitol, Lincoln, Nebraska, for the purpose of conducting a public hearing on LB1087. Senators present: Chris Langemeier, Chairperson; Ken Schilz, Vice Chairperson; Tom Carlson; Mark Christensen; Annette Dubas; Ken Haar; Beau McCoy; and Jim Smith. Senators absent: None.

SENATOR LANGEMEIER: Good morning and welcome to the Natural Resources Committee. My name is Chris Langemeier. I'm the Chairman of the Natural Resources Committee. I'd like to start off by introducing those members that are with us this morning. We have to my far left, to your far right, we have Senator Jim Smith from Papillion; then we have Senator Ken Haar from Malcolm; and then we have Laurie Lage, who is the legal counsel for the Natural Resources Committee. And then moving to my immediate right, or your immediate left, we have Senator Annette Dubas from Fullerton; and then we have Senator Beau McCoy from west Omaha, Elkhorn area. At the end of the table you see Barb Koehlmoos. She is the committee clerk for the Natural Resources Committee. She will be where you turn in your testifying sheet as we get to that and she helps us keep an accurate record of today's hearings. First of all, if you plan to testify, we need you to get one of these green sheets from the corners of the room and fill it out. And as you come up to testify, if you would give that to Barb that helps us keep an accurate record of today's events. If you're here and you want to be on the record of being in support or opposition but you don't care to testify, there's kind of a spreadsheet looking form in the corner. We ask that you put your name and information on there. You'll be part of the record as being here and having an opinion, but not testifying. We have two pages that will be helping us this morning. We first have Peter Breunig from Wahoo, and we have Paige Schreiber from Columbus that will be helping us this morning. We appreciate their help. If you have something you want to show us or give us as testimony, we ask that you have 12 copies. If you know right now you're short copies, please raise your hand and one of the pages will help you with that. Also, if you have something to show us or give to us, once you give it to the committee we will keep it. So if you have a picture or a photo you want us to see that you want back, I ask that you just show it to us from the testifier's table and allow yourself available after the hearing to have the senators look at it. But again, if you do give it to us, we are going to keep it for the permanent record. At this time we'd ask that you look at your cell phone and make sure that it's turned off or in vibrate so we don't interrupt those that care to testify. In the Natural Resources Committee we do use the light system. You get five minutes to testify. You'll see the light will come on green when you start. The yellow light will come on. That's the start of your one minute warning. And the red light will come on and we ask that you conclude and open yourself up for questions at that point. We do have two committee members joining us. We have Senator Tom Carlson from Holdrege has joined us, and we have Senator Ken Schilz, the Vice Chairman of the committee, has joined us, and Senator Mark Christensen is joining us,

so we do have a full committee this morning. With that, we will start off. We have one bill this morning, LB1087. We thank everybody. Through the cancellation of our previous hearing, we're glad you could make it here this morning. Senator Nordquist, as introducer, you're recognized to open on LB1087.

SENATOR NORDQUIST: (Exhibits 1 and 2) Thank you, Chairman Langemeier and members of the committee. For the record, I'm Jeremy Nordquist. I represent District 7 which covers downtown and south Omaha. I begin before your committee with a bill to support the development of natural gas as a motor vehicle fuel in our state. LB1087 is similar to a bill you heard last session that remains before the committee, LB587. I have provided an overview of the bill to the committee. In general, it does two things. First, it creates the Compressed Natural Gas Innovation Fund from which grants would be made to support the development of a CNG infrastructure investment along the I-80 corridor. And it also creates a Natural Gas Fuel Board modeled after the Ethanol Board. I know I don't need to convince this committee certainly that our state and our nation's interests...it's in our state and nation's interest to become more energy independent. Natural gas can help us do that as an abundant, domestically available source of energy. In recent years, 80 to 90 percent of the gas used in the United States has been produced here at home in North America. And I know I don't need to convince you that the price we're paying at the pump is too high and that Nebraskans certainly could benefit from alternatives to get from point A to point B. As you'll see on a sheet about...a summary sheet about natural gas, it says that on average prices have been 40 to 45 percent less per gallon equivalent over the past 15 years. What we're grappling with fundamentally in the state, though, is the problem of kind of the chicken and the egg here. First, the question is, do we address infrastructure, or do we try to incentivize demand from consumers and businesses? Obviously, gas stations don't want to invest in the infrastructure until there are enough motorists using natural gas vehicles to justify the investment. And businesses and consumers are hesitant, obviously, to invest in vehicles unless there's a place to fill them up. We, obviously, have a significant opportunity here with the I-80 corridor running through the heart of our state to play a major role in the promotion of natural gas as a motor vehicle fuel in the interstate commerce between Chicago and Denver. We now have public fueling stations in Omaha and Lincoln. Other states are moving forward also. Colorado has 13 public CNG stations; Wyoming, four; Kansas has two; and Missouri has one as of right now. And lowa, they have one and they're in the planning stages of several others. It's my hope that we can develop a policy that will help incentivize the development of natural gas along our I-80 corridor, providing options for individuals and fleet drivers to fill up on the routes to Denver or Chevenne and to essentially make I-80 a natural gas vehicle corridor. Under this bill, LB1087, grants from the fund would be capped at \$200,000 and eligible entities would have to pay at least 80 percent of the project cost, so they could receive up to 20 percent of the cost up to \$200,000. And the projects must be approved within a mile of the I-80 corridor, and in the first five years of the program, no county would be able to get more than one grant until we get kind of a capacity built up in

## Transcript Prepared By the Clerk of the Legislature Transcriber's Office

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several counties. A key difference between this bill and the bill I brought before you last session is that this bill, the funding would be administered by the Energy Office rather than the Department of Environmental Quality. I think it's more in line with the Energy Office's vision and mission which is to promote the efficient and economic and environmentally responsible use of energy. Another key difference is there is not a specific funding source in this bill. Last session, LB587, drew money out of the LUST Fund which had an unencumbered balance at the time of five to five and a half million. There was hesitancy on the part of this committee in opposition that were concerned about using those funds for this purpose. So I left it open-ended, which would likely mean the fund would have to receive money appropriated from the General Fund. And I didn't put a specific dollar amount in statute either. That would come in the form of an A bill. Those of you that served with Senator Chambers would know he often harped on senators that would put a specific dollar amount in statute because that cannot bind future Legislatures' appropriations decisions. Those are made through the budget, not through what's specified in statute. So, basically, I'm putting the idea on the table and asking the committee, if you think it's a good idea, to decide how much you think we should make in an appropriation. And finally, the Natural Gas Board that we set up is modeled after the Ethanol Board. Obviously, members that produce corn and wheat probably don't belong on the Compressed Natural Gas Board so we tweaked the membership, in an appropriate way, but certainly am open to that discussion as well. And it really models after the Ethanol Board, which when that bill was passed in 1993, it said the Legislature recognizes that a fuel crisis is pending in the nation and that the development of an additional source of fuel will provide energy and environmental benefit to the citizens of the state and the future economic growth of Nebraska. I think that's very similar to what we're talking about with this. So, you know, fundamentally, I think as we look at our challenges and the cost of fuel as...for transportation fuel is rising, there certainly isn't a silver bullet that's going to solve our problem. We need an all of the above approach from additional alternatives like ethanol, renewable fuels. Compressed natural gas, I think, can be a key part of that along with electrics and to supplement our transportation fuel. So with that, Mr. Chair, I'd be happy to take any questions. [LB1087]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Dubas. [LB1087]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you, Senator Nordquist. Have you had any conversations with natural gas representatives as far as finding some way that they could kick in some money, checkoff type money through their industry? Is there any willingness or interest from that perspective? [LB1087]

SENATOR NORDQUIST: We haven't, specifically along those lines, but I know and folks behind me can testify the work that they've been doing to promote it. They've certainly been active in applying for federal dollars and that's helped get a couple of

stations off the ground in Omaha, and I think it certainly helped with the Lincoln Airport Authority one, I think, also. But as far as a dollar amount to supplement it, we haven't gone down that road yet. [LB1087]

SENATOR DUBAS: In looking at your handout and in looking where stations have been located in other states, do other states have any kind of an incentive program similar to what you're proposing here? [LB1087]

SENATOR NORDQUIST: There are. It kind of...there are some infrastructure. It seems like in other states, there's more popular tax credits on the incentive side to incentivize the consumer to make purchases of vehicles and to convert vehicles. There are a lot of federal funds available for that, federal tax credits, but I think some of those have gone away now. But there's a range of investments, ways to get it off the ground. You know, I...my concern is that if we...it seems like incentivizing the consumer is a much longer term investment that you have to make rather than putting...getting the infrastructure off the ground. And the prices, I think, once we get the infrastructure up, the prices will drive the consumers, where if you don't build that infrastructure, I think it's going to take longer. You know, you're going to have to provide five, ten thousand dollar tax credits for a consumer to make their conversions. [LB1087]

SENATOR DUBAS: I would agree with you from that perspective putting the infrastructure in place is probably the most logical. It appears that the federal government might be getting a little bit more involved with the promotion of natural gas and whether it's through the discovery of more, because we know we're sitting on top of some huge reserves of natural gas. [LB1087]

SENATOR NORDQUIST: Absolutely. [LB1087]

SENATOR DUBAS: And you mentioned something about there were some grants available through the federal government. [LB1087]

SENATOR NORDQUIST: And probably Dan from MUD can correct me. He's been much more active in this. I don't...I can't remember if they were in the stimulus or if they were before that. They may have been under the Bush administration, but there were credits for conversions for individual vehicles and for fleet...larger vehicles as well, but. [LB1087]

SENATOR DUBAS: So it was more the consumer rather than the infrastructure. [LB1087]

SENATOR NORDQUIST: Yeah. Yep. Yeah. I don't know that, and again he could probably correct me, I don't think that there's been any federal programs. Well, I shouldn't say that. In the stimulus there was for the, I think, one of the Omaha...one of

the Omaha filling stations got...received a federal grant. So the one, the Happy Cab on 60th and Grover, so there were some. I think most of that's gone away though at this point, so. [LB1087]

SENATOR DUBAS: All right. Thank you very much. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. Senator Nordquist, as you first started on your presentation, I looked at a couple of things. I'm going to mention these and then ask you a question. Creates the Compressed Natural Gas Innovation Fund and can provide up to 20 percent of the funding for a project. And then you mention what those projects are for. It seems to me like the most apparent one, as far as I'm concerned, would be the dispensing of compressed natural gas. I have a vehicle that will take 85 percent ethanol and I can't find it. And I'd like to try it but it's so hard to find, to get. The State Energy Office, and you answered the question, but my first impulse was to ask where is the money going to come from for the State Energy Office? Well, it's going to come from General Funds, I think, if I heard you right. Now, in the bill itself on page 2, line 17, because if this bill went through as written, then you're saying that the Appropriations Committee "shall" appropriate money. Shouldn't that be a "may?" [LB1087]

SENATOR NORDQUIST: I guess I would have to ask Bill Drafting on how they do that. I think when you pass an act that needs funding, you would probably want to put "shall" in there. But I guess can...shall we appropriate zero dollars is that a...? [LB1087]

SENATOR CARLSON: Well, I mean, you can't...it's up to the Appropriations Committee. [LB1087]

SENATOR NORDQUIST: Yeah. Yeah. [LB1087]

SENATOR CARLSON: And I don't like wording that says it's the intent of the Legislature. That means nothing. [LB1087]

SENATOR NORDQUIST: Yeah. [LB1087]

SENATOR CARLSON: And I don't really like "may" either, but I think in what you're presenting this morning, "may" fits better than "shall." [LB1087]

SENATOR NORDQUIST: Sure. We could probably...I mean, I would have no problem changing that. That makes sense and then there would be an accompanying A bill if the committee chose to go forward with the specific dollar amount, yeah. [LB1087]

SENATOR CARLSON: Okay. Thank you. [LB1087]

SENATOR NORDQUIST: Yep. No problem. [LB1087]

SENATOR LANGEMEIER: Senator Haar. [LB1087]

SENATOR HAAR: Do you think that it makes sense to establish this for it even if there's no money involved? [LB1087]

SENATOR NORDQUIST: I do. And thank you for saying...for asking that. I think even if we don't think we have the dollars to put into the grant program, having a board work with the Energy Office to try to work on other grants that are available, and try to create a comprehensive plan to advance CNG, I think would be very beneficial to the state. [LB1087]

SENATOR HAAR: Okay. So you could see this going forward even without an A bill? [LB1087]

SENATOR NORDQUIST: Yeah, and I mean, I don't know if the Energy Office would say there would be costs. I think we wrote to say that there were no per diems or anything or the board members, it would be solely voluntary. So I think we could do it with no cost. If there's any tweaks to the bill we could make those changes to make sure there was no cost. [LB1087]

SENATOR HAAR: So basically then, the board would be evangelists, sort of, advisory. [LB1087]

SENATOR NORDQUIST: Yeah, yeah, that's right, advisory and yeah, yeah. [LB1087]

SENATOR HAAR: Yeah, and if they're not getting paid per diem or mileage or anything, then these are people who are really...would like to push the issue and gives a forum for working on it. [LB1087]

SENATOR NORDQUIST: That's right. That's right. The way we have it structured now, I think one of the handouts it talks about the membership but it's largely the utilities, the supplier, the wholesalers, the...there would be representatives from, like a vehicle manufacturer like a Honda dealership in Omaha. I know that sales, having them in the mix to talk about what comes from the vehicle industry side would be important, so. And I'd be open to suggestions from the committee on that too. [LB1087]

SENATOR HAAR: Okay. Thanks. [LB1087]

SENATOR LANGEMEIER: Senator Smith. [LB1087]

SENATOR SMITH: Thank you, Mr. Chairman. Senator Nordquist, do we have any idea as to what a cost of a project would be? [LB1087]

SENATOR NORDQUIST: For a filling station? [LB1087]

SENATOR SMITH: Yes. [LB1087]

SENATOR NORDQUIST: When I started initially a couple of years ago, my first bill, I was told about a million, but I think it's above that now. It's probably between a million and two million depending on size and capacity, and that MUD could talk about the projects that they've worked on that, so. [LB1087]

SENATOR SMITH: So would this be limited...let's say there's a project that's a dispensing station but it also includes a grocery store and maybe some fast food being sold in there and such, is this limited strictly to that portion of the cost of the project that's just the dispensing project, or it is also going to cover the other part of the retail establishment cost? [LB1087]

SENATOR NORDQUIST: Well, when I was reading it I guess I've always been under the assumption that it was for the distribution effort. Let's see here, the board...my intention would be for the distribution system only, not for...you know, if you're going to build a filling station and spend, you know, \$2 million on it, not to have the convenience store and all that stuff, but specifically for the distribution of it. [LB1087]

SENATOR SMITH: Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Haar. [LB1087]

SENATOR HAAR: Yeah, sort of following up on Senator Carlson's question about distribution of all these alternative fuels. It comes...one of the biggest problems, I think...one intriguing possibility, maybe I can ask people later on, but natural gas can be converted to hydrogen. I mean, one of the alternative fuels we've been talking about is hydrogen fuel cars. I know there's research going on. So if we had this kind of filling station, it could also be a filling station for fuel cells and hydrogen cars. [LB1087]

SENATOR NORDQUIST: I only get paid \$12,000 a year so that's about my pay grade, but there's people behind me that could probably answer that. (Laughter) [LB1087]

SENATOR LANGEMEIER: Senator Nordquist, I have a couple questions. I understand if we strip this bill down to just the advisory committee, and they don't get per diems, you know, you probably won't even pick up a fiscal note, an A bill, but as open-ended as it is today, your fiscal note could be in the billions because the Fiscal Office could

decide you're going to put these in every ten miles on every highway we have in Nebraska because there's no guidance for that. They...how do you propose to, without us putting some numbers in there, that you're only going to put three in Omaha, or you're going to spend an X total number, how are you going to anticipate that fiscal note? [LB1087]

SENATOR NORDQUIST: Well, in the past, you know, thinking back to my legislative staff days, we've introduced bills in the past that had, even on General File, we put Xs in the A bill. But once you put that dollar amount in the A bill, that's what's appropriated to it, so the accompanying A bill would be...and we've had...an A bill doesn't come along usually until Select File so you have the debate on General File and make it pretty clear on the floor that this is the amount. That was solely because that was Senator Chambers' beef and he wasn't letting any bills go without it. But if the committee is more comfortable putting an annual appropriation amount in statute, I mean that's certainly...can be done too. [LB1087]

SENATOR LANGEMEIER: Okay. I'm going to have to get more specific with my question. What number are you going to put in an A bill if this comes out? [LB1087]

SENATOR NORDQUIST: Boy, I would work with the committee on whatever you guys thought appropriate. But, I mean, maybe it's...if we're capping it at \$200,000, maybe it's trying to get two projects a year for a couple of years, so maybe \$400,000 for two years, and then see where we're at. To try to build that infrastructure along I-80 we could put language in there to say that counties that already have filling stations aren't at the top of the list, so we're really talking about building out along I-80. But, so, you know, I think that would, \$400,000 maybe would be a reasonable amount to get us off the ground and reevaluate in a couple of years, yeah. [LB1087]

SENATOR LANGEMEIER: Okay. Seeing no other questions, well done. [LB1087]

SENATOR NORDQUIST: Thanks. Great. [LB1087]

SENATOR LANGEMEIER: You have heard the opening on LB1087. We'll now move to supporters or proponents. Is there anyone wishing to testify as a proponent? Welcome. [LB1087]

DAN CROUCHLEY: Good morning, Senator Langemeier and members of the committee. My name is Dan Crouchley. I'm senior vice president and counsel for Metropolitan Utilities District in Omaha. MUD is the water and natural gas utility for Omaha. It serves in Douglas, Sarpy... [LB1087]

SENATOR LANGEMEIER: Dan, I need you to spell your name, please. [LB1087]

# DAN CROUCHLEY: D-a-n C-r-o-u-c-h-l-e-y. [LB1087]

SENATOR LANGEMEIER: Thank you. [LB1087]

DAN CROUCHLEY: Serves customers in four counties, Douglas, Sarpy, Washington, and Saunders. MUD has 210,000 customers, but it...those are the homes and businesses. We now have vehicles that are coming through Douglas County that are also customers in the form of compressed natural gas fuels. I want to thank Senator Nordquist for bringing this bill, and the whole point of this is for fueling stations along I-80 to fill the I-80 corridor with enough fueling stations to make your way across Nebraska whether you're going from Chicago to Denver, Des Moines to Denver, one way, and obviously it's with natural gas vehicles as one of the alternatives. To point out the equivalent gallon cost of the natural gas, a gallon is \$1.85. Right now we're selling it for that. The natural...or the gasoline average in Nebraska from last Friday is \$3.48 and that's 20 cents over when this was cancelled, what, a week and a half ago or so. It's gone up 20 cents. This \$1.85 has actually gone down a couple of cents from last June when we began our fueling stations. Speaking of our fueling stations, MUD has two in the Omaha area and we've done...in 2011, we did \$168,000 worth of business. In 2012 we anticipate between \$350,000 to \$400,000 worth of business. MUD has got 60 vehicles. Happy Cab of Omaha is converting 50 cabs. We're in discussions with various businesses in Omaha to convert to compressed natural gas vehicles. The bill, LB1087, provides for natural gas innovation grants. There is a need for those fueling stations along I-80. We have the ones in Omaha already. We have...there is one in Lincoln at the airport, but there needs to be at least a couple more on the I-80 corridor across Nebraska. I agree with Senator Haar's point with regard to the natural...the bill provides for a natural gas fueling board. That in itself would be a value, give us an opportunity to promote this use and, as far as I'm concerned, we would be one of the members of that and we would do it for nothing. We're in the business of selling natural gas and this would be a good vehicle to promote its sale. So, hopefully, that board would have no cost at all. We need these fueling stations. We need to be part of the corridor from Chicago to Denver, and MUD supports LB1087 and we ask for your support. [LB1087]

SENATOR LANGEMEIER: Very good. Are there any questions? Senator Christensen. [LB1087]

SENATOR CHRISTENSEN: Thank you, Chairman. Thank you for appearing. So if we have Omaha and Lincoln to finish the corridor, you'd say like one in Kearney, Ogallala? [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR CHRISTENSEN: Do we need another one out at Sidney, or...? [LB1087]

DAN CROUCHLEY: Well, yes. [LB1087]

SENATOR CHRISTENSEN: Or a little bit farther west, or...? [LB1087]

DAN CROUCHLEY: That's right. Well, you know, if you...might depend on where you're going, Denver or Wyoming. But you need two, as far as I'm concerned, but when you get out there that would be three. But if you had...if I was going, if you were going from Omaha to Denver, you'd need at least two in Nebraska, and you'd probably be able to get into Colorado that way. And I'm not sure what happens in Colorado, but you probably would need one before you got into Denver. [LB1087]

SENATOR CHRISTENSEN: Because I...what kind of mileage and stuff are we looking at? I don't know the size of a... [LB1087]

DAN CROUCHLEY: Yeah. [LB1087]

SENATOR CHRISTENSEN: ...tank of compressed natural gas, how many miles I would expect. [LB1087]

DAN CROUCHLEY: I believe we use 350 for...and there are not a lot of vehicles or passenger vehicles out of there. But, for example, the Honda GX, which is a Civic with a natural gas engine, is 350. [LB1087]

SENATOR CHRISTENSEN: So you figure 350 miles, you need to...so basically, if you're just looking to Denver...the corridor way, two more would put in the corridor as a minimum. [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR CHRISTENSEN: Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Haar. [LB1087]

SENATOR HAAR: What's the equivalent? You can't really just talk about the cost per gallon. [LB1087]

DAN CROUCHLEY: Yes, that's correct. [LB1087]

SENATOR HAAR: So what's the BTU equivalent or something? [LB1087]

DAN CROUCHLEY: It's the...the translation of that is the \$1.85. So the \$1.85 is the equivalent to gasoline. That's how they measure it. [LB1087]

SENATOR HAAR: Okay. So for the same miles, it would cost me \$1.85 per gallon versus...? Okay. And then, can an engine that runs on natural gas run on regular gas if you can't find a station or on E85 or whatever? [LB1087]

DAN CROUCHLEY: Yes. You can have a vehicle that would run on both. It would have to have the systems available for it to allow it to shift to both but there certainly are vehicles. We have them in which you simply turn a button and actually they do it as they're driving, and it shifts from gasoline to natural gas. [LB1087]

SENATOR HAAR: Okay. Other than costs that you're talking about, what are the advantages of natural gas? [LB1087]

DAN CROUCHLEY: Well, it certainly...it was mentioned, I think, by Senator Nordquist that it's abundant in the United States. It is cheap. I mean, it's not something that it will cost us additional amounts because it's cheaper than gasoline. And it just allows us to rely on domestic production and it removes us from certain, you know, foreign issues with regard to oil. [LB1087]

SENATOR HAAR: Um-hum. Could I take my 1998 (laugh) Plymouth minivan and convert it to natural gas? [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR HAAR: What would that cost? [LB1087]

DAN CROUCHLEY: It's going to cost...if you...a current one, it's about \$10,000. [LB1087]

SENATOR HAAR: Okay. Probably will wait with that. (Laughter) [LB1087]

DAN CROUCHLEY: You'd probably wait. I'm not sure I'd recommend it. But yeah, I mean, it would probably be better to, but it's done. But it costs about \$10,000 to do that and you need a place for that fuel tank too. [LB1087]

SENATOR HAAR: Okay. Well, I have one. A lot of room in the back of the van. (Laughter) [LB1087]

DAN CROUCHLEY: Well, there you go. [LB1087]

SENATOR HAAR: All I need is the \$10,000. [LB1087]

DAN CROUCHLEY: Yeah. (Laughter) [LB1087]

SENATOR HAAR: Have you looked into the possibility of that a fueling station like this could also convert natural gas to hydrogen and then be a fuel station for hydrogen vehicles? [LB1087]

DAN CROUCHLEY: I, you know, the science is there, but we haven't been working in that direction. That's something, I think, for the future. We haven't even reached a point of being able to say we have natural...compressed natural gas on the road, so that's a future thing. And I'm not actually familiar with any efforts other than...I mean, we shift natural gas to hydrogen for fuel cells now. And for First National Bank in Omaha operates for back power for their computers with natural gas, so all that technology is there, but I haven't seen...I haven't read anything recently with regard to hydrogen on the road and using natural gas. But certainly, the science is there. [LB1087]

SENATOR HAAR: Uh-huh. Because it...again going back to that whole thing with E85 or whatever you're talking about, the transition from our current distribution system to, some point we're going to convert, we're going to get off of oil. But that's the hard part and if somehow we could have alternative fuel stations where you pull up and you get E85 or you get natural gas or hydrogen or whatever, that would be an interesting thing for this board to look at to expand the scope of it. [LB1087]

DAN CROUCHLEY: Right now, the station in Omaha that is operated by Happy Cab has gasoline, diesel, and natural gas. It's a very large station with a small convenience-type mart. It's quite an operation and it provides three fuels. It's large enough to provide more than that. [LB1087]

SENATOR HAAR: Excellent. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Dubas. [LB1087]

SENATOR DUBAS: Thank you, Senator Langemeier. Thank you, Mr. Crouchley. You talked about \$10,000 to convert his minivan. Is that the same cost across the board for any kind of a vehicle to convert? [LB1087]

DAN CROUCHLEY: No. A truck would cost more. And I'm not sure what the figure would be, but I think a truck...the larger the truck the more expensive it would be. The \$10,000 is a figure for an automobile, possibly a small pickup. [LB1087]

SENATOR DUBAS: Okay. So no matter how old or how new the vehicle is, that cost is still going to be...? [LB1087]

DAN CROUCHLEY: Yeah. I think, you know, an internal combustion engine can be shifted for about that. [LB1087]

SENATOR DUBAS: Okay. All right. So it sounds like the vehicles that you have used, are those vehicles that you have purchased that can use the natural gas or have you converted some? [LB1087]

DAN CROUCHLEY: We have a mixed fleet where we started getting these vehicles in the '80s, and they were conversions because nobody built them. Now, we're buying new vehicles that were manufactured in that manner and retiring the earlier ones. So we would...I don't...we would not do too much changing. We would buy new in that...using natural gas. [LB1087]

SENATOR DUBAS: Well, and I think that goes back to Senator Nordquist's statement about chicken and egg and do you get the vehicles or do you get... [LB1087]

DAN CROUCHLEY: Yes, it is. [LB1087]

SENATOR DUBAS: And so I...do you think that the public at large understands what options natural gas affords us and are they looking as they're purchasing newer vehicles, are they looking at that as an option? [LB1087]

DAN CROUCHLEY: It's an education process, and I'm not sure I would suggest that the average person is very clear about their choices. It would take a little bit of effort. If you were...what you're looking for is a passenger vehicle, you would have to know that right now there's only one out there and it's a Honda and it's over...it's only at one Honda place, etcetera. If you knew, you could do it, but I'd suggest the average person probably is a little lacking in knowledge on that. [LB1087]

SENATOR DUBAS: And this may be a question that's out of your realm of expertise, but it would go to those car manufacturers. Is this something that they're looking at as far as putting out more and...? [LB1087]

DAN CROUCHLEY: Yes. I...this is really going to get big and it's...but actually the most significant part is going to be trucking fleets and they will run actually on liquid natural gas instead of compressed natural gas. So that's a whole different ball game. But...and that's coming strong. The passenger vehicle aspect is a little slower. [LB1087]

SENATOR DUBAS: Would that need a different type of an infrastructure then to deliver the liquid? [LB1087]

DAN CROUCHLEY: It would need a liquid natural gas distribution method and they're actually coming. They're going to be around after a few years. [LB1087]

SENATOR DUBAS: I think I have read some articles... [LB1087]

## DAN CROUCHLEY: Yes. [LB1087]

SENATOR DUBAS: ...in some trucking magazines that this is really a push from their industry... [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR DUBAS: ...just because of the cost and what it's costing them to be competitive now. [LB1087]

DAN CROUCHLEY: Yes. They're now big in building the engines for the large trucks. [LB1087]

SENATOR DUBAS: So that might be the gateway that we can use to get... [LB1087]

DAN CROUCHLEY: It's part of the gateway, yes. [LB1087]

SENATOR DUBAS: Thank you very much. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. In these questions that have come your way, one of them is the range, and that would be a passenger vehicle about 350 miles. What does that figure out in miles per gallon? [LB1087]

DAN CROUCHLEY: Ah, it's a good question and I...it's the equivalent of gasoline. So whatever your vehicle... [LB1087]

SENATOR CARLSON: Okay. So it's comparable to gasoline. [LB1087]

DAN CROUCHLEY: Comparable to gasoline. [LB1087]

SENATOR CARLSON: Okay. And then we talked a little bit about the cost and the \$10,000. So a new passenger vehicle that can run on natural gas, compressed natural gas, is about \$10,000 more than the vehicle that runs on traditional fuel. [LB1087]

DAN CROUCHLEY: No. That \$10,000 is for a conversion of a regular gasoline engine to...actually a combined gasoline and natural gas engine. A new one would be about \$7,000 more. [LB1087]

SENATOR CARLSON: Okay. And then, how much more would a new vehicle be that is dual that allows for both compressed natural gas and fuel? So if it's \$7,000 for compressed natural gas, how much for one that is dual? How much more? [LB1087]

DAN CROUCHLEY: I can't say. I don't know what that figure would be. [LB1087]

SENATOR CARLSON: If you talk about a truck fleet going on liquid natural gas, what's the cost of a gallon of liquid? [LB1087]

DAN CROUCHLEY: That I don't know. In fact, I'm not sure that we have any liquid natural gas vehicles out there, and I don't know what that would be. [LB1087]

SENATOR CARLSON: Okay. All right. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Haar has a question. [LB1087]

SENATOR HAAR: Yes. I was just doing some quick figures here. On my van that I drive probably 20,000 miles a year, I'd save \$3,000 a year on going to natural gas, which...so the payback period, you know, especially on a new vehicle, doesn't sound like it would be that much. [LB1087]

DAN CROUCHLEY: Yeah, if you...if you're going to go with natural gas on that basis, you would want to use your vehicle a significant amount of miles. And if you were only using it, you know, 10,000 or 12,000 a year, you may not get the payback at the current cost. Now, as the technology develops, that difference in cost should go down. But that is correct. Your payback is going to take some time for the difference in cost. [LB1087]

SENATOR HAAR: What about safety? Is natural gas more or less equal to liquid gasoline? [LB1087]

DAN CROUCHLEY: I'd say equal. They've done a lot of testing on the tanks and the tanks appear to work very good, very well. Gasoline has a certain level of danger and I think natural gas...can't say it doesn't, but it appears so far that it's quite safe. And there's been anecdotal type stories where the car was destroyed and the tank is just sitting there in one piece and it's very strong. But I'd say it's the equivalent right now because I'm not sure how far beyond that we could go. [LB1087]

SENATOR HAAR: Well, we have at least one farmer in Nebraska, a hog farmer, Danny Kluthe, who converts the manure to methane and they're looking at ways of going to propane. Do you see a future for agriculture, you know, basically generating their own fuel and using it on tractors and so on? Have you done any work with that? [LB1087]

DAN CROUCHLEY: I, we haven't done any. There's certainly possibilities but I don't know what the financing part of that would be. But there's all sorts of possibilities. [LB1087]

SENATOR HAAR: So...well, as we're talking about all this, you know, there do seem to be a lot of possibilities so that a board, even if we don't make a lot of money...give them much money, might make a lot of sense to just start looking at all these opportunities. [LB1087]

DAN CROUCHLEY: Yes, absolutely. I mean, as I was reviewing this, it occurred to me that that board of itself would be very valuable. [LB1087]

SENATOR HAAR: Thank you for your testimony. I learned a lot. [LB1087]

DAN CROUCHLEY: Thank you. [LB1087]

SENATOR LANGEMEIER: No more questions, thank you. Oops, Senator Smith has one more. [LB1087]

SENATOR SMITH: Thank you, Senator Langemeier. Yeah, I like the idea of expanding the use of CNG certainly. Do you have a sense as to...on the capital investment for like a dispensing station... [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR SMITH: ...how much of the...that fuel cost is...reflects the capital investment? Do you have any sense for that? [LB1087]

DAN CROUCHLEY: Ah, good question. It reflects some of it but, you know, the power stations were assisted by grants so the cost was, in terms of our investment, was aided by the grant so it reflects our capital costs, but it doesn't reflect the grant costs, so. [LB1087]

SENATOR SMITH: So, for example, if there were a sufficient amount of grants used to construct the facility to dispense CNG and then another one comes in, you know, there's enough of a demand so someone else comes in and they're going to construct a dispensing station, but they don't receive the grants, I wonder how much of a differential there would be based on that. [LB1087]

DAN CROUCHLEY: I suspect that many of the stations have been assisted by grants. I know that there's costs out there, you know, I said \$1.85. I've seen costs out there \$2.10, \$2.40, something like that. And I'm not sure how they set their prices, but the prices are...reflect other costs out there. So I really don't know what that cost would be, you know, relative to someone who is building it. But I would also use the...about \$1.5 million to build a station dispensing. [LB1087]

SENATOR SMITH: So probably a payback of maybe ten to twenty years is what's

trying... [LB1087]

DAN CROUCHLEY: Maybe, yeah. [LB1087]

SENATOR SMITH: So maybe as much as 10 to 20 percent differential based on that capital cost and that cost of fuel. [LB1087]

DAN CROUCHLEY: Yes. [LB1087]

SENATOR SMITH: Okay. Thanks. [LB1087]

SENATOR LANGEMEIER: Senator Haar has a question. [LB1087]

SENATOR HAAR: Finally, is there any connection between burning propane and natural gas? Would a vehicle that could burn natural gas burn propane? [LB1087]

DAN CROUCHLEY: I don't believe it can. No, there's a difference. [LB1087]

SENATOR HAAR: So there...okay. [LB1087]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much. Well done. [LB1087]

DAN CROUCHLEY: Thank you. [LB1087]

SENATOR LANGEMEIER: Further testimony in support or a proponent. Welcome. [LB1087]

BOB HANEY: Good morning. My name is Bob Haney, and I'm with Lincoln Composites here in Lincoln, Nebraska. We're located out by the Airpark, and we are a manufacturer of fuel cylinders for natural gas vehicles. [LB1087]

SENATOR LANGEMEIER: I need you to say and spell your name. [LB1087]

BOB HANEY: Okay. It's Bob Haney, and B-o-b H-a-n-e-y. [LB1087]

SENATOR LANGEMEIER: Thank you. [LB1087]

BOB HANEY: (Exhibit 3) Okay. Using composite technology developed and perfected in Lincoln, Nebraska, we have sold over 140,000 fuel storage cylinders across the globe over the past 18 years. Lincoln Composites currently employs 150 people, up from 35 people in 2004. Of the current 150 people, more than 45 have higher education degrees from Nebraska universities or colleges. In 2010, we paid over \$16 million in salaries and

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to local Nebraska suppliers. We believe in sourcing to local suppliers whenever possible. Today, 99 percent of our sales are outside of Nebraska and 60 percent of our sales are to customers outside the United States. Sales in total have increased by 650 percent since 2004 and we have increased our production capacity and facility footprint by 300 percent over the past four years. An investment in the infrastructure in NGVs in Nebraska will create new jobs and new companies, as well as more jobs to an already strong Nebraska company. Lincoln Composites has been manufacturing natural gas storage cylinders for vehicles in compliance with U.S. standards since 1993. Our cylinders are used on natural gas powered transit buses throughout the United States, particularly in cities like Los Angeles, New York, Washington, D.C., and Atlanta. These largest cities in the U.S. trust our cylinders on the vehicles that carry the citizens every day. It's proven technology. Presently, there are 13 million vehicles in the world that run on natural gas. The United States has roughly 130,000 vehicles, with the bulk of them on heavy duty transit buses and refuse trucks. There are less than 100 vehicles running on natural gas in Nebraska and there are only four compressor stations in the region in Omaha and Lincoln. The national average of natural gas is roughly \$2 versus \$3.50 for diesel. And so it is a much more economical fuel. And natural gas has extensive reserves than the other alternative fuels and it is good for the environment. Entire states, Utah, Oklahoma, and Texas, just to name a few, have both government and commercial fleets making mass migrations to NGVs. These states have proven that NGVs can be part of a successful path to energy independence and economic growth given the proper level of investment. The most common question when it comes to NGVs is where we fuel our vehicles. Lincoln Composites has sent employees to six continents learning about the usage and implementation of natural gas economies. Entire countries are making the move to use more natural gas in their energy grid and transportation sectors. The United States is in a better position than many other countries that are converting to natural gas transportation fuel and we have more reserves. Even Nebraska has the Niobrara reserves in the southwestern part of the state. Again back to the chicken and the egg dilemma, we need infrastructure to continue that momentum which has been developed within the past few years. Nebraska is ideally situated in the nation to help eliminate our addiction to foreign petroleum. Interstate 80 is, of course, a major carrier of freight. The next movement in the natural gas vehicle evolution will be the conversation of the Class 8 tractor-trailers to burn natural gas. The effect will be the elimination of millions of barrels of foreign petroleum use. Due to the limitations of the NGV infrastructure market in developing countries, we developed a groundbreaking composite-based transportation solution. In 2010, we sold our first TITAN module, the world's largest all composite natural gas storage system. We recently sent over \$6 million worth of TITAN-based fueling infrastructure equipment to the country of Malaysia. The TITAN module allows the transportation of over 355,000 standard cubic feet of gas, or 2,800 gallons of equivalent liquid petroleum fuel. We've seen it improve the NGV fueling infrastructure in Malaysia, Vietnam, and Colombia. The TITAN offers one approach to increasing infrastructure where it does not presently exist. Given the emphasis to grow natural gas fueling station

numbers, there is yet another opportunity to utilize the technology of Lincoln Composites. As the fueling infrastructure for natural gas vehicles increases, many stations will need reservoir tanks for on-site natural gas storage. For stationary storage tanks such as these, Lincoln Composites can use its proven pressure vessel design to produce a tank that complies with the regulations of the American Society of Mechanical Engineers, the most widely accepted stationary pressure vessel standard in the U.S. The ability to provide stationary storage vessels for each new natural gas station that is erected in Nebraska, and indeed across the country, would provide additional sales revenue for Lincoln Composites and job opportunities for citizens of Nebraska. Funding bills such as LB1087 would provide an opportunity for a Nebraska company to develop solutions that can be employed locally and nationally for the betterment of all. Lincoln Composites is dependent on natural gas vehicle market because we believe it is the right time, the right fuel to alleviate our dependence on foreign oil. It is the time to put natural gas solutions to work in our home state and our country. Thank you. [LB1087]

SENATOR LANGEMEIER: Very good. Senator Haar. [LB1087]

SENATOR HAAR: A couple of questions. Where are you located in Lincoln? [LB1087]

BOB HANEY: We're out by the Airpark on Northwest 40th Street. [LB1087]

SENATOR HAAR: And so when I go home and ask my wife for \$10,000 to convert my van tonight, how much space would a tank take up that would hold 350 miles? [LB1087]

BOB HANEY: Yeah. The Honda Civic tank is...was a tank that I helped develop back in the '90s and that tank is about this big in length and about this big in diameter. [LB1087]

SENATOR HAAR: Really. Wow. [LB1087]

BOB HANEY: Yeah. [LB1087]

SENATOR HAAR: Okay. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. Is natural gas a renewable fuel? [LB1087]

BOB HANEY: Interesting question. The by-product of natural gas is basically hydrogen and water when you burn it. So it is a very clean burning fuel. It's actually one of the...oh, first fuels to meet the California regulations for clean vehicles. So in a way, yes, it is renewable. [LB1087]

SENATOR CARLSON: What kind of a supply in terms of years do we have in southwest Nebraska or in the United States? As we've talked about 200 years of coal and so forth, what kind of a supply do we have? [LB1087]

BOB HANEY: Yeah, I don't know the reserves that we have but I know that the more they look, they find more and more all the time. [LB1087]

SENATOR CARLSON: Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Seeing no other questions, thank you very much. Well done. [LB1087]

BOB HANEY: Thank you. [LB1087]

SENATOR LANGEMEIER: Further testifiers in support or proponents. Welcome. [LB1087]

PAUL CAMMACK: Good morning. Senator Langemeier, members of the Natural Resources Committee, my name is Paul Cammack, spelled C-a-m-m-a-c-k, and I appear before you today on behalf of Black Hills Energy in support of LB1087. We thank Senator Nordquist for introducing this bill and for his continued interest in compressed natural gas. Black Hills Energy has been involved in several projects regarding the usage of compressed natural gas or CNG for vehicles. First of all, we have begun converting our own vehicle fleet in a number of the communities we serve. We have also become active in the Clean Cities Coalition in several states and hope that Nebraska continues to make progress in strengthening its Clean Cities Coalition. We've recently constructed three new compressed natural gas fueling stations, one in Lincoln, one in Lawrence, Kansas, and one in Dubuque, Iowa, for fueling our own vehicles and are exploring the possibility of expanding the Lincoln station for public use. We celebrated a ribbon cutting with a local electrical contractor, Eric's Electric, as he became the first fleet vehicle in Lincoln in recent times to convert to CNG, a path that he continues to go down as he works to convert his entire fleet. We have partnered with the Lincoln City Library on a new CNG bookmobile; for the city of Lincoln on several new natural gas vehicles; with the Lincoln Airport Authority on its new compressed natural gas fueling station and conversion of fleet vehicles; and have actively promoted and encouraged dozens of other fleet operators to move toward converting to CNG. There are several very compelling reasons for using compressed natural gas as an alternative transportation fuel. CNG is the cleanest commercially available fuel for transportation today, reducing greenhouse gas emissions by 20 to 30 percent. Worldwide, natural gas reserves are greater than petroleum providing an abundant supply. Natural gas vehicle operators spend on average over one-third less for their fuel than they would for gasoline or diesel. Ninety-eight percent of all the natural gas consumed in America is produced in North America, reducing the need for imported

petroleum. And there, as was mentioned before, there are approximately 130,000 natural gas vehicles on U.S. roads today, clearly signaling that consumers are making the choice for CNG. We support the provisions of LB1087 that would set up a grant program for compressed natural gas projects. We encourage the state to find a funding source for that grant program. We also support the creation of the Natural Gas Fuel Board to serve in an advisory role to the State Energy Office regarding the promotion of natural gas as a motor vehicle fuel. Black Hills Energy is supportive of these efforts to increase the awareness and usage of natural gas as a transportation fuel. Thank you for your time. I encourage you to advance LB1087. [LB1087]

SENATOR LANGEMEIER: Very good. We'll start with Senator Christensen. [LB1087]

SENATOR CHRISTENSEN: Thank you, Chairman. Thank you, Paul. If a guy's got a natural gas line to his farm, can he just buy a compressor and compress it into a tank for a vehicle, or...? [LB1087]

PAUL CAMMACK: If you have a natural gas service line to your facility, yes, you can. There are home fueling units as well as the larger fueling units that we've been talking about, the stations. [LB1087]

SENATOR CHRISTENSEN: So, like, what does a home compressor cost? [LB1087]

PAUL CAMMACK: We actually had one on display at the Home and Garden Show over the weekend. It came from Omaha. Installed, it was around \$6,000. [LB1087]

SENATOR CHRISTENSEN: So really not cost prohibitive. If you've got more than one vehicle, it could be done on a farm level then. [LB1087]

PAUL CAMMACK: That's correct. The difference is if they are time fill stations so they fill very slowly, probably a gallon an hour, probably less than a gallon an hour, so overnight fill. You plug your vehicle in overnight, unplug it in the morning, and it's ready to go. [LB1087]

SENATOR CHRISTENSEN: Now when you're filling along the highway, them are high-speed fills then? [LB1087]

PAUL CAMMACK: Yes, sir. Yes. Those are...yes. Quick fill stations, they're called, and they fuel just as quickly as a regular gasoline or diesel facility. [LB1087]

SENATOR CHRISTENSEN: Is there a home version quick fill? [LB1087]

PAUL CAMMACK: I believe there are. They're a lot more expensive. I cannot tell you the exact price on those, but it requires more compression, so a larger compressor and

more storage. [LB1087]

SENATOR CHRISTENSEN: All right. Thank you. [LB1087]

PAUL CAMMACK: You bet. [LB1087]

SENATOR LANGEMEIER: Senator Haar. [LB1087]

SENATOR HAAR: Thank you for being here. Do you believe that groups like Black Hills Energy would be willing to help fund this kind of project? [LB1087]

PAUL CAMMACK: Well, we're in the process of...we funded our own station in Lincoln for internal use. We are pursuing Clean Cities stimulus money to help fund that station to be a public station. So, yeah, we have shown that we have done that. We have totally funded the stations in Dubuque and in Lawrence and so, yes, we showed that commitment. [LB1087]

SENATOR HAAR: So that you think if this fund was set up with this board, we might be able to get some funding from groups such as yours to run this program? [LB1087]

PAUL CAMMACK: Well, I don't know about running the program. (Laugh) But we would sure like to have money out of the grant program to help us build stations. [LB1087]

SENATOR HAAR: Right. Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Dubas. [LB1087]

SENATOR DUBAS: Thank you, Senator Langemeier. I might be robbing Senator Carlson of a question. I'd like to pick up where...the question he asked about the amount of reserves we have in our country or in our state. Are you aware of what we have available? [LB1087]

PAUL CAMMACK: I'm not familiar with what we have in Nebraska. I know I've heard, I've read, that there are over 100 years of supply of natural gas in this country. [LB1087]

SENATOR DUBAS: Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Smith. [LB1087]

SENATOR SMITH: Thank you, Senator Langemeier. Let me expand a little bit on the question Senator Christensen had. I'm trying to understand, where would a \$1.5 million investment be arrived at for a filling station? Is that from the ground up as opposed to a quick fill? I know it's not the \$6,000 per station investment, but even if it's two or three or

four times or six times, tell me a little bit more about that if you could. [LB1087]

PAUL CAMMACK: I'm not sure I'm following your question. Are you asking about a return on...? [LB1087]

SENATOR SMITH: Well, there was the capital investment of a filling station. I've heard about \$1 million, \$1.5 million. [LB1087]

PAUL CAMMACK: I will say that our station will not cost that much. I know that that's what MUD's station cost. Our station is a little over \$500,000 for a public quick fill station. So it depends...a lot depends on what bells and whistles go with it. [LB1087]

SENATOR SMITH: And what was included in that half a million dollar investment? [LB1087]

PAUL CAMMACK: Well, when we get done with our station we'll have two compressors, three banks of storage, a dryer, a priority panel, a fuel dispenser, and a fuel management system. [LB1087]

SENATOR SMITH: And that is needed to take care of what volume of vehicles and at a given time? [LB1087]

PAUL CAMMACK: Well, we're hoping to be able to fill two vehicles at a time. The exact rate, I probably can't tell you. Four gallons a minute, probably in that range. [LB1087]

SENATOR SMITH: So two vehicles being filled simultaneously, you know, you're...we're looking at about a half million dollar investment, or something like that. [LB1087]

PAUL CAMMACK: Correct. [LB1087]

SENATOR SMITH: Okay. Very good. Thank you. [LB1087]

SENATOR LANGEMEIER: Seeing no other questions, thank you. Well done. [LB1087]

PAUL CAMMACK: All right. Thank you. [LB1087]

SENATOR LANGEMEIER: Further testifiers in support. Welcome. [LB1087]

ERIC HOKE: Good morning, Senators. My name is Eric Hoke, H-o-k-e. I'm the owner of Eric's Electric here in Lincoln. Been in business since 2000. We have 18 employees with us right now. We do everything from small residential work to large homes to commercial buildings. We travel all over the state of Nebraska to do work from Seward, York, to Grand Island. Over the years with gas prices going up, I kept watching to see,

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you know, is there any way that I could help cut the gas prices down. With having nine trucks, it gets very expensive each month, because I own the company, I have to write the checks. Last year we converted our first truck to CNG, compressed natural gas. We are the first truck in Lincoln to do that. The truck we converted was paying on an average between \$85 to \$95, and if the gas price would go up, to almost \$100 weekly to have our service trucks out there. With converting our truck to natural gas, I pay an average of \$23 a week for that truck, which saves me a total of \$600 a month for just one truck. So as soon as I get all my trucks converted this year, we will be saving an average of \$5,400 a month on gas, which that means I can give my customers a better price because I can pass the savings on. And the reason I did this is our company is Greenbelt certified, so I like to... love energy, I love to see how we can save energy so that was one of the things I wanted to go after. By supporting this bill it would let a lot of businesses like myself, plumbers, heating, contractors, cement workers, anybody in the field, to travel a long distance through the state and filling up at easier locations. States like California, Las Vegas, Utah, Oklahoma, and Texas utility departments have already started converting their buses, their cabs, and their police force. Lincoln Airport has converted their vehicles to natural gas and they also sell natural gas. They also have noticed an increase of people coming off interstates and filling up with natural gas would be semi-trucks. The city of Lincoln has purchased three vehicles now to be on the road here soon to go to their inspectors to go around the city to inspect. The bookmobile will be also...is converted to natural gas. The UPS right now is putting compressed natural gases in their semi-trucks and running them through our highways, and what a great place to have them come right through Nebraska to fill up. This bill also would help the state of Nebraska because I know the state of Nebraska pays a lot of gas in their police, their trucks that are cleaning the highways right now. So this would help you guys save your gas bill tremendously where you could pull off, fill up real guick, and they could be back on the road. Also, it's a very clean burning gas in our truck and it's very clean for the environment. I'd like to thank you very much for letting me come up and speak. [LB1087]

SENATOR LANGEMEIER: Very good. Senator Christensen. [LB1087]

SENATOR CHRISTENSEN: Thank you, Chairman. Thank you for coming in. So how does the highway tax apply? Is it just added on like gasoline, it's added on to compressed natural gas? [LB1087]

ERIC HOKE: Yes, sir. When I pay...I pay \$1.59 right out at the Airport. That is included in all my taxes. Everything is in that when I pay for it. [LB1087]

SENATOR CHRISTENSEN: Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. Eric, one of the things I've got a little bit of a concern here in listening to this testimony is that if it's anywhere close that we might have a 100-year supply, well, it goes back to whether or not natural gas is a renewable fuel. But a 100-year supply is a little bit concerning because all this infrastructure expense goes into encouraging more and more people to use it and if we've got a 100-year supply, we're going to run traditional fuel a little bit out of business. So what do we do after 100 years? [LB1087]

ERIC HOKE: Well, a hundred...well, that's a good question for a hundred years. You know, I don't know. I'd have to get back with you on that one. I don't know that question. [LB1087]

SENATOR CARLSON: And one of the reasons I ask it is because we've got an abundant water supply in Nebraska, but we've got to manage that in such a way that it's not gone in a 100 years. It needs to be here for 200, 300 years. So...and I'm not against using our natural resources for cutting down on dependence on foreign oil, but it would be a little concerning if, in fact, that's anywhere close, that that's the supply that we've got. So whatever you could get on that that would help alleviate my concern would be appreciated. Thank you. [LB1087]

ERIC HOKE: Be glad to. You bet. You bet. [LB1087]

SENATOR LANGEMEIER: Senator Smith. [LB1087]

SENATOR SMITH: Thank you, Senator Langemeier. Thanks for coming and testifying today. You mentioned that you do work all over the state, your vehicles are all over the state. How are you meeting this applied requirements now? Do you just...is it just a day trip back and forth or are you finding other locations to fill up? [LB1087]

ERIC HOKE: It's a day trip right now. The tank that I have in there from Lincoln Composites, it's in our truck, it goes about 200 miles and then we'll start having to fill up. Anything up to like, oh, we go to Omaha quite a bit, we go to York, Seward, but sometimes if it has to go farther, then we have to use our other trucks that just have regular gas in it. Now, the new vehicles that I'll probably be having converted will go to a flex fuel or a by-fuel which means I can have natural gas run in it and then if there's not a place to fill up, I can have it switched over to regular gas for that. [LB1087]

SENATOR SMITH: You're probably running like a econovan or sprint vans or something like that? [LB1087]

ERIC HOKE: Express vans. [LB1087]

SENATOR SMITH: Express vans. So you're probably looking at maybe \$10,000 to

\$15,000 conversion cost, right in there? [LB1087]

ERIC HOKE: My conversion was around \$11,000. [LB1087]

SENATOR SMITH: Okay. Thanks. [LB1087]

SENATOR LANGEMEIER: My question now that you've had one vehicle that you converted over and you've done your taxes since you did it, were there any federal incentives or any tax advantages for that conversion? [LB1087]

ERIC HOKE: At the time, no, there wasn't. Right now, I applied. Ginger Willson with the Nebraska Energy Office, I applied for a grant through them. It's at 2.9 percent interest but it has to be all dedicated natural gas. Then they worked with the bank, a local bank here in town that helped push the loan in for us, so that's where we've got our loan. Because, you know, a lot of businesses just don't have...like myself, just don't have \$11,000 to come up, you know, and pay for this so with the grant that we got and the loan we got was able to help us do that. And actually what we're doing is we're working with Black Hills Energy and we're going to work with some other customers because now we've got...we had a home show this weekend in Lincoln. Now, we've got garbage company people wanting to come out and say, hey, we're tired of paying these high diesel prices. We'd like to change over to natural gas. So the demand is there. It's just trying to get everybody right in the same line of getting some help with some grant money. [LB1087]

SENATOR LANGEMEIER: Very good. Seeing no other questions, well done. [LB1087]

ERIC HOKE: Great. Thank you very much. [LB1087]

SENATOR LANGEMEIER: (Exhibit 4) Further testimony in support. I have a letter from Ann McCollister with Nebraska Clean Cities Coalition in support of LB1087. Now move to opponents. Does anyone like to testify as an opponent? Seeing none. Is there anyone wants to testify in a neutral capacity? Welcome. [LB1087]

TIM KEIGHER: Good morning, Chairman Langemeier and members of the committee. My name is Tim Keigher, that is K-e-i-g-h-e-r. I'm the executive director and registered lobbyist for the Nebraska Petroleum Marketers and Convenience Stores Association. I guess the first thing I would like to make clear why I'm testifying in a neutral capacity is just to provide some information. We are not opposed to using compressed natural gas as a motor fuel. I guess the question, Senator Smith, that you have asked is, what are the costs of the conversion? And I can be corrected by Senator Nordquist when I'm done if he would like, but my understanding is a half a million to \$750,000 if you were to put it at an existing facility today. Our problem with putting compressed natural gas in is the same problem that everyone else has. It's the chicken and the egg. Do my members

## Transcript Prepared By the Clerk of the Legislature Transcriber's Office

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want to spend a half a million to three guarters of a million dollars putting in compressed natural gas at an existing facility they have when there are not that many vehicles out there at this point. We would be happy to work with those interested in putting CNG in at facilities instead of building ground-up facilities. We already have the infrastructure out there on the interstate of putting compressed natural gas in our facilities. I guess that's probably the point that I wanted to make the most. I mean, it's kind of like E85 that Senator Carlson has referenced. You know, some of my members have put E85 in. You know, there's some tax breaks both on the federal level and state level for putting that in. The conversion to E85 is nowhere near the cost of converting to compressed natural gas. In some locations it's worked out well. In other locations, it has not. And just for your information, there's one down by the county courthouse that sells E85 if you'd like to try it. I guess in the past this bill has been brought forward and tried to take money out of the LUST Fund. We look at that as Senator Carlson is looking at the corn growers, and if they're willing to tax themselves to provide a benefit, we created the LUST Fund because nobody would write insurance to cover underground storage tanks and that's why we're so protective of that. But by no means are we against selling compressed natural gas. We're in the business of selling retail motor fuel, whatever that is, as long as you can't get it at home, Senator Christensen, so. (Laughter) With that, I'd be happy to answer any questions. [LB1087]

SENATOR LANGEMEIER: Are there any questions? Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. So the question I asked about the 100-year supply, is that...is that reason for concern? [LB1087]

TIM KEIGHER: You know, I'm not knowledgeable enough to answer that question. [LB1087]

SENATOR CARLSON: Okay. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Smith. [LB1087]

SENATOR SMITH: Thank you, Senator Langemeier. Mr. Keigher, you may not be able to answer this either but for some of those folks that you represent, what would have to be the demand before they would make that type of a half million to a three-quarter of a million dollar investment? I mean, how would they go about making that decision? [LB1087]

TIM KEIGHER: You know, I don't have a specific return on investment that they're looking at. I think it probably depends on who the retailer is. Some of my larger members, Sapp Bros., Bosselman, Whitehead, you know they're willing to put some money into some of these things that maybe smaller members cannot afford to. They could...you know, can take that risk. So I really don't know what that number is.

[LB1087]

SENATOR SMITH: Okay. Thank you. [LB1087]

TIM KEIGHER: But, I guess the thing is, we'd be willing to work with the compressed natural gas industry and see if we could, you know, put some facilities in. Obviously, it's probably going to take some type of tax break or incentive or grant to do it, but. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Well, this is kind of a statement. If the 100-year supply is anywhere close, but if natural gas can be classified as renewable fuel and over 100 years or 200 years or whatever it is that we got a new supply, then it would seem like this investment that we're talking about is kind of a no-brainer. But I think that's a critical question and I think you do bring out an important point that a facility will have difficulty in making that kind of an investment unless there's some assurance that there's a continued supply. Thank you. [LB1087]

SENATOR LANGEMEIER: Seeing no other questions...oh, Senator Haar has a question. [LB1087]

SENATOR HAAR: Just real quick. This is also a statement but the thing we got from the U.S. Department of Energy says 120 years, but...and I guess I wouldn't...do you consider natural gas is really not a renewable fuel as such? [LB1087]

TIM KEIGHER: I guess it wouldn't be something that if you asked me to list renewable fuels, I wouldn't list that one, but, you know. [LB1087]

SENATOR HAAR: Yeah. It's clean burning and so on, but not a...okay. [LB1087]

SENATOR LANGEMEIER: Very good. Thank you very much. [LB1087]

TIM KEIGHER: Thank you. [LB1087]

SENATOR LANGEMEIER: Any other testifiers in a neutral capacity? Seeing none, Senator Nordquist, would you like to close? [LB1087]

SENATOR NORDQUIST: Thank you, members of the committee, for your attention to this issue. Just a few things I want to address. Senator Smith, you asked me earlier about what the definition of the project means. It's on the second page, it says specific that compressed natural gas infrastructure project means...innovation project, I'm sorry, means infrastructure investment relating to storage, distribution, or dispensing of

compressed natural gas. So that would be what the grant dollars could be used for. Very open to working with the committee on the language of this bill. Had suggested to me and I think it's a good idea to open it up to allow private funds should there be grants available that could come into this fund. So open that up that, you know, if there are private sources of money that we would want to go through this fund, I think that's important. And then, you know, Senator Carlson, I certainly understand your concern and would be willing to look into a little bit more detail the supply and the renewable nature of it. My concern, though, is one international crisis could significantly dry up our supply of crude oil in our country and, you know, it could shut us off or, you know, significantly reduce it in a very short period also. So I think looking at a 120-year supply, making those investments makes sense. Certainly, things are going to change between now and then and, hopefully, we'll find other alternatives too, but I think it would lessen our dependence on foreign oil and keep us...help remove a little bit of that risk that we would have of our foreign crude oil supply being cut off. [LB1087]

SENATOR LANGEMEIER: Senator Haar has a question. [LB1087]

SENATOR HAAR: Yeah, if Senator Nordquist...thank you. This has been really interesting this morning and when you do the little bit of research on the 120-year supply, do that for oil because I think the supply of oil is much, you know, a world oil is much, much less than 120 years. It's maybe in the amount of decades, so. [LB1087]

SENATOR NORDQUIST: I would...yeah, certainly would do that. Yeah. [LB1087]

SENATOR HAAR: I appreciate that. [LB1087]

SENATOR LANGEMEIER: Senator Carlson. [LB1087]

SENATOR CARLSON: Thank you, Senator Langemeier. Senator Nordquist, who asked you to introduce the bill? [LB1087]

SENATOR NORDQUIST: This was something that actually, I...hopefully, none of my liberal friends are here, I picked up at an ALEC conference I went to when I was...even before I was in the Legislature. I was a staff member and I attended an ALEC conference. I thought this was something that would make economic sense and made environmental sense and I started working with MUD my first year down here and this is the fourth bill I've introduced. We've had two in Revenue Committee that have gotten out my first two years and then last year and then this year that's come to this committee. We first started looking at tax incentives, but the more we looked at it, the idea was we needed to started incentivizing infrastructure. So this is really something that ALEC pushed me on. [LB1087]

SENATOR CARLSON: Well, I want to commend you for making a decision to go to an

ALEC conference. (Laughter) [LB1087]

SENATOR NORDQUIST: I'm always open to good ideas. [LB1087]

SENATOR CARLSON: But let's get back to...now, Senator Haar brought up another thing. I don't know that he's accurate on this, but if we compare the supply in years to our own fossil fuel supply, that's a pretty meaningful comparison. I think that's what we need to know. [LB1087]

SENATOR NORDQUIST: Uh-huh. [LB1087]

SENATOR CARLSON: The other thing is, if the industry itself isn't willing to make the investment, which Senator Smith with his question brought out that it's a significant investment, then we're talking about tax dollars. And that becomes a much more, I guess, serious decision to make. So if we can compare the supplies of these two, it makes the discussion a little bit more fruitful, I think. [LB1087]

SENATOR NORDQUIST: We will pull together some research on that and then also just one on the committee, there was talk about liquid natural gas. I think we left the committee open-ended, the board that we're creating to look at both advancing liquid and compressed natural gas, let's...just a point on that, but. Yeah. [LB1087]

SENATOR CARLSON: Thank you. Thank you. [LB1087]

SENATOR LANGEMEIER: Senator Smith. [LB1087]

SENATOR SMITH: Thank you, Senator Langemeier. And Senator Nordquist, you know, I do appreciate you bringing forward this bill particularly now that you gave your, referenced the source of it. (Laughter) No, but even prior to that, you know my concerns are, where are the incentives that's served. If there are to be incentives on this. Is it on the supply side or on the demand side? And, you know, and then on the other side, how do we protect the market so that there's fair competition between distributors, one not receiving some type of incentive to where they have lower capital cost and, you know, blocking the other one out of fair competition? So those are some of the things I'm trying to get my mind around with this bill. But I think it's a good discussion... [LB1087]

SENATOR NORDQUIST: Sure. [LB1087]

SENATOR SMITH: ...and I think it's something we need to do. I'm just not certain if we should do it on the demand side or on the supply side. [LB1087]

SENATOR NORDQUIST: Yeah. My only thought along the lines of that is, if we're using public dollars I always err on the side of investing in the infrastructure side of things as

opposed to a private individual, you know, getting a tax credit to convert a vehicle, I think, the public dollars may be being invested more in the business infrastructure side. It just seems to make a little more sense to me but certainly open to have that discussion. [LB1087]

SENATOR SMITH: I assume the filling stations are publicly owned and not investor owned or privately owned. [LB1087]

SENATOR NORDQUIST: Well, the eligible entities as written, we have it, it says eligible entity means a Nebraska resident business or public utility. My staff was just talking to me about the private filling station and it made sense that we probably don't want to have...I mean, Nebraska resident not meaning we don't this to be an individual getting a grant to put one in their garage to fill their car. I think we certainly want to work with the petroleum marketers and the utilities to figure out what the best combination is. Should it be put into...should the grant go to a private business to put it at Sapp Bros. or something like that, or should it be public owned. The way it's drafted right now, it would be up to the Energy Office to make the determination to who to give the grants to, but I would welcome input from the committee on how we structure that. [LB1087]

SENATOR SMITH: All right. Thank you. [LB1087]

SENATOR LANGEMEIER: I just have one final question and it's a vocabulary and you might not be able to answer it, but I just pulled up these pumps and they're all rated on a GGE. Okay, we'll get that information later. (Laughter) [LB1087]

SENATOR NORDQUIST: For the record, I shook my head, I don't know. [LB1087]

SENATOR LANGEMEIER: I assume one of those Gs is gallons, but I don't know what the others are, so. So with that, that concludes our hearing on LB1087 and our hearings for the day. [LB1087]