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ROLL NUMBER

DESCRIPTION

1458

2007 HOUSE NATURAL RESOURCES

HB 1458

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1458

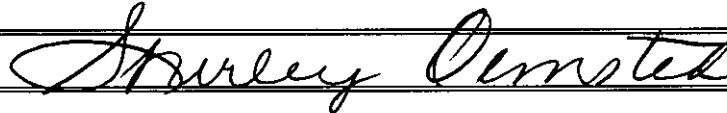
House Natural Resources Committee

Check here for Conference Committee

Hearing Date: January 26, 2007

Recorder Job Number: 2005

Committee Clerk Signature



Minutes:

Chairman Porter opened the hearing on HB 1458 and the clerk read the title.

Representative Monson, from District #10, came forward as the sponsor of HB 1458. The first section of the bill simply states that we should have a goal of increasing our use of hydrogen from any and all of our states energy resources, renewables and lignites. I don't know how much you know about hydrogen, but hydrogen is the perfect fuel. When you burn hydrogen, you get nothing but water vapor. If you are following some waste technology with hydrogen, hydrogen through fuel cells can create energy as well. There have been a lot of advances on fuel cells as of late so hydrogen can be either burned in a combustible engine or it can be used for fuel cells and utilized that way. A little basic chemistry on the production of hydrogen; we can take hydrogen out of water by simply running electricity through it. There a methods of getting hydrogen from methane and other fossil fuels. Lignite can be gasified and a real simple explanation would be to take your carbon which is the main ingredient and run some hot water or steam through it and that is a method of turning it into methane and other gases and then can be used as a source of your hydrogen. I don't think anyone that looks at fuels can say that hydrogen is not the perfect fuel and to have a goal of using more hydrogen in our system throughout the whole energy economy could disagree that this would be a very

good goal. Section 2 directs the Commissioner of Commerce to oversee the development and implementation of a roadmap or a plan to achieve the goal that is laid out in number 1 which is to simply increase the use and production of hydrogen in the state. If you read through that section on page 1, lines 17 & 18, it talks about a roadmap should establish a vision, goals, general timelines and measurable milestones for achieving the state's hydrogen goal. It is pretty broad and general and gives the Commission a lot of latitude but directs them to say that we need to develop this goal and how are we going to get there and when. On page 2 of the bill, still in section 1, lines 2 through 5, it says the department shall involve the energy industry, manufacturers, technology companies, farm organizations and commodity groups, universities, nonprofit organizations, and other interested parties in developing the roadmap. I am sure there are a lot of people who would be more than happy to step forward and give the Commissioner of Commerce ideas on what they feel would be important parts of this roadmap. Also in this section on the next few lines it does talk about if the department wants someone else to do it they could subcontract to develop the roadmap. In the end, the department would be responsible to get this report that is developed back to the Legislative Council by July 1, 2008. In section 3 there is an appropriation. This appropriation is from one time money from the general fund. It ends June 30, 2009, and if it doesn't develop, the money would not be spent. It is asking for two hundred thousand dollars to be given to the North Dakota State University as a pass through grant to any partnership that might come forward or any industry that is interested in the fueling or any kind of hydrogen station if you will probably in the city of Fargo. The reason Fargo is mentioned here is because they have a partnership with Moorhead as the state of Minnesota has put up some money for this as well. NDSU is going to be the overseer of this money as a state agency that we can hopefully depend on them to make the decisions. This is our contribution from North Dakota to step up to the plate and

leverage other funds from other sources being that Federal, other states or local partnerships with industry to try to get some model hydrogen station going.

Representative Keiser asked with new language in these processes. Can you tell me the difference between a roadmap and a feasibility study?

Representative Monson said they are pretty much the same thing. Maybe a feasibility study is better. In this case, the word roadmap was used because we already know it is feasible.

Representative Keiser said the two hundred thousand dollar commitment he supports but suggested that this is really a partnership with industry and the city of Fargo. Would you support an amendment saying up to two hundred thousand dollars with matching funds to be matched on a dollar to dollar basis by industry so that we really have four hundred thousand dollars to work with a partner that is committed?

Representative Monson said the only problem with that is that perhaps industry is going to stick in way more than two hundred thousand. Minnesota is putting in more money than this also. These two hundred thousand dollars may not go directly to the industry or the partnership but it may be needed for matching funds for federal funds or something like that. I don't know if I want to tie the hands or specify that it has to be matched. I expect that there will be more than two hundred thousand dollars from industry put into this.

Representative DeKrey asked why they were using NDSU. Why specify it to anyone? UND has the energy brochure.

Representative Monson said the main reason for Fargo was there was a bill in last session that was a similar version of this. It was expanded and included some things with EERC and the city of Minot who was interested in this. Fargo is the one that is already to go with this and has already developed these partnerships. I hesitate to even name the city of Fargo in here but NDSU is kind of the pass through and they are located in Fargo and Fargo is the one

spreading the role on this. Moorhead is on board with this too. I guess that is why we picked NDSU. It just makes it a little cleaner. Actually EERC does a lot of work on this.

Representative Nottestad asked if there was anyone from EERC here today. He wanted to read the last part of their testimony. The requested legislation is an unnecessary duplication of an existing program, and, even if funded at the level requested, would be a very pale imitation of an existing robust program. See EERC testimony marked as Item #1. I would hope you would read this and respond to that.

Representative Monson said he had read that and I guess I don't necessarily agree with that as being a duplication because you tell me where there is a fueling station in North Dakota. There is none and they have done a lot of research with hydrogen. This is to get industry to come and actually put a site here that is going to be commercial industry driven. I can't deny that the EERC is certainly a leader on hydrogen experimentation but this is more than experimental research. This goes beyond that. This will get a working commercial site in North Dakota.

Mr. Scott Kelsh from District #11 also came forward in support of this bill. He thinks this a very exciting opportunity and it also has a lot of military applications. The city of Fargo has been looking at purchasing a hydrogen bus at some point and this would be a great opportunity to help this project as well.

Mr. Brad Crabtree of the Great Plains Institute came forward in support of HB 1458. Please written testimony marked as Item #2. He also passed out testimony from Cass County Electric. Please written testimony marked as Item #3 and testimony from the Fargo-Moorhead Chamber who also support this bill. See written testimony from the FM Chamber marked as Item #4. He feels that this bill is a great way to advance our energy policy. This is not duplication and we are being left out of the hydrogen production game in terms of delivering

hydrogen to retail customers who use hydrogen. We are not being left out of hydrogen research or hydrogen technology development, but we are being left out of in terms of the roll out of this. It is being done on the coast and that is where the people are. Our region deserves a fair share of that and so does our state. There is a hydrogen fact sheet attached to my testimony. The Minnesota legislature is asking for ten million dollars to invest in hydrogen. The legislature committed to six hundred thousand for fueling stations last session but we worded the bill wrong and the Department of Commerce couldn't use the money. We are going to fix that portion of the wording. Moorhead is not opposed to having the fueling station in Fargo. That concludes my testimony.

Representative Keiser asked why not require the partnership with industry.

Mr. Crabtree said he has three observations. If there is a way to change the wording so that it doesn't create restrictions that we will later regret, I don't have a problem with that. As a practical matter depending on how we produce the hydrogen but all of them will require more than two hundred thousand and more money than the State of North Dakota and Minnesota together would be putting into the project. If you feel that it is important to have wording that makes that clear so that the money doesn't get spent without that, I would hope that the committee would check with Representative Monson on the wording issues in that respect. The one thing that I would ask that is very important is that in whatever changes you might make to the appropriation language that it not be changed to a fueling station but remain specifically a hydrogen production system because that is one of the problems that we had in Minnesota is we used fueling station and it may be that the first viable approach is not a true gas station type concept that we all have from our own experience in liquid fuels, but simply a dispenser of hydrogen that fleet vehicles can use. That why that language is very intentional so that we keep our options open.

Representative Keiser said in the fiscal note it has the requirement that this must be completed by the end of the coming biennium. Is that going to work?

Mr. Crabtree said if there is a way that doesn't cause problems it would be good if we could extend this beyond the biennium. I think that would be helpful because there is a lot of work involved. We just put together a consortium of twenty one institutions and bid on a federal hydrogen fuel project and it was an enormous amount of work and it took a lot of time. We have the commitments and partnerships to work together but all the designs and all the contracting takes time and if we could have a little bit more flexibility that would be ideal. He also does not want to put the appropriation at risk.

Vice Chairman Damschen asked for further testimony in favor of HB 1458

Mr. John Valenter said they were fighting OPEC trying to do this stuff. This is all about the election anyway. He thinks the taxpayers are spending a lot of money on this. I know you have to go ahead and do this stuff because that is political but unless OPEC lets this thing happen you can stick all the money you want into this and it really isn't going to go anywhere.

Representative Solberg said he was a bit confused. He asked if you were supporting this legislation or opposing this legislation.

Mr. Valenter said it sounds like he is opposing it but he is actually supporting this bill. You have to do something even if it is wrong.

Mr. Kim Christenson from the Department of Commerce came forward as being neutral on HB 1458. It was not included in the governor's budget. They did want to indicate to the committee that they have the willingness and capability to undertake the task that is outlined in Section 2 in the development of the roadmap. There concern is that this looks like a significant task and that we can subcontract this out, but there is no money in the appropriation section that provides resources for this and that is obviously a concern. We do see a bright future for

hydrogen development in North Dakota. We are involved in a couple of projects with Basin and the EERC so again we are certainly willing to carry out this particular action.

Representative Keiser asked how much money does the department want to produce this roadmap?

Mr. Christianson said again it is always difficult what something like this will cost but in the initial discussions there was a talk of about fifty thousand dollars appropriation on this.

Vice Chairman Damschen asked for any opposition on HB 1458.

Mr. Curtis Jabs from Basin Electric came forward with testimony and taking a neutral stand on this bill. See written testimony marked as Item #5.

Representative Keiser said it didn't sound neutral to him because of the location in Minot and the language in this bill places it with NDSU and Fargo. It would make it unavailable for consideration by your organization.

Mr. Jabs said that this project is moving forward and he would let the sponsors of this bill address that. The reason we are neutral is because we are counting on the wisdom of this committee and the Legislative Assembly decide how to move forward with appropriations and where other projects should be located.

Mr. Ron Ness of the ND Petroleum Council came forward in opposition of this bill. Their member companies are investing millions in hydrogen research. There are a couple of things on this bill that he wanted to point out. This appears to be more like a resolution for a study and a comprehensive energy policy for the state rather than putting some of this language that will possibly be quickly outdated with technology into code. Secondly, some of the information that I have been reviewing appears that natural gas seems to be the most prevalent usage for hydrogen cells in the future. That is not contained in Section 1. Some of our companies are engaged with EERC at UND. They have become the state hydrogen center with a very large

sum of money from Senator Dorgan and it seems to me like there should be a way to collectively do this through that organization or other places as opposed to putting specific statutes in the law like this. We do feel that the hydrogen economy is likely to come someday down the road and many of our companies want to be the ones that are also supplying that energy to the consumers.

Representative Nottestad wanted to make reference to the last page, line 7. The department shall report to the Legislative Council regarding the final roadmap. He quoted the comments from Mr. Groenewold and the testimony from EERC. "I find it interesting that the bill recommends one of the deliverables be a "final roadmap by July 1, 2008". Any "roadmap" delivered on a specific date will certainly be outdated within a few months, because of the constant stream of major technological breakthroughs associated with hydrogen and fuel cell technology, many of them coming from the EERC. Do you see a final roadmap as what we are going to do with hydrogen?"

Mr. Ness said he agrees with the comments from Mr. Groenewold of EERC. To predict that anyone can put in this code what are future energy sources will or will not be and try to lay out that roadmap appears to be going down the wrong path as we apply ourselves to certain technologies. The technologies are every changing and we need to remain flexible and the state needs to remain flexible.

There was no further testimony for or against HB 1458. The hearing was closed.

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1458

House Natural Resources Committee

Check here for Conference Committee

Hearing Date: February 1, 2007

Recorder Job Number: 2591

Committee Clerk Signature

Surety Elmsted

Minutes:

Chairman Porter asked the committee to consider HB 1458. This is the hydrogen goal with the \$200,000 appropriation. Basin Electric was neutral and the opposition was Ron Ness of the North Dakota Petroleum Council.

Representative DeKrey made a motion for a do pass with referral to appropriations.

Representative Kelsh seconded the motion.

Chairman Porter asked for discussion. Seeing none, he asked the clerk to call the roll. Let the record show that there were 11 yes, 2 no, with 1 absent for a **do pass with a referral to appropriations**. **Representative Kelsh** will carry the bill to the floor.

Date: 2-1-07
 Roll Call Vote #: _____

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1438

House Natural Resources Committee

Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken To Pass w/ re referral I support

Motion Made By DeKrey Seconded By Kelsch

Representatives	Yes	No	Representatives	Yes	No
Chairman – Rep. Porter	✓		Rep. Hanson	✓	
Vice-Chairman – Rep Damschen	✓		Rep. Hunskor	✓	
Rep. Charging	✓		Rep. Kelsh	✓	
Rep. Clark	✓		Rep. Meyer	✓	
Rep. DeKrey	✓		Rep. Solberg	✓	
Rep. Drovdal		✓			
Rep. Hofstad	✓				
Rep. Keiser					
Rep. Nottestad		✓			

Total Yes 11 No 2

Absent 1 Keiser

Floor Assignment Kelsch

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1458: Natural Resources Committee (Rep. Porter, Chairman) recommends DO PASS and BE REREFERRED to the Appropriations Committee (11 YEAS, 2 NAYS, 1 ABSENT AND NOT VOTING). HB 1458 was rereferred to the Appropriations Committee.

2007 HOUSE APPROPRIATIONS

HB 1458

2007 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1458

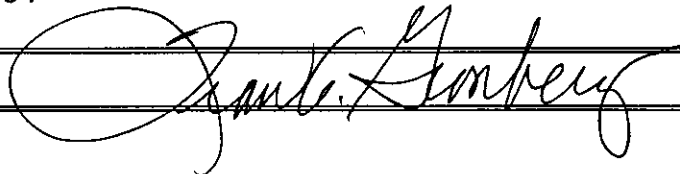
House Appropriations Committee

Check here for Conference Committee

Hearing Date: 2-6-07

Recorder Job Number: 2954

Committee Clerk Signature



Minutes:

Chairman Svedjan opened the hearing on HB 1458 which was rereferred from Natural Resources

Rep Todd Porter, Dist 34: The basic premise of the bill is to provide in Section 1 a hydrogen goal, Section 2 is a demonstration project through the department of commerce that basically is establishing through the goal and the system the hydrogen road map for the state of ND. The demonstration project is a \$200,000 appropriation on page 2 that would be going through the Dept of Commerce in partnership with industry and the city of Fargo for a commercially promising hydrogen system. For the most part this would be a vehicle refueling type station within the city of Fargo to take the next step in our commitment to hydrogen energy and reducing our dependence on foreign oil supply.

Rep Pollert: Aren't we doing this work at the EERC in Grand Forks?

Rep Porter: The EERC did present some information to us during the committee hearing. They are doing hydrogen research for basic projects. This program is an implementation saying the research is done and we are ready to implement a fueling station for vehicles inside of Fargo.

Chairman Svedjan: What more can you tell us about the partnership? The \$200,000 helps support the partnership, what does Fargo have to do?

Rep Monson: The city of Fargo is partnering with Moorhead. And Moorhead being in Minnesota has access to a lot more funds than the \$200,000. This \$200,000 is helping to bring ND to the table to access some of the Minnesota money that they're pulling up through Moorhead. I'm not sure what Fargo as a city is putting up but there are many other dollars from private industry that are getting this station up and running. So this is not research, this is ND's attempt to leverage money from federal, from city, from Minnesota, and every other source. And Moorhead, even though it is in Minnesota, is willing to have this station located in Fargo.

Chairman Svedjan: So really all this bill does is establish a goal, although a non specific goal. And then it provides the funds to leverage other funds to establish a refueling station in Fargo. Is hydrogen at the point right now where the availability is not the question and also the demand there for its use?

Rep Porter: One of the companies that testified neutrally on the bill was Basin Electric and they right now have a project going in Minot and they are going to run the electrolyzer with wind energy and convert water into hydrogen. They are working with flex fuel vehicles that will run on hydrogen. There is nothing on flex fuel vehicles for public use at this time.

Rep Svedjan: Did that project start without any state support?

Rep Porter: I don't know. I would guess that others participated. It says that it's a partnership with the US Dept of Energy, NDSU, North Central Research Extension Center, and others.

The appropriation is contingent upon the securing of the other funds from the other partners. So it is a public private partnership and one can't happen without the other.

Rep Glasheim: Is the appropriation for a different purpose than sections 1 and 2. Those seem to be planning goals and the appropriation seems to be for production.

Rep Porter: That is right. Section 3 is the implementation.

Rep Wald: Is the phraseology roadmap out of the US Dept of Energy?

Rep Porter: We didn't get to the discussion of terminology.

Rep Monson: It's the terminology used by the Dept of Energy. We didn't invent it.

Chairman Svedjan: On page 2, line 2, it refers to the "department". Since this appropriation is going to NDSU, is that who the dept is?

Rep Porter: I believe that 546003 is in the Dept of Commerce.

Chairman Svedjan: The costs for development the roadmap, and the vision, that the Dept of Commerce would have the resources available to do that within their existing budget?

Rep Porter: The Dept would be the gatekeeper to the implementation or definition of the roadmap as they move forward. On line 3, it shall involve, the dept would be tasked to bring the groups together and then come up with the plan.

Chairman Svedjan: It indicates that they may subcontract without a cost sharing component. It appears that they would need to fund it out of their existing appropriation.

Rep Nelson: This issue was an issue that the legislators forum requested a working group to work on. Much of this roadmap is in place. This is an infrastructure need for that fuel station. In the upper Midwest there is a network that is being developed in ND, SD and Minnesota and Manitoba, Winnipeg, Fargo, Sioux Falls, Minneapolis, Duluth, - they are all online to become refueling stations. So it's important that if we are going to be in this loop, we need to have a refueling station somewhere in the state. There are some hydrogen use vehicles in Winnipeg in use in their transit fleet. The technology is very close if not here. It puts us in a very

competitive relationship nationwide as moving forward in commercial hydrogen infrastructure building. It's a very good first step for this state.

Rep Monson: There's a map (basically an H) I-29 is the left leg of the map, Mpls to the east, and connecting Fargo to Mpls that is the next spot where the refueling station would be. So Fargo is very key to this because it's not only on I 29 but it's also on I 94 heading to Mpls. Anyone who wants to use hydrogen must have some place to refuel along this route. The availability of vehicles to use hydrogen fuel - most of the vehicles that are using it are internal combustion engines using hydrogen. Hydrogen doesn't get good mileage, it had very low BTU's. But it's absolutely the perfect fuel. Hydrogen when it burns turns into water vapor, and that's it - no carbon dioxide, no carbon monoxide. It can be made from lignite, methane and those are the most efficient places to get it - it can be made from wind using electrolysis of water. So there is no real shortage of hydrogen. And it can use all of our sources of fuel to make it.

Rep Aarsvold: The EERC has a significant grant that they are working on for hydrogen fuel at the moment. Is there a relationship between what we're seeing in this bill and the EERC grant?

Rep Monson: No there is not. EERC is doing research. Their research is somewhat secretive because industry does hire them to do research. Whoever pays the bill gets the data and it really isn't a public source of information. President Bush even several years ago said that one of the main pushes that he wants to see happen is that we have fuel cell development. And there are numerous companies out there working on it.

Rep Gulleason: Section 2 that does speak to building the roadmap - because the EERC got the very sizable center of excellence grant, one of the largest we have given out, now wouldn't that information be public information since it's been funded previously?

Rep Skarphol: Some of that information would be proprietary and they would not be required to share it - especially with industry being involved.

Rep Wald: Who owns the stations - who sells the fuel?

Rep Porter: It's like a gas station. The funds from the state are more or less seed money to help get the further matching money from the public private sector partnership. As far as ownership of the area it could be anybody - someone in the industry or Cass County Rural Electric could end up being the owner. The City of Fargo could potentially end up being the owner.

Rep Wald: Could it be a Conoco or an Exxon?

Rep Porter: Absolutely. It could be anyone who is interested in working toward this goal.

Chairman Svedjan: My concern is whether or not we are ahead of ourselves. Where does it fit within the priority of alternative fuels? We have a lot going on in this state with regard to ethanol, bio mass, etc. Does this tie up \$200,000 that could be used elsewhere or not used at all?

Rep Porter: In order to start seeing the movement or the globalization the technology in the vehicles there needs to be a secure network of refueling stations. Because of the low BTU's and the need for refueling, if the choice is to drive the vehicle from Winnipeg to Sioux Falls, and not having a center point to refuel, then the individual is not going to be able to utilize that vehicle. We need to be on the map as a stopping point.

Chairman Svedjan: You still won't be able to drive anywhere west. What's going to happen here? I presume that's what the roadmap will help decide too. Is the state going to be looked to to put up a couple hundred thousand dollars for every station that's developed in the state?

Rep Porter: I would expect that the private sector would get involved.

Rep Svedjan: That's another issue for me. You're seeing Basin Electric getting involved in Minot without any state support. Couldn't this also happen in Fargo?

Rep Porter: The Basin Electric project is an EERC project. So there is centers of excellence money and federal dept of energy money and other money that is being used for that three vehicle pilot project up there. It's not strictly private.

Rep Monson: You bring up a good question, in the future and two years from now are we going to have another group asking for money. This project is a one time shot at leveraging the money that Minnesota and other partners are putting on the table.

Rep Wald: If they're going to be making hydrogen out of coal, would it be appropriate to take the \$200,000 out of the lignite research fund rather than the general fund? Isn't that the purpose of the research fund?

Rep Nelson: The Minot project - the wind farm or those two wind generators were in production and Sen Dorgan secured some DOE money for the hydrogen project. And that's where that money was funneled through to fund this project. So I think that it's appropriate that the state or federal government in the initial stages of an industry does have a footprint in developing that industry. I would have no problem taking \$200,000 out of the lignite research fund.

Rep Skarphol: I agree with your concerns about where we're going with this. I understand the motivation behind it, I also understand that there are some safety issues involved with

storing hydrogen. I don't have any problems with Sections 1 and 2, but I do have a dilemma with section 3. Even if we pass it, I don't think NDSU is the place for it. I think it belongs with the Commerce Commission and they should decide who should be involved whoever he partner is.

Rep Nelson made a Do Pass motion

Rep Hawken seconded the motion

(yes) 15 (no) 8 (absent) 1

Carrier: Rep Scott Kelsh

Date: 2/16/07
 Roll Call Vote #: 1

2007 HOUSE STANDING COMMITTEE ROLL CALL VOTES
 BILL/RESOLUTION NO. 1458

House Appropriations Full Committee

Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken No Pass

Motion Made By Nelson Seconded By Hawken

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan		✓			
Vice Chairman Kempenich	✓				
Representative Wald		✓	Representative Aarsvold	✓	
Representative Monson	✓		Representative Gulleon	✓	
Representative Hawken	✓				
Representative Klein	✓				
Representative Martinson	✓				
Representative Carlson		✓	Representative Glassheim	✓	
Representative Carlisle		✓	Representative Kroeber	✓	
Representative Skarphol		✓	Representative Williams	✓	
Representative Thoreson	✓				
Representative Pollert		✓	Representative Ekstrom	✓	
Representative Bellew		✓	Representative Kerzman	✓	
Representative Kreidt		✓	Representative Metcalf	✓	
Representative Nelson	✓				
Representative Wieland	✓				

Total (Yes) 15 No 8

Absent 1

Floor Assignment Rep. B. Kelsch
Fritt

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

HB 1458: Appropriations Committee (Rep. Svedjan, Chairman) recommends DO PASS
(15 YEAS, 8 NAYS, 1 ABSENT AND NOT VOTING). HB 1458 was placed on the
Eleventh order on the calendar.

2007 SENATE NATURAL RESOURCES

HB 1458

