2009 HOUSE NATURAL RESOURCES

HB 1350

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1350

House Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: 1-30-09

Recorder Job Number: 8265

Committee Clerk Signature Nancy L. Gerhardt

Minutes:

Vice Chairman Damschen - Called meeting to order. Rep. Keiser

Rep. Keiser – An appropriation for 5 million dollars. It is a grant for the construction of a Great Plains supply applied energy research center on the Bismarck state college campus. A general fund appropriation. The requirement in the legislation is that there is a 3 to 1 match of non state funds. ND is becoming a center in energy production, through coal, lignite, wind, hydro and oil as well. The purpose of this is to apply this in a very applied way. This is an applied research center. It wants to develop applications that can be taken directly to the market and applied relative to energy. Some of the issues, for example, is how do we operate the very dynamic energy production system when that energy production system can come on and off depending on the wind. How will we move energy throughout the United States in a way that is functional and works if the nature of the product in part is intermittent? Another example is how you store it. Maybe we don't need to worry about having a complicated system to distribute the energy if we can find an applied way to store that energy in some capacity and then be able to utilize it at a later time. I believe we have the participation for the 3 to 1 match. The money is in hand. It is shovel ready in terms of financing.

Vice Chairman Damschen – Questions for Rep. Keiser? Rep. Drovdal

Rep. Drovdal – Is this included in the 35% increase in the governor's budget?

Rep. Keiser – No There doesn't need to be a fiscal note for this. This is an appropriation.

Vice Chairman Damschen – Questions

Vice Chairman Damschen – Further testimony in support.

John Warford – Mayor of Bismarck - See Attachment #1.

Vice Chairman Damschen – Questions? Further testimony in support?

Niles Hushka – See Attachment #2.

Vice Chairman Damschen – Questions? Rep. Hofstad

Rep. Hofstad – The money from a Federal level is it through the economic stimulus act or do you have it ear marked someplace or a specific place that you are looking to?

Niles Hushka – Yes, we do not have it earmarked, there is a specific section on the stimulus act, both the house and senate versions that talks about a mass storage and energy integration. Within that legislation the house side appropriated 2 billion dollars and the senate side was looking at more. We've found the window in. We will be moving forward as soon as the legislation is ready to go into the right channels and put together the right application processes to make sure we get a portion of those 2 billion dollars. The house version went out through without any modifications although the senate version looks a little different. Both are solidly behind these components. It is under the dept. of energy which puts a high priority on integration of renewable energy resources and mass storage systems. The reason they do is because there are no existing research facilities in the region and the country that focus on these two things and we have a significant advantage of the fact that all these energy companies that are headquartered in Bismarck knew this. They are forced to figure out how to integrate renewable into their system and how to come up with mass storage systems that allow integration to occur.

Rep. Hofstad – Does that legislation require a 3 to 1 match?

Niles Hushka – The programs allow you to go after 100% grant money for them. However we believe we will have other means to facility. Like other legislation the lower the grant you ask for the better chance of getting all you ask for.

Rep. Keiser – The committee took the liberty to get testimony from EERC in Grand Forks saying -- in audible.

Niles – We believe the EERC has individual components necessary to be employed in this mass storage. That no one entity can do this today. With the opportunity we offer it is the opportunity for the energy companies to work with the EERC, NDSU, UND and Sandia Labs and together we can harness all that knowledge to make intigraton of mass storage possible. Our intention is to partner with all these. NDSU & UND will be accompanying a group to Sandia to decide how we structure this. Nothing is put into place in the moment. As to partnerships – we do need their technology. Our intention is to mass scale deployments, 20 to 50 to 100 million dollar projects that actually pump hydro. And then tests it and see how you regulate it. Figure out whether it works or not. We're looking at deployment not the development of new science. Taking real technology in cooperation with real utility companies facing real problems but building assets.

Vice Chairman Damschen – Questions what progress has been made in research & development in mass storage?

Niles – Sandia Laboratories is designated as the nation's resource for mass storage systems and right now they are working on 60 proposals that are out there. In the mass storage arena it is very interesting, first of all Japan, for instance, deploys 14% of its overall power is in mass storage, the US has less than 2. We know we have a significant way to go. The reason Japan and other countries like Germany integrate mass storage is because they have so much

renewable power that doesn't work the way it should – we can't produce power when we need to. There isn't an inventory in the US of the mass storage systems out there. The dept. of energy doesn't even know what is available.

Vice Chairman Damschen – Questions? Further testimony in support of HB 1350?

Bill Goetz – ND University System - See Attachment #3.

Vice Chairman Damschen – Questions

Rep. Keiser – The board of higher education with their budget and the governor with his budget has taken all the money. There are no good ideas left. We should only fund anyone else's ideas if we can find extra money. That is what I understood your argument to be. That creates a real frustration for me as legislature because there is no money left. Only if we can fund those others can we even consider something like this.

Bill – The challenge we have collectively, including the university system, is one of many priorities. It is your responsibility and was my responsibility as a legislature to address the importance and prioritize the initives as we saw fit. Not for our district, but for the state of ND as a whole. That is my view. I represent the university system. The university system is linked to the policy makers – you.

Vice Chairman Damschen – Questions Rep. Nottestad

Rep. Nottestad – Was EERC's positions discussed with Dr. Kelly?

Bill – Yes

Rep. Nottestad – Was there any discussion with EERC by your office?

Bill – Yes

Vice Chairman Damschen – Question? Support

Curt Jabs? – Basin Electric - We have supported BSC and this energy facility. They have provided training for workers that work in our coal based facilities and we are appreciative of

that. Basin Electric is also developing a 120 megawatt wind farm near Minot. Transmission is an issue. Wind is variable. You can't store it. These are issues that need to be addressed. We feel the collorabition with Sandi Lab and the other universities here at BSC is appropriate. ND is long in resources and we need this development so we can develop our resources.

Vice Chairman Damschen – Questions

Kelvin ?? – Bismarck Mandan Chamber of Commerce – Key industries advancing our state as a whole. Energy is one of those keys. We are excited about this project.

Vice Chairman Damschen – Questions? Further testimony in support of HB 1350?

Any opposition? Close the hearing.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1350

House Natural Resources Committee

☐ Check here for Conference Committee

Hearing Date: 1-30-09

Recorder Job Number: 0000 no recording

Committee Clerk Signature Nancy L. Gerhardt

Minutes:

Chairman Porter – Opened hearing on HB 1350.

Rep. DeKray – Moved Do Pass rereferred to appropriation.

Rep. Kelsh – 2nd.

Chairman Porter – Called for vote.

Yes 8 No 2 Absent 3 Carrier Rep. Keiser

Date: 1-30-09
Roll Call Vote #: _____

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1350

House Natural Resources Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☑ Do Pass ☐ Do Not Pass ☐ As Amended To appropriation

Motion Made By DeKrey Seconded By Kelsch

Representatives	Yes	No	Representatives	Yes	No
Chairman Porter	✓		Rep Hanson		
Vice Chairman Damschen	✓		Rep Hunskor	✓	
Rep Clark			Rep Kelsh	✓	
Rep DeKrey	✓		Rep Myxter		✓
Rep Drovdal		✓	Rep Pinkerton		
Rep Hofstad	✓				
Rep Keiser	✓				
Rep Nottestad	✓				

Total (Yes) 8 No 2

Absent 3

Floor Assignment Kei

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

REPORT OF STANDING COMMITTEE

HB 1350: Natural Resources Committee (Rep. Porter, Chairman) recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee** (8 YEAS, 2 NAYS, 3 ABSENT AND NOT VOTING). HB 1350 was rereferred to the **Appropriations Committee**.

2009 HOUSE APPROPRIATIONS

HB 1350

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No: HB 1350

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 11, 2009

Recorder Job Number: 9243

Committee Clerk Signature L. Penrose

Minutes:

Chm. Svedjan took up HB 1350.

Rep. George Keiser, District 47: Support of HB 1350 which came out of Natural Resources committee. This bill requests a $5 million grant for the construction of a Great Plains Applied Energy Research Center. There are certain provisions associated with the grant. There has to be a 3:1 dollar match for the funds. It requires a minimum of $15 million to be generated for the $5 million dollar match. The Board of Higher Education, the Commissioner came down and testified in strong support of the bill, representing both UND and NDSU and the Board of Higher Education in strong support. The committee did receive a document from the EERC that suggested that it was a duplicative effort. The commissioner was questioned during our hearing on that, and said that the University presidents are in full support of this request. The Great Plants Applied Energy Research Center will apply research. Sandia Corporation has been designated as the lead corporation, I believe in California, to implement the stimulus package that is coming out of Washington. The federal government will be participating. The city of Bismarck is already committed, but more importantly, the electric transmission and generation companies in western ND are in full support of this. Not only in word, but in terms of their funding. The reason that we had such strong support for this is because this is a significant economic development project within the energy industry in ND, especially western

ND. It has the potential for creating a tremendous number of significant higher paying jobs and we want to be part of this revolution relative to energy development. Specific areas that had been identified as target areas for this center include the development of transmission and utilization models; although ND and many other states are very heavily into wind energy. As we all know, wind energy is there as long as the wind is blowing. But what do you do when the wind isn't blowing. We have not developed, no one has developed, a significant model in which to utilize wind energy along with coal and hydropower generation in a meaningful way for the U.S. grid. That would be one of the potential areas that this group will address. In addition to that, a second area is storage; the creation and development of storage technology for electrical power once it has been generated; again utilizing the great potential our state has in wind energy. The Natural Resources Committee was very strong in their support for this. It is, I recognize, a significant amount of dollars. It is a project that, we believe, the full capacity to occur, and have a positive impact on ND in general, but certainly in the wind areas of our state as well as western ND.

Rep. Kempenich: How does this tie into the Center of Excellence that went on the Bismarck campus.

Rep. Keiser: Excellent question. The major tie-in is that it would be located just south of that building. It is an entirely different purpose that this is coming on line for. It will be self-funded; it will be funded by the industry, by the development of the technology that's there. It is an applied center, not a training center for people in the energy industry. It is an applied research center, in a very large scale demonstration project type of entity. Again, Sandia Corporation is the lead group of engineers, physicists, mathematicians, and all of the others that are involved in the development of these models and technology. It's related, but it is not the same.

Rep. Nelson: What is the difference between the applied energy research center as opposed to the EERC in Grand Forks? You referred to that earlier, but I'm trying to differentiate the goals between the two institutions if this one is built.

Rep. Keiser: Niles Hushka is here, who is an engineer who works in the arena, and I think can better differentiate that for you, if that would be acceptable.

Ch. Svedjan: I think it should be. I would ask that you try and keep your comments brief. This is not a hearing, but we probably need that information.

Niles Hushka: I think the big difference is that it is focused specifically on taking the research that comes out of the EERC and actually putting it in working models. Much of what we do in the energy industry, especially what Rep. Keiser talked about with the immigration and mass storage of renewable energy has never been tested. The EERC works on individual components that need to be combined into working physical attributes and these assets that we produce will combine technologies that Rep. Keiser mentioned from the Sandia National Laboratories in NM, with the EERC's and UND's components to make things that run. We're talking about scale things that run. An example would be a $22 million dollar mass storage system that uses flow batteries that combines technologies from all of those, but actually operates them in a grid. That's the main difference; primarily that these are applications. We have no intention in the Center of doing any research. The research will be farmed out. The other unique thing about the Center is that the technology that's being deployed is led by the energy companies. We have six energy partners. They are the ones who decide what gets built and how.

Ch. Svedjan: Please make sure that you sign in. You are saying that the research that is being done at EERC is only research and they do not move in the direction of applying that research. You need this facility to do that.

Niles Hushka: They do apply pieces of their research also. I don't want to confuse that issue. What we do at the Center, however, is combine not only their research, but other's research. We recognize today that individual research universities, not only in our state, but others, are again working on individual components. For instance, control systems that might work, or grid modifications that might work, but these attempts to combine each of those into real models that function in the field, that we can test, demonstrate and optimize. That's the real function of the center, is to take the technologies, combine them, deploy them, develop them, test them and send them back out. The economic benefits that come to us as a state, is that many of these technologies, once they are integrated and have a purpose, will be spun off into individual companies and those individual companies is where we hope to see the greatest benefits to the state and the region.

Rep. Pollert: What about SD, MN, or MT or even Canada. Is anybody doing this type of research now, as far as what you're doing, so that we're not duplicating in the state of ND.

Niles Hushka: Again, I want to go back and say that all of those entities are doing individual components of research and we will cooperate with all of them to combine their research into real technology. The benefits and the difference we have is that we have energy partners; Basic Electric, MDU, Excel Power, etc. who can actually deploy those on-site, which is what's wrong today. Since those companies such as Basin are not research companies, they do not want to apply the technologies. They wait for others to do it, and then other entities come in. From what we understand in working with the Dept. of Energy, we would be one of the first in the nation to do what this Center is focused on; which is the integration of renewable energy, man-mass storage. This technology side is one component, on the other component we also have emphasized that there is no public policy that is being developed at the moment, and that is also what has intrigued our energy companies to such a great extent is that now once we

demonstrate and test these, we'll come out with public policy statements that can be introduced to Washington, to be introduced into our national energy legislation which will help make things work at a better level for our companies.

Rep. Pollert: Does the state of North Dakota do any funding for the EERC? The reason I'm asking is that, if we don't, the research center you want to do, is something that is a nationwide or inter-countrywide, so why wouldn't Washington want to fund this if it is that big of a project. If we aren't doing EERC funding, then why would we do this.

Rep. Keiser: I cannot tell you the amount of dollars, but I believe that the EERC does receive about $300+ million dollars a year from the federal government for research already. This Center will also have significant federal dollars as a source of funding for the research development that will go on here. Again, I want to stress the point that the two Presidents of the major universities, are in support of this project. The Board of Higher Education is in support of this project.

Rep. Wald: This is a 3:1 match, can we assume this will ultimately be at least a $15 million dollar project.

Rep. Keiser: It is a $20 million dollar project minimum. For a $5 million, it has to have a 3:1 match which is $15 million.

Rep. Delzer: Who would actually own the building?

Rep. Keiser: I believe it will be owned by the Center itself, not BSC. The Center will be required to operate the building.

Rep. Delzer: How about the land that it sits on.

Rep. Keiser: The land is currently owned by the city of Bismarck, and would be given to the project.

Rep. Delzer: Is Bismarck College a research center now?

Rep. Keiser: Bismarck College is not a research center; again, this is separate from, although adjacent to, Bismarck State College. It is in the center of our energy development area.

Rep. Delzer: In other words, you are saying that there's not supposed to be any instruction going on in there, no college students involved in this at all. Nothing to do with Bismarck College.

Rep. Keiser: As I understand it, it is a free-standing entity that is dedicated to research. Now whether students can have jobs in there and be paid, I'm not sure how the EERC on the UND campus operates, in terms of whether or not they share faculty or whether they have students working there, I don't know.

Rep. Delzer: Ownership of all the end products, belong to the companies that work there.

Rep. Keiser: The companies are going to be making the primary investment, and I do believe that they would have every intention of owning the products and services developed.

Rep. Delzer: When you put this together, why didn't you have it be a loan, with a repayment schedule out so many years, as compared to a flat out grant.

Rep. Keiser: The package as it was put together, required various participation by the federal government, state government, city of Bismarck, and the private sector, with the condition, as I understand it, initially was if all four partners are there, that this project can go forward.

Rep. Delzer: Is the land the supposedly sits on the campus grounds that belong to the city of Bismarck, is that part of the $15 million dollars.

Rep. Keiser: I would assume that that land would be part of the $15 million dollars.

Ch. Svedjan: I heard you say that they plan to donate the land.

Rep. Keiser: Well, they will allow them to use the land and transfer the title of the land; I would assume therefore that that land would be taxable.

Rep. Nelson: I have a question about the mass storage. I understand it to be a commercial application of storage; would this also include electrolysis, and storage for hydrogen, would that be an application?

Niles Hushka: That would be one, but not the one we are focused on. What we are focused on is trying to optimize the grid, and so a classic example of mass storage would be pumped hydro, where water is taken from a lower elevation water pool, pumped up to a higher elevation water pool when the wind spins. Then as soon as the wind stops and we have demand for the power, we run turbines backwards on the bottom of the pool and extract the energy. What is different about this is that, as an example, we're often forced to do significant upgrades to meet peak requirements, so we simply station the right types of mass storage in the right places we can significantly adjust our substation designs, for instance. The problem is that they're not available and if they are available they've not been tested. In order to ensure the grid integrity that we have, some entity needs to do that. So this is an entity that combines NDSU, UND, EERC, uses them for their skill sets to do the research and the testing, and then brings in the Sandia Labs technologies, which are amazing, and we were there yesterday for joint meetings with Sandia, and they have some very important technologies that need to be tested. That is what this attempts to do.

Rep. Skarphol: I still have a great deal of difficulties defining the differences in my mind between what you want to do and what's being done at the EERC, quite frankly. I'm curious about why you would choose to do the work in Bismarck, as opposed to at the EERC and lastly, it would seem to me that if we were going to move forward with this, this should have come forward as a Centers of Excellence, as opposed to merely an appropriation. I would like to know the reason for not following that avenue as opposed to this.

Rep. Keiser: Again, you folks are more familiar with Centers of Excellence. This is a private sector effort. If, as such, they can become Centers of Excellence and not through the University system or through some state subsystem, that's my fault. This is a private venture; this is an opportunity for ND to take advantage of the stars coming into alignment relative to a lot of funding that is available to us.

Rep. Skarphol: I would hope that most of the other ones, the Centers of Excellence are also private entities. That was the intent that the private sector was going to be involved. On the match, the 3:1 match, are we talking about in-kind or upfront cash?

Rep. Keiser: It's cash.

Rep. Berg: This is kind of an exciting proposal. One of the things about Bismarck, is that it became an energy center; that was the Centers of Excellence, I opposed that because that was really focused on workforce training and it was focused on, and not that it's bad, but I didn't see that as a Centers of Excellence kind of initiative. I would like to amend this bill, I think first of all, this building has a potential to generate a lot of opportunity and economic activity in ND. I think that's exactly what this federal stimulus package is all about. I would like to see an amendment that this goes on a list of what we would say our priority projects for the federal stimulus money. I would like to switch the match and make it 2:1, 2 from the state and 1 from the private sector, because I think that the dollars we can keep in the private sector, certainly in the energy industry, is going to circulate and create jobs and help those companies grow. The other thing, as I look back over the last ten years, where we've had success is when we had public/private partnerships. Those are the things that are driven by the private sector and are focused on results that make a difference. That's why I really like this project. I think we should grant them some flexibility to allow them to have a streamlined construction process. I think all of these dollars coming out of the federal government are going to be in my

opinion, tied up for years before they hit the street. I think a project like this is driven by the private sector and adequately funded will probably be one of the first projects in the country that would be built with the stimulus package. Having said that, I'm very disappointed, but not surprised that we got a pissing contest between EERC and this. There's no reason that these two entities cannot be compatible. I think there's a real opportunity to have some of the research that EERC is doing compatible with this research, as close as possible to the energy sector. I don't know how we get around that, but I don't like that duplication, I don't like that conflict. I don't like the fact that this is not coming from the Board of Higher Education. I think these things should come through the Board, and they should set their priorities. Having said that, I can understand why something like this would not be high on the Board's building construction project list. Again, I think that we should put on the amendment that this becomes a priority for these federal stimulus dollars, subject to other approvals, and that we change the match the other way, so that is $1 from the private and $2 from the state through the federal money, and we grant them some streamlined processes so that they can get the building up and running.

Rep. Keiser: Although Rep. Berg's concept has tremendous merit, I would encourage the committee to resist it for a couple of reasons. First, the private sector is committed to do this in our state if it can be done, and they believe firmly in putting their money in this project where this mouth is. They don't have a problem with the formula for the match. Second, if our action as a Legislature is to say that we will consider it and give it high priority, it decreases the probability of this happening. We have been told that we need a demonstration of commitment, greater than placing it on a list. What are the upsides and the downsides? If you commit the money, and this happens you are going to have one of the most advanced, significant research application facilities in the country. You are going to have the potential for

a lot of company creation, a lot of job creation, and the kind of jobs that we all talk about during our campaigns, high paying jobs. What is the downside? If we take a risk and say that we'll commit to this, now make it happen and it doesn't happen, the downside is two years from now, as you can see from looking at the bill, you have $5 million dollars that you didn't spend. If you take the approach that Rep. Berg suggested, I don't know what the implications are.

Rep. Berg: I didn't mean to put Rep. Keiser on the spot, but clearly one or two things are going to happen to the bill in the next week. It's going to pass or die. This bill dies and that idea cannot come back in necessarily without being an amendment to something else. We've also been privileged on this committee to know more about what is going on in the federal stimulus package. My understanding is, of the things they are looking at, that this fits exactly with what it is they want to see happen. I just think from our position on this committee, this seems like almost a poster child type project for those federal funds. It was not my intention to come up with an amendment to kill this bill and not do anything.

Rep. Ekstrom: I have some contingent language that I have been trying to get into play that deals with the federal stimulus package. What it state is that should other funds or federal funds become available those funds shall take precedence on the particular project we are talking about. Otherwise they are general fund dollars. That way we can vote up or down based on the quality of the project and still gives us the contingency of using federal dollars.

Rep. Kempenich: I was just going to tell you that the stimulus money is a one-time money source. Rep. Ekstrom has a good point on how to handle this. Between the two Houses on these federal stimulus dollars, one-time payment, they're passing out one time money and we've talked about how it's going to affect some of the stimulus stuff, but I think that would be a good compromise on how to do that.

Rep. Wald: Mr. Hushka is a CEO with KLJ, a local engineering firm.

Rep. Keiser: Yes.

Rep. Wald: Are they going to provide the engineering services to the Great Plants Applied Energy Center. Are there any contracts in place at this time?

Rep. Keiser: There aren't any contracts in place.

Rep. Wald: But they would be.

Rep. Keiser: I guess there could potentially be. They simply are working on behalf of this project. I think they were contacted by sources outside of the state relative to this project.

Rep. Wald: My reason for asking the question, would there be local employment opportunities through a local firm.

Rep. Keiser: Certainly within the state.

Ch. Svedjan: Other discussion.

Rep. Kaldor: Making this investment, if the state makes this investment, which I agree is very exciting, has tremendous opportunity and potential for the state and nation. I am curious as to whether or not or how other entities that are associated with the university system deal with this area of patent participation. It sounds like from your response to Rep. Delzer, that the state of North Dakota would have absolutely no stake in any patent or new developments. That would all be owned by the private entity that's providing the match.

Rep. Keiser: In a previous career, I was a researcher at the University of UT, a major research institution in the United States, holds the potential for more patents than almost anyone. The kidney dialysis machine, the drug Heparin, the first birth control pill, the first open heart surgery was done there; the artificial heart was developed there. If you want to talk about patents and technology, that is certainly a model university to look at. The Univ. of Utah recognized some 40 years ago that what was happening was their people were doing the research and then leaving the institution and two years later announcing the formation of a

corporation. They decided that they wanted the finest scientists in the world at their facility, and they passed legislation into law that said that within their own organization that the scientist can patent the developments that they produce at the University. The result of that has been overwhelming in terms of the number of scientists that are willing to work within that facility. North Dakota did something similar to that a few years ago, in which we allowed our researchers at our fine institutions to also patent and own their product. If you want the patents on this organization, you will not get Sandia; you will not get the brightest, best researchers in the world to participate in this endeavor.

Ch. Svedjan: There have been a couple of suggestions for amendments. Please bring your amendments to the meeting this afternoon at 3:15 pm. One possible amendment was the contingent language that relates to how we would spend general fund money relative to other funds that may become available. Another suggestion was a 2:1 match with some other provisions. We are in recess.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1350

House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 13, 2009

Recorder Job Number: 9485, 9486

Committee Clerk Signature

Minutes:

Ch. Svedjan: We will take a look at HB 1350.

Rep. Dosch: Explained amendment .0203 (Attachment A). Initially the $5 million dollars would have come from the general fund. The idea then came forward that this would be a perfect fit for the stimulus funds. However, in speaking with the principals in the bill, we have been told that the federal government won't accept the state using the stimulus money – we have to do our part. If that would be the case, that we have to have a commitment on the part of the state of ND, and we're putting out the $5 million dollars, we should attach a few strings along with that. Basically, 1) the amendment still requires the 3:1 match on any dollars and those dollars must be put in place before our dollars would be released; 2) that the state would retain a proportionate share in its investment in this Center; 3) the state would not be responsible for any of the operating costs of the Center; 4) to give the discretion to the local taxing authority if they want to levy a property tax on the property. Mr. Hushka has been in contact with Sen. Dorgan's office and that's basically where we've been told that they won't accept the state using the stimulus money; that we have to make the commitment on our part. Furthermore, again, he strongly recommended that we get something in place. There is going to be a lot of money coming down the pike. Currently the government is spending about $20 billion dollars a year on energy research projects. That's expected to go up to $60 billion

dollars. We're going to need an accredited national institute, if you will, as a conduit to get these research dollars into the state and thus the need for this. This money is going to start flowing and we need to get going and not delay. I move these amendments .0203.

Rep. Berg: Second.

Chm. Svedjan: This language then would render this as a potential project for funding under stimulus based on point #1?

Rep. Dosch: No. No. 1 indicates that this would require the state to put forth $5 million in General Fund dollars. There has to be a 3:1 match from the private sector and federal dollars may come into help complete the project. We're just saying in #1 that it has to be matched. We're not putting forth our money until the match is met.

Chm. Svedjan: If there was enough federal stimulus money, say $15 million dollars, could that money be used under the language in point 1; that's 3:1.

Rep. Dosch: Yes it could, however, they want the private sector involved in the process as well. They want industry involved in this research and development. It could be $5 million state, $5 million private sector and $5 million federal. The requirement is that they want the industry involved in this research development, so they want commitment, not only on behalf of the state, but the local. What the percentage ends up being in the end; how big a portion of that is federal stimulus, I don't know.

Rep. Skarphol: If we put $5 million dollars in state funds into this and there is a $15 million federal grant that ends up funding the balance of this, what is the private sector's investment in this?

Ch. Svedjan: That's kind of what I was driving at here.

Rep. Skarphol: I'm concerned about what the private sector has invested because if they don't have a dollar in here, I don't that I'm interested in giving them $5 million of ours. I think

we can correct that by saying that other non-state matching funds of at least $3 for each $1 granted, fine. That way if they put in $5 million and the state puts in $5 million, and the feds put in $15 million, we'd get 20% owner. I'm not seeing any investment by the private sector reflected in what we're doing here. I can't support that.

Rep. Berg: I agree with Rep. Skarphol. It was presented that the $15 million would come from the private sector, the $5 million from the state and then the Federal dollars, in large part, would be for the operational expenses. We could tweak this and say the 3:1 match should include the private sector; one part is state, one part private and we don't care about the rest. One of the parts should be private. We want the private sector people to feel ownership and make sure that the research and things that are done are going to drive and benefit ND.

Rep. Skarphol: My impression was that if there was a $15 million federal grant available to do this, and the project was going to cost $20 million, I'm asking myself, what person wouldn't want to do this, with the state putting in the $5 million?

Ch. Svedjan: That was the reason for my question. It says other non-state matching funds. Other non-state could be all federal.

Rep. Dosch: If we want to amend this to state that, I think that would be a very good idea. Just in conversations with the parties, they are not going to do it if there's no state commitment or private industry commitment, so I don't think we have a problem putting that in there, to make certain.

Rep. Skarphol: I don't want to do something that would inhibit the project, but I think we should understand what their contribution is going to be to this.

Rep. Meyer: If we are a proportionate owner in the Center, will we have any ownership in the end product, and could that limit good researchers. Does it have anything to do with that?

Rep. Dosch: No.

Chm. Svedjan: Also, a question about property taxes, if we become a 20% owner, how does that affect us as far as taxes are concerned. No. 4 subjects the Center to tax assessments and property taxes.

Rep. Dosch: Item #3 does indicate that the state isn't going to be responsible for any of the operating or property costs. I put #4 on there just as a Bismarck resident with a lot of tax free property in the state, but perhaps in #3, we could include that the state is not responsible for any operating costs or property taxes should they be assessed.

Rep. Berg: I think it's good the way it is. You look at #4, we're not imposing on the locals that there's no property tax paid. We're really saying that we are leaving it up to the locals. If they want to give a zero property tax, it's not like we're imposing it on them. I think as it relates to property tax, it's pretty clean. We should look at the private sector match, because I think it makes the bill better, figure out some wording that we can come back and propose that amendment.

Ch. Svedjan: I am open to that.

Rep. Wald: I asked Rep. Keiser yesterday, after the hearing, if the state would participate in any patent royalties, and his answer was no, in that the private partners would not be very interested in the state sharing in any patent revenue, if it should come about.

Rep. Glassheim: If we're not going to get any patent revenues, why do we want ownership in the building? There's no advantage to the state. It's an advantage to own part of the business if there is income. If we own 20% of the building and they need a new roof in ten years, is the state liable for 25% of the costs. What is the point of us owning anything if we don't get anything out of it.

Chm. Svedjan: That should be explored.

Rep. Onstad: This kind of relates to the issue, my son is receiving his Ph.D. shortly. The university he attends asked him to sign a document that any future patents through his research, five percent (5%) of that would have to go back to the university. That's pretty standard with a lot of universities now that do that. Those are some things that do happen.

Chm. Svedjan: The patent generation from this facility I would assume would be limited. The EERC would probably have the patents. We're talking about applied research. I heard them say, that as research is developed at an EERC that this would be more to apply what's already been invented or researched. We will recess.

Ch. Svedjan: We will call the committee back to order. I'm told that we can proceed with our consideration of HB 1350. We do have a motion on the floor to adopt .0203.

Rep. Dosch: Further amend .0203, Section #1 of Amendment; add "a portion of the matching funds must be provided by the private sector" at the end of the sentence.

Chm. Svedjan: It's non-specific as to the amount?

Rep. Dosch: That's correct.

Rep. Delzer: I would have to question, does this amendment take away the stipulation that the money can only be spent if all the other money is in place. The way I read it, it does.

Rep. Dosch: That is not the intent.

Rep. Delzer: Remove lines 10 and 11.

Rep. Dosch: It's covered in line 1 of the amendment.

Chm. Svedjan: I'm accepting this as a friendly amendment to .0203. Any further discussion.

Rep. Kaldor: Ownership, proportional ownership. Is that something we want to own? What does ownership mean once this is constructed?

Rep. Berg: We're giving state land. I don't know who would own it.

Chm. Svedjan: This is not state land, the land is owned by the City of Bismarck.

Rep. Berg: Who would be the ultimate owner? Would it be the local economic development group, would it be the private sector, the federal government. It's probably good to have the language in the bill at this point to see how this shakes out.

Chm. Svedjan: It's been stated that it might be good to keep the language in there that provides for state proportional ownership for now. That's still open for discussion.

Rep. Kaldor: I agree with Rep. Berg that there is uncertainty right now. It was made clear that we have no ownership interest in the patents or what they produce. It's a secondary effect that we benefit from. We benefit as a state from the economic development that will be produced there and that's great. But having an ownership interest as we have in state institutions is somewhat different. If we're going to own this and we're not going to have a direct benefit, then I'm concerned about the direct liability we hold. I think this will get clarified in the policy committee someplace in the Senate, if it goes over there. I won't object to it, but I have real questions about that.

Rep. Dosch: The ownership interest was my idea so that we would have something for the money. In visiting with them, there may be some other things that can be moved around or whatever. I was just kind of looking out for the state and is there something we can get right now in return. As this has transpired in the last day, I guess I would encourage the committee to support this, and work on it between now and when it gets to the Senate. We can further amend it over there to get the comfort level of everyone. I just wanted to attach a couple of strings to the bill, so we would perhaps have some say as to the $5 million and eventually getting it back, one way or the other.

Rep. Onstad: The current energy building's third and fourth floors at BSC are not being used. Has there been any discussion as to what that space will be used for. Can that also be part of this discussion?

Chm. Svedjan: It's not part of the bill but it's probably a germane question. I've heard that stated also, that there is unused space over there. Was that a part of your discussion?

Rep. Dosch: No, it was not. It's actually only the fourth floor that is not utilized and they hope to use that as they expand and that space would not be adequate for what will be done with the Applied Research Center that they are talking about. That one is tied into the University system there. This would be somewhat of a different animal. It probably would not work.

Rep. Wald: This ownership thing keeps coming back; Rep. Keiser said potential revenue from patents. Could we say that "any revenue derived from patent income or whatever source you want to designate" would have to go to the tune of $5 million dollars, and anything thereafter would stay with the Great Plains Applied Energy Research Center. So it almost becomes a loan. I don't think we want an ongoing thing, where these people might say, if you're going to get a lion's share of the revenue, we're not interested. Having something saying, until we get our $5 million out, then after that it's all yours.

Chm. Svedjan: From what I've heard, for us to interfere with potential patent income, might dissuade the private sector from wanting to get involved.

Rep. Skarphol: I think another way to do that, if Rep. Dosch would be willing to add some language to #2 that would say that "the private sector could reduce the state ownership through proportionate payoffs to the state general fund contribution". That way if they want to buy out the state's ownership, they have that option by paying the $5 million back.

Rep. Berg: Never sell real estate. Never give up your rights. If we're concerned about this, and I like the suggestions that have been made, and we can't get too tight with it. Maybe we could have language that would say the state of ND expects a return on its investment. As this evolves, we can still be at the table. I think we should have an ownership stake, I even like a larger ownership stake and proportional. At some point, this may change. They could always

buy us out. I think the amendments of Rep. Dosch are fine. There are a lot of moving parts. I think we will see this bill again before the end of the session. These are good suggestions.

Rep. Nelson: I agree with Rep. Berg on #2. I have a question about #4. If we have a proportional ownership, we are agreeing to pay local property taxes in #4. I would be very much opposed to the state of ND having that obligation. If Bismarck doesn't like all the state institutions and the loss of property tax, there are a lot of cities in ND that would be glad to take some of them off their hands. That's a deal breaker for me.

Rep. Berg: That's a good point, but I think #3 takes care of that. It says the state will not be responsible for operational costs.

Chm. Svedjan: If the state has a 20% ownership, does the state pay the taxes on that 20%.

Rep. Berg: I think operational costs typically include everything; heat, utility, insurance, real estate taxes. We could add language to that effect to include property taxes as part of operational costs. I think that is the intent, that the state will not be responsible for any operating costs.

Rep. Nelson: I think that should be cleared up.

Rep. Dosch: We could add that on there. I would further amend my friendly amendment to include that language.

Rep. Wieland: This is an unusual situation. How many jobs would be produced by this, which is really the basis for this? I would have liked to see some sort of a repayment plan. It wouldn't even have to include the interest paid on it; at least they would get the investment back. If we can't get it on the patents, I would have liked to see a repayment plan. Perhaps the Senate could do that.

Rep. Pollert: What do you mean by a "portion of a match has to come from the private sector? That could be a dollar, a hundred dollars, or a thousand dollars. That is really a discretionary

statement.

Rep. Dosch: It is going to be the private sector that will take the lead on this. They are going to be responsible for the operating costs of the facility, they're going to be responsible for a lot of the grants that come down, anywhere between 20-50% match on these grants that the private sector is going to be putting forth the money on that. It could be in the form that they're paying to complete a floor of the building. They are going to put in a million dollars in lieu of rent. That's why it's kind of difficult to nail down an exact percent. It's going to be the private sector that makes this work.

Rep. Williams: Let's leave some room for the Senate to improve this.

Chm. Svedjan: That's a good point. We have a motion on the floor that has two friendly amendments to it; one that deals with a portion of the matching funds must be provided by the private sector, and the other excludes the payment of property taxes by the State should they be assessed. Voice vote to adopt .0203. Motion carried. We now have the bill before us as amended, what are the committee's wishes in regard to HB 1350. This would render amendment .0201 unnecessary.

Rep. Ekstrom nodded in agreement.

Rep. Dosch: I move a Do Pass as amended.

Rep. Klein: Second.

Ch. Svedjan: Further discussion.

Rep. Skarphol: I am assuming that the Dept. of Commerce would be the state agency that would negotiate what the proportionate amount of ownership was, for example, that matches, pretty subjective. What is the value of the match? It is a concern in my mind.

Ch. Svedjan: I think the intention is that will be clarified on the other side.

Rep. Glassheim: I'm growing increasingly uneasy about the large dollar amounts that individual legislators are finding projects to put money in with no way of prioritizing, no review, with no plan for the overall budget, if you get it through, you get it through. I'm going to vote against this. It may be a very good project. Everything else we deal with has gone through 18 months of sifting, weighing, testifying and debated; this projects are just kind of coming up and floating through. This makes me uneasy.

Rep. Wald: I'm wondering if we shouldn't have a periodic update to the budget section on this issue.

Rep. Berg: I would like to challenge Rep. Glassheim's statement. If you look at where our successes have been, they have come from public/private sector partnership. If you look at EERC and what they have done, the tech park at NDSU, many of the research and work that's coming out of UND and NDSU and really out of extension, has been private/public partnerships. I think there is an extreme amount of consistency in what we've done. Even the core of Centers of Excellence are an example, even though it's not anywhere near where we want it to be. It's been connecting with the private sector. Getting real cash from the private sector to carry research into a commercialized entity. This fits that whole scenario. The fact that it didn't go through two years etc. I understand that, but the other point is that we are talking about a one-time investment. If this one-time investment leverages the money we're talking about, not only the $20 million for a building, but maybe operational and research that would be $10's if not $100's of millions of dollars. I think this creates a long-term opportunity for our economy.

Rep. Wald: Further amend and have the Dept. of Commerce report to the budget section as to progress in the fall of 2009 budget section meeting and spring 2010 budget section meeting.

Rep. Berg: Second.

Ch. Svedjan: Voice vote, motion carried. Amendment is adopted. Further discussion.

Rep. Kaldor: I have concerns about the process. I think this is a laudable initiative, that it could mean significant, positive effects for the state of ND. But I also wonder about the Centers of Excellence process and this could have been the perfect vehicle for this kind of initiative. This is a new animal. We are going to own something that will only give us a liability relative to its presence since there is no way to capture the benefits of the patents. I know that the benefits will be indirect. I do have concerns about that portion of the bill. I wish it had gone through the same process that we have done with all the other public/private partnership initiatives.

Ch. Svedjan: Roll call vote.

18 YES 5 NO 2 ABSENT **DO PASS AS AMENDED** **CARRIER: Rep. Dosch**

Attachment B
2/13/09

90574.0201
Title.

Prepared by the Legislative Council staff for
Representative Ekstrom
February 11, 2009

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1350

Page 1, line 1, after "A BILL" replace the remainder of the bill with "for an Act to provide an appropriation to the department of commerce for a grant for construction of a great plains applied energy research center; and to provide a contingent appropriation.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF NORTH DAKOTA:

SECTION 1. APPROPRIATION. There is appropriated from federal or other sources made available to the state, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the department of commerce for the purpose of providing a grant for construction of a great plains applied energy research center on the Bismarck state college campus, for the biennium beginning July 1, 2009, and ending June 30, 2011. The department may only spend the funding authorized under this section to the extent other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center.

SECTION 2. CONTINGENT APPROPRIATION. If funding from federal or other sources is not available to the state to provide the grant authorized under section 1 of this Act, there is appropriated out of any moneys in the general fund in the state treasury, not otherwise appropriated, the sum of $5,000,000, or so much of the sum as may be necessary, to the department of commerce for the purpose of providing a grant for construction of a great plains applied energy research center on the Bismarck state college campus, for the biennium beginning July 1, 2009, and ending June 30, 2011. The department may only spend moneys from the general fund to the extent other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center."

Renumber accordingly

Prepared by the Legislative Council staff for
Representative Dosch
February 13, 2009

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1350

Page 1, line 9, remove "only" and replace "to the" with "only when the department certifies to the office of management and budget that:

1. Other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center;

2. The state will be a proportionate owner in the center based on the state's contribution percentage of all costs of the center;

3. The state will not be responsible for any future operational costs of the center; and

4. The center will be subject to local property tax assessments at the discretion of the local taxing authority."

Page 1, remove lines 10 and 11

Renumber accordingly

Date: 2/13/09
Roll Call Vote #: 1

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1350

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Adopt amendment .0203 and (see below)

Motion Made By Devlin Seconded By Berg

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan					
Vice Chairman Kempenich					
Rep. Skarphol			Rep. Kroeber		
Rep. Wald			Rep. Onstad		
Rep. Hawken			Rep. Williams		
Rep. Klein					
Rep. Martinson					
Rep. Delzer			Rep. Glassheim		
Rep. Thoreson			Rep. Kaldor		
Rep. Berg			Rep. Meyer		
Rep. Dosch					
Rep. Pollert			Rep. Ekstrom		
Rep. Bellew			Rep. Kerzman		
Rep. Kreidt			Rep. Metcalf		
Rep. Nelson					
Rep. Wieland					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

If the vote is on an amendment, briefly indicate intent: Voice Vote - carries

- Add "a part of the matching funds must be provided by the private sector."
- "to include prvt. of RE taxes."

Prepared by the Legislative Council staff for
Representative Dosch
February 13, 2009

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1350

Page 1, line 2, after "center" insert "; and to provide for a report to the budget section"

Page 1, line 9, remove "only" and replace "to the" with "only when the department certifies to the office of management and budget that:

1. Other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center a portion of which must be from the private sector;

2. The state will be a proportionate owner in the center based on the state's contribution percentage of all costs of the center;

3. The state will not be responsible for any future operational costs, including property tax, of the center; and

4. The center will be subject to local property tax assessments at the discretion of the local taxing authority."

Page 1, replace lines 10 and 11 with:

"**SECTION 2. REPORT TO THE BUDGET SECTION.** The department of commerce shall provide a report to the budget section at its first meeting after September 1, 2009, and at its first meeting after March 1, 2010, regarding the status of the construction of a great plans applied energy research center, including the extent to which nonstate matching funds have been made available for the project."

Renumber accordingly

Date: 2/13/09
Roll Call Vote #: 3

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1350

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number TBD

Action Taken Further Amend (as below)

Motion Made By Wald Seconded By Berg

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan					
Vice Chairman Kempenich					
Rep. Skarphol			Rep. Kroeber		
Rep. Wald			Rep. Onstad		
Rep. Hawken			Rep. Williams		
Rep. Klein					
Rep. Martinson					
Rep. Delzer			Rep. Glassheim		
Rep. Thoreson			Rep. Kaldor		
Rep. Berg			Rep. Meyer		
Rep. Dosch					
Rep. Pollert			Rep. Ekstrom		
Rep. Bellew			Rep. Kerzman		
Rep. Kreidt			Rep. Metcalf		
Rep. Nelson					
Rep. Wieland					

Total (Yes) _____ No _____

Absent _____

Floor Assignment _____

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

Voice Vote - carries

Dept. of Commerce report to Budget section

90574.0205
Title.0300

Prepared by the Legislative Council staff for
Representative Dosch
February 13, 2009

VR
2/16/09

PROPOSED AMENDMENTS TO HOUSE BILL NO. 1350

Page 1, line 2, after "center" insert "; and to provide for a report to the budget section"

Page 1, line 9, remove "only" and replace "to the" with "only when the department certifies to the office of management and budget that:

1. Other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center, a portion of which must be from the private sector;

2. The state will be a proportionate owner in the center based on the state's contribution percentage of all costs of the center;

3. The state will not be responsible for any future operational costs, including property tax, of the center; and

4. The center will be subject to local property tax assessments at the discretion of the local taxing authority.

SECTION 2. REPORT TO THE BUDGET SECTION. The department of commerce shall provide a report to the budget section at its first meeting after September 1, 2009, and at its first meeting after March 1, 2010, regarding the status of the construction of a great plans applied energy research center, including the extent to which nonstate matching funds have been made available for the project."

Page 1, remove lines 10 and 11

Renumber accordingly

Date: 2/13/09
Roll Call Vote #: 2/4

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1350

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do Pass as Amended

Motion Made By Rosch Seconded By Klein

Representatives	Yes	No	Representatives	Yes	No
Chairman Svedjan	✓				
Vice Chairman Kempenich	✓				
Rep. Skarphol	✓		Rep. Kroeber		✓
Rep. Wald	✓		Rep. Onstad	✓	
Rep. Hawken	—	—	Rep. Williams	✓	
Rep. Klein	✓				
Rep. Martinson	✓				
Rep. Delzer		✓	Rep. Glassheim		✓
Rep. Thoreson		✓	Rep. Kaldor		✓
Rep. Berg	✓		Rep. Meyer	✓	
Rep. Dosch	✓				
Rep. Pollert	✓		Rep. Ekstrom	✓	
Rep. Bellew	✓		Rep. Kerzman	—	
Rep. Kreidt	✓		Rep. Metcalf	✓	
Rep. Nelson	✓				
Rep. Wieland	✓				

Total (Yes) 18 No 5

Absent 2

Floor Assignment Rep. Rosch

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

REPORT OF STANDING COMMITTEE

HB 1350: Appropriations Committee (Rep. Svedjan, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (18 YEAS, 5 NAYS, 2 ABSENT AND NOT VOTING). HB 1350 was placed on the Sixth order on the calendar.

Page 1, line 2, after "center" insert "; and to provide for a report to the budget section"

Page 1, line 9, remove "only" and replace "to the" with "only when the department certifies to the office of management and budget that:

1. Other nonstate matching funds of three dollars for each one dollar of grant funds are available for all costs of the center, a portion of which must be from the private sector;

2. The state will be a proportionate owner in the center based on the state's contribution percentage of all costs of the center;

3. The state will not be responsible for any future operational costs, including property tax, of the center; and

4. The center will be subject to local property tax assessments at the discretion of the local taxing authority.

SECTION 2. REPORT TO THE BUDGET SECTION. The department of commerce shall provide a report to the budget section at its first meeting after September 1, 2009, and at its first meeting after March 1, 2010, regarding the status of the construction of a great plans applied energy research center, including the extent to which nonstate matching funds have been made available for the project."

Page 1, remove lines 10 and 11

Renumber accordingly

2009 SENATE APPROPRIATIONS

HB 1350

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. HB 1350

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: March 10, 2009

Recorder Job Number: 10616 **(starting at 14:20)**

Committee Clerk Signature Rose Laning

Minutes:

Chairman Holmberg called the committee hearing to order on HB 1350 which is for a grant for construction of a Great Plains applied energy research center.

Rep. George Kaiser, District 47, Bismarck

He gave an overview of the bill stating this is a straight appropriation bill and it is requesting $5 M. The purpose of the appropriation is for the establishment of the Great Plains Applied Energy Research Center. The center will be dedicated to large scale commercial research applications. It is a venture that will be commercially profitable hopefully. It requires a $3 to $1 match. The three dollars will come from other sources other than the state. The state will be a proportionate owner of the building and the building will be subject to local property tax and there will be a requirement in the bill to report to the budget section through periods of time relative to the development of the project.

V. Chair Grindberg asked what were the House amendments.

Rep. George Kaiser did not have them with him but as he recalled they were the addition of subsections 1, 2, 3 and 4. Subsection 2 is the requirement for the report.

Senator Robinson asked him to speak to the genesis of the project and how we got to this point.

Rep. George Kaiser replied that Bismarck has the new energy center that is training people for the energy industry. Bismarck is the largest metropolitan area in the region where electrical energy is being developed and distributed throughout the country. There is a tremendous movement nationally to make adjustments and move to green energy. Whether we'll address how to store electrical power and models for distribution, there is a tremendous opportunity in ND to produce energy, whether its wind powered energy or coal-fired energy, we can produce it. But we're have a hard time distributing it. Wind power is a great thing, if the wind is blowing, but where is the technology for the future to store that energy and where will that be developed. We are in the heart of the energy belt and we believe there are a lot of opportunities as well as the companies that are located here. They have a strong vested interest and will testify for the new technology to develop a national power grid that would allow us to distribute energy.

Senator Robinson asked about the property taxes that would be assessed and wanted to know where the building would be located – at Bismarck State College.

Rep. George Kaiser replied that the property belongs to the city of Bismarck which is adjacent to Bismarck State. The final disposition of that property will remain to be determined as this project goes forward.

Senator Robinson stated that the bill says the center will be on the Bismarck State College campus.

Senator Robinson: How would you differentiate the work you anticipate this center doing in relationship to the EERC in Grand Forks – who they are also involved in similar projects with the energy industry in ND?

Rep. George Kaiser said they do great work at the EERC, saying that but that's like saying we should have one hospital because it does great work. Are we ND doesn't deserve to have two

resource centers that might be committed to energy? This is large scale applied energy research. Also, we have the Missouri River. Some of these applications are going to require the potential tremendous access to water. An example – When you generate wind power, how do you store it? What if you could move the waters from the Missouri River up to the bluffs, store it, and when there isn't wind, then you release it and it runs the turbine through the effect of gravity and water. You have to step out of your boxes a little bit and think big. These are big projects- big commercial applied projects.

Senator Seymour: How much will it cost and when will it be done?

Rep. George Kaiser replied saying it wasn't his project. There will be an amendment presented. This is the private sector, not any university or state project that is coming in, investing in and doing these projects. I'm not in a position to give a time table of whether it's one or three years, but if we don't play in this game, then we won't have the opportunity to participate in some of these projects.

John Warford, Mayor, Bismarck

Testified in favor of HB 1350. Written attached testimony # 1.

Senator Warner stated that the 15th line says the state would be "a proportionate owner" of the center based on the state's contribution of the center's costs. What happens to the information generated – is it proprietary? Is it subject to open disclosure because of open meeting laws? **John Warford** replied that he doesn't know the answer, but maybe some of the other people testifying may know.

V. Chair Bowman commented that this bill has been brought forward and there hasn't been a study yet. This is confusing. Why would you want to build the building until you've done the study? Is it because of the timing? If it's all private, why are we involved in building the

building? I'm not opposed to energy, but just trying to get a handle on it and why is it so sudden.

John Warford: This building may have a private component to it, but if feasibility is shown in the study, we'll have federal dollars and that will be the predominate portion of the dollars for this building. The reason for the speed on this has to do with the national scene we have now with the new Obama administration. There are dollars in the energy bill for the energy department that are in stimulus package. These energy dollars are available and if we don't ask for them, the federal dollars will not be available. The goal is to build a building, but we're not there yet. We're trying to show fiduciary responsibility.

V. Chair Bowman: Who's going to fund their cost of maintenance and running it? Is that going to be all federal dollars or grants? Are you coming back to the state and saying that we didn't quite figure these things out? This becomes our responsibility and we want to be clear about where we are going with this.

John Warford: Part of this RFP process to determine the feasibility, the scientific merit, what should be done at this energy center is another term that is known as sustainability. Our goal is that we look at, during the study, that the long term sustainability, so the center can generate it for itself.

Senator Seymour: Did the Bismarck energy faculty, those who teach at Bismarck State and are in the energy program, have any input into this project?

John Warford: Not directly. As I understand how Bismarck State's role is in this, is that down the road, if these new concepts and technologies are developed, for example, if a way is determined to bring renewable energy into the grid and to store it. There would be new technical jobs available and it's with these jobs that BSC would be training technicians for these jobs.

Senator Robinson: How much work could be done on existing facility at BSC?

John Warford: The 4th floor is not finished. It is Senator Dorgan's desire to finish the 4th floor. The Great Plains Applied Energy Research Center is a different animal. The current energy center has to do with power plants and training power plant technicians. This is more than an applied research center. It is connecting the dots. On one side you've got the research institutions that have this body of research that knows how to do things and on the other side you've got the energy companies. The research never gets to the energy companies. We hope that the applied center will bring energy companies together with the research and they'll come up with solutions.

Senator Robinson: You referenced in your testimony that this is not intended to be another EERC. Have you received an endorsement from the University System and EERC for this project to bring some confidence on the part of the committee that we're not duplicating efforts in ND?

John Warford: With regard to endorsement, we have not been endorsed by the EERC. At the House hearing, the chancellor spoke in favor of the bill. We want to move forward with the feasibility study.

V. Chair Grindberg: A little concern given perception of another established entity, but if dropping the whole reference to research and maybe you are really talking about a commercialization energy center? Is the group going to send out an RFP to select a consultant to study the feasibility of a facility? Or the market and commercialization of on-the-shelf technology that needs to be applied and commercialized into energy development into the state. There are two distinct approaches for that. I would assume that whoever is responsible for setting up this process and the RFP will also look out national experts and not just relying on a cozy group around Bismarck/Mandan.

John Warford: The key to the whole thing is the committee which includes our city administrator, Bill Willken, and Al Christianson, the Energy Corridor Coordinator because we feel there are not a lot of consultants out here that can do this. We as a city don't have the expertise to ask the questions. First, we will be putting out an RFQ (Request For Qualifications) to make sure there are people out there. Secondly, and that is the RFP. The board that will make the determination of the RFP process will consist of energy company representatives. There are many energy companies in our area that are a part of it. We will rely on most expert types in the nation, not a cozy Bismarck group. In regards to the name of it, there is an opportunity with renewable energy to get a national energy lab in Bismarck. It may very well be a commercialization center. The idea is to connect the research with the energy companies and then to assist them in commercial ventures.

Al Christianson, Great River Energy

Testified in favor of HB 1350. No written testimony.

Great River Energy is here to support this. We think the vision is apt to be what is needed for us to continue in the business we are in. Right now, at Great River Energy, a majority of our power is produced in ND by coal. What is happening is that we are mandated in MN to have a percentage of renewable energy. What happens is the wind blows when you don't need it. We have to back off our coal fired power plants that produce electricity for the low cost in the teens and pay for electrical energy that's in the $60.00 range because some of our purchase contracts are for wind. For us, we're trying to find a solution, and the solution is stored energy. The national lab at Sandia, part of their mission is to figure out how to integrate renewables into the grid so we can allow base loaded power to operate with low costs and use the wind and other renewable when we need it. Our members, who are paying the bills, will not have to take electricity at four times the price because it is a renewable.

A member of our staff went to Sandia and he came back enthused about what he saw down there; the commitment that Sandi had to what they were doing, the use and integration of renewable into that and the CO2 things they are working on. At Great River Energy, we supported the trip to Sandia, we took a cross-section of the committee, and we are also putting up our share of the money for the feasibility study and business plan. We would not ask you to support this if the feasibility study or business plan does not come back and say it's sustainable. We think we have an opportunity in ND for us to bring this here to take it into the energy country and get it in place first. Instead of it going to something like Southern Company or one of the big players where they either bury it in their system or they make it so it only works for bituminous or Powder River Coal. Lignite coal has a tough life anyway. Everyone calls us a low rank coal and that's where we are on everybody's radar screen except in North Dakota. What we're asking for you to do is allow us to go forward with this vision that they've had, to do a feasibility study and business plan. If that's sustainable, then if the funds are there to move forward. As far as Great River Energy, it's tough economic times, and we think these are the things that we have to commit to in order to do what we do best for our members and that's to give them reliable economic and environmentally friendly power. Sometimes we have laws pushed on us that we really don't like. I've had thirty-three years in the coal industry. It's been very good to me. I was one of the few kids that grew up in Washburn. I came home and went to work there. To me, these are the things we need to do to lead the way. Sandia is doing the right things. We have to be smart with our money and that's why if the study doesn't say it's sustainable, don't do it. Keep our money.

Senator Robinson asked if we are saying this work cannot be done at the EERC in Grand Forks. They would probably say that they are in the midst of energy country too with wind power turbines springing up all over that part of the state.

Al Christianson: We've done a lot of work with EERC at Great River Energy. They have been a good part of our commercialization of our coal drying. We're working with them on CO2 catch – CO2 sequestration. But the experts in this field are the national lab in Sandia. From what I know of the EERC, they're working, they do not have the experts at EERC that will look at grid integration. This is not a duplication. The EERC is wonderful with CO2, but this is out of the realm and out of the box. If they want to bring those experts at the EERC – I think what we're looking at is having a model in Bismarck or energy country, the model that the EERC formed, how they are successful at what they do, but not to duplicate any of their efforts. But we want to use that as a model for this. They don't need the same things that are done at Sandia.

Senator Robinson asked if it would be his plan to bring experts from Sandia to this facility.

Al Christianson would like to bring Sandia's developing technology here to implement it in this area. It won't be the same people; it will be the same type of people. It will be people that take things from research to implementation. They would have to be involved because there is going to be some iterations of it. The other thing is that we're going to have to see from the consultants somebody that has the abilities to say that it's real. The business plan has to be real.

Senator Robinson asked the location of the Sandia lab.

Al Christianson: New Mexico.

Chairman Holmberg commented that the state hired a study done a couple years ago and after some political pressure was put on the consultants, they kind of changed their tune. All of a sudden, things were different.

Senator Robinson said the tougher the question, the better the project is going to be and if the project is warranted and legitimate, it will live through the tough questions and challenges.

Al Christianson: I know where you're going with that. In my thirty three years in the energy industry, many times we hire people to do studies for us and if you don't watch out, they'll do your study and then they'll want to do your engineering and development.

V. Chair Grindberg: The definition of the study, to clarify again, that this is not a study and process set up to evaluate and determine whether a building is feasible. It is more that the environment with energy and the asset we have and the strength's of the energy field are conducive to creating technology, commercialization center to implement these technologies to benefit North Dakota

Al Christianson: The building is part of the cost, but it has to be sustainable over the whole thing.

Senator Krauter passed out some amendments to be added to this legislation and it address what the committee has been talking about. (Amendment .0301)

Dale Niezwaag, Basin Electric Power Cooperative

Testified in favor of HB 1350. No written attached testimony.

He stressed the need of technology to combine the use of alternative energy and renewable energy on the power grid.

Russell Staiger, President, Bismarck-Mandan Development Association

Testified in favor of HB 1350. Written attached testimony # 2.

Senator Christmann: If the state kicks in $5M, how much is the City of Bismarck contributing in cash?

Russell Staiger: Initially in the feasibility study, it would be one fourth of the total cost. In construction, that probably remains to be seen because the land might be part of that project. I can't give you a dollar amount.

Chairman Holmberg stated that the state would play its card early.

Russell Staiger: You are being asked to commit to the initial $5 M.

Chairman Holmberg: Who determines if the feasibility study is positive? Going forward and accessing the money.

Russell Staiger: I suspect it will be the partners in the energy producers that will be a large part in the decision that is made because they don't want to engineer something that's going to die on the vine.

Chairman Holmberg: But the state would have already put their money in the pot.

Russell Staiger: They would because the building would have been built with that fund.

Kelvin Hullett, President, Bismarck Chamber of Commerce

Testified in favor of HB 1350. No written testimony.

The state is being asked to commit $5 M assuming the feasibility study works out. If the feasibility study does not prove out, then no money will be spent form that $5 M. The energy industry and the City of Bismarck have put their money on the line. You're essentially saying the money will go into escrow for six or eight months to determine the feasibility and from there move forward.

Chairman Holmberg: But the people who get to spend the money are the ones who determine whether the study was successful – not the ones that provided the money.

Kelvin Hullett: It was a public/private decision. Those who put the money upfront to look at the study will help to make the decision but knowing the players, I know how hard it is to get money out of them. They're not going to spend it unless it's a viable program.

V. Chair Grindberg: Maybe a better approach would be to provide contingency funding for that budget section, emergency commission upon approval.

Kelvin Hullett: That's a good strategy. A good model.

Chairman Holmberg closed the hearing on HB 1350.

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 1350

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 04-07-09

Recorder Job Number: 11763 starting at (8.58) on the tape.

Committee Clerk Signature Alice Delzer

Minutes:

Chairman Holmberg called the committee to order in regards to a grant for construction of a Great Plains Applied Energy Research Center.(minutes for HB 1487 are in the beginning of this tape and at the end again.)

VICE CHAIRMAN GRINDBERG MOVED A DO PASS. SECONDED BY SENATOR FISCHER.

Senator Lindas Seems to me there is a duplication regarding this bill and another one in reference to the EERC in Grand Forks. I don't think I can support 1350 on that basis.

Senator Warner Could we leave the vote open so our missing members of the committee can have an opportunity to vote? He was told yes.

A ROLL CALL VOTE WAS TAKEN ON A DO PASS WITH 10 YEAS, 2 NAYS AND 2 ABSENT. (After the hearing the two absent senators did vote so the total was 11 YEAS, 3 NAYS AND 0 ABSENT. SENATOR GRINDBERG WILL CARRY THE BILL.

Chairman Holmberg closed the hearing on HB 1350. (12.06)

(The minutes on Job #11763 continued on HB 1487 at (12.24) minutes into the tape.)

Date: 4/7/09
Roll Call Vote #: 1

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 1350

Senate **Senate Appropriations** Committee

☐ Check here for Conference Committee 1350

Legislative Council Amendment Number _____

Action Taken ☒ Do Pass ☐ Do Not Pass ☐ Amended

Motion Made By Sen. Grindberg Seconded By Sen. Fischer

Representatives	Yes	No	Representatives	Yes	No
Senator Wardner	✓		Senator Robinson	✓	
Senator Fischer	✓		Senator Lindaas		✓
V. Chair Bowman	✓		Senator Warner		✓
Senator Krebsbach	✓		Senator Krauter	✓	
Senator Christmann	✓		Senator Seymour	✓	
Chairman Holmberg	✓		Senator Mathern		✓
Senator Kilzer	✓				
V. Chair Grindberg	✓				

Total Yes 11 No 3

Absent _____

Floor Assignment Grindberg

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

Hold for absent members to vote.

REPORT OF STANDING COMMITTEE

HB 1350, as engrossed: Appropriations Committee (Sen. Holmberg, Chairman) recommends **DO PASS** (11 YEAS, 3 NAYS, 0 ABSENT AND NOT VOTING). Engrossed HB 1350 was placed on the Fourteenth order on the calendar.

2009 TESTIMONY

HB 1350

Attachment #1

Testimony for HB 1350
1-30-2009
John Warford
Mayor, Bismarck ND

Chairman Porter and Representatives,

I would like first to thank Representative Keiser and the other individuals who co-signed this legislation. This legislation will prove to be significant in helping our state and region to grow and prosper today and in the future.

The City of Bismarck is moving forward to secure future economic development centered on one of our greatest strengths...ENERGY. We will strive to create an Applied Energy Technology Center that further enhances and develops our National Energy Center of Excellence and The Great Plains Energy Corridor both currently headquartered in Bismarck. This center will accomplish the following goals for our city and region.

First it will create a technology application center led by Energy Scholars who combine existing research to create solutions enhancing the competitive edge of energy companies that support this region. These companies face many challenges today as they are forced to integrate renewable energy into an existing grid designed for base load power.

We also have a unique opportunity to capitalize on the new Federal Administrations energy development priorities, bringing applied technology dollars to our community and state. The House version of the new US Economic Stimulus Act designates over $2 billion dollars to be utilized for renewable power integration and the development of mass storage systems. These dollars will be committed for demonstration projects and our energy companies need help.

We intend to create the entity that will allow our energy companies to develop public energy policy which then can be utilized to develop the laws and regulations at the federal and state level. In the past this region has reacted to federal proposals and been forced to implement regulations which some times make no sense. The Center will take a proactive leadership role helping our energy companies to develop policy and then getting this policy into the laws that are being developed.

The most important purpose of The Center will however be the opportunity that we create energy and opportunity that allows energy companies the chance to partner with Sandia National Laboratory, NDSU, UND and other research entities in the development of cutting-edge, commercially viable technologies for national and global deployment. On February 10th a North Dakota delegation will travel to Sandia National Laboratories and will hold a joint planning session. At the conclusion we will determine our operational strategies and develop a business plan to create this self-supporting center. Bringing Sandia Labs to Bismarck will prove a great long term strategy.

I also believe that we will accomplish a long standing statewide goal of unifying research efforts by creating a reason for all regional research universities to be physically located in a single place. This will:

1) Allow engineering and science advanced degree programs to be offered in the western part of our state
2) Establish a cooperative environment to share and delegate energy research thus preventing duplication and instead driving rapid technology and public policy development
3) Provide a location where energy companies can share research and work directly with engineers to drive the development of solutions to common problems.

It is important for me to make it very clear to you that this is not a Bismarck State College project but rather a statewide effort to secure more federal and business research dollars. We have invited NDSU and UND to our Sandia Labs meeting because we want them as partners. They have accepted because they see the value and the opportunity. We are not duplicating any existing research efforts but rather are looking to utilize the research developed in existing facilities to develop technologies to solve the problems of our number one industry...***ENERGY***.

It is the goal of every mayor to develop the local economy. My local economy centers around every component of energy but especially around electrical generation and transmission. I believe that if we can enable these existing companies and help to solve their problems right here in Bismarck, that I will help ensure the long term economic growth of Bismarck.

I would ask that you vote in favor of this bill. We are requesting a match that will add one dollar of state money to every three dollars of other money. This alone is a great investment of state money allowing us to will bring significant new money into the states economy.

Thanks Mayor John Warford

MEDAG

GREAT PLAINS
ENERGY CORRIDOR

Great Plains Applied Energy Technology Center
Executive Summary Draft
January 29, 2009

Purpose
The City of Bismarck is moving forward to secure future economic development centered on one of our greatest strengths...ENERGY. We will strive to create an Applied Energy Technology Center that further enhances and develops our National Energy Center of Excellence and The Great Plains Energy Corridor headquartered in Bismarck. This center will accomplish the following goals for our city and region:

1. Create a technology application center led by Energy Scholars who combine existing research to create solutions enhancing the competitive edge of energy companies that support this region.
2. Capitalize on the new Federal Administrations energy development priorities to bring applied technology dollars to our community and state.
3. Create the entity that will allow our energy companies to develop public energy policy which then can be utilized to develop the laws and regulations at the federal and state level.
4. Provide energy companies' opportunities to partner with Sandia National Laboratory, NDSU, UND and other research entities in the development of cutting-edge, commercially viable technologies for national and global deployment.
5. Create a reason for all regional research universities to be physically located in a single location driving the following:
    a. Engineering and science advanced degree programs
    b. A cooperative environment to share and delegate energy research thus preventing duplication and driving rapid technology and public policy development
    c. A location where energy companies can share research and work directly with engineers to drive the development of solutions to common problems

Current Situation
A steering committee has been working to complete a comprehensive vision to meet the goals. The group has accomplished the following:

1. Senator Dorgan has been briefed regularly on this project and has expressed strong interest in supporting Bismarck. Senator Conrad and Congressman Pomeroy have also seen preliminary proposals and have indicated support.
2. Preliminary meetings have been held with the Sandia National Laboratory who identified an opportunity which can be jointly pursued. A joint planning meeting has been scheduled at the Sandia National Laboratory February 10, 2009. Together a final strategy will be developed.
3. The US Economic Development Agency (EDA) has agreed to provide grant money to prepare a detailed business plan which will address the overall needs of this facility. EDA will receive significant funding in the proposed Stimulus Project. The City of Bismarck authorized application for these funds at their December 23rd meeting.
4. A meeting was held with Patricia Hoffman, DOE's Principal Deputy Assistant Secretary (PDAS) for the Office of Electricity Delivery and Energy Reliability, and as a result of the meeting we have centered in on a significant focus area that is a high priority for DOE. Ms. Hoffman has reviewed our preliminary proposal and agreed to continue to help.
5. North Dakota Representative George Kaiser has been briefed on this proposal and has introduce legislation (HB 1350) at the state level that will provide matching funds to be used specifically for this project. A meeting with the Governor has been held.

Preliminary Vision

The Great Plains Applied Energy Technology Center (The Center) will focus on the development of end use products and the public policy required to support these, using technology developed at regional research universities, applying these to solve energy problems associated with Smart Grid integration. The Center will provide the infrastructure that will enable energy businesses, university researchers, engineers and new business entrepreneurs to work jointly on key problems facing utility companies as they integrate renewable energy sources with current base load power. The Center will focus on the Transmission and Mass Storage components of the Smart Grid.

Sandia Labs has been empowered to develop the mass storage technologies that will be required to enable the integration of current and renewable energy production. Renewable energy integration will require substantial modifications to existing public policy, operations software and practices and transmission infrastructure. Mass power storage systems, operational algorithms and software upgrades must be developed and then tested in controlled environments. These new systems must then be tested and improved before they are finally integrated into our nation's power grid.

Sustainable Communities are being developed across the US. Each of these communities is today developing their own technology and policy in an attempt to manage their independent energy consumption. There is a significant opportunity for a mid-sized US community like Bismarck to take the lead in development and integration of sustainable energy systems.

Native American Communities are independently working to develop sustainable communities. These groups face the same issues as mid-sized communities however often times they face these with fewer resources and less ability to address the issues. Educational opportunities exist.

And finally, as these technologies are integrated and public policy established there will be a significant need to train the future operators of these complex systems. BSC has already established itself as a National Center for Energy Excellence focusing on workforce training. These same methodologies must be used to train and empower our future energy workers.

Moving Forward

A project this complex requires community consensus and strong leadership. The potential is significant and therefore the initial investment needs to be similar. A Steering Committee has been leading this forward under the direction of Mayor Warford. This project will be identified by The Mayors Economic Development Advisory Group as a priority for Bismarck/Mandan.

The following next steps are scheduled

1. Complete the Joint Planning Session with Sandia Labs, Energy Companies, NDSU and UND, then develop a comprehensive Vision and associated Strategies.
2. Meet again with Patricia Hoffman at DOE and receive and include her recommendations
3. Utilize the EDA grant to complete a comprehensive Business Plan
4. Develop a partnership involving the energy industry, Sandia National Lab, NDSU, UND, EERC and other research entities
5. Build project support
    - US Congressional Delegation
    - Governor, State Legislators, Commerce Department
    - State and regional energy firms

Attachment #2

Testimony for HB 1350
January 30, 2009
Niles Hushka

Chairman Porter and Committee Members:

Renewable energy development and more specifically wind development has become very difficult. My company Kadrmas Lee and Jackson is currently working for 5 independent wind power developers. Each of these projects is on hold waiting for technology and policy that will allow this wind to be integrated successfully into the existing grid. Our customers are willing to build transmission however transmission only represents the tip of this iceberg.

Renewable energy systems, especially wind generation, are intermittent power producers. They produce power when the wind blows and these periods rarely correspond to the times when peak power consumption occurs. This creates significant integration problems at many levels. We need to develop new mass storage systems that can store energy and then release it when power is required. One example of a mass storage system would involve pumped hydro which uses non-peak power production to pump water into large elevated reservoirs and then releases this water to turn turbines to produce electricity when the power is required. These systems must be developed, demonstrated, and improved before they are deployed at a large scale.

The Great Plains Applied Energy Technology Center (The Center) will focus on the development of end-use products and the public policy required to support these, using technology developed at regional research universities and applying these to solve energy problems associated with Smart Grid integration. The Center will provide the infrastructure that will enable energy businesses, university researchers, engineers and new business entrepreneurs to work jointly at the same location on key problems facing utility companies as they integrate renewable energy sources with current base load power. The Center will focus on the Transmission and Mass Storage components of the Smart Grid.

Sandia Labs has been empowered by the US Department of Energy to develop the mass storage technologies that will be required to enable the integration of current and renewable energy production. Renewable energy integration will require substantial modifications to existing

public policy, operations software and practices and transmission infrastructure. Mass power storage systems, operational algorithms and software upgrades must be developed and then tested in controlled environments. These new systems must then be tested and improved before they are finally integrated into our nation's power grid.

Sustainable Communities are being developed across the US. Each of these communities is today developing their own technology and policy in an attempt to manage their independent energy consumption. There is a significant opportunity for a mid-sized US community like Bismarck to take the lead in development and integration of sustainable energy systems.

Native American Communities are independently working to develop sustainable communities. These groups face the same issues as mid-sized communities however often times they face these with fewer resources and less ability to address the issues. Educational opportunities exist.

And finally, as these technologies are integrated and public policy established there will be a significant need to train the future operators of these complex systems. BSC has already established itself as a National Center for Energy Excellence focusing on workforce training. These same methodologies must be used to train and empower our future energy workers.

A project this complex requires community consensus and strong leadership. The potential is significant and therefore the initial investment needs to be similar. A Steering Committee which I lead has been moving this forward under the direction of Mayor Warford. Our next steps include:

1. Complete the Joint Planning Session with Sandia Labs, Energy Companies, NDSU and UND, then develop a comprehensive Vision and associated Strategies.
2. Meet again with Patricia Hoffman at DOE and receive and include her recommendations
3. Utilize the EDA grant to complete a comprehensive Business Plan
4. Develop a partnership involving the energy industry, Sandia National Lab, NDSU, UND, EERC and other research entities

This proposal offers this region the opportunity to accomplish many long term objectives. It gives us the chance to secure and deploy research in a cooperative environment that brings together NDSU and UND. It also creates the opportunity for North Dakota to have immediate direct access to the Sandia National Laboratory, something every state and community desires. We are not asking for a single direct grant but rather the chance to bring a new Federal match of $3 into the state for every dollar of state money. I think this is the best investment opportunity of the year.

I strongly support HB 1350.

Attachment #3

North Dakota University System

HB 1350 – House Natural Resources

January 30, 2009

William Goetz, Chancellor

Mr. Chairman, members of the House Government and Veterans Affairs Committee. Good morning. For the record, my name is William Goetz, Chancellor, North Dakota University System.

The Great Plains Applied Energy Research Center envisioned and supported by the City of Bismarck and the energy industry is consistent with one of the state's five economic growth targeted industries—energy. This project would also continue to expand the Red River Valley Research Corridor developed in 2002. The Corridor is anchored by the University of North Dakota and North Dakota State University, with them reaching out and working cooperatively with state colleges and universities across the state. This effort has been highly successful, with more than $300 million in funding directed to North Dakota in the past six years, thereby creating world-class research centers and critical infrastructure—both human and physical-- needed to train skilled workers for emerging industries and supporting growth of high tech industries in the state. There are also efforts underway to help expand development of the state's vast and diverse energy resources through the Energy Corridor as a means of reducing our dependence on foreign sources of energy. The expansion of applied research in Bismarck—especially in energy—would dovetail nicely with these existing efforts, would expand research to western ND, and help contribute to the overall research missions of UND and NDSU and the education mission of BSC. Energy related initiatives are one focus of the Economic Development Centers of Excellence. These initiatives exemplify the NDUS mission to expand productivity.

Given their dual research and education mission, both UND and NDSU have created a significant core of talent, expertise and infrastructure in energy research, including the efforts at the UND Energy and Environmental Research Center and NDSU Bio-Fuels, along with the wealth of expertise and resources in their engineering and technology academic programs. Likewise, as a community college, BSC has emerged as a national leader in two-year student preparation and energy workforce training, and also recently began offering an on-line degree program in Energy Management. Merging and further growing the joint efforts of each holds great opportunity for the state.

I have spent considerable time with Presidents Kelley, Chapman, and Skogen discussing this project in recent days. Although each can point to significant existing efforts in this area, they all agree that more can be done across the State of ND. A facility located in Bismarck, would provide a physical space to permit enhanced research efforts by UND and NDSU, in collaboration with BSC and the Bismarck community.

Lastly, I must point out that the North Dakota University System's first priority is full funding of the State Board of higher Education's budget request as presented to the Senate Appropriations Committee. If additional resources become available beyond full funding of the SBHE request, projects such as the Great Plains Applied Energy Research Center should be considered as a high priority.

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EERC
Energy & Environmental Research Center

Attachment #4

Testimony of Gerald Groenewold
Director, UND Energy & Enviromental Research Center
Re HB 1350
House Natural Resources Committee
Todd Porter, Chairman
January 30, 2009

HB 1350 is unnecessary because it is completely duplicative of what the Energy & Environmental Research Center (EERC) does. The EERC is not an academic enterprise. The EERC operates like a business within the University; conducts research, development, demonstration, and commercialization activities; and is dedicated to moving promising technologies out of the laboratory and into the marketplace. The EERC is the internationally recognized center for applied energy research. We are a totally at-risk, nonacademic enterprise which, by our own choice, does not accept any state funding that is not competitive. Since 1987, we have contracted with nearly 1100 clients globally. The EERC, with over 80% of its clients from the private sector, is world-renowned for providing practical, applied research and cutting-edge, commercially viable technologies. Our expertise includes clean coal, emission control, energy and water sustainability, hydrogen, CO_2 capture and sequestration, biomass and waste utilization, distributed energy generation, advanced materials for energy systems, alternative fuels, integration of wind energy into the existing grid, and oil and gas. The EERC has conducted hundreds of millions of dollars in research projects in North Dakota, all resulting in economic growth in the region. According to the U.S. Department of Energy, just 16 of our recent applied energy research projects alone have impacted the creation of over 7300 direct and indirect jobs regionwide.

The attached table shows only a portion of the EERC's recent North Dakota industry-related applied energy research programs. The table includes only programs for the period 2004–2008 and only those cofunded through the North Dakota Lignite Energy Council (LEC). As you can see, in addition to our relentless focus on applied energy research, the EERC has a commitment to, and reputation for, bringing significant cash cofunding to leverage all LEC funds. In summary, for the period 2004–2008, the EERC has leveraged $6.8 million of state LEC funds with over $42 million of cash cofunding from industry and federal sources to address critical applied energy research topics of interest to North Dakota industry. We are providing North Dakota industry similar opportunities through applied research programs cofunded by the Oil and Gas Research Council, the Renewable Energy Development Program, and the North Dakota Centers of Excellence Program. As demonstrated by our tremendous success and exceptional support from North Dakota corporate partners, the EERC has long been recognized as the International Center for Applied Energy Research.

I urge a "no" vote on this duplicative bill.

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title / Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Enhancing Carbon Reactivity in Mercury Control in Lignite-Fired Systems						
North Dakota Industrial Commission	FY04-L-124	2/3/2004	Holmes, Mike	$ 600,000		
Basin Electric Power Cooperative					$ 8,109	
BNI Coal					$ 4,440	
Dakota Westmoreland Corporation					$ 4,440	
EPRI					$ 188,430	
Falkirk Mining Company					$ 4,440	
Minnkota Power Cooperative, Inc.					$ 5,337	
Montana–Dakota Utilities, Co.					$ 2,532	
Otter Tail Power Company					$ 3,982	
Saskatchewan Power					$ 153,850	
The Coteau Properties Company					$ 4,440	
U.S. Department of Energy					$ 3,955,063	
					$ 4,335,063	
						$ 4,935,063
Plains CO_2 Reduction Partnership						
North Dakota Industrial Commission	FY04-L-128	2/3/2004	Steadman, Ed	$ 240,000		
Basin Electric Power Cooperative					$ 30,000	
Excelsior Energy Inc.					$ 15,000	
Great Northern Power Development L.P.					$ 15,000	
Kiewit Mining Group, Inc.					$ 15,000	
Manitoba Hydro Power					$ 10,000	
Minnesota Power					$ 15,000	
Minnkota Power Cooperative, Inc.					$ 30,000	
SaskPower					$ 30,000	
U.S. Department of Energy					$ 2,454,179	
Xcel Energy					$ 30,000	
					$ 2,644,179	
						$ 2,884,179

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
The Health Implications of the Mercury–Selenium Interaction						
North Dakota Industrial Commission	FY05-LI-130	6/28/2004	Ralston, Nick	$ 50,000		
Electric Power Research Institute					$ 20,000	
National Fisheries Institute					$ 20,000	
Tennessee Valley Authority					$ 10,000	
U.S. Environmental Protection Agency					$ 70,000	
U.S. Department of Energy					$ 53,846	
					$ 173,846	
						$ 223,846
Investigation of Mercury and Carbon-Based Sorbent Reaction Mechanisms						
North Dakota Industrial Commission	FY05-LI-131	6/28/2004	Crocker, Charlene	$ 54,000		
Electric Power Research Institute					$ 18.000	
U.S. Department of Energy					$ 46,870	
U.S. Environmental Protection Agency					$ 50,000	
Westmoreland Coal Sales Company					$ 17,695	
					$ 132,565	
						$ 186,565
Center for Air Toxic Metals® (CATM)® Program Affiliates						
North Dakota Industrial Commission	FY05-LII-136	1/1/2005	Pavlish, John	$ 45,000		
Basin Electric Power Cooperative					$ 45,000	
Mitsui-Babcock Energy Limited					$ 45,000	
Otter Tail Power Company					$ 45,000	
Tennessee Valley Authority					$ 45,000	
TransAlta Utilities Corporation					$ 15,000	
					$ 195,000	
						$ 240,000

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Assessment of Mercury Control Options and Ash Behavior in Fluidized-Bed Combustion Systems						
North Dakota Industrial Commission	FY05-LIII-135	2/11/2005	Benson, Steve	$ 200,000		
ALSTOM Power, Inc.					$ 50,000	
Babcock & Wilcox Co.					$ 50,000	
Electric Power Research Institute					$ 50,000	
Foster Wheeler North America Corporation					$ 50,000	
Montana-Dakota Utilities					$ 50,000	
SaskPower					$ 50,000	
Twin Oaks Power					$ 50,000	
U.S. Department of Energy					$ 296,153	
					$ 646,153	
						$ 846,153
Investigation of Mercury and Carbon-Based Sorbent Reaction Mechanisms – Comparison of Surface Analysis Techniques						
North Dakota Industrial Commission	FY05-LIII-139	6/1/2005	Crocker, Charlene	$ 19,500		
SaskPower					$ 19,500	
U.S. Department of Energy					$ 21,000	
					$ 40,500	
						$ 60,000
Activated Carbon Production from North Dakota Lignite						
North Dakota Industrial Commission	FY05-LIII-140	6/15/2005	Benson, Steve	$ 250,000		
BNI Coal					$ 250,000	
U.S. Department of Energy					$ 270,000	
					$ 520,000	
						$ 770,000

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Plains CO_2 Reduction Partnership – Phase II						
North Dakota Industrial Commission	FY06-LV-143	10/1/2005	Steadman, Ed	$ 720,000		
Air Products and Chemicals, Inc.					$ 60,000	
AmerenUE					$ 37,500	
Basin Electric Power Cooperative					$ 45,000	
Enbridge Inc.					$ 30,000	
Encore Operating, LP					$ 60,000	
Excelsior Energy Inc.					$ 95,000	
Great Northern Power Development L.P.					$ 60,000	
Great River Energy					$ 120,000	
Hess Corporation					$ 45,000	
Huntsman Petrochemical Corporation					$ 37,500	
Marathon Oil Company					$ 30,000	
Minnesota Power					$ 60,000	
Minnkota Power Cooperative, Inc.					$ 60,000	
Missouri River Energy Services					$ 45,000	
Montana–Dakota Utilities, Co.					$ 60,000	
North American Coal Royalty Company					$ 45,000	
North Dakota Division of Community Services					$ 45,000	
North Dakota Industrial Commission – Oil & Gas Division					$ 500,000	
Otter Tail Power Company					$ 60,000	
Pratt & Whitney Rocketdyne, Inc.					$ 45,000	
SaskPower					$ 60,000	
Shell Canada Energy					$ 45,000	
Spectra Energy					$ 45,000	
Suncor Energy Products, Inc					$ 60,000	
TAQA NORTH, Ltd					$ 30,000	
U.S. Department of Energy					$ 15,913,178	
Various – PCOR Partnership Phase II – Annual Meeting					$ 6,000	
Westmoreland Coal Sales Company					$ 45,000	
Xcel Energy					$ 60,000	
					$ 17,804,178	
						$ 18,524,178

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Gasification of Lignites to Produce Liquid Fuels, Hydrogen, and Power						
North Dakota Industrial Commission	FY06-LV-144	11/1/2005	Benson, Steven	$ 100,000		
Electric Power Research Institute					$ 45,000	
Great River Energy					$ 75,000	
Rio Tinto, Technical Services					$ 75,000	
TXU Generation Company LP					$ 75,000	
U.S. Department of Energy					$ 1,660,000	
					$ 1,930,000	
						$ 2,030,000
Investigating the Importance of the Mercury–Selenium Interaction						
North Dakota Industrial Commission	FY06-LIV-142	12/1/2005	Ralston, Nick	$ 55,000		
Coteau Properties Company					$ 5,000	
Falkirk Mining Company					$ 5,000	
Great River Energy					$ 5,000	
National Fisheries Institute					$ 40,000	
U.S. Department of Energy					$ 130,000	
U.S. Tuna Foundation					$ 150,000	
					$ 335,000	
						$ 390,000
Controlling Mercury Emissions for Utilities Firing Lignites from North America Summary Report						
North Dakota Industrial Commission	FY06-LV-145	12/1/2005	Benson, Steve	$ 25,000		
Basin Electric Power Cooperative					$ 1,000	
Dakota Westmoreland Corporation					$ 1,000	
Great River Energy					$ 1,000	
Minnkota Power Cooperative, Inc.					$ 1,000	
Montana–Dakota Utilities, Co.					$ 1,000	
Otter Tail Power Company					$ 1,000	
SaskPower					$ 1,000	
U.S. Department of Energy					$ 16,313	
					$ 23,313	
						$ 48,313
Support of Westmoreland Coal in Producing FutureGen Facility Site						
North Dakota Industrial Commission	LMFS 06-38	3/20/2006	Jones, Mike	$ 130,000		$ 130,000

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Feasibility of Amine Scrubbing/Oxyfuel Combustion for Existing North Dakota Lignite–Fired Pulverized Coal Boilers						
Lignite Energy Council	None	7/7/2006	Jones, Mike	$ 49,800		
U.S. Department of Energy					$ 25,390	
					$ 25,390	
						$ 75,190
Upgrade and Refurbishment of a Bench-Scale Entrained-Flow Slagging Gasifier						
North Dakota Industrial Commission	FY07-LIX-151	3/4/2007	Stanislowski, Joshua	$ 129,000		
Electric Power Research Institute					$ 30,000	
Porvair plc					$ 45,000	
The North American Coal Corporation					$ 75,000	
U.S. Department of Energy					$ 75,000	
					$ 225,000	
						$ 354,000
Large-Scale Mercury Control Technology Testing for Lignite-Fired Utilities–Oxidation Systems for Wet FGD						
North Dakota Industrial Commission	FY04-L-125	3/31/2007	Holmes, Mike	$ 172,500		
Basin Electric Power Cooperative					$ 1,993	
BNI Coal					$ 1,092	
Dakota Westmoreland Corporation					$ 1,092	
EPRI					$ 2,073	
Falkirk Mining Company					$ 1,092	
Minnkota Power Cooperative, Inc.					$ 1,312	
Montana–Dakota Utilities, Co.					$ 625	
Otter Tail Power Company					$ 979	
SaskPower					$ 46,150	
The Coteau Properties Company					$ 1,092	
U.S. Department of Energy					$ 1,602,195	
					$ 1,659,695	
						$ 1,832,195

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title / Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Impacts of Lignite Properties on Powerspan's NO_x Oxidation System						
North Dakota Industrial Commission	FY07-LXI-156	5/9/2007	Tolbert, Scott	$ 260,420		
Minnkota Power Cooperative, Inc.					$ 2,549	
U.S. Department of Energy					$ 132,800	
					$ 135,349	
						$ 395,769
Review of North Dakota Regulations, Standards, and Practices Related to the Use of Coal Combustion Products						
North Dakota Industrial Commission	FY07-LIX-150	6/11/2007	Buckley, Tera	$ 12,000		
Basin Electric Power Cooperative					$ 4,000	
Great River Energy					$ 4,000	
Minnkota Power Cooperative, Inc.					$ 4,000	
U.S. Department of Energy					$ 12,000	
					$ 24,000	
						$ 36,000
Phase III – Mercury Control Technologies for Utilities Burning Lignite Coal: Long-Term Effects of ACI						
North Dakota Industrial Commission	FY07-LXI-153	6/19/2007	Pavlish, John	$ 300,000		
SaskPower					$ 331,901	
U.S. Department of Energy					$ 270,703	
					$ 602,604	
						$ 902,604
Activated Carbon Production from North Dakota Lignite – Phase IIA						
North Dakota Industrial Commission	FY07-LXI-155	6/19/2007	Crocker, Charlene	$ 290,348		
BNI Coal					$ 290,348	
U.S. Department of Energy					$ 277,821	
					$ 568,169	
						$ 858,517
Effects of Aging on Treated Activated Carbons						
North Dakota Industrial Commission	FY07-LXI-152	6/19/2007	Pavlish, John	$ 40,000		
Electric Power Research Institute					$ 25,000	
Otter Tail Power Company					$ 5,000	
SaskPower					$ 10,000	
U.S. Department of Energy					$ 40,870	
					$ 80,870	
						$ 120,870

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Center for Air Toxic Metals® (CATM)® Program Affiliates						
North Dakota Industrial Commission	FY08-LXII-160	1/1/2008	Pavlish, John	$ 45,000		
Basin Electric Power Cooperative					$ 45,000	
Doosan Babcock Energy					$ 45,000	
Otter Tail Power Company					$ 45,000	
Tennessee Valley Authority					$ 45,000	
TransAlta Utilities Corporation					$ 30,000	
					$ 210,000	
						$ 255,000
Demonstration of Coal Combustion Products for Green Roadbuilding in Medora, North Dakota						
North Dakota Industrial Commission	FY08-LXII-159	2/1/2008	Hassett, Deb	$ 125,000		
Great River Energy					$ 25,000	
Theodore Roosevelt Medora Foundation					$ 100,000	
U.S. Department of Energy					$ 128,791	
					$ 253,791	
						$ 378,791
Partnership for CO_2 Capture						
North Dakota Industrial Commission	FY08-LXIV-164	6/19/2008	Pavlish, Brandon	$ 300,000		
ATCO Power Canada Ltd.					$ 75,000	
Black & Veatch Corporation					$ 75,000	
Constellation Power Source Generation, Inc.					$ 75,000	
Hitachi Power Systems America					$ 75,000	
Metso Power OY					$ 75,000	
Midwest Generation EME, LLC					$ 75,000	
Minnesota Power, Inc.					$ 75,000	
PPL Montana, LLC					$ 75,000	
SaskPower					$ 75,000	
TransAlta Utilities Corporation					$ 75,000	
U.S. Department of Energy					$ 2,360,000	
					$ 3,110,000	
						$ 3,410,000

Energy & Environmental Research Center
Applied Energy Research Projects Initiated with the North Dakota Lignite Energy Council
January 1, 2004, through December 31, 2008

Project Title Sponsors	Agreement No.	Start Date	Project Manager	LEC Funding	EERC Cash Leverage	Project Total
Plains CO_2 Reduction Partnership – Phase III						
North Dakota Industrial Commission	FY08-LXIII-162	6/23/2008	Steadman, Ed	$ 2,400,000		
Great River Energy					$ 50,000	
Minnesota Power					$ 50,000	
Minnkota Power Cooperative, Inc.					$ 50,000	
Montana–Dakota Utilities, Co.					$ 50,000	
North American Coal Royalty Company					$ 50,000	
North Dakota Industrial Commission – Oil & Gas Division					$ 500,000	
Otter Tail Power Company					$ 50,000	
TAQA NORTH, Ltd					$ 50,000	
U.S. Department of Energy					$ 5,300,000	
Xcel Energy Services, Inc					$ 50,000	
					$ 6,200,000	
						$ 8,600,000
Coal Ash Behavior in Reducing Environments (CABRE) III						
North Dakota Industrial Commission	FY08-LXIV-163	06/23/08	Stanislowski, Joshua	$ 150,000		
ConocoPhillips Company					$ 150,000	
U.S. Department of Energy					$ 401,174	
					$ 551,174	
						$ 701,174
Lignite Gasification Technologies Summary Report						
Lignite Vision 21 Program	None	6/30/2008	Holmes, Mike	$ 50,000		
U.S. Department of Energy					$ 50,000	
					$ 50,000	
						$ 100,000
	Totals			**$ 6,812,568**	**$ 42,475,839**	**$ 49,288,407**

BISMARCK-MANDAN
DEVELOPMENT ASSOCIATION
701-222-5530 • fax 701-222-3843 • 1-888-222-5497 info@bmda.org • www.bmda.org

TESTIMONY IN SUPPORT OF HB 1350
2:45 PM, MARCH 10, 2009
HARVEST ROOM
SEN. R. HOLMBERG, COMMITTEE CHAIR

PROVIDED BY:
RUSSELL STAIGER, PRES.
BISMARCK-MANDAN DEVELOPMENT ASSOC.

CHAIRMAN HOLMBERG AND COMMITTEE MEMBERS

YOU HAVE HEARD COMMENTS ABOUT THE GROUP OF TEN PERSONS WHO PARTICIPATED IN THE FEBRUARY 10, 2009 TRIP TO SANDIA NATIONAL LABORATORIES. THE TEN PEOPLE INCLUDED RESPRESENTATION FROM UND, NDSU, BSC, MDU, XCEL ENERGY, GRE, BASIN ELECTRIC, GREAT PLAINS ENERGY CORRIDOR OFFICE, LIAISON FOR THE CITY OF BISMARCK, AND MYSELF REPRESENTING THE BMDA.

THE FLIGHT DOWN WAS COURTESY OF GRE WHO PROVIDED THEIR CORPORATE AIRCRAFT FOR THE TRIP.

AS YOU CAN TELL THE REPRESENTATION OF THIS GROUP COVERED ACADEMIA, THE CITY OF BISMARCK AND THE PRIVATE SECTOR.

THE PURPOSE OF THE TRIP WAS FOR OUR GROUP OF TEN TO MEET WITH THE MEMBERS OF THE SANDIA TEAM WHICH INCLUDED:

MARJORIE L. TATRO – DIRECTOR FUEL & WATER SYSTEMS

STEPHEN C. ROEHRIG – DIRECTOR ENERGY RESOURCES & SYSTEMS ANALYSIS CENTER

JOSE' R. ZAYAS – MANAGER, WIND ENERGY TECHNOLOGY DEPART.

AND SEVERAL OTHERS.

IN THE COURSE OF THE APPROXIMATELY SIX HOUR MEETING, A WIDE VARIETY OF SUBJECTS WERE DISCUSSED WHICH WERE OF INTEREST TO EVEYONE CONCERNED. ONE OF THE COMMENTS MADE EARLY ON BY THE SANDIA TEAM WAS THEIR ENTHUSIASM WI TH THE POSSIBILITY OF BEING ABLE TO WORK WITH ACTUAL MAJOR POWER PRODUCERS. THEY MADE THIS COMMENT SEVERAL TIMES IN THE COURSE OF THE MEETING.

THE SANDIA FOLKS SAW THIS AS A TREMENDOUS OPPORTUNITY TO BRING INTO THE REAL WORLD ENVIRONMENT MUCH OF THE SUCCESSFUL RESEARCH THEY HAVE COMPLETED. THIS NEW RELATIONSHIP WITH PRIVATE SECTOR PRODUCERS OF ENERGY WOULD ALLOW THEM TO HOPEFULLY COMMERCIALIZE SOME OF THAT SUCCESSFUL RESEARCH.

A SPECIFIC RESEARCH ITEM DISCUSSED WHICH THEY WERE EXTREMELY INTERESTED IN WAS THE CONCEPT OF MASS STORAGE SYSTEMS. HOW YOU MIGHT STORE THE ENERGY PRODUCED BY WIND ENERGY IN A WAY COULD USE IT OR PUT IT INTO SERVICE AT A TIME MORE CONVENIENT THAN AT THE TIME WHEN THE WIND CONDITIONS ARE RIGHT FOR GENERATION BUT USE OR DEMAND IS NOT THERE.

FOR ME TO SAY THAT I FULLY UNDERSTOOD THE DISCUSSION AT TIMES WOULD BE A GROSS OVER STATEMENT BY ME. THE REALITY WAS THAT THE COMBINATION OF THE FOLKS FROM SANDIA, THE PEOPLE FOR OUR HIGHER EDUCATION COMMUNITY AND OUR PRIVATE SECTOR MEMBERS

HAD AN EXCELLENT CHANCE TO DISCUSS THE ISSUES THEY ARE DEALING WITH AND POSSIBLE WAYS TO IDENTIFY WORKABLE, REAL WORLD SOLUTIONS.

FINALLY, I WOULD LIKE TO SAY THAT AT ABOUT THREE QUARTERS OF THE WAY THROUGH THE DISCUSSION, I WAS STRUCK WITH THE ENORMITY OF THE POSSIBILITIES WHICH COULD COME FROM THE CREATION OF THIS NEW PARTNERSHIP BETWEEN SANDIA, OUR PRIVATE SECTOR PRODUCERS, ACADEMIA, THE STATE OF NORTH DAKOTA AND THE CITY OF BISMARCK.

I HONESTLY BELIEVE THAT ONLY THE FUTURE WILL TELL US FOR SURE, BUT I DO BELIEVE THAT AS A RESULT OF CREATING THIS NEW GREAT PLAINS APPLIED ENERGY TECHNOLOGY CENTER, WE WILL BE PUTTING NORTH DAKOTA ON A PATHWAY TO BEING ONE OF THIS COUNTRY'S LEADERS IN PROVIDING THE ENERGY SOLUTIONS OF THE FUTURE.

THANK YOU FOR ALLOWING ME TO PRESENT THESE COMMENTS. I SINCERELY HOPE YOU WILL SUPPORT HB 1350.

I WOULD BE HAPPY TO ANSWER ANY QUESTIONS WHICH YOU MIGHT HAVE.

Philip Boudjouk	**North Dakota State University**
Mark Hoffman	University of North Dakota
Russell Staiger*	Bismarck Mandan Development Association
Kim Christianson*	Great Plains Energy Corridor Office
Mark Nisbet*	XCEL Energy
Gregory Ridderbusch*	Great River Energy
Darcy Neigum*	Montana Dakota Utilities
Niles Hushka*	Liaison City of Bismarck/MEDAG
Jeremy Woeste*	Basin Electric Power Cooperative
Larry Skogen	Bismarck State College

* Indicates passenger on GRE Plane

Prepared by the Legislative Council staff for
Senator Krauter
March 5, 2009

PROPOSED AMENDMENTS TO ENGROSSED HOUSE BILL NO. 1350

Page 1, after line 11, insert:

"1. The center has completed a detailed business plan demonstrating positive outcomes relating to the development of end-use products and the public policy required to support the products; the use of technology developed at regional research universities; the testing, development, and application of products and technology to address problems relating to the transmission and storage of electricity; and the training of future operators of energy-related systems."

Page 1, line 12, replace "1." with "2."

Page 1, line 15, replace "2." with "3."

Page 1, line 17, replace "3." with "4."

Page 1, line 19, replace "4." with "5."

Renumber accordingly

Bismarck City Administration

Testimony on Engrossed House Bill 1350
Senate Appropriations Committee
March 10, 2009

Chairman Holmberg and Members of the Senate Appropriations Committee, good afternoon. I am Bismarck Mayor John Warford and I am here today to ask for your support of HB 1350. The concept for this proposal came forward from an economic development task force I developed last year. Our goal with the Mayor's Economic Development Advisory Committee was to seek new ways to capitalize on our strengths and develop new concepts to drive economic development forward for our community and our state.

Energy, as you are aware, is one of the key strengths of North Dakota. However, as we look to the 21st Century, the perception and support for traditional energy sources, such as coal, is changing and we must transition with this change to ensure we remain relevant and on the forefront of the evolution.

The Obama Administration has made it very clear that energy will carry a high priority as it searches for a new approach to energy development and use in our country. Research on how to integrate renewable energy and traditional energy sources will be conducted on an accelerated schedule. With this aggressive agenda, new technologies will need to be tested and deployed as quickly as feasible.

For instance, here in North Dakota, we are developing a substantial presence of wind generation capacity. However, there is no current technology available to integrate wind energy with our traditional coal generation. Thus, when wind energy is generated, it must go on the line to customers. If a technology to store this energy could be created, it would greatly enhance the efficiency of our energy companies; allow for better use of renewable energy and keep customers rates lower.

This desire to craft a new mix of energy sources for America creates an opening to move our state to the forefront. Energy companies will want to utilize these new technologies but they will need to know they have been tested and that they can deploy new technology with minimal risk. The energy center in Bismarck, located in the middle of a significant energy production area, will create an environment where industry-led collaboration will allow rapid, commercial scale demonstration of new approaches to energy development and deployment.

The purpose of House Bill 1350 is to provide contingent funding for an applied research, energy technology center or what we are calling the Great Plains Applied Energy Technology Center. Today, I want to highlight some key points for you.

1. The first step in creating this center is to conduct a feasibility study. The city of Bismarck is currently in the process of raising matching grant dollars to fund this study. We anticipate $75,000 will come from an EDA Grant, $37,500 from the City of Bismarck and $37,500 from our energy industry partners.

   The city will conduct an RFP process to conduct this study and only after its completion in about 4 to 6 months will a determination be made to move ahead with this project...or not. Let me emphasize, there is not a foregone conclusion this will move forward.

2. We are requesting $5 million dollars on the basis of the following philosophy

   a. We are following the model created by the National Energy Center and anticipate around a $20m total project cost.

b. We are working closely with federal guidance on this project in the Energy Information Administration. There is money allocated in the stimulus plan for this type of energy development. I would also note that Senator Byron Dorgan is supportive of researching this concept and will make a determination of further support based on the outcome of the study.

c. We are talking with Sandia National Labs about partnering with us on this center. Sandia was chosen by the federal government to develop this technology. A visit to their headquarters was made in February and discussions were very positive.

d. If the project proves out in the business plan phase and a 3 to 1 match of dollars is created, an exact dollar amount and budget will be created to guide the project. If the business plan does not work, no money will be spent.

   I would like to highlight for you that we are asking the energy companies to participate and a board comprised of the public and private sector will cooperate together to implement this project if it is determined that is it feasible.

3. To alleviate some fears, I would like to take a moment and tell you what this project is not. First, it is not intended to be a competitive facility to the EERC in Grand Forks. As opposed to pure research, this is applied research at the commercial scale. Our intent is to take research off the bench, put it on-line and see if it works. This applied research will be done somewhere and we believe North Dakota is the perfect laboratory.

Second, It is not intended to put Bismarck State College in competition with UND or NDSU as a research facility. This is a project developed by the city. Our hope is that it can be on the BSC campus because of the synergy with the energy center but it does not have to be on the campus. However, our intent is to partner with UND, NDSU, EERC and the energy industry and whoever else to it takes to make this center successful. On the first trip to Sandia, UND and NDSU sent representatives on the visit.

In our discussions with BSC and the Chancellor, it is very apparent that BSC's role in this effort is to support the center via providing curriculum development and teaching students. There is no intent to change that role.

Third, the Great Plains Applied Energy Technology Center does not replicate other efforts in the state, such as the EERC. The intent is to utilize research developed by such labs and put it to the test on a commercial scale. I would also note this is NOT a zero sum game for North Dakota. If this center is not built, the money will not go someplace else in North Dakota. It will instead go someplace else in America.

Finally, I know many are focused on how this project is accountable to the taxpayers. I understand and appreciate those concerns as I have a similar responsibility to the taxpayers in my community. The language in HB 1350 is fairly broad. If there is a desire to craft language that makes moving forward with the appropriation contingent upon a successful outcome of the business plan, that is understandable. We would work with you to craft such language.

In closing, I want to thank you for your time and interest in this project. I know you have many proposals that come before you each session. We do not take asking for state dollars lightly because we understand the public trust that is involved. In looking at this this project, it is apparent there are many flowing pieces that need to come together.

However, the pieces are here, in North Dakota. If we can craft a match, it will make our state a leader in the development and integration of renewable and traditional energy sources. This is a tremendous economic development opportunity for our state and one that we hope you will provide support to moving forward.

The city of Bismarck respectfully requests favorable consideration of Engrossed HB 1350. I would be happy to answer any questions you might have about this project.