

2009 SENATE FINANCE AND TAXATION

SB 2221

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. SB 2221

Senate Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: 01/28/2009

Recorder Job Number: 7996

Committee Clerk Signature

Minutes:

Vice Chairman Miller: Opened hearing on SB 2221.

Chairman Cook: Introduces bill as a sponsor of the bill.

Representative Brenda Heller, District 33: Testified in support of bill as a sponsor.

2.05 **Senator Randy Christmann, District 33:** Testified in support of bill as a sponsor. I

have one point to make. Whether you are on either side of the spectrum, or in the middle, the reality is that we have to market things that people want to buy. The future in energy requires us to move in this direction.

3.25 **Senator David O'Connell, District 6:** Testified in support of bill as a sponsor.

4.18 **Curtis Jabs, Basin Electric Power Cooperative and Dakota Gasification Company:**

See Attachment #1 in support of bill and explanation thereof.

22.15 **Chairman Cook:** I saw a piece in the paper regarding legislation in Montana and the argument was about whom owns the land that contains the "cavern".

Curtis Jabs: There are two bills SB 2095 SB 2131 that set up a statutory framework in ND for carbon dioxide sequestration.

Senator Triplett: You are asking for in this bill is tax change with to use as financial incentive for carbon capture. Have you considered looking for a grant fund to help in the process of testing and proving to help you answer some of your questions?

Curtis Jabs: We will know after it is built and operating to know if it is going to work. The first one will be the most inefficient; we will learn new technology along the way.

Senator Triplett: Maybe it would be better to wait until after it is tested to do legislation.

Curtis Jabs: The purpose of this bill is to help demonstrate the tech. and encouragement to defray costs in order to get a demonstration project going, we wouldn't catch 100% of the carbon.

Senator Hogue: You mentioned in the past that the new legislation is looking at legislation that will be in adverse to what you are seeking

Curtis Jabs: The federal government is trying to provide some money for this but the economy has so many dire needs, they can only do so much

28.30 **Vice Chairman Miller:** How much Co2 do you produce at Antelope Valley

Curtis Jabs: 6 million tons a year, at antelope we are not capturing any

Vice Chairman Miller: How do you measure the amount of CO2 coming out of a stack?

Curtis Jabs: We have monitoring devices that CEM's, Continuation Emissions Monitoring.

Vice Chairman Miller: Is it possible to pump air into something like that and get an inaccurate measurement?

Curtis Jabs: No.

31.00 **Senator Triplett:** Have you come aware of other capture demonstrations around the country anywhere?

Curtis Jabs: Antelope Valley, I believe, is furthest along.

32.40 **David Straley, Manager of North Dakota Govt/Public Affairs, North American Coal Corporation:** See Attachment #2 in support of bill.

35.25 **Al Christianson, Great River Energy:** Testified in support of bill. We need your help.

36.09 **Sandy Tabor, Lignite Energy Council:** Testified in support of the bill. There are two other bills SB 2095 and SB 2139 (See individual Bill's). We have 7 plants in North Dakota and if the federal government passes legislation regulating emissions, all of these plants will need to be retrofitted with some type of carbon capture technology. We all need to be in this together

39.19 **Chairman Cook:**

40.01 **Rene Phain, representing North Dakota Electrical Workers Council,** testified in favor of SB 2221

Chairman Cook: Closed hearing on SB 2221.

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. SB 2221

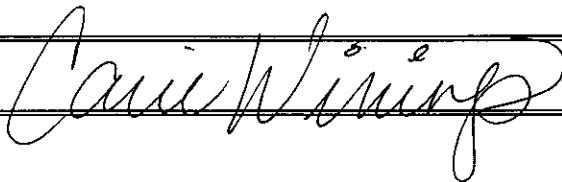
Senate Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: 02/04/2009

Recorder Job Number: 8664

Committee Clerk Signature



Minutes:

Chairman Cook: Reopens discussion on SB 2221.

Curtis Jabs: Reappeared before committee to propose an amendment (Attachment #1) and reviews them.

Chairman Cook: What was the fiscal note on this?

Curtis Jabs: \$7 million

Chairman Cook: Actually Dakota gasification is receiving some benefit today, and that will come off?

Curtis Jabs: that is correct.

Chairman Cook: This is just a reduction on an increase of what we were going to be giving?

Curtis Jabs: That is correct. Under the provision today, Dakota Gasification is paying about 16.3 million dollars in coal conversion tax. If there was no provision, it would go up to about a little over 30 million, and under SB 2221 it would be about 24 million. The state will get more than they are today, but not as much as if there was no provision.

Chairman Cook: Basically this fiscal note reflects the difference between those two numbers?

Curtis Jabs: That is correct.

Senator Hogue: In the initial testimony you indicated that you were capturing about 49%, and the statute says you get credit for 20%. I was wondering how much can you capture?

And how much can you technically capture?

Curtis Jabs: At Dakota Gasification company? The threshold is 20% and then it was an incremental increase – for every 2% you got another 1% reduction. We could capture probably another million and a half tons. The problem we have though is because we have two trains and once in a while, about every year, one of those trains is down. So, if we sell that we couldn't consistently produce that, we could not market something on a $\frac{3}{4}$ of the year basis. That is why we are not capturing that much, we have the ability, but we cannot market it. It is not dependable. Some of what we capture is sent back to the boiler. We could capture about 75% or about two thirds.

Chairman Cook: Your wishes on the amendments?

Senator Triplett: Motioned for a Do Pass on the Amendments.

Senator Dotzenrod: Seconded the motion.

Senator Triplett: You said that you worked out? with the Governor's office. Has it been run past the Tax Department at all?

Sandy Tabor: I talked to Commissioner Fong last night and what he knows is that the Governor wished it to be limited in some way.

Senator Triplett: In terms of the actual language?

Sandy Tabor: No. It was not drawn up until this morning.

A voice vote was taken: Yeas 7, Nays 0, Absent 0.

Chairman Cook: Your wishes on the bill as amended.

Senator Triplett: I would like to wait to vote on it, I am unclear about how it is written. Is the Tax Department comfortable with the language? Is that fair?

Chairman Cook: What do you have concern with?

Senator Triplett: Which comes first, does it matter to anyone, 10 years from the date of the first capture or 10 years from the date that it is eligible to receive the credit; is it clear to you which of those has priority or do you get to pick from them?

Curtis Jabs: I think it is an either or situation. Gives explanation.

Senator Triplett: Ok.

Sandy Tabor: Comment (Inaudible)

Senator Triplett: I am fine then.

Senator Oehlke: Motioned for a Do Pass As Amended and Re-Refer to Appropriation.

Vice Chairman Miller: Seconded.

Chairman Cook: Discussion?

Senator Hogue: I was wondering about the bar being set very low. Start at 20% and max out at 50% for 80% or more capture. How were those percentages arrived at?

Curtis Jabs: The reason is because we are trying to do a demonstration project at Antelope Valley Station and we are taking from a 450MW only 120MW slipstream and we are capturing 90% of the carbon dioxide from that slipstream; which will only be about a little over 22% of the CO2 from the unit. It was set that way in trying to do these demonstration projects and they are probably the only ones. If it is proven, they will probably put it on their plants to capture 80-90%.

Senator Triplett: When you say the bar is too low, were you referring to the fact that allowing any amount of credit at the 20% level, or were you thinking that the tax is too generous relative to the amount collected?

Senator Hogue: I was thinking both.

Senator Triplett: What would you suggest different?

Curtis Jabs: Let me calculate what that would mean for us at the Antelope Valley Station.

Currently we pay about 4.6 million dollars in coal conversion tax, if this provision went into effect, we would pay 308 million and that would be about an \$800,000 reduction per biennium. This project is going to cost 300 million dollars, and that doesn't include the pipeline (about 100 million dollars).

Chairman Cook: That is a whole lot of new expenses that you are going to be passing out in the price of electricity aren't it?

Curtis Jabs: Correct and as a cooperative we can do it much better than an investor owned where they would have to get a rate increase.

Chairman Cook: Comment.

Curtis Jabs: Yes it will be an increase in rates, but our board of director haven't given the final go ahead. We need to do all that we can to try.

Senator Triplett: By this proposal, you would save \$800,000 per biennium in taxes, and we are limiting it to five biennium, so that would be four million dollars over five biennium relative to the 300 million dollar project.

Curtis Jabs: That is correct.

Senator Triplett: That puts it in go perspective.

Senator Dotzenrod: Section 2 of the bill is the Antelope Valley project and probably the only one we are talking about. That is going to be the only place in the state that is going to use that section?

Chairman Cook: If they are successful with the pilot project, you might see it expand and see it elsewhere.

Sandy Tabor: This will have an impact on coal conversion revenue for the state, but for plants like Great Northern which will be new plants, they too would qualify for this and it will provide new money for revenue for coal conversion. (Mentions a few other plants that would benefit).

Senator Dotzenrod: In order to make this work, there will have to be a pipeline built to get this over to where it can go into the supply chain that goes up north into Canada. I understand that it would be hard to find other plants that can do that?

Sandy Tabor: The challenge for other plants will be to find the technology that will ? it into their boilers to capture the carbon in a cost effective manner, but there are technologies out there being done. (Gives a couple of different technology options that are out there). Our challenge is being able to demonstrate them on all of our different plants. We need to retrofit the boilers on the seven existing plants, if we don't we are going to have energy issues in our state.

Chairman Cook: Any more question in order to vote?

A Roll Call vote was taken: Yea 7, Nay 0, Absent 0.

Senator Cook will carry the bill.

FISCAL NOTE
Requested by Legislative Council
01/30/2009

REVISION

Bill/Resolution No.: SB 2221

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

| | 2007-2009 Biennium | | 2009-2011 Biennium | | 2011-2013 Biennium | |
|----------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
| | General Fund | Other Funds | General Fund | Other Funds | General Fund | Other Funds |
| Revenues | | | (\$7,420,000) | | | |
| Expenditures | | | | | | |
| Appropriations | | | | | | |

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

| 2007-2009 Biennium | | | 2009-2011 Biennium | | | 2011-2013 Biennium | | |
|--------------------|--------|------------------|--------------------|--------|------------------|--------------------|--------|------------------|
| Counties | Cities | School Districts | Counties | Cities | School Districts | Counties | Cities | School Districts |
| | | | | | | | | |

2A. Bill and fiscal impact summary: *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

SB 2221 creates a credit against coal conversion privilege taxes for facilities that achieve a required level of carbon dioxide capture.

B. Fiscal impact sections: *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

We are uncertain which facilities will meet the requirements specified in the bill. However, one company representative has provided estimates for one plant, and has indicated that this plant will undertake the requirements and meet the specifications in the bill during the 2009-11 biennium. The fiscal note has been revised to show the loss to the state general fund associated with this one facility. It is not known if others will also qualify.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

A. Revenues: *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

B. Expenditures: *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a continuing appropriation.*

| | | | |
|----------------------|----------------------|-----------------------|----------------------------|
| Name: | Kathryn L. Strombeck | Agency: | Office of Tax Commissioner |
| Phone Number: | 328-3402 | Date Prepared: | 01/31/2009 |

FISCAL NOTE
Requested by Legislative Council
01/15/2009

Bill/Resolution No.: SB 2221

1A. State fiscal effect: *Identify the state fiscal effect and the fiscal effect on agency appropriations compared to funding levels and appropriations anticipated under current law.*

| | 2007-2009 Biennium | | 2009-2011 Biennium | | 2011-2013 Biennium | |
|----------------|--------------------|-------------|--------------------|-------------|--------------------|-------------|
| | General Fund | Other Funds | General Fund | Other Funds | General Fund | Other Funds |
| Revenues | | | | | | |
| Expenditures | | | | | | |
| Appropriations | | | | | | |

1B. County, city, and school district fiscal effect: *Identify the fiscal effect on the appropriate political subdivision.*

| 2007-2009 Biennium | | | 2009-2011 Biennium | | | 2011-2013 Biennium | | |
|--------------------|--------|------------------|--------------------|--------|------------------|--------------------|--------|------------------|
| Counties | Cities | School Districts | Counties | Cities | School Districts | Counties | Cities | School Districts |
| | | | | | | | | |

2A. Bill and fiscal impact summary: *Provide a brief summary of the measure, including description of the provisions having fiscal impact (limited to 300 characters).*

SB 2221 creates a credit against coal conversion privilege taxes for facilities that achieve a required level of carbon dioxide capture.

B. Fiscal impact sections: *Identify and provide a brief description of the sections of the measure which have fiscal impact. Include any assumptions and comments relevant to the analysis.*

We are uncertain if facilities will meet the requirements specified in the bill. Therefore the fiscal impact is unknown. However, the maximum amount of credit allowed under the provisions of this bill is a fifty percent reduction in state general fund revenues from coal conversion taxes.

3. State fiscal effect detail: *For information shown under state fiscal effect in 1A, please:*

A. Revenues: *Explain the revenue amounts. Provide detail, when appropriate, for each revenue type and fund affected and any amounts included in the executive budget.*

B. Expenditures: *Explain the expenditure amounts. Provide detail, when appropriate, for each agency, line item, and fund affected and the number of FTE positions affected.*

C. Appropriations: *Explain the appropriation amounts. Provide detail, when appropriate, for each agency and fund affected. Explain the relationship between the amounts shown for expenditures and appropriations. Indicate whether the appropriation is also included in the executive budget or relates to a continuing appropriation.*

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|----------------------|----------------------|-----------------------|----------------------------|
| Name: | Kathryn L. Strombeck | Agency: | Office of Tax Commissioner |
| Phone Number: | 328-3402 | Date Prepared: | 01/27/2009 |

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PROPOSED AMENDMENT TO SB 2221

Page 2, line 25, after "emissions." insert the following sentence:

"A coal conversion facility may receive the reduction in coal conversion tax under this section for ten years from the date of first capture of carbon dioxide emissions or for ten years from the date the coal conversion facility is eligible to receive the credit."

Roll Call Vote #:

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. : 0001

Senate Finance and Taxation

Committee

☐ Check here for Conference Committee

Amendment 5

Legislative Council Amendment Number

Action Taken

☒ Do Pass

☐ Do Not Pass☐ Amended

Motion Made By

Triplet

Seconded By

Dotzenrod

[illegible]

Total: Yes

No

Absent

Floor Assignment

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

Date: 02/04/09

Roll Call Vote #: 2

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. : 2221

Senate Finance and Taxation Committee

☐ Check here for Conference Committee

Do Pass/As Amended/
Refer to Appropriations

Legislative Council Amendment Number #1 in notes

Action Taken

☒ Do Pass

☐ Do Not Pass

☒ Amended ^{AS}

Motion Made By Senator Oehlke Seconded By Senator Miller

| Senators | Yes | No | Senators | Yes | No |
|---------------------------------|-------------------------------------|--------------------------|-------------------------|-------------------------------------|--------------------------|
| Sen. Dwight Cook - Chairman | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sen. Arden Anderson | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sen. Joe Miller - Vice Chairman | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sen. Jim Dotzenrod | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sen. David Hogue | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Sen. Constance Triplett | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Sen. Dave Oehlke | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | |
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Total: Yes 7 No 0

Absent 0

Floor Assignment Senator Cook

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

REPORT OF STANDING COMMITTEE

SB 2221: Finance and Taxation Committee (Sen. Cook, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee** (7 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SB 2221 was placed on the Sixth order on the calendar.

Page 2, line 25, after the underscored period insert "A coal conversion facility may receive the reduction in coal conversion tax under this section for ten years from the date of first capture of carbon dioxide emission or for ten years from the date the coal conversion facility is eligible to receive the credit."

Renumber accordingly

2009 SENATE APPROPRIATIONS

SB 2221

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. 2221

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: 02-10-09

Recorder Job Number: 9093

Committee Clerk Signature

Minutes:

Chairman Holmberg opened the hearing on 2221, relating to credit against privilege taxes on coal conversion facilities for carbon dioxide capture.

Curtis Jabs, Basin Electric and Dakota Gasification, testified in favor of the bill. See written testimony #1. (07.21)

V. Chair Grindberg asked if this is for any new plants and is it contingent on whether the feds require more legislation thereby increasing the costs. Is this request a trigger if the federal government does impose more regulation and requirement? It seems like cart before the horse.

Curtis Jabs said this is an incentive to try to demonstrate carbon capture even though there is no federal requirement to do so. It is a proactive step. If we wait until federal legislation is enacted, and we don't have a pathway for coal, we fear some of the plants will be shut down. Senator Warner asked about the trigger duration. Is it for when you first convert to carbon sequestration for ten years, or is when you achieve 20% and 10 years after that. It will take several years to ramp this up. Is the sliding scale after that?

Curtis Jabs said this bill is when you start actually capturing the carbon dioxide, at Antelope Valley they would expect that to come on line in 2013. For Dakota Gasification, they are capturing carbon dioxide and they would be eligible for the incentive as soon as the bill

becomes active in 2010. The sliding scale, facilities that captures 20% get a 20%, and then it is a step up process, for every 2% more that they capture they get 1% more state reduction in coal conversion. (example 10.28)

Senator Krauter said yesterday when we were presented a revenue forecast, there was \$10 million additional revenue that relates to the credit?

Curtis Jabs said in 2000 there was a provision put in because we are sharing half our revenue with the federal government so the legislature provided this incentive. It will expire at the end of this year, and so if no provision is put in place , we have been paying about \$16 million, we will be expected to pay about \$30 million. We are anticipating about a \$14 million increase.

V. Chair Bowman said he is not a scientist, there was a scientist on the news the other day that said this carbon deal is a joke. He said carbon dioxide is the most essential element in sustaining plant growth. We are an agriculture state and we want to take the carbon dioxide out of the air? Maybe cleaning the air up according to some people will destroy our economic activity at the other end. Who do you believe? How do you make a good judgment on investing this kind of money when you don't know who to believe?

Curtis Jabs said there are scientists on both sides. We believe the federal government will enact something that will restrict power plants from emitting carbon dioxide. We have to be prepared . If we do not do anything , we could have to shut these plants down. (13.42)

Sandy Tabor, Lignite Energy Council, testified in favor of the bill. She offered some detail as to why they are doing this. Remember that Minnesota has already enacted a statute in 2007 that established carbon emission reduction goals for the state of Minnesota. Many of our plants provide energy to Minnesota so while there isn't a federal standard yet, she agrees with Curtis, and she doesn't think you will hear anyone in the industry disagree, that with the new administration, it is inevitable that there will be carbon emission reduction standards and we

will have to comply with them. Most of those standards, if Liebermann – Warner, the federal bill before the Senate in June, is any indication, those standards are going to be set at a level whereby if we don't find the technology, lignite so going to have a terrible time being a viable industry in the state. The standards will be set in such a way we won't meet them with lignite because it is not high grade coal. What Basin is doing with the Antelope Valley project is the beginning. It helps insure what is the 4th largest industry in the state continues to be so in the future. We have some things we have to deal with because of Minnesota. We know we will be dealing with something in the not so distant future from the federal government. The planning process takes a number of years. These are going to be costly projects. If this is successful, to incorporate that technology on the entire unit, will be significant, over \$300 million. It is an important bill. We know we will have to find other technologies. She appreciates the skepticism about why are doing it now. This is part of their planning process so they are still in the game.

Senator Warner asked if are there any issues out there with the transmission of carbon dioxide with pipe lines.

Curtis Jabs said yes there is a 10 year property tax exemption on carbon dioxide pipelines.

Senator Warner asked if that is recent legislation.

Curtis Jabs said 1999.

Senator Warner asked if there is any potential for transmitting natural gas and carbon dioxide in the same lines.

Curtis Jabs said no, the carbon dioxide they send up to Saskatchewan has some other impurities, you would not send any other fluids in that pipeline.

V. Chair Grindberg said regarding the eminent restrictions with the new administration, with the tilt towards renewables, our congressional delegation is probably front and center on this, the

federal government should have some skin in the game. Renewables are not going to provide all the energy needs of this country. What is happening on the federal side. Why are the states bearing the cost of this. We are giving up tax base for a federal mandate.

Sandy Tabor said we do work closely with congressional delegation. The Liebermann Warner bill is a good example. We held meetings with Senator Dorgan and Senator Conrad last January because they knew something was going to move. We went out to see them in Washington in May. We had numerous conversations with their staff. Our biggest concerns with the bill was the generation performance standard. We were afraid we wouldn't qualify for the money they had associated with that standard because we couldn't meet the standard. In the end, we had to tell the delegation you can't support this bill, it won't help lignite. To their credit, Senator Dorgan voted no on the procedural vote and Senator Conrad issued a letter

(21.53) What is the federal skin on this? They have some low interest, no interest loans, they are putting together some technology funding options even in the economic stimulus package.

Basin has a grant application in, they just received a low interest loan, through Department of Agriculture to help offset the cost of the project. We constantly remind the delegation they have to help offset the cost with grants and low interest loans. They also have to be always conscious there are no strings on that money that would prohibit us from using lignite in the future.

Senator Christmann said one of the misperceptions he hears from home is the suggestion that we wait and if severe regulations do come down from Washington DC, we will fix it then. The problem with that is because when it comes to electric generation plants, this is an unproven concept. We need to move forward with a large project, see if it works.

Sandy Tabor said yes, the heart of the issue is you don't do anything in electric generation plants in a week, it takes planning and time, there are enormous costs. There have been

some small scale demonstrations on some of these technologies, most are largely unproven.

The only way to prove them is to start on a small scale project then moving to the large scale that Antelope Valley is planning in 2013. The feds understand it is not a fast process. It will not go away.

Senator Mathern asked how long before we are able to take the energy out of the ground and leave the stuff we don't want.

Curtis Jabs said it's called underground gasification. They set a big fire once they had to put out. It is a concept they research. It is a great idea but unproven. There are some funds available for that. There might even be a demonstration project.

Al Christenson, Green River Energy testified in favor of the bill.

Chairman Holmberg closed the hearing on SB 2221.

2009 SENATE STANDING COMMITTEE MINUTES

Bill/Resolution No. SB 2221

Senate Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: February 10, 2009

Recorder Job Number: 9139

Committee Clerk Signature



Minutes:

Chairman Holmberg called the committee hearing to order on SB 2221

Senator Robinson moved Do Pass on SB 2221.

Senator Wardner seconded.

V. Chair Grindberg reminded the committee that this bill is not in the governor's budget.

Senator Wardner said if we want a viable industry in lignite coal, we have to have this. Some don't think it's a big issue, but others do.

V. Chair Bowman stated that he was not opposed to this, and the industry is important to the state, but none of us know how much coal we're going to use in 10 years. If this is going to turn into a green generation, coal is going to go out of the picture.

V. Chair Grindberg wondered if the bill shouldn't have an amendment attached to it that has the appropriate entity come back and provide a report to the budget section once or twice in the next biennium, and then to the 62nd legislative assembly. If something happens and this doesn't come to be, then we'll never re-visit this again. It's a 10 year deal no matter what happens so they would like a report again in two or four years from this group, just in case this never came to be.

Chairman Holmberg then asked previous motions to be withdrawn and they were.

V. Chair Grindberg moved amendment.

Senator Christmann asked how someone would come in and give a report of something real definable with what's going on with the environmental movement worldwide. The onslaught of people who feel that carbon is a huge issue are not going to go away. I don't know if it hurts but I don't know how you give a report that would do much good for anyone.

Chairman Holmberg said it could be a status but Senator Krauter mentioned the legislative council and you know how perfunctory we are about these kind of reports. There might be an energy interim committee or something that could receive it do something with it.

V. Chair Grindberg suggested the new EMPOWER group should be responsible for reporting back to the legislature.

Senator Robinson said he would support a motion that supports a reporting mechanism back to the legislative council.

Chairman Holmberg asked Legislative Council if they had the appropriate language to report annually.

Senator Mathern stated that the industry is already monitored by the Department of Health, but **V. Chair Grindberg** said they needed a more transparent hearing than just the Health Department.

Amendment - voice carried.

Senator Krauter moved

Senator Wardner seconded.

Aye 13 Nay 0 Absent 1

PROPOSED AMENDMENTS TO ENGROSSED SENATE BILL NO. 2221

Page 2, line 18, after "credit" insert "- Reporting requirement"

Page 2, after line 28, insert:

"The operator of a coal conversion facility that receives a credit under this section shall report annually to the legislative council. The report must include:

1. An overview of the carbon dioxide capture project.
2. A status report on the current state of the carbon dioxide capture project, including data on the amount of carbon dioxide produced from the facility before the carbon dioxide capture project and the current carbon dioxide produced and captured from the facility.
3. Any recent changes to enhance the carbon dioxide capture system.
4. Information on the status of federal law and regulations related to the carbon dioxide capture project, including any benefits from the project realized by the operator under federal law and regulations."

Renumber accordingly

Date: 2-10-09
Roll Call Vote #: 1

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2221

Senate Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number on Amendment

Action Taken ☒ Do Pass ☐ Do Not Pass ☐ Amended

Motion Made By Sen. Grindberg Seconded By Sen. Robinson

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

Absent _____

Floor Assignment _____

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

*Voice vote
passed*

Date: 2-10-09
Roll Call Vote #: 2

2009 SENATE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2221

Senate Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☒ Do Pass ☐ Do Not Pass ☒ Amended

Motion Made By Sen. Krauter Seconded By Sen. Wardner

| Representatives | Yes | No | Representatives | Yes | No |
|--------------------|-----|----|------------------|-----|----|
| Senator Fischer | ✓ | | Senator Warner | ✓ | |
| Senator Christmann | ✓ | | Senator Robinson | ✓ | |
| Senator Krebsbach | ✓ | | Senator Krauter | ✓ | |
| Senator Bowman | ✓ | | Senator Lindaas | | |
| Senator Kilzer | ✓ | | Senator Mathern | ✓ | |
| Senator Grindberg | ✓ | | Senator Seymour | ✓ | |
| Senator Wardner | ✓ | | | | |
| Chairman Holmberg | ✓ | | | | |
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Total Yes 13 No 0

Absent 1

Floor Assignment send back to finance + tax

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

Cook

REPORT OF STANDING COMMITTEE

SB 2221, as engrossed: Appropriations Committee (Sen. Holmberg, Chairman) recommends **AMENDMENTS AS FOLLOWS** and when so amended, recommends **DO PASS** (13 YEAS, 0 NAYS, 1 ABSENT AND NOT VOTING). Engrossed SB 2221 was placed on the Sixth order on the calendar.

Page 2, line 18, after "credit" insert "- Reporting requirement"

Page 2, after line 28, insert:

"The operator of a coal conversion facility that receives a credit under this section shall report annually to the legislative council. The report must include:

1. An overview of the carbon dioxide capture project.
2. A status report on the current state of the carbon dioxide capture project, including data on the amount of carbon dioxide produced from the facility before the carbon dioxide capture project and the current carbon dioxide produced and captured from the facility.
3. Any recent changes to enhance the carbon dioxide capture system.
4. Information on the status of federal law and regulations related to the carbon dioxide capture project, including any benefits from the project realized by the operator under federal law and regulations."

Renumber accordingly

2009 HOUSE FINANCE AND TAXATION

SB 2221

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **SB 2221**

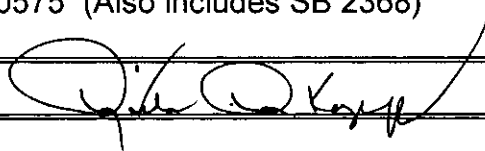
House Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: March 10, 2009

Recorder Job Number: 10575 (Also includes SB 2368)

Committee Clerk Signature



Minutes: (35:21)

Chairman Belter: We will open the hearing on SB 2221.

Senator Christmann: SB 2221 deals with the enormous project of trying to capture the carbon dioxide out of the electric plants and what is being done at the gasification plant, thus Basin Electric Power Cooperative is probably the one we are looking to for some leadership in this area because they have their power plants right next door and they also own the gasification plant. The pipeline comes out of the gasification plant and goes up to Canada. This seems like the obvious place to do a large scale test of trying to capture this CO2 but it comes at enormous expense. I am sure they will lay all that out and tie in the connection between the gasification plant and this project. What I want to leave you with though is in living there and dealing with the utilities over the years, what is most clear to me and what I want to emphasize to you most is the fact that this is a necessity. Whether you are way on the side of folks who believe all this intense warming we are experiencing on days like today is the result of coal and activities of man or whether you are on the complete opposite extreme and feel that no matter what we do, it has no impact; it is all up to God; regardless of where in between there you might be, we have to do this because most of the country believes it is carbon dioxide emissions that are causing environmental problems. So if we want to be able

to market our electricity and our synthetic gas and anything in the nature of power, we have to move forward on a program like this. So, as I said, others will be here who can give you a lot better detail, but it is just, I think, one of the most important things we will do this session to get started on capturing the CO2 from the electric plants. Any questions for me, Mr. Chairman?

Chairman Belter: Thank you, Senator Christmann. Any further testimony in support of 2221?

Curtis Jabs, Basin Electric Power Cooperative and Dakota Gasification Company:

(Testimony 1). (37:58-44:17) I am not going to read the rest of my testimony. I just want you to go back to the diagrams in the back. This outlines one of the projects we are trying to do at the Antelope Valley Station. There will be others here to talk about other potential projects in ND. As you see on the right side, there is the Great Plains Synfuels Plants which captured about 3 million tons of CO2 a year. It goes through these compressors and goes into a pipeline up to Weyburn, Saskatchewan. That pipeline has about a 5 million ton capacity and currently we are sending about 3 million tons annually so there is extra capacity. Then you see the Antelope Valley Station and you see the flue gas coming off there. What we are trying to do is take a slip stream, about 120 megawatts slip stream, off one of the units of 450 megawatts so a portion of one unit. We will be using ammonia based technology to capture the carbon dioxide and so that is how these two plants fit in so well. We will be getting ammonia from the Dakota Gasification Company; it will come over to this technology. One of the things this technology needs to do is take more of the sulfur out of the emissions; currently Antelope Valley has about 170 parts per million; it is compliant. However, we need to get that down to 1 part per million so they will use ammonia to take more of that sulfur out of the emissions. We have that same process at Dakota Gasification Company. What that does is makes ammonium sulfate and so that would be sent back to Dakota Gasification Company where we have a plant to process that into making fertilizer so you will get a useful product.

We are trying to demonstrate about 90% capture of the carbon dioxide from the 120 megawatt slip stream; that will produce about a million tons per year. That will mean we will have to build one new compressor, another compressor and it will be injected into that existing pipeline that we have extra capacity on. If there are any questions on that portion, I can answer them as we are going through it. Let's go to the next slide. Here are some of the costs that came up. Basin Electric last June sent out a request for proposals to ten technology developers who say they have the ability to capture carbon dioxide. We received six proposals back, six answers. Based on those estimates, those requests for proposals, here is the range of what carbon capture will cost. On the right hand side, anywhere from probably a very optimistic \$35/ton, probably the lowest, up to maybe \$60 a ton to capture the carbon dioxide from the Antelope Valley Station. If you had to build a new pipeline, it would be in that \$15-\$30/ton; it all depends on how far you have to go, how big you make it and so forth. So we are going to have a real benefit because we have the existing pipeline. What can we get for the carbon dioxide for enhanced oil recovery? We fully intend to sell this carbon dioxide for use in enhanced oil recovery. Probably in that \$20-\$35/ton and probably \$20 is high today with the price of oil. The price that oil companies would be willing to pay is literally proportional probably to the price of oil. That is probably the kind of rate; you would have a variable rate. \$20-\$35 is where we think that price would probably come in. If you look at the third slide, there you can see that 205 mile pipeline that goes from Dakota Gasification Company over to Killdeer, that first closed dot. What those little dots are are taps in the pipeline so we can build off any one of those taps to one of the oilfields in ND. The best target is probably that one down in the southwest corner. Cedar Hills is probably where that CO2 most likely will go so we would have to build a pipeline from that first tap down to that oilfield.

Representative Weiler: The previous slide, the \$35-\$60, that is what it is costing you and then the \$20-\$35, that is what you are getting for the oil use?

Curtis Jabs: That is what we are projecting.

Representative Weiler: So at the high end that you are getting, the low end is what it is costing you. Right.

Curtis Jabs: This is based on these request for proposals. Again those are probably in the plus or minus 30% range.

Representative Weiler: Obviously on a best case scenario, high oil prices costing you the least to capture it, you are going to break even. I had one more question. When the CO2 goes into the pipeline up to Weyburn, what kind of revenue are you making on that? Is that the same as this or is it different?

Curtis Jabs: We have a confidentiality agreement with (?) and I can't tell you the price, but it when we sold that, oil was not very high so that....

Representative Weiler: We are all in one room here. I'm just teasing.

Curtis Jabs: Back to the pipeline then; 11 taps in the pipeline. It goes right through the oilfields of ND so there is opportunity to use that carbon dioxide for enhanced oil production in ND.

Representative Kelsh: Who pays the severance taxes, the mining company or the generators or?

Curtis Jabs: I think it is the mines.

Representative Kelsh: The fiscal note mentions it is based on one project that will probably be completed during the next biennium. Is that the Antelope Valley Station?

Curtis Jabs: No the fiscal note would reflect that Dakota Gasification Company would be eligible to use this.

Representative Pinkerton: How much does a ton of coal sell for?

Curtis Jabs: I believe coal is about \$10 a ton cost. Let's look at economics; that is the last page and what Representative Weiler was getting to. Let's look at the best case scenario. Let's say we can capture carbon dioxide for \$35/ton and we will have a better idea of the Antelope Valley Project once we go through this front-end engineering and design study. That will probably commence in June; it will be a six month study. We will get those costs down to plus or minus 15%. But let's say we could do it for \$35/ton, because we have an existing pipeline, we only have to build off one of those taps. We can probably transport the CO₂ for \$10/ton unless oil came up and we got \$35 for it. We are showing we are going to have about a \$10 loss on that. If we could get the capture costs lower or if we could get more for the CO₂, yes we could probably be close to breaking even. However, maybe more realistically, that CO₂ is probably going to cost us \$35 or \$45/ton to capture depending. If we had to build a new pipeline, it would be more like \$15/ton for transportation cost so it would cost a total of \$60 and if we could get \$20 like today's market or maybe less than today's market, you would be losing \$40 for every ton that you captured. So you can see that there is a need here for not only state but some federal incentives to get us through these demonstration costs. I am just going to conclude then in my summary on the very last page with North Dakota's generation portfolio heavily coal based enforcement of carbon dioxide legislation or environmental protection regulation poses a risk to the future of not only building new but existing coal based generation. Demonstrating coal capture technology that would lead to commercialization could help mitigate potential harmful effects of this legislation and regulation. North Dakota needs to be at the forefront of developing technology which protects its existing coal development facilities and encourage new uses. I know there will be some others who will speak to probably different uses. ND has tremendous potential for using carbon dioxide to enhance oil

recovery and also has huge carbon dioxide storage capacity in other geological formations.

We have got a place to put it; there are a lot of states that don't. We can capture it, first of all a benefit; we can use it for enhanced oil recovery so it will take a lot of years of carbon dioxide so ND is well positioned. The passage of SB 2221 would give the industry a financial incentive to install carbon dioxide capture technology in its gasification facilities. Mr. Chairman, that concludes my testimony and I would be happy to answer any questions.

Representative Winrich: On your slide #4, which outlines the economics here, if your assumption is correct, that Congress is going to be passing some kind of limitation on carbon dioxide emissions, presumably this would also save you some federal penalty in the form of a tax or something like that. Have you made any estimates of what that might be and where that might figure into the economics?

Curtis Jabs: Yes, that is correct. If you had to buy a carbon credit, where would that be? They are saying it will probably start about \$10-\$20 a ton range. Of course, as this cap comes down, the price of CO₂ will come up. Probably at the beginning, it might be more economic especially if we are losing \$40/ton just to buy the credit than to actually install the equipment. However, eventually, I think, as the price of carbon dioxide emissions goes up, we would be much better off to have this equipment installed on our plants. That is why we are trying to take a proactive look at this.

Senator O'Connell: I appreciate your allowing me to testify here this morning. After Paul and Curt, I don't know what new information I can give you. I had a White House briefing before the last administration changed and this topic did come up. I don't know what is going to happen down the line, how big a tax will probably be put on as Curt mentioned to you, but I think this is just a good start and ND could be ahead of this. I don't know what can be

developed out of this, there are experts in the room; but I think this is an excellent starting point and probably ND can excel and be the leader in this field. (57:27)

Chairman Belter: Are there any questions? We are going to have to send you to Washington and see that this thing is throttled down a little bit.

David Straley, North American Coal Corporation: (Testimony 2) (60:27)

Sandi Tabor, Lignite Energy Council: We are here today to echo support of SB 2221 and emphasize, as Curtis mentioned, that this isn't just about the Antelope Valley Station; it is about the future of all of the existing plants in our state and the need to look for technology and to demonstrate that technology and hopefully, ultimately, to install technology that will capture carbon on our existing plants. Beyond the identified projects of the coal to liquids project and Antelope Valley, recently within the last three weeks, the Electric Power Research Institute, known as EPRI, announced that the Coal Creek station owned by GRE has been picked as one of five stations in the US that will receive a review, a feasibility study of what technologies would be able to be retrofitted onto that plant and then potentially move forward and help retrofit that plant. That is big news for us because it means we have one more group looking at how we get our existing plants to operate in a carbon constrained world. But having said all of that, we will need support not only from the state, but we hope to have support from the feds, and I will tell you that based on what I saw in(inaudible)(62:00) I think it is going to be a challenge for us to get support from the federal government. So I am hopeful that as we have done in the past, that the state will continue the partnership that they have with the industry. These projects are not going to be cheap for the industry. The Antelope Valley Station, as Curt mentioned, is 120 megawatts slip stream out of a 900 megawatt for both plants; right now we estimate the cost at \$300 million just for 120 megawatts so you all can do the math. With

that, I will sit down because I know you have other bills, but I wanted you to know that we are supportive. I will answer any questions.

Al Christianson, Great River Energy: We are here to support this and ask you for a "do pass". With the fact that it is close to noon, that is all I have to say.

Chairman Belter: I don't want to rush anybody; but Harlan, would it be alright if we delayed 2297 until this afternoon. If there is anybody that needs to testify because of schedules, we could try to have them before but I think we are running close enough so I don't want to cut anybody off here on this bill.

Renee Pfenning, ND Electrical Workers Council and the ND Building and Construction Trades Council: We represent the workers in the plant and we also represent the construction side of the industry. With that, I would ask for a "do pass" recommendation and would attempt to answer any questions.

Chairman Belter: Is there any further testimony in support of 2221? If not, is there any opposition to 2221? I just had a comment. I don't know if any of you saw, I believe it was on Lou Dobbs last night or on the squawk box this morning, there was an interview with the CEO from Duke Power. I thought it was a very good presentation on his part; he was much more conciliatory towards the environmental movement than I could tolerate but I think the important point he made was that our energy quest in this country cannot be done without coal and nuclear because the other avenues are just too expensive and not reliable enough. I thought that was a very good point he made and I think the comments he made fit in very well with the topic today. We have got to find a way to make sure that our coal industry is viable. If there is no further testimony, I will close the hearing on SB 2221. Is there anybody who can't be here this afternoon who would like to testify? Then we will come back in at 2:15 and hear 2297. I am sorry for the delay here.

2009 HOUSE STANDING COMMITTEE MINUTES

Bill/Resolution No. **SB 2221**

House Finance and Taxation Committee

☐ Check here for Conference Committee

Hearing Date: March 10, 2009

Recorder Job Number: 10645

Committee Clerk Signature

Minutes:

Chairman Belter: Let's try and do one more here. Are we ready to act on 2221? That's the carbon dioxide capture bill we heard today.

Representative Brandenburg: I move a "do pass".

Representative Froseth: Second.

Chairman Belter: Is there any discussion?

Representative Weiler: This is going to reduce revenues by \$7.4 million. Did I hear somewhere along the line that this is for one project only?

David Straley: That is the gasification plant and that is the only one that will be ready in the coming biennium.

Representative Weiler: Does this have a sunset clause on it?

Chairman Belter: Everything has a sunset in two years.

Sandi Tabor: Dakota Gasification currently has an exemption that sunsets in May of 2009. They currently pay \$16 million a year. When the sunset occurs, if nothing happens, it will go up to \$30 million. Under this bill, they would pay about \$23 million so that is where the fiscal note comes from. Any of the other projects we discussed today probably you won't see any fiscal impact from them until after 2013. From the standpoint of how do we come to the

(inaudible), the Senate appropriations committee inserted language I think in section 2. In section 2, page 2, it talks about a reporting requirement that will occur each year that provides an overview of the projects, it provides a discussion on the current state of the projects. I think as important, this is what they were getting at and somebody asked a question during the hearing, well what if there is a cap on trade legislation passed at the federal level and as part of that you get some allowances for capturing which you can then sell. Subsection 4 of this bill was kind of directed at that, that there would be a reporting mechanism so you all can hear what kind of benefits they may be getting if they are able to sell carbon credits at the federal level and how that might interplay with this exemption so that is why they put that language in at the Senate.

Representative Weiler: My concern is that the reporting requirement is undoubtedly going to go to the legislative council a month before the session, that is probably when the report is, the information. There is nothing like having somebody introduce a bill, if we have a sunset clause on it, then somebody introduces a bill to remove the sunset clause or to extend it another two years and something like this will just go on and on and on and it will get lost in the shuffle and legislators will never look at it again. Eventually it won't have any tax on it, not that that is a bad thing but.

Sandi Tabor: There is a 10 year limitation time period for that tax exemption.

Representative Weiler: I appreciate that but we have had many 10 year limitations; they come in after 10 years and they want 10 more because it is just not enough. At some point ...

Chairman Belter: Curt had given me those numbers on the tax break and you just gave them now. Could you....

Sandi Tabor: Right now they are paying \$16 million. If nothing was done, it would go up to \$30 million. Under this bill, they would pay \$23 million. The only reason, we talked about

putting a sunset clause on; the only thing we are concerned about is this is another one of the planning tools. If this sunsets, if we don't know if you are going to do it, it becomes (inaudible).

Representative Froseth: I think this is something we are going to be faced with in the future to take care (06:03) of this carbon dioxide one way or another or otherwise shut these plants. To take care of the carbon dioxide, we are either going to have to build a pipeline where you can utilize it or truck it to places where you can sequester it. If you put it in the ground in coal beds, there will more than likely be a tax placed on that somehow or there will be a lot of infrastructure or trucking companies that will have to go into business to take care of that product—to move it to the sequestered areas. In the long run, there is going to be a lot of business development one way or another that will come out of this eventually. It might not happen for years.

Chairman Belter: I guess, Representative Weiler, I appreciate your thinking on this but my thought that this is going to be a project that is going to be greatly watched because it is a pilot project and if they can get it to work and it is economically feasible and everything else, there are going to be people who want to duplicate this type of thing. This is not something we are not just going to forget about from my perspective.

Representative Weiler: If they are not going to do this project because they don't receive this tax break, then that is one thing but my guess is the project is going to continue whether we give them the tax break or not.

Representative Wrangham: I think there are other projects that are currently in the plans and this will definitely make a difference in whether they continue to develop these projects or not.

Chairman Belter: Will the clerk read the roll for a “do pass” and rerefer to appropriations on SB 2221. (A roll call vote resulted in 11 ayes, 1 aye, 1 absent/not voting (Froelich). Representative Pinkerton will carry the bill.)

Date: March 10, 2009

Roll Call Vote #: 1

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2-2-21

House FINANCE AND TAXATION Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken ☒ Do Pass ☐ Do Not Pass ☐ Amended

Motion Made By Brandenburg Seconded By Froseth

| Representatives | Yes | No | Representatives | Yes | No |
|----------------------------|-----|----|--------------------------|-----|----|
| Chairman Wesley R. Belter | / | | Representative Froelich | | |
| Vice Chairman David Drovda | / | | Representative Kelsch | / | |
| Representative Brandenburg | / | | Representative Pinkerton | / | |
| Representative Froseth | / | | Representative Schmidt | / | |
| Representative Grande | / | | Representative Winrich | / | |
| Representative Headland | / | | | | |
| Representative Weiler | | / | | | |
| Representative Wrangham | / | | | | |
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Total (Yes) 11 No 1

Absent 1

Floor Assignment Rep ~~Wrangham~~ Pinkerton

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

REPORT OF STANDING COMMITTEE

SB 2221, as reengrossed: Finance and Taxation Committee (Rep. Belter, Chairman)
recommends **DO PASS** and **BE REREFERRED** to the **Appropriations Committee**
(11 YEAS, 1 NAY, 1 ABSENT AND NOT VOTING). Reengrossed SB 2221 was
rereferred to the **Appropriations Committee**.

2009 HOUSE APPROPRIATIONS

SB 2221

2009 HOUSE STANDING COMMITTEE MINUTES

Bill No. SB 2221

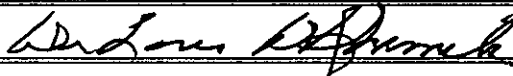
House Appropriations Committee

☐ Check here for Conference Committee

Hearing Date: March 23, 2009

Recorder Job Number: 11396

Committee Clerk Signature



Minutes:

Chm. Svedjan called the meeting of the House Appropriations Committee to order. Clerk, Holly Sand, called the roll and a quorum was declared.

Rep. Belter, District 22, approached the podium to present SB 2221. This bill lowers a portion of the coal conversion tax for the purpose of capturing carbon dioxide. The purpose is to help alleviate the cost of carbon capture. It's very expensive. It gives some relief to Basin Electric and the Antelope plant. This would be an experimental facility. Currently the Dakota Coal Gasification Plant, we had a reduction in tax for the plant which will expire. This bill has a fiscal note; a loss of \$7.4 million. Actually the plant is now paying \$16 million and when this tax expires their tax would actually go up to \$30 million. By passing this bill it would reduce the tax to \$23 million. This is to help alleviate the cost of this carbon capture. This is to give some relief to Basin Electric who has this plant.

Chm. Svedjan: The Fiscal Note may necessarily need to be misleading. It does not reflect that the tax would jump to 30 percent. So this \$7.4 is really a reduction to what would be an increase.

Rep. Belter: That is correct.

Rep. Kaldor: What is the amount that would have been reflected in the Governor's budget in terms of tax revenue on this one?

Rep. Wald: Do you know would this qualify for any of the stimulus money

Rep. Nelson: How is this reflective of the Budget Status Report?

Chm. Svedjan: It is reflected as a reduction of \$7.4 million on the Budget Status Report.

Rep. Glassheim: The Fiscal Note says they are only looking at one facility. Are there others?

Rep. Belter: It is just the one facility currently because of its location. You would have to ask the industry experts. This is an experiment so they will not do more until they know this works.

Rep. Kerzman: There is another gas plant they are talking about committing in the South Heart area and I don't know how that would work in with this. We want to encourage development if at all possible.

Chm. Svedjan: There was some information distributed. I am not sure where this came from. It came from the industry and is an explanation of what is going on with this bill.

Rep. Wald: It looks on the bottom they are going to spend \$300 million that has to be a boost to the economy.

Do Pass Motion Made By Rep. Wald; Seconded By Rep. Skarphol.

Discussion:

Rep. Nelson: Did you amend this bill in the House? Or was the re engrossment in the Senate?

Rep. Belter: We did not put any amendments on it.

Chm. Svedjan: No, from the standing committee report it looks like you put no amendments on it.

Vote: 22 Yes 0 No 3 Absent Carrier: Rep. Pinkerton

Hearing closed.

Date: 3/23/09
Roll Call Vote #: 1

2009 HOUSE STANDING COMMITTEE ROLL CALL VOTES
BILL/RESOLUTION NO. 2221

Full House Appropriations Committee

☐ Check here for Conference Committee

Legislative Council Amendment Number _____

Action Taken Do Pass

Motion Made By Wald Seconded By Skarphol

| 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) 22 No 0

Absent 3

Floor Assignment Rep. Penhento

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

REPORT OF STANDING COMMITTEE (410)
March 23, 2009 12:48 p.m.

Module No: HR-52-5549
Carrier: Pinkerton
Insert LC: . Title: .

REPORT OF STANDING COMMITTEE

SB 2221, as reengrossed: Appropriations Committee (Rep. Svedjan, Chairman)
recommends **DO PASS** (22 YEAS, 0 NAYS, 3 ABSENT AND NOT VOTING).
Reengrossed SB 2221 was placed on the Fourteenth order on the calendar.

2009 TESTIMONY

SB 2221

#1

**Curtis Jabs - Basin Electric Power Cooperative
North Dakota Senate Bill 2221
Senate Finance and Taxation Committee
January 28, 2009**

Mr. Chairman and members of the committee, my name is Curtis Jabs and I am here representing Basin Electric Power Cooperative and the Dakota Gasification Company. Basin Electric and the Dakota Gasification Company support SB 2221.

I will try to explain the bill, but I'll take the sections out of order. Section 2 defines what this bill intends to accomplish so that's where I'll start.

Section 2

10

This bill creates an incentive for coal conversion facilities that capture carbon dioxide. A coal conversion facility that captures 20 percent of its carbon dioxide emissions shall receive a 20 percent reduction of the state's portion of the coal conversion tax. Incremental reductions of the state's portion of the coal conversion tax are calculated as follows - every 2 percent additional reduction in carbon dioxide emissions will entitle the coal conversion facility to a 1 percent decrease in the state's portion of the coal conversion tax. Carbon dioxide capture of 80 percent or more equates to a maximum 50 percent reduction of the state's portion of the coal conversion tax. So for example, a coal conversion facility that captures 50 percent of its carbon dioxide emissions would receive the following reduction in the state's portion of the coal conversion tax. The first 20% capture equals 20% tax reduction, the next 30% capture equals 15% tax reduction for a total of 35% reduction in the state's portion of the coal conversion tax.

Section 1

(

In section 1, the procedure for determining the percentage of carbon dioxide capture is outlined. There is a difference in calculating carbon dioxide captured from electrical generation plant and from coal gasification facilities. I will not go over this in detail unless the committee wants a full explanation. Suffice to say, that careful detail to procedure was provided by both Basin Electric

and Dakota Gasification Company engineers and reviewed by legislative council to ensure accuracy.

Section 3

Section 3 requires the coal conversion facilities to make the necessary measurements to enable the determination of the percentage of carbon dioxide captured by the facility. Section 3 also provides for the effective date of December 31, 2009.

So you may ask why North Dakota needs to provide an incentive for coal conversion facilities to capture carbon dioxide. I would like to expound on some of the reasons. First, it is probable that in this Congress, legislation will place some form of restrictions on carbon dioxide emissions. The Environmental Protection Agency (EPA) could also enact regulations for carbon dioxide emissions. Secondly, in our opinion, coal must be a part of our energy future, and to accomplish that in a carbon-constrained world, technology needs to be developed to capture and sequester carbon on both new and existing coal-based power plants. That technology will be expensive and the early adopters will need some financial incentives both from the federal government and from the state government. North Dakota is a leader in providing funding and partnering with our industry through the work of the Lignite Energy Council and the North Dakota Industrial Commission. Also providing an incentive for carbon dioxide capture that will be initially used for enhanced oil recovery opportunities in the state will benefit both industries.

While it is the 'king' of electrical power generation, coal has come under increasing scrutiny from environmental and political interest groups. Lately, the concerns about global warming have caused carbon dioxide emissions to become a major issue. With a new Administration and Congress in Washington, Basin Electric believes climate change legislation is eminent. Basin Electric also believes that some form of carbon dioxide management will be necessary to continue and/or increase its use of coal for power generation.

In response to potential legislation or regulation, Basin Electric has taken a leadership position in providing a pathway for coal in a carbon constrained world, capturing approximately half (44-49%) of the carbon dioxide emissions from the Great Plains Synfuels Plant in North Dakota and developing a commercial demonstration project to capture 1 million tons of carbon dioxide per year from the Antelope Valley Station. As far as we know, this will be the largest post-combustion CO₂ capture project to date. The Great Plains Synfuels Plant captures CO₂ from the gasification process. The Antelope Valley Station project will capture the CO₂ from the flue gas stream after the coal is burned. This "post-combustion" carbon dioxide capture technology is thus an important step in developing technology that will allow existing coal-based power plants to remain in production in a carbon dioxide-emission-constrained world.

The Antelope Valley project will demonstrate the removal of carbon dioxide from the flue gas of a lignite-based boiler. The Antelope Valley project is designed to capture carbon dioxide on a 120 MW slipstream from the AVS Unit 1. The system works by first removing sulfur dioxide using a polishing scrubber technology, and then absorbing carbon dioxide with an ammonia-based technology. For the Antelope Valley project, sulfur dioxide will be reduced from 170 parts per million to approximately 1 part per million upstream of the carbon dioxide capture system. The combined system would employ two absorber towers with an ammonia-based chemical process. The net result of the process will be 90 percent removal of carbon dioxide from the treated flue gas, yielding 3,000 short tons per day of pipeline quality carbon dioxide, and a liquid stream of ammonium sulfate for use as fertilizer.

One major advantage for this Antelope Valley project is Basin Electric's extensive institutional knowledge of coal gasification, carbon dioxide capture, permitting, compression, pipeline construction and operation, and carbon dioxide sequestration through its subsidiary, Dakota Gasification Company, which owns and operates the Great Plains Synfuels Plant. In 2000,

Dakota Gasification Company began operating a 205-mile pipeline to transport carbon dioxide to Weyburn, Saskatchewan, for enhanced oil recovery, sometimes referred to as EOR. Dakota Gasification Companies' carbon dioxide pipeline system design capacity is 14,000 tons per day, with a current aggregate demand of 9,000 tons per day. Thus, the pipeline system would allow the Antelope Valley project's carbon dioxide to be transported for use in enhanced oil recovery in the Williston Basin. Oil field producers in the Williston Basin are seeking additional amounts of carbon dioxide for enhanced oil recovery use and can utilize the Antelope Valley project's carbon dioxide production.

Another major advantage of the Antelope Valley project is that Antelope Valley is in close proximity to the Great Plains Synfuels Plant (**first diagram attached**). The captured carbon dioxide from the Antelope Valley project would be delivered by pipe to the existing compressor station at Great Plains Synfuels Plant and injected into Dakota Gasification Companies' 205 mile pipeline system. Also, the Antelope Valley project intends to make use of several available synergies between the Antelope Valley Station and the Great Plains Synfuels Plant. The ammonia-based carbon dioxide capture process will be provided ammonia from the Great Plains Synfuels Plant and the ammonium sulfate created in removing the sulfur dioxide will be sent to the Great Plains Synfuels Plant for processing.

The Energy and Environmental Research Center (EERC), Plains CO₂ Reduction Partnership (PCOR), would also be a strategic partner in the Antelope Valley project. Basin Electric and the Dakota Gasification Company are members of the Plains CO₂ Reduction Partnership, one of seven Department of Energy (DOE) partnerships that are examining sequestration opportunities in their respective regions. The region has excellent opportunities for enhanced oil recovery and has vast saline formations capable of storing billions of tons of carbon dioxide. In Phase III, the Plains CO₂ Reduction Partnership will conduct a large volume sequestration test to demonstrate

the safe, effective and permanent storage of carbon dioxide in different geologic formations, including enhanced oil recovery. The Plains CO₂ Reduction Partnership Phase III efforts in the Antelope Valley project will focus on the monitoring, mitigation, and verification (MMV) program.

I would like to review briefly some of the economics of the Antelope Valley project. **The second diagram** attached shows the potential cost for carbon dioxide capture, pipeline construction cost and potential revenue from the sale of carbon dioxide for enhanced oil recovery. Basin Electric did issue a request for proposal to all of the most promising carbon capture technologies and did receive six proposals back. This gives us a basis for making these assumptions. Cost to capture carbon dioxide varies from an optimistic (\$35/ton) to a more costly (\$60/ton). We estimate the transportation cost to be \$15-30/ton if construction of a new pipeline is needed to be built. As I have stated before, the Antelope Valley project will use the existing Dakota Gasification pipeline system which reduces the cost to the project significantly. A smaller line will be needed to be constructed off of one of the taps in the Dakota Gasification pipeline system to deliver the carbon dioxide to a potential customer in the Williston Basin (**third diagram**). Prices that oil companies will pay for carbon dioxide is directly dependant on the price of crude. With the low prices that crude oil is experiencing today, carbon dioxide is of less value for an enhanced oil recovery project.

The fourth diagram projects the Antelope Valley demonstration project economics. The first column is our best scenario with what we believe to be the lowest possible carbon capture cost (\$35/ton), transport cost (\$10/ton) and the best scenario for sale of carbon dioxide at \$35/ton. As you can see, even with all best assumptions, this project loses \$10/ton. The second column projects less optimistic cost and yields a loss of \$40/ton. Once the front end engineering and design study, sometimes call the FEED study is complete, Basin Electric will know costs on a +/- 15 percent basis. Only when the demonstration project is operational in December 2012 or

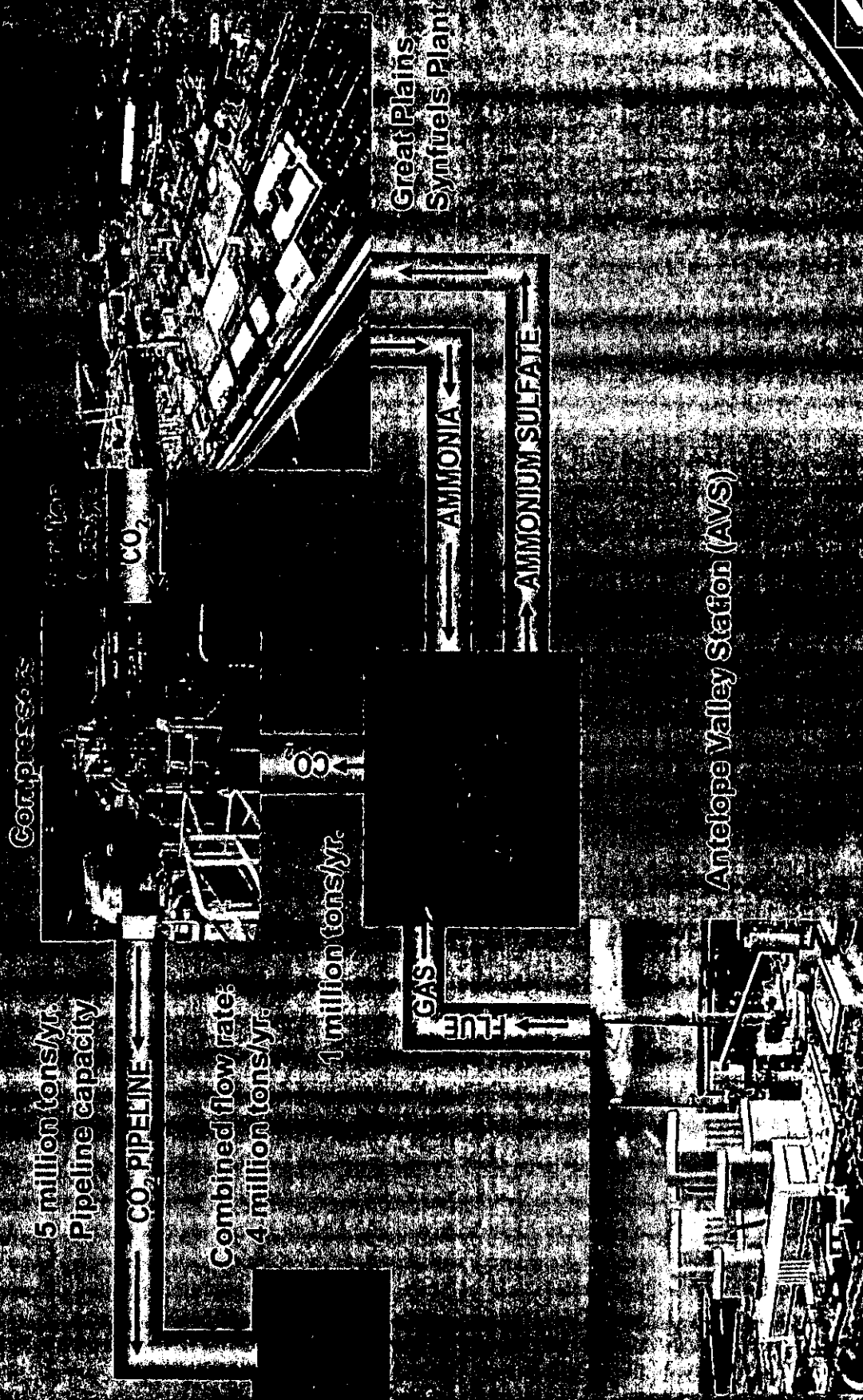
early 2013 will actual costs and performance become available with confidence. So as you can see, there is great risk in being the first to demonstrate carbon capture and storage.

In summary, with North Dakota's generation portfolio heavily coal-based, the enforcement of carbon dioxide legislation or Environmental Protection Agency regulation poses a risk to the future of existing coal based generating resources and the building of new coal-based generation resources. Demonstrating carbon capture technology that will lead to commercialization could help mitigate potential harmful effects of new legislation or regulation. North Dakota needs to be at the forefront of developing clean coal technology to protect its existing coal development faculties and encourage new uses for coal. North Dakota has tremendous potential for using carbon dioxide for enhanced oil recovery and also has huge carbon dioxide storage capacity in other geological formations. The passage of SB 2221 will give industry a financial incentive to install carbon dioxide capture technology on its generation or gasification facilities and help defray some of the financial risk of carbon capture and storage.

Mr. Chairman and members of the committee, I urge a "do pass" on SB 2221. I will attempt to answer any question of the committee.

Same handouts
Same to house.

Carbon Capture Optimization Project

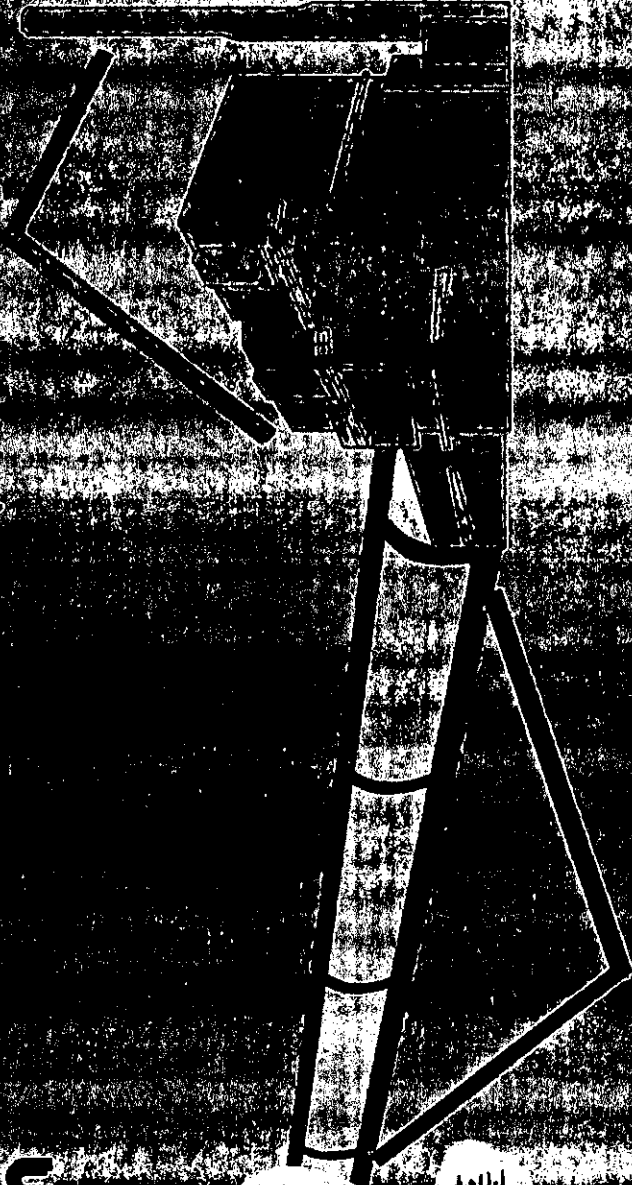
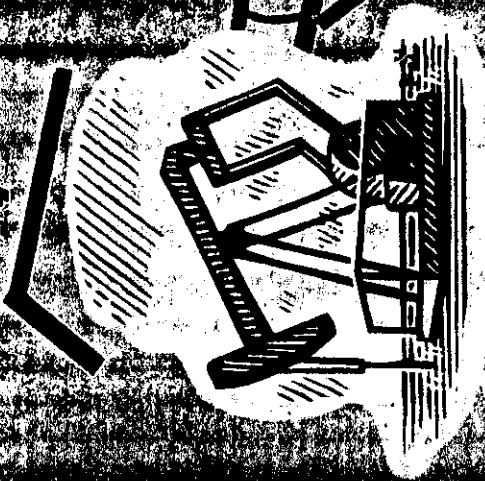


Estimated Costs

\$15~70/ton

\$20~35/ton

\$35~60/ton

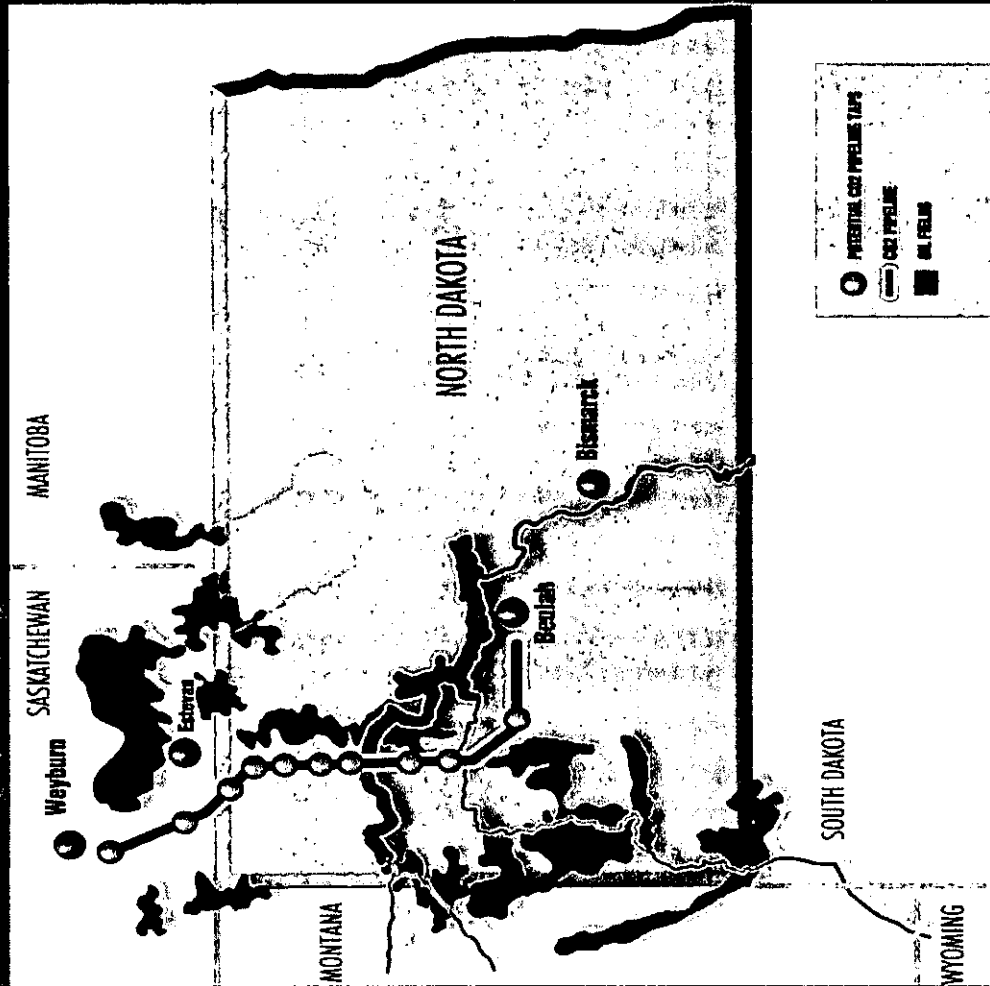


\$15-30/ton

Diagram



CO₂ Pipeline



- 205 miles

- 14" and 12" carbon steel pipe

- Strategically routed through Williston Basin oil fields

Demonstration Plant Economics

| | <u>\$/ton</u> |
|-------------------------|---------------|
| Capture Cost | (\$35) |
| Transport Cost | (\$15) |
| Cost of CO ₂ | (\$60) |
| Revenue | \$20 |
| Net Gain (Loss) | (\$40) |



SB 2221

Presented by: David Straley, Manager of ND Govt/Public Affairs

North American Coal Corporation

Before: Senate Finance and Taxation Committee

Date: Wednesday, January 28, 2009

TESTIMONY IN SUPPORT OF SB 2221

Chairman Cook and committee members, my name is David Straley, and I am here today representing The North American Coal Corporation. We urge your support for a "Do Pass" recommendation of Senate Bill 2221.

North American Coal is the largest lignite coal producer in the State of North Dakota with operations in both Mercer County (The Freedom Mine) and McLean County (The Falkirk Mine).

We support this bill as a method to help industry cope with what we believe may be mandated from the Federal government—Carbon Dioxide Constraints. Given the fact that the technology industry is still wrestling with the complexities of carbon dioxide capture, it is going to be extremely expensive to install and operate. In order to keep North Dakota Lignite competitive, this bill will help the existing North Dakota electrical generation facilities that install

carbon dioxide equipment to help pay for a portion of these technologies. In turn, it will keep them using lignite, rather than using out of state coal in the short term, and away from coal altogether in the future.

It is our opinion that if we have to go to all out carbon capture and storage, we are going to be looking at enhanced oil recovery (EOR) and sequestration. If this happened, there will be very little revenue streams to pay for the costs of capture, compression, transportation, and storage of the carbon dioxide. Eventually, there will have to be significant costs passed on to the rate payers for this capture task, and this bill is one way we can help keep the costs down as we proceed.

We also support this bill because of the potential it could bring to the North Dakota lignite industry with the emerging industry of Coal-to-Liquids (CTL) in North America as part of the National Energy Plan, National Security Plan, and National Economy. In addition to other potential CTL projects, North American Coal is part owner in a Limited Liability Company called American Lignite Energy (ALE). The goal of ALE is to permit, construct, and operate an environmentally responsible coal-to-liquid transportation fuel project in North Dakota supplied with North Dakota lignite. We believe this is another opportunity to position North Dakota to show its support of the Lignite Industry. The language within SB 2221, if passed and signed into law, would send a signal to others within the CTL industry that ND is a great state to do business.

We urge a "Do Pass" recommendation on Senate Bill 2221. This concludes my testimony, and I would be happy to answer any questions you may have.

1

Testimony on SB 2221
Senate Appropriations Committee

February 10, 2009

Curtis Tabs

Senate Bill 2221 provides a tax credit against the state's portion of the coal conversion tax for facilities that capture carbon dioxide. To receive the tax credit a facility must capture at least 20% of the carbon dioxide produced by the facility. By meeting this threshold, the facility is eligible for a 20% tax credit. The bill allows a facility to receive a maximum tax credit of 50% for capturing at least 80% of the facility's carbon dioxide.

The fiscal note on the bill identifies a loss of \$7.4 million to the general fund during the 09-11 biennium. The fiscal note reflects the difference between what Dakota Gasification Company (DGC) would pay to the state if SB 2221 was not passed and what it will pay to the state if SB 2221 is enacted. Presently, DGC pays approximately \$16 million in coal conversion tax based on a partial tax credit established in 2000. The existing tax credit is set to expire at the end of 2009. If no tax credit legislation is enacted, DGC's coal conversion tax liability will be approximately \$30.3 million for the 09-11 biennium. If SB 2221 is enacted, DGC will pay nearly \$23 million next biennium, an increase of \$6.6 million over what will be paid during the 07-09 biennium.

The bill was amended by the Finance and Tax Committee to sunset the tax credit 10 years from the date carbon dioxide is first capture from a plant or for ten years from the date the coal conversion facility is eligible to receive the credit. The sunset provision was drafted in this fashion to ensure that plants demonstrating carbon capture technology in the future will be able to use the tax credit as a way of offsetting the significant investment required to install carbon dioxide capture technology. For instance, Basin Electric anticipates conducting a carbon dioxide capture project in 2013 at its Antelope Valley Station. This demonstration project will capture a 120 MW slipstream from the 450 MW slipstream of the AVS Unit 1 and will qualify for the tax credit under SB 2221. The tax credit is anticipated to amount to approximately \$800,000 per biennium, while the demonstration project is projected to cost over \$300 million.

Future demonstration projects on the remaining lignite-based plants will be at least as costly to the plant owners. SB 2221 is an important part of the overall plan to help our lignite-based plants address future carbon dioxide emission reduction requirements. Basin Electric believes that some form of carbon dioxide management will be necessary to continue and/or increase its use of coal for power generation. Basin Electric supports SB 2221 and respectfully requests a "do pass" recommendation from this committee.

**Curtis Jabs - Basin Electric Power Cooperative
North Dakota Senate Bill 2221
House Finance and Taxation Committee
March 10, 2009**

Mr. Chairman and members of the committee, my name is Curtis Jabs and I am here representing Basin Electric Power Cooperative and the Dakota Gasification Company. Basin Electric and the Dakota Gasification Company support SB 2221.

I will try to explain the bill, but I'll take the sections out of order. Section 2 defines what this bill intends to accomplish so that's where I'll start.

Section 2

This bill creates an incentive for coal conversion facilities that capture carbon dioxide. A coal conversion facility that captures 20 percent of its carbon dioxide emissions shall receive a 20 percent reduction of the state's portion of the coal conversion tax. Incremental reductions of the state's portion of the coal conversion tax are calculated as follows - every 2 percent additional reduction in carbon dioxide emissions will entitle the coal conversion facility to a 1 percent decrease in the state's portion of the coal conversion tax. Carbon dioxide capture of 80 percent or more equates to a maximum 50 percent reduction of the state's portion of the coal conversion tax. So for example, a coal conversion facility that captures 50 percent of its carbon dioxide emissions would receive the following reduction in the state's portion of the coal conversion tax. The first 20% capture equals 20% tax reduction, the next 30% capture equals 15% tax reduction for a total of 35% reduction in the state's portion of the coal conversion tax. Section 2 also requires reporting an annual overview and status of the carbon dioxide capture project to the legislative council.

Section 1

In section 1, the procedure for determining the percentage of carbon dioxide capture is outlined. There is a difference in calculating carbon dioxide captured from electrical generation plant and from coal gasification facilities. I will not go over this in detail unless the committee wants a full

explanation. Suffice to say, that careful detail to procedure was provided by both Basin Electric and Dakota Gasification Company engineers and reviewed by legislative council to ensure accuracy.

Section 3

Section 3 requires the coal conversion facilities to make the necessary measurements to enable the determination of the percentage of carbon dioxide captured by the facility. Section 3 also provides for the effective date of December 31, 2009

So you may ask why North Dakota needs to provide an incentive for coal conversion facilities to capture carbon dioxide. First, it is probable that in this Congress, legislation will place some form of restrictions on carbon dioxide emissions. The Environmental Protection Agency (EPA) could also enact regulations for carbon dioxide emissions. Secondly, in our opinion, coal must be a part of our energy future, and to accomplish that in a carbon-constrained world, technology needs to be developed to capture and sequester carbon on both new and existing coal-based power plants. That technology will be expensive and the early adopters will need some financial incentives both from the federal government and from the state government. North Dakota is a leader in providing funding and partnering with our industry through the work of the Lignite Energy Council and the North Dakota Industrial Commission. Also providing an incentive for carbon dioxide capture that will be initially used for enhanced oil recovery opportunities in the state will benefit both industries.

While coal provides over 50 percent of the generation in the United States, it has come under increasing scrutiny from environmental and political interest groups. Lately, the concerns about global warming have caused carbon dioxide emissions to become a major issue. With a new Administration and Congress in Washington, Basin Electric believes climate change legislation is eminent.

In response to potential legislation or regulation, Basin Electric has taken a leadership position in providing a pathway for coal in a carbon constrained world, capturing approximately half (44-49%) of the carbon dioxide emissions from the Great Plains Synfuels Plant in North Dakota and developing a commercial demonstration project to capture 1 million tons of carbon dioxide per year from the Antelope Valley Station. As far as we know, this will be the largest post-combustion CO₂ capture project to date. The Great Plains Synfuels Plant captures CO₂ from the gasification process. The Antelope Valley Station project will capture the CO₂ from the flue gas stream after the coal is burned. This "post-combustion" carbon dioxide capture technology is thus an important step in developing technology that will allow existing coal-based power plants to remain in production in a carbon dioxide-emission-constrained world.

The Antelope Valley project will demonstrate the removal of carbon dioxide from the flue gas of a lignite-based boiler. The Antelope Valley project is designed to capture carbon dioxide on a 120 MW slipstream from the AVS Unit 1. The system works by first removing sulfur dioxide using a polishing scrubber technology, and then absorbing carbon dioxide with an ammonia-based technology. For the Antelope Valley project, sulfur dioxide will be reduced from 170 parts per million to approximately 1 part per million upstream of the carbon dioxide capture system. The combined system would employ two absorber towers with an ammonia-based chemical process. The net result of the process will be 90 percent removal of carbon dioxide from the treated flue gas, yielding 3,000 short tons per day of pipeline quality carbon dioxide, and a liquid stream of ammonium sulfate for use as fertilizer.

In 2000, Dakota Gasification Company began operating a 205-mile pipeline to transport carbon dioxide to Weyburn, Saskatchewan, for enhanced oil recovery. Dakota Gasification Companies' carbon dioxide pipeline system design capacity is 14,000 tons per day, with a current aggregate

demand of 9,000 tons per day. Thus, the pipeline system would allow the Antelope Valley project's carbon dioxide to be transported for use in enhanced oil recovery in the Williston Basin. Oil field producers in the Williston Basin are seeking additional amounts of carbon dioxide for enhanced oil recovery use and can utilize the Antelope Valley project's carbon dioxide production.

Another major advantage of the Antelope Valley project is that Antelope Valley is in close proximity to the Great Plains Synfuels Plant **(first diagram attached)**. The captured carbon dioxide from the Antelope Valley project would be delivered by pipe to the existing compressor station at Great Plains Synfuels Plant and injected into Dakota Gasification Companies' 205 mile pipeline system. Also, the Antelope Valley project intends to make use of several available synergies between the Antelope Valley Station and the Great Plains Synfuels Plant. The ammonia-based carbon dioxide capture process will be provided ammonia from the Great Plains Synfuels Plant and the ammonium sulfate created in removing the sulfur dioxide will be sent to the Great Plains Synfuels Plant for processing.

The Energy and Environmental Research Center (EERC), Plains CO₂ Reduction Partnership (PCOR), would also be a strategic partner in the Antelope Valley project. Basin Electric and the Dakota Gasification Company are members of the Plains CO₂ Reduction Partnership, one of seven Department of Energy (DOE) partnerships that are examining sequestration opportunities in their respective regions. The region has excellent opportunities for enhanced oil recovery and has vast saline formations capable of storing billions of tons of carbon dioxide. In Phase III, the Plains CO₂ Reduction Partnership will conduct a large volume sequestration test to demonstrate the safe, effective and permanent storage of carbon dioxide in different geologic formations, including enhanced oil recovery. The Plains CO₂ Reduction Partnership Phase III efforts in the Antelope Valley project will focus on the monitoring, mitigation, and verification (MMV) program.

I would like to review briefly some of the economics of the Antelope Valley project. **The second diagram** attached shows the potential cost for carbon dioxide capture, pipeline construction cost and potential revenue from the sale of carbon dioxide for enhanced oil recovery. Basin Electric did issue a request for proposal to all of the most promising carbon capture technologies and did receive six proposals back. This gives us a basis for making these assumptions. Cost to capture carbon dioxide varies from an optimistic (\$35/ton) to a more costly (\$60/ton). We estimate the transportation cost to be \$15-30/ton if construction of a new pipeline is needed to be built. As I have stated before, the Antelope Valley project will use the existing Dakota Gasification pipeline system which reduces the cost to the project significantly. A smaller line will be needed to be constructed off of one of the taps in the Dakota Gasification pipeline system to deliver the carbon dioxide to a potential customer in the Williston Basin (**third diagram**). Prices that oil companies will pay for carbon dioxide is directly dependant on the price of crude. With the low prices that crude oil is experiencing today, carbon dioxide is of less value for an enhanced oil recovery project.

The fourth diagram projects the Antelope Valley demonstration project economics. The first column is our best scenario with what we believe to be the lowest possible carbon capture cost (\$35/ton), transport cost (\$10/ton) and the best scenario for sale of carbon dioxide at \$35/ton. As you can see, even with all best assumptions, this project loses \$10/ton. The second column projects less optimistic cost and yields a loss of \$40/ton. Once the front end engineering and design study, sometimes call the FEED study is complete, Basin Electric will know costs on a +/- 15 percent basis. Only when the demonstration project is operational in December 2012 or early 2013 will actual costs and performance become available with confidence. So as you can see, there is great risk in being the first to demonstrate carbon capture and storage.

In summary, with North Dakota's generation portfolio heavily coal-based, the enforcement of carbon dioxide legislation or Environmental Protection Agency regulation poses a risk to the future of existing coal based generating resources and the building of new coal-based generation resources. Demonstrating carbon capture technology that will lead to commercialization could help mitigate potential harmful effects of new legislation or regulation. North Dakota needs to be at the forefront of developing clean coal technology to protect its existing coal development faculties and encourage new uses for coal. North Dakota has tremendous potential for using carbon dioxide for enhanced oil recovery and also has huge carbon dioxide storage capacity in other geological formations. The passage of SB 2221 will give industry a financial incentive to install carbon dioxide capture technology on its generation or gasification facilities and help defray some of the financial risk of carbon capture and storage.

Mr. Chairman and members of the committee, I urge a "do pass" on SB 2221. I will answer any question of the committee.

Basin Electric Gross Receipts Tax

| Tax Year | Gross Receipts | Property |
|----------|----------------|--|
| 1999 | \$99,656.00 | 0.6 miles 69kV; 80.6 miles 115kV |
| 2000 | \$126,000.00 | 0.6 miles 69kV; 80.6 miles 115kV |
| 2001 | \$238,828.00 | 0.6 miles 69kV; 80.6 miles 115kV |
| 2002 | \$307,932.00 | 0.6 miles 69kV; 80.6 miles 115kV; Minot wind 2.6 MW |
| 2003 | \$249,611.00 | 0.6 miles 69kV; 80.6 miles 115kV; Minot wind 2.6 MW |
| 2004 | \$260,552.00 | 0.6 miles 69kV; 80.6 miles 115kV; Minot wind, 2.6 MW |
| 2005 | \$329,014.00 | 0.6 miles 69kV; 80.6 miles 115kV, Minot wind 2.6 MW |
| 2006 | \$420,930.00 | 0.6 miles 69kV; 80.6 miles 115kV, Minot Wind 2.6 MW |
| 2007 | \$524,791.00 | 80.6 miles 115kV; Minot Wind 2.6 MW |
| 2008 | \$683,955.00 | 80.6 miles 115kV, Minot Wind 2.6 MW |



SB 2221

Presented by: David Straley, Manager of ND Govt/Public Affairs

North American Coal Corporation

Before: House Finance and Taxation Committee

Date: Tuesday, March 10, 2009

TESTIMONY IN SUPPORT OF SB 2221

Chairman Belter and committee members, my name is David Straley, and I am here today representing The North American Coal Corporation. We urge your support for a "Do Pass" recommendation of Reengrossed Senate Bill 2221.

North American Coal is the largest lignite coal producer in the State of North Dakota with operations in both Mercer County (The Freedom Mine) and McLean County (The Falkirk Mine).

We support this bill as a method to help industry cope with what we believe may mandated from the Federal government—Carbon Dioxide Constraints. Given the fact that the technology industry is still wrestling with the complexities of carbon dioxide capture, it is going to be extremely expensive to install and operate. In order to keep North Dakota Lignite competitive, this bill will help the existing North Dakota electrical generation facilities that install

carbon dioxide equipment to help pay for a portion of these technologies. In turn, it will keep them using lignite, rather than using out of state coal in the short term, and away from coal altogether in the future.

It is our opinion that if we have to go to all out carbon capture and storage, we are going to be looking at enhanced oil recovery (EOR) and sequestration. If this happened, there will be very little revenue streams to pay for the costs of capture, compression, transportation, and storage of the carbon dioxide. Eventually, there will have to be significant costs passed on to the rate payers for this capture task, and this bill is one way we can help keep the costs down as we proceed.

We also support this bill because of the potential it could bring to the North Dakota lignite industry with the emerging industry of Coal-to-Liquids (CTL) in North America as part of the National Energy Plan, National Security Plan, and National Economy. In addition to other potential CTL projects, North American Coal is part owner in a Limited Liability Company called American Lignite Energy (ALE). The goal of ALE is to permit, construct, and operate an environmentally responsible coal-to-liquid transportation fuel project in North Dakota supplied with North Dakota lignite. We believe this is another opportunity to position North Dakota to show its support of the Lignite Industry. The language within SB 2221, if passed and signed into law, would send a signal to others within the CTL industry that ND is a great state to do business.

We urge a "Do Pass" recommendation on Senate Bill 2221. This concludes my testimony, and I would be happy to answer any questions you may have.

Information on SB 2221

March 18, 2009

SB 2221 is an important part of the overall plan to help our lignite-based plants address future carbon dioxide emission reduction requirements. The lignite industry believes that some form of carbon dioxide management will be necessary to continue and/or increase its use of coal for power generation.

Senate Bill 2221 provides a tax credit against the state's portion of the coal conversion tax for facilities that capture carbon dioxide. To receive the tax credit a facility must capture at least 20% of the carbon dioxide produced by the facility. By meeting this threshold, the facility is eligible for a 20% tax credit. The bill allows a facility to receive a maximum tax credit of 50% for capturing at least 80% of the facility's carbon dioxide.

The fiscal note on the bill identifies a loss of \$7.4 million to the general fund during the 09-11 biennium. The fiscal note reflects the difference between what Dakota Gasification Company (DGC) would pay to the state if SB 2221 was not passed and what it will pay to the state if SB 2221 is enacted. Presently, DGC pays approximately \$16 million in coal conversion tax based on a partial tax credit established in 2000. The existing tax credit is set to expire at the end of 2009. If no tax credit legislation is enacted, DGC's coal conversion tax liability will be approximately \$30.3 million for the 09-11 biennium. If SB 2221 is enacted, DGC will pay nearly \$23 million next biennium, an increase of \$6.6 million over what will be paid during the 07-09 biennium.

The bill was amended by the Finance and Tax Committee to sunset the tax credit 10 years from the date carbon dioxide is first capture from a plant or for ten years from the date the coal conversion facility is eligible to receive the credit. The sunset provision was drafted in this fashion to ensure that plants demonstrating carbon capture technology in the future will be able to use the tax credit as a way of offsetting the significant investment required to install carbon dioxide capture technology. For instance, Basin Electric anticipates conducting a carbon dioxide capture project in 2013 at its Antelope Valley Station. This demonstration project will capture a 120 MW slipstream from the 450 MW slipstream of the AVS Unit 1 and will qualify for the tax credit under SB 2221. The tax credit is anticipated to amount to approximately \$800,000 per biennium, while the demonstration project is projected to cost over \$300 million plus. Future demonstration projects on the remaining lignite-based plants will be at least as costly to the plant owners.